Draft Environmental Impact Report

Milpitas Square Mixed-Use Development

SCH# 2008022065

Volume I of II: EIR Text & Appendices A-C

City of Milpitas
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PREFACE

This document has been prepared by the City of Milpitas as the Lead Agency in conformance with the California Environmental Quality Act (CEQA). The purpose of this Environmental Impact Report (EIR) is to inform decision makers and the general public of the environmental effects of the proposed project.

California Environmental Quality Act (CEQA)

This document provides a project-level environmental review appropriate for the proposed Milpitas Square Mixed Use Development project in accordance with CEQA Guidelines Sections 15121, 15146 and 15151.

In accordance with CEQA, an EIR provides objective information regarding the environmental consequences of the proposed project, both to the decision makers who will be considering and reviewing the proposed project, and to the general public.

The following guidelines are included in CEQA to clarify the role of an EIR:

> **§15121(a). Informational Document.** An EIR is an informational document, which will inform public agency decision makers, and the public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR, along with other information which may be presented to the agency.
>
> **§15146. Degree of Specificity.** The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR.
>
> (a) An EIR on a construction project will necessarily be more detailed in the specific effects of a project than will an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.
>
> (b) An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction project that might follow.
>
> **§15151. Standards for Adequacy of an EIR.** An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently considers environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good-faith effort at full disclosure.

Document Availability

Copies of all documents referred to in this EIR/EA are available for public review at the Planning Division located at City Hall, 455 East Calaveras Boulevard, on weekdays during normal business hours.

SUMMARY

Summary Description of the Proposed Project

The 16.85-acre project site is located on the east side of Barber Lane and Barber Court at the terminus of Bellew Drive in the City of Milpitas. The project site is bordered to the north by State Route 237 (SR 237), to the east by Interstate 880 (I-880), to the south by a vacant auto showroom, and to the west by a Cisco Systems campus and hotel uses on the west side of Barber Lane and Barber Court.

The project proposes to change the General Plan land use designation on the site from *General Commercial* to *Boulevard Very High Density Mixed Use* and to rezone the site from *C2 – General Commercial* to *MXD3 – Very High Density Mixed Use District*. The project includes a Development Agreement and would require a Conditional Use Permit for the proposed increased building heights on the project site. Specifically, this EIR evaluates a maximum development of up to 900 residential units and an additional 12,800 square feet of commercial space, for a total of 175,000 square feet of commercial uses on the project site.

Summary of Impacts and Mitigation Measures

The following table summarizes the significant environmental impacts identified and discussed within the text of the EIR, and identifies the mitigation and avoidance measures proposed to reduce those impacts. Those impacts for which no feasible mitigation could be identified are characterized as Significant Unavoidable Impacts.

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
Land Use	
Impact LU-1: The proposed project may result in land use compatibility impacts due to the proposed placement of two shopping center identification signs with electronic displays on the site and the potential for disturbance caused by nighttime light emission.	As conditions of approval, the following mitigation measures will be implemented by the applicant to reduce the land use impacts of the project to a less than significant level: **MM LU-1.1:** The proposed shopping center identification signs with electronic displays shall be oriented so that the displays are visible primarily from the adjacent freeway traffic in order to reduce the incidence of light spillover onto adjacent properties. The proposed shopping center identification signs with electronic displays shall also be located so that the proposed buildings on the site will provide a buffer and shield views of the signs, to the extent feasible, from adjacent sensitive land uses and the residential development proposed on the site. The final location of the shopping center identification signs with electronic displays may require some modifications to the proposed bioswales on the site; however, the function of

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	the proposed swales will be retained. **(Less Than Significant Impact with Mitigation)**
Impact LU-5: The proposed project conflicts with the City's regulations adopted for the purpose of avoiding or mitigating an environmental effect.	**MM LU-5.1:** In accordance with the California Fire Code Section 1001.12, as amended by the Milpitas Municipal Code, the project will be conditioned to include the construction of helicopter pads on all buildings on the project site exceeding 150 feet in height (Buildings B and F) which meet the requirements of the Milpitas Fire Department. Prior to the issuance of an occupancy permit, the Fire Marshall shall inspect the helicopter pad to ensure compliance with the Municipal Code. **(Less Than Significant Impact with Mitigation)**
Transportation	
Impact TRANS-1: McCarthy Boulevard/Bellew Drive – Intersection operations degrade from LOS D- to LOS F during the PM peak hour.	As conditions of approval, the project applicant shall be responsible for the implementation of the following measures to reduce transportation impacts: **MM TRANS-1.1:** *McCarthy Boulevard/Bellew Drive* – Prior to issuance of a building permit, the developer shall modify the roadway and traffic signal facilities or pay a fair share contribution into an account created by the City of Milpitas for the sole purpose of providing two left turn lanes and one shared through/right turn lane, which would provide acceptable (LOS D-) operations. This improvement, in conjunction with optimizing the signal coordination along the McCarthy Boulevard corridor, would also provide acceptable midday operations at this intersection. Installation of the double eastbound left turn lanes requires median island and traffic signal modification work on Bellew Drive from Barber Lane to Technology Drive and on McCarthy Boulevard from Bellew Drive to Ranch Drive. To ensure proper operation, these improvements must also be coordinated with modifications for the intersection of Bellew Drive and Cypress Drive. **(Less Than Significant Impact with Mitigation)**

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
Impact TRANS-2: McCarthy Boulevard/Alder Drive – Project traffic exacerbates LOS E during the PM peak hour.	**MM TRANS-2.1:** *McCarthy Boulevard/Alder Drive* – Project traffic exacerbates unacceptable intersection operations (LOS E) during the PM peak hour. The addition of a second southbound left-turn lane (from McCarthy Boulevard to Alder Drive) improves intersection operations to acceptable levels (LOS B-). The southbound approach and southbound receiving through lanes on McCarthy Boulevard would need to be shifted westward to accommodate a second southbound left-turn lane. **(Significant Unavoidable Impact)**
Impact TRANS-3: Alder Drive/Tasman Drive – Project traffic exacerbates LOS F operations during the PM peak hour.	**MM TRANS-3.1:** *Alder Drive/Tasman Drive* There are no feasible mitigation measures available to reduce the project impact at the intersection of Alder Drive/Tasman Drive to a less than significant level. Conversion of one southbound (Alder Drive) through lane to a left turn lane to provide a total of three southbound left turn lanes improves intersection operations; however, this improvement would impact pedestrian and bicycle activity (which would increase substantially with this and other recently approved residential projects), and degrade vehicle progression and VTA light rail transit operations along Tasman Drive. Thus, the project impact at this intersection is significant and unavoidable. Prior to issuance of a building permit, the developer shall provide all funding necessary for the design and implementation of traffic operation improvements to help in signal coordination with adjacent intersections (i.e. Tasman Drive/I-880 SB Ramps and Great Mall Parkway/I-880 NB Ramps). **(Significant Unavoidable Impact)**
Impact TRANS-4: Tasman Drive/I-880 SB Ramps – Project traffic exacerbates LOS E operations during the PM peak hour.	**MM TRANS-4.1:** *Tasman Drive/I-880 SB Ramps* – Prior to issuance of a building permit, the applicant shall provide all funding necessary for the design and implementation of traffic operation improvements to help in signal coordination with adjacent intersections (i.e., Tasman Drive/Alder Drive and Great Mall Parkway/I-880 NB Ramps). This mitigation will improve operations at this intersection, but will

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	not reduce the impact to a less than significant level. **(Significant Unavoidable Impact)**
Impact TRANS-5: Great Mall Parkway/I-880 NB Ramps – Project traffic exacerbates LOS E operations in the AM peak hour.	**MM TRANS-5.1:** *Great Mall Parkway/I-880 NB Ramps* – Prior to issuance of a building permit, the applicant shall provide all funding necessary for the design and implementation of traffic operation improvements to help in signal coordination with adjacent intersections (i.e. Tasman Drive/I-880 SB Ramps and Tasman Drive/Alder Drive). This mitigation will improve operations at this intersection, but will not reduce the impact to a less than significant level. **(Significant Unavoidable Impact)**
Impact TRANS-6: McCarthy Boulevard-O'Toole Avenue/Montague Expressway (Milpitas) – Project traffic degrades intersection operations from LOS D- to LOS E+ in the AM peak hour and exacerbates LOS F operations during the PM peak hour. **Impact TRANS-7:** McCarthy Boulevard-O'Toole Avenue/Montague Expressway (San José) – Project traffic degrades intersection operations from LOS D- to LOS E+ in the AM peak hour and exacerbates LOS F operations during the PM peak hour.	**MM TRANS-6.1:** *McCarthy Boulevard-O'Toole Avenue/Montague Expressway (Option 1)* – Prior to the issuance of a building permit, the developer shall construct the identified improvements or pay a fair share contribution for the value of the improvement and right-of-way needed into an account created by the City of Milpitas for the sole purpose of providing the necessary improvements. Mitigation that reduces sidewalk widths below the City standard is not allowed under City of San José Transportation Impact Policy 5-3. The standard sidewalk width in North San José is five feet. The existing sidewalk is five and one-half feet wide. Therefore, in order to implement this mitigation consistent with adopted policy, approximately two and one-half feet of right-of-way behind the sidewalk in the landscape area of the adjacent development would need to be acquired from the adjacent private property for the length of the dedicated right turn lane. This equates to the acquisition of approximately 513 square feet of right-of-way (i.e., 2.5 square feet x 250 feet = 625 square feet). The mitigation would also require relocating existing utilities (e.g., a light pole). The landscape reduction and utility relocation would not result in a significant impact. The south half of the intersection is within the jurisdiction of the City of San José and, therefore this mitigation is outside the control of the City of Milpitas to implement.

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	MM TRANS-6.2: *McCarthy Boulevard-O'Toole Avenue/Montague Expressway (Option 2)* **–** A square-loop interchange is planned to be constructed at the intersection of McCarthy Boulevard-O'Toole Avenue/Montague Expressway under Phase 3 of the North San José Area Development Policy (NSJADP). With the square loop interchange, a level of service is not reported at this location because the intersection is eliminated (Montague Expressway will be elevated over McCarthy Boulevard with on and off-ramps located to the west) and the project's impact at this location will be less than significant. The City of San José has stated that payment of an in-lieu fee towards the planned square-loop interchange is acceptable and is the preferred mitigation for the project impact at this intersection. The dollar amount of the in-lieu fee would be equal to the appraised value of the right-of-way needed to construct the dedicated right turn lane (625 square feet, described in Option 1, above) and the value of the identified improvements. The NSJADP is the adopted program that would allow for a fair-share contribution to this mitigation. The NSJADP does not establish a timeline for the development phases. As with this proposed project and its impacts, the amount of development in North San José and its timing will be determined by the economy, markets, and the decisions made by private sector property owners and developers. Therefore, if the City of Milpitas accepts the City of San José's timeline for implementation of the mitigation (i.e., unknown), then payment of the in-lieu fee would mitigate the project's traffic impact at the intersection of McCarthy Boulevard-O'Toole Avenue/Montague Expressway. **(Less Than Significant Impact with Mitigation)**
Impact TRANS-9: Eastbound SR 237, McCarthy Boulevard to I-880 – Traffic from the proposed project causes the freeway segment to degrade from LOS E to LOS F during the PM peak hour.	**MM TRANS-9:** The proposed project would impact the segment of Eastbound SR 237 between McCarthy Boulevard and I-880. Mitigation of the project's impacts to SR 237 would require roadway widening that is infeasible for an individual development project to implement due to the extensive nature of the

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	improvements required. When project mitigation measures on CMA facilities are not feasible or fail to improve the level of service to the CMA's LOS standard, a CMA-approved Deficiency Plan must be prepared. The City of Milpitas is currently preparing a Citywide Deficiency Plan (CDP) to identify local and regional transportation improvements. The CDP will include the "Immediate Actions" list in Appendix D of the Transportation Impact Analysis Guidelines. Pending final approval of the CDP, the City of Milpitas will require the project applicant to implement, the "Immediate Actions" list in Appendix D of the Transportation Impact Analysis Guidelines (May 1998), as part of the project's approval. These actions include measures to encourage alternative modes of transportation and site design guidelines for new development. Measures from the "Immediate Actions" list (refer to Appendix A of this EIR for the full list) that are appropriate for this project include: • Improve Pedestrian Facilities (A-4) • Shuttle (B-3) • Bus Stop Improvements (B-8) • Traffic signal timing and synchronization program (F-3) • HOV parking preference program (G-1) • Bike facilities (G-2) • Pedestrian circulation system (G-4) While implementation of these measures would incrementally reduce traffic, they would not reduce the project's freeway impacts to a less than significant level. For this reason and those listed above, the project's freeway impacts are significant and unavoidable. **(Significant Unavoidable Impact)**
Air Quality	
Impact AQ-2: The proposed project would result in significant regional air quality impacts associated with reactive organic gases (ROG) and respirable particulates (PM_{10}) emissions.	As conditions of approval, the following mitigation and avoidance measures shall be implemented by the applicant to reduce impacts to regional air quality from the proposed project:

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	MM AQ-2.1: The measures listed below represent reasonable and feasible measures that would reduce air pollutant emissions from the project. • Provide exterior electrical outlets to encourage use of electrical landscape equipment. • Prohibit idling of trucks at loading docks for more than three minutes and include signage indicating such a prohibition. • If necessary, provide 110- and 220-volt electrical outlets at loading docks to eliminate any idling of trucks to operate auxiliary equipment. • Implement a landscape plan that provides shade trees along pedestrian pathways. • Implement "Green Building" designs, such as Leadership in Energy and Environmental Design (LEED) or GreenPoint Rated for new buildings to increase energy efficiency, which would reduce the future energy demand caused by the project, thus reducing air pollutant emissions indirectly. • Explore options to provide or share shuttle service to the Tasman Light Rail Station. • Provide Eco-passes to all new residents. **(Significant Unavoidable Impact)**
Impact AQ-4: The proposed project would expose residents to levels of diesel particulate matter (DPM) in excess of BAAQMD thresholds.	**MM AQ-4.1:** Controlling the exposure of future occupants to diesel particulate matter during the first five years of the project could reduce the impact to a less than significant level. The exposure could be controlled in two ways: delay occupancy of Buildings C, E, and F by up to three years (until 2015) where significant health risks are predicted, or provide centralized forced air mechanical ventilation systems with appropriate filter systems in those units and discourage the occupants from using the windows. A properly designed and installed heating, ventilation and air conditioning (HVAC) system with proper filtration would adequately reduce exposure to particulate matter. This HVAC system shall maintain positive pressure in all living areas and include high efficiency filters for

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	particulates. Air intakes for the HVAC systems shall be placed at positions that minimize roadway air pollution sources. A licensed mechanical engineer shall certify that the designed HVAC system offers the best available technology to minimize outdoor to indoor transmission of air pollution. The developer shall ensure an ongoing maintenance plan for the HVAC and filtration systems. Residences would have to be equipped with low-air infiltration windows and sealed doors to prevent air contamination. Opening of windows by occupants would reduce the effectiveness of this measure. Instructions regarding the proper use of any installed air filtration systems shall be provided to future occupants. In addition, the project applicant shall provide notification (e.g., in the form of a fact sheet) to new affected project residents of the incremental health risks presented by exposure to concentrations of diesel particulate matter generated by SR 237 and I-880 truck traffic. This notification shall describe the harmful effects of diesel particulate matter, sources of this contaminant, potential level of exposure and the planning/regulatory efforts being taken to reduce harmful effects. **(Less Than Significant Impact with Mitigation)**
Impact AQ-5: Odor complaints in the vicinity of the project site indicate objectionable odors would impact residents of the proposed project.	**MM AQ-5.1:** New residents at the project shall be provided notice that the project may be affected by odors generated by a number of facilities in the area. This would inform people who choose to live at the project site of the potential to experience odors. While the mitigation measures may reduce or eliminate potential odor complaints, it cannot reduce the impact to a less-than-significant level. **(Significant Unavoidable Impact)**
Impact AQ-6: Construction activities on the project site could result in PM_{10} levels downwind of the project site that exceed State standards.	**MM AQ-6.1:** Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level. These measures are required as

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	conditions of approval and shall be included on the construction documents and plans. • Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times. • Cover all hauling trucks or maintain at least two feet of freeboard. • Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas. • Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously-graded areas that are inactive for 10 days or more). • Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles. • Limit traffic speeds on any unpaved roads to 15 mph. • Replant vegetation in disturbed areas as quickly as possible. • Suspend construction activities that cause visible dust plumes to extend beyond the construction site. **(Less Than Significant Impact with Mitigation)**
Impact AQ-7: The proposed project could result in significant diesel particulate matter emissions during project construction.	**MM AQ-7.1:** As conditions of approval, the applicant shall implement the following measures to reduce the short-term health impacts of diesel particulate matter and $PM_{2.5}$ emissions to nearby sensitive receptors from construction to a less than significant level. These measures shall be included on the construction documents and plans. • Diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials.

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite. • Prohibit the use of "dirty" equipment. Opacity is an indicator of exhaust particulate emissions from off-road diesel-powered equipment. The applicant shall ensure that emissions from all construction diesel-powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. • The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g. compressors). • Properly tune and maintain equipment for low emissions. **(Less Than Significant Impact with Mitigation)**
Noise and Vibration	
Impact NV-1: The proposed common open space area in Building E would be exposed to exterior noise levels exceeding 65 dBA DNL.	As conditions of approval, the project applicant shall be responsible for the implementation of the following measures to reduce noise and vibration impacts: **MM NV-1.1:** Proposed rooftop open space areas on Building E should be located away from sources of roadway noise and must include 25-foot-wide areas that are acoustically shielded by walls at least ten feet in height. Having some activity areas (e.g. pools) that exceed 60 dBA DNL may be acceptable if residents have usable quiet areas available that are acoustically protected. A qualified acoustical consultant shall review final site plans and building elevations prior to the issuance of a building permit to calculate noise levels in proposed open spaces and ensure compliance with City policies. **(Less Than Significant Impact with Mitigation)**

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
Impact NV-2: The proposed project would be exposed to interior noise levels exceeding 45 dBA DNL without the incorporation of noise attenuation measures in the building design.	**MM NV-2.1:** A project-specific acoustical analyses is required by the City of Milpitas prior to issuance of building permits to insure that interior noise levels will be reduced to 45 dBA DNL or lower. Building sound insulation requirements will need to include the provision of forced-air mechanical ventilation for all outer facing residential units so that windows could be kept closed at the occupant's discretion to control noise. Special building construction techniques may be required in areas exposed to sound levels of 70 dBA DNL or greater. These treatments could include sound rated windows and doors, sound rated wall constructions, acoustical caulking, etc. Results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City along with the building plans and approved prior to issuance of a building permit. Feasible construction techniques such as these would adequately reduce interior noise levels to 45 dBA DNL or lower. A qualified acoustical consultant shall review final site plans, building elevations, and floor plans prior to the issuance of a building permit to calculate expected interior and exterior noise levels and ensure compliance with City policies and State noise regulations. **(Less Than Significant Impact with Mitigation)**
Impact NV-5: Businesses within the project area would be exposed to intermittent high noise levels from project construction.	**MM NV-5.1:** With the implementation of the following measures, construction noise impacts would be reduced to a less than significant level: • Utilize 'quiet' models of air compressors and other stationary noise sources where technology exists; • Prohibit all unnecessary idling of internal combustion engines and equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment; • Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	possible from businesses or noise-sensitive land uses; • Notify all adjacent land uses of the construction schedule in writing; • Designate a disturbance coordinator, responsible for responding to complaints about construction noise. The name and telephone number of the disturbance coordinator shall be posted at the construction site and made available to businesses, residences or noise-sensitive land uses adjacent to the construction site; • If pile driving is necessary, pre-drill foundation pile holes to minimize the number of impacts required to seat the pile; and • If pile driving is necessary, when possible the project shall work with the owners and managers of adjacent commercial uses to select days and times to conduct pile-driving activities that would minimize the impact on these uses. **(Less Than Significant Impact with Mitigation)**
Impact NV-6: Businesses on the project site and in the vicinity of the project could be exposed to construction related vibration during the excavation and foundation work of the project, particularly if pile driving is used as a construction method.	**MM NV-6.1:** With the implementation of the following measures, in addition to the measures specified in MM NV-5.1, construction vibration impacts would be reduced to a less than significant level: • Avoid impact pile driving where possible. Drilled piles or slab mats causes lower vibration levels where geological conditions permit their use; • Identify any highly vibration sensitive uses located on the adjoining properties and/or remaining commercial uses; • If impact pile driving is proposed within 50 feet of adjacent structures or within 200 feet of any highly sensitive uses identified in the adjoining buildings, a construction vibration-monitoring plan would need to be implemented to document conditions prior to, during and after vibration generating construction activities. All plan tasks shall be undertaken under the direction of a licensed Professional Structural Engineer in the State of California and be in accordance

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	with industry accepted standard methods. The construction vibration monitoring plan shall be implemented to include the following tasks: ▪ Schedule pile driving so that piles furthest from adjacent structures are driven first, and only after vibration levels are found to be within the limits is pile driving allowed at closer distances. ▪ Performance of a photo survey, elevation survey, and crack monitoring survey for each impacted structure. Surveys shall be performed prior to any construction activity, in regular interval during construction and after project completion and shall include internal and external crack monitoring in structures, settlement, and distress and shall document the condition of foundations, walls and other structural elements in the interior and exterior of said structures. ▪ Development of a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions. Construction contingencies would be identified for when vibration levels approached the limits. ▪ At a minimum, vibration monitoring shall be conducted during pavement demolition, excavation, and pile driving activities. Monitoring results may indicate the need for more or less intensive measurements. ▪ If vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures. ▪ Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	▪ Conduct post-survey on structures where either monitoring has indicated high levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities. ▪ The results of all vibration monitoring shall be summarized and submitted in a report shortly after substantial completion of each phase identified in the project schedule. The report will include a description of measurement methods, equipment used, calibration certificates and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits will be included together with proper documentation supporting any such claims. **(Less Than Significant Impact with Mitigation)**
Hazards and Hazardous Materials	
Impact HM-1: If on-site soils are contaminated with agricultural chemicals, construction personnel working on the proposed project would be exposed to these chemicals. **Impact HM-2:** If on-site soils are contaminated with agricultural chemicals, improper disposal of soil could contaminate the environment.	As conditions of approval, the project applicant shall be responsible for the implementation of the following measures to reduce impacts from hazardous materials on the proposed project to a less than significant level: **MM HM-1.1 & 2.1:** Prior to the issuance of a Grading Permit, but after removal of pavement for each of the project phases, the developer shall implement the following measures, which would reduce potential impacts related to pesticide contaminated soil to a less than significant level. These measures shall be printed on all construction documents, contracts, and project plans: • Soil on the site will be sampled and tested for organochloride pesticides and associated heavy metals. • If the results of the soil sampling/testing indicate that the soil on the project site is

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	contaminated with agricultural pesticides and/or heavy metals above regulatory agency thresholds, a Soil Management Plan (SMP) will be prepared for the proposed project. The SMP would detail the handling/disposal of the contaminated soil in a manner that ensures workers, adjacent uses, and the environment are protected. The main objective of the SMP is to establish protocols for the contractor in handling on-site soil during redevelopment of the site (e.g., preparation of a Health and Safety Plan). • If the results of the soil sampling/testing indicate that the soil on the project site is contaminated with agricultural pesticides and/or heavy metals above regulatory agency thresholds, all soil off-hauled from the project site will be disposed at an appropriate facility that is designed and operated to accept and dispose of contaminated soils. **(Less Than Significant Impact with Mitigation)**
Hydrology and Water Quality Impacts	
Impact HYD-2: Construction of the proposed project could result in a significant temporary increase in the amount of contaminants in stormwater runoff during construction and, therefore, requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP).	As conditions of approval, the project applicant shall be responsible for the implementation of the following measures to reduce hydrology and water quality impacts: **MM HYD-2.1:** The following measures, based on Regional Water Quality Control Board Best Management Practices, have been included in the project to reduce construction-related water quality impacts. All mitigation will be implemented prior to the start of earthmoving activities on-site and will continue until the construction is complete. These measures shall be printed on all construction documents, contracts, and project plans: • Burlap bags filled with drain rock shall be installed around storm drains to route sediment and other debris away from the drains. • Earthmoving or other dust-producing activities shall be suspended during periods of high winds.

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	• All exposed or disturbed soil surfaces shall be watered at least twice daily to control dust as necessary. • Stockpiles of soil or other materials that can be blown by the wind shall be watered or covered. • All trucks hauling soil, sand, and other loose materials shall be covered and all trucks would be required to maintain at least two feet of freeboard. • All paved access roads, parking areas, staging areas and residential streets adjacent to the construction sites shall be swept daily (with water sweepers). In addition, a tire wash system may be required. • Vegetation in disturbed areas shall be replanted as quickly as possible. • All unpaved entrances to the site shall be filled with rock to knock mud from truck tires prior to entering City streets. A tire wash system may also be employed at the request of the City. • A Storm Water Permit will be administered by the Regional Water Quality Control Board. Prior to construction grading for the proposed land uses, the project proponent will file a "Notice of Intent" (NOI) to comply with the General Permit and prepare a Storm Water Pollution Prevention Plan (SWPPP) which addresses measures that would be included in the project to minimize and control construction and post-construction runoff. Measures will include, but are not limited to, the aforementioned RWQCB mitigation. • The project proponent will submit a copy of the draft SWPPP to the City of Milpitas for review and approval prior to start of construction on the project site. The certified SWPPP will be posted at the project site and will be updated to reflect current site conditions. • When construction is complete, a Notice of Termination (NOT) for the General Permit for Construction will be filed with the Regional Water Quality Control Board and the City of Milpitas. The NOT will document that all elements of the SWPPP

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	have been executed, construction materials and waste have been properly disposed of, and a post-construction storm water management plan is in place as described in the SWPPP for the site. **(Less Than Significant Impact with Mitigation)**

Impact HYD-3: Dewatering during project construction and, if needed, after construction could pollute surface water with sediment or hazardous materials.	**MM HYD-3.1:** The following measures shall be implemented by the applicant to reduce water quality impacts that could result during dewatering to a less than significant level. The project shall also be compliant with all applicable requirements of the City's NPDES permit in place when the project application is deemed complete. All mitigation shall be implemented prior to the start of earthmoving activities on-site and will continue until dewatering is complete.
	
	These measures shall be printed on all construction documents, contracts, and project plans:
	
	• Groundwater below the project site shall be sampled and tested for contaminants.
	  ▪ If groundwater contaminant levels are below discharge thresholds, the project must receive City approval prior to discharge of groundwater into the City's storm drain system. This permit will specify the sediment removal measures to be implemented during dewatering (e.g., settling tank, particulate filters, etc.) and the frequency of ongoing water quality testing.
	  ▪ If groundwater contaminant levels are above discharge thresholds, the project shall obtain an NPDES permit from the RWQCB prior to discharging the water into the stormdrain system. This permit will specify the groundwater treatment measures and the water quality treatment standards that shall be achieved prior to discharge into the storm drain system, the sediment removal measures to be implemented during dewatering (e.g., settling tank, particulate filters, etc.), and

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	the frequency of ongoing water quality testing. **(Less Than Significant Impact with Mitigation)**
Biological Resources	
Impact BIO-2: The proposed project will remove four ordinance-size trees on the site.	As conditions of approval, the project applicant shall be responsible for the implementation of the following measures to reduce biological resource impacts: **MM BIO-2.1:** Prior to receiving an occupancy permit, the applicant shall implement the following measures, which would reduce the impact of the loss of ordinance-size trees on the project site to a less than significant level. These measures shall be printed on all construction documents, contracts, and project plans: • In conformance with the City of Milpitas Zoning Ordinance, all trees removed from the site that measure 37 inches or greater in circumference (12-inches in diameter) at four feet six inches above the ground surface will be replaced in-kind at a 3:1 ratio within the project site. • Trees that are removed but cannot be mitigated on-site due to lack of available planting area, will be mitigated by fees paid to the City. The funds will be deposited in the City's Tree Replacement Fund and will be used to plant trees within the City of Milpitas. **(Less Than Significant Impact with Mitigation)**
Cultural Resources	
Impact CULT-1: The project site is located in an area that contains several recorded prehistoric archaeological sites and, therefore, excavation for the project has the potential to encounter and damage archaeological resources.	As conditions of approval, the applicant shall implement the following mitigation measures to avoid possible impacts from the project to archaeological resources, or reduce them to a less than significant level: **MM CULT-1.1:** A qualified archaeologist shall be retained to inspect the parcel for buried resources following demolition of existing

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	buildings and site clearing during each phase of the project. In the event that any archaeological materials are encountered, work shall be stopped in the area designated by the project archaeologist until a plan has been submitted to the Milpitas Planning Division for the evaluation of the resource as required by CEQA. Evaluation typically takes the form of limited hand excavation of the suspected deposit to determine if it 1) possesses integrity (is not historically disturbed) and 2) possesses information and/or materials which would make it eligible for inclusion on the California Register of Historic Resources. **MM CULT-1.2:** If evaluative testing demonstrates that further construction related earthmoving will affect a register eligible resource, a plan for the mitigation of impacts to the resource shall be submitted to the Milpitas Planning Director for approval. Mitigation can include limited additional hand excavation to retrieve additional data from the deposit, coupled with archaeological monitoring of all subsequent construction related earthmoving inside the area designated as archaeologically sensitive to insure that significant archaeological materials and/or information are retrieved for future analysis and report preparation. **MM CULT-1.3:** Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California, in the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified by the project applicant and the Coroner shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory

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	agreement can be reached as to the disposition of the remains pursuant to State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance. **(Less Than Significant Impact with Mitigation)**
Visual and Aesthetics	
Impact VIS-4: The proposed shopping center identification signs with electronic displays would intrude into views of the foothills from adjacent land uses such as the hotels located on Bellew Drive and Barber Court.	As conditions of project approval, the applicant shall implement the following mitigation measures to ensure that the visual and aesthetic impacts of the project are reduced to a less than significant level: **MM VIS-4.1:** The proposed project will be subject to architectural and design review. The proposed shopping center identification signs with electronic displays shall be located and oriented in a manner which avoids or minimizes their direct exposure from adjacent or nearby hotel suite uses. Spot or floodlight sources shall be directed to prevent spill light or glare onto adjacent land uses. In order to minimize visual intrusion impacts, the proposed signs shall be located on the site so that, to the extent feasible, the proposed buildings provide shielding of the signs for adjacent land uses. (**Less Than Significant Impact with Mitigation)**
Impact VIS-6: The two proposed shopping center identification signs with electronic displays may result in light and glare impacts on nighttime views from light spillover onto adjacent properties.	**MM VIS-6.1:** The proposed shopping center identification signs with electronic displays shall be oriented to avoid light spillover onto adjacent properties to the extent feasible. The proposed signs shall also be located so that the proposed buildings on the site will provide a buffer and shield views of the signs, to the extent feasible, from hotel and residential land uses. **(Less Than Significant Impact with Mitigation)**
Utilities and Service Systems	
Impact UTIL-1: The proposed project will substantially increase water demand from the project site.	As conditions of project approval, the applicant shall implement the following mitigation measures to ensure that the utility and service

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES

	system impacts of the project are reduced to a less than significant level:
	
	MM UTIL-1.1: The proposed project would substantially increase water demand at the site compared to the existing commercial use and zoning designation. Prior to issuance of an occupancy permit, the developer shall implement the following measures, which would reduce impacts to the water system to a less than significant level. These measures shall be printed on all construction documents, contracts, and project plans:
	
	• The developer shall design and install all water lines necessary to serve the development (including fire flow), sized in accordance with the City's Water Master Plan and Guidelines.
	• The developer shall purchase adequate public system water capacities for the project, including costs for capacity and storage needs above the master plan capacities, as determined by the City.
	• Prior to receiving recycled water, the site shall be permitted by South Bay Water Recycling (SBWR). In general, a permit will be granted after the following steps have been completed:
	  ▪ Plan Submittal and Approval
	  ▪ Inspection
	  ▪ Retailer Service Meter
	  ▪ Customer Training
	
	MM UTIL-1.2: In accordance with City Ordinance 238.2, the project shall install low-water use landscaping and use high efficiency devices for outdoor water use.
	(Less Than Significant Impact with Mitigation)

Impact UTIL-2: The existing allocated wastewater treatment capacity for the City of Milpitas could be exceeded with development of the project.	**MM UTIL-2.1:** The project will reduce the City's available limited treatment capacity at the WPCP. Prior to issuance of an occupancy permit, the developer shall implement the following measures. These measures shall be printed on all construction documents, contracts, and project plans:

SIGNIFICANT ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
	• The developer shall purchase adequate public sewage system capacities for the respective development. Fees shall consist of connection fees, treatment plant fees up to the buildout master plan levels, plus additional fees for costs of sewage collection and regional plant capacity needs above the build-out master plan capacities, and proportional replacement costs for a new Main sewage pump station above the existing 2004 Master Plan capacities, as determined by the City. **(Less Than Significant Impact with Mitigation)**
Public Facilities and Services	
Impact PF-4: The project would increase the demand for park and recreational facilities in the City of Milpitas and would partially offset that demand through the provision of open spaces in the proposed development.	As a condition of project approval, the proposed project includes the following measure to reduce its impacts on park and recreational facilities to a less than significant level: **MM PF-4.1:** Consistent with the City of Milpitas General Plan for new developments within the Midtown Specific Plan Area, three and one-half acres of neighborhood/community parks would be required per 1,000 residents due to the infill nature of the project. This requirement can be fulfilled through land dedication or through equivalent in-lieu fees. Up to 1.5 acres per 1,000 residents can be developed as usable on-site common or private open space within new residential developments, and the remaining three acres must be developed as public parkland. The proposed project would provide housing for approximately 2,430 residents and, therefore, would be required to provide approximately 8.51 acres of neighborhood/community park. The on-site common open space areas proposed by the project total approximately 1.5 acres. In accordance with the General Plan, the project would pay in-lieu fees for the remaining parkland acres required by the City. **(Less Than Significant Impact with Mitigation)**

Cumulative Impacts

The project would contribute to significant cumulative Transportation, Air Quality, and Utilities and Services impacts. Please see Section 6.0 for a complete discussion of cumulative impacts.

Summary of Alternatives

CEQA requires that an EIR identify alternatives to a project as it is proposed. The CEQA Guidelines specify that the EIR should identify alternatives which "will feasibly attain most of the basic objectives of the project but will avoid or substantially lessen any of the significant effects of the project". The purpose of this section is to determine whether there are alternatives of design, scope or location which will substantially lessen the significant impacts, even if those alternatives "impede to some degree the attainment of the project objectives", or are more expensive. [§15126.6]

No Project Alternative

The CEQA Guidelines [§15126(d)4] require that an EIR specifically discuss a "No Project" alternative, which should address both "the existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the project is not approved, based on current plans and consistent with available infrastructure and community services." Since the project site is currently developed with a shopping center, the alternative to the City approving the currently proposed project would be to maintain the existing shopping center on the site. Maintaining the existing shopping center on the site would not result in any new significant environmental impacts.

The No Project alternative would not meet any of the project objectives. The existing shopping center would not be redeveloped into a mixed use development providing housing for Milpitas residents with housing close to existing employment centers. The No Project alternative would not assist the City of Milpitas in achieving its fair share housing obligation. This alternative would not improve the jobs/housing balance in the City and would not contribute to a reduction in automobile commuting or VMT.

The No Project alternative would not meet any of the project objectives, but it would avoid all of the impacts of the proposed project. For this reason, the No Project Alternative is an environmentally superior alternative to the proposed project.

Reduced Density Alternative

Implementation of the proposed project would result in significant LOS impacts to the intersections of Tasman Drive and I-880 SB ramps, Great Mall Parkway and I-880 NB ramps, and the segment of SR 237 between McCarthy Boulevard and I-880. All of the traffic impacts of the project could be eliminated if the project size were reduced to include the 12,800 square foot increase in commercial space on the site and 20 residential units. The Reduced Density Alternative would require a substantial reduction in the amount of development proposed on the site.

In addition to avoiding the significant LOS impacts of the project, reducing the total number of residential units would avoid the regional air quality emissions impacts of the project. The Reduced Density Alternative may not be economically viable due to the relatively small amount of development that would be allowed on the site under this alternative. The project site would not be redeveloped with a true mixed use development on an infill site that assists the City in meeting its fair share housing obligation. The Reduced Density Alternative would not create a neighborhood

environment or substantially reduce commute distances in the City due to the limited number of residential units that would be allowed on the site.

Similar to the proposed project, residential development on the site, depending on the location of the development, would be subject to elevated noise levels due to the proximity of the adjacent freeways, but without the shielding from proposed parking structures. The Reduced Density Alternative would also be subject to the same hazardous materials, construction water quality, and cultural resource impacts which would be reduced to a less than significant level with mitigation measures. The impacts to mature trees would likely be reduced since the amount of area required for bioswales would be reduced such that less mature trees on the site would require removal. The visual and aesthetic impacts of the project may increase because the proposed shopping center identification signs with electronic displays would not be shielded by the substantially taller buildings proposed on the site, but the very much smaller buildings would have less impact.

The Reduced Density Alternative would meet any of the project objectives. The allowance of 20 residential units on the site would allow for some mixed-use development, however, it would not be to the extent that it substantially assists the City in providing housing to meet its fair share needs, reducing commute distances, or decreasing the jobs/housing imbalance. The Reduced Density Alternative, however, would reduce the traffic and air quality impacts of the project to a less than significant level. The Reduced Density alternative, therefore, is environmentally superior to the proposed project.

Environmentally Superior Alternative

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. Based on the above discussion, the environmentally superior alternative is the Reduced Density Alternative since it would reduce the environmental impacts of the project to a less than significant level. The Reduced Density Alternative would not, however, meet any of the project objectives.

The construction of low density residential development on the site in addition to the existing commercial development may not be economically feasible due to the space requirements of such a development and the need to maintain adequate parking on the site for both uses, which may subsequently require construction of a parking structure. It is also unlikely that a desirable residential environment could be created within a shopping center for such a small number of residences.

SECTION 1.0 INTRODUCTION AND PURPOSE

1.1 OVERVIEW

This Environmental Impact Report (EIR) has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) and the City of Milpitas. The purpose of this EIR is to provide objective information regarding the environmental consequences of the proposed Milpitas Square Mixed-Use Development Project to the decision makers who will be reviewing and considering the proposed project.

The project site is currently designated *General Commercial* in the General Plan and zoned *C2 – General Commercial.* The project proposes to change the General Plan land use designation on the site from *General Commercial* to *Boulevard Very High Density Mixed Use* and to rezone the site from *C2 – General Commercial* to *MXD3 – Very High Density Mixed Use District.* The project includes a Development Agreement and would require a Conditional Use Permit for the proposed increased building heights on the project site. Specifically, this EIR evaluates a maximum development of up to 900 residential units and an additional 12,800 square feet of commercial space, for a total of 175,000 square feet of commercial uses on the project site.

1.2 PROJECT LOCATION

The 16.85-acre project site is located on the east side of Barber Lane and Barber Court at the terminus of Bellew Drive in the City of Milpitas. The project site is bordered to the north by State Route 237 (SR 237), to the east by Interstate 880 (I-880), to the south by a vacant auto showroom, and to the west by a Cisco Systems campus and hotel uses on the west side of Barber Lane and Barber Court (refer to Figures 1, 2, and 3).

1.3 BACKGROUND

The project site is currently developed with a shopping center totaling 162,200 square feet of development. The shopping center includes a 38,800 square foot grocery store (99 Ranch Market) and five commercial buildings configured in a "U" shape around a parking lot. Three additional commercial satellite buildings are located along the Barber Lane street frontage. The center is mainly leased by restaurant tenants that serve the nearby industrial park campuses and City of Milpitas residents.

1.4 PROJECT GOALS AND OBJECTIVES

Pursuant to CEQA Guidelines Section 15124 the Lead Agency must identify the objectives sought by the proposed project and the discretionary actions required to implement the project. The project objectives are stated below. The discretionary actions required are listed in *Section 1.5 Uses of the EIR*.

The project applicant, Milpitas Square, LLC, has identified the following basic objectives for the proposed project:

- Construct an economically feasible mixed use project in the City of Milpitas that attracts buyers, renters, and retail shoppers to a true mixed use infill site.
- Provide housing opportunities in the City of Milpitas to assist the City in meeting its regional fair-share housing obligation and long-term growth needs.

- Locate housing, in support of smart growth principles, in close proximity to employment areas which are served by existing City services and facilities.
- Assist the City of Milpitas in supplying housing in close proximity to mass transit service and facilities to encourage the use of mass transit and reduce commuting by automobile.
- Redevelop a successful destination commercial center with complementary residential uses on an infill site to reduce the employment and housing imbalance in the vicinity of the site.
- Create a neighborhood environment where residents can live, work, and shop in the project area.
- Phase the redevelopment to retain as many shops and restaurants as possible by maintaining a constant level of commercial space.

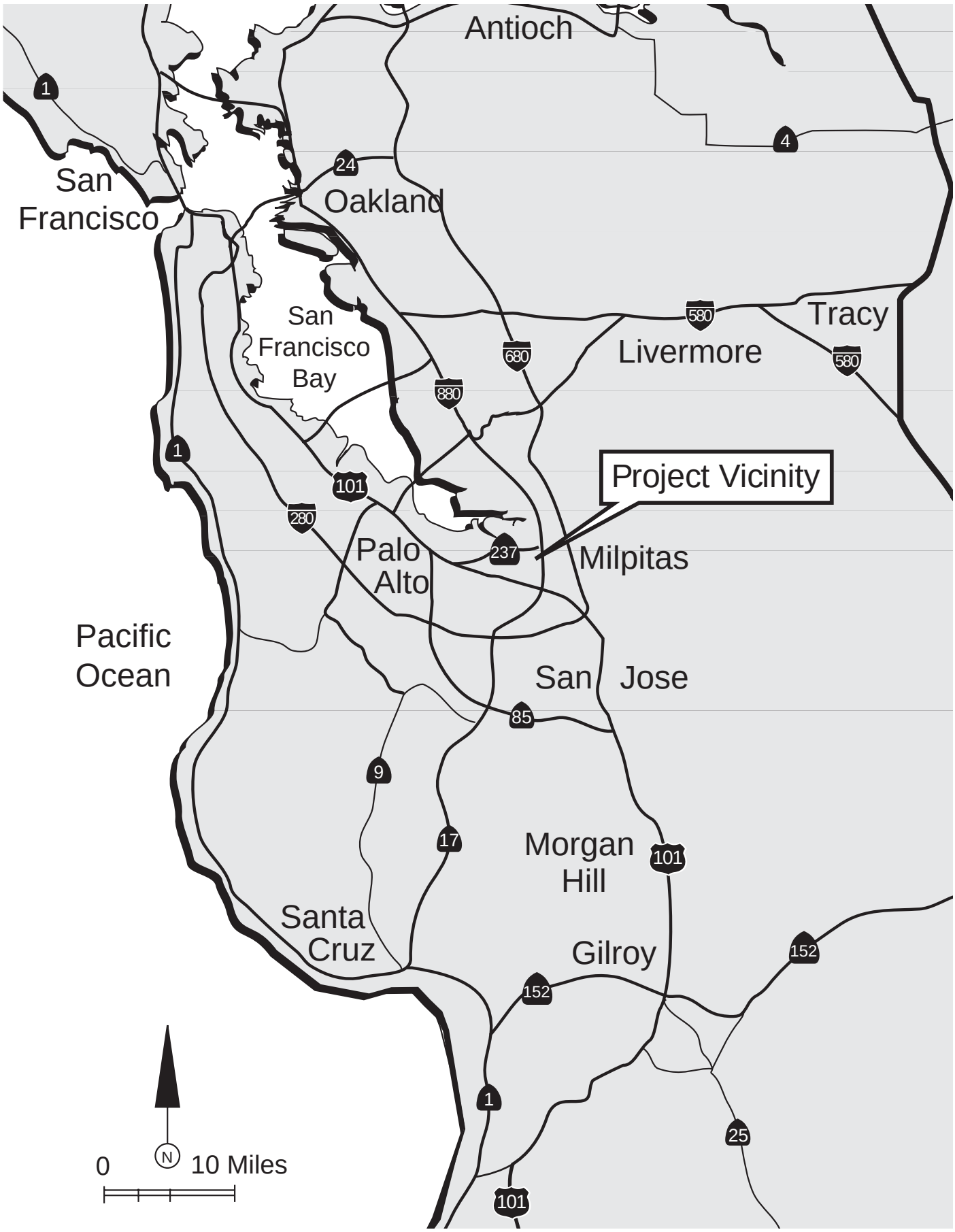
1.5 USES OF THE EIR

This Environmental Impact Report (EIR) is intended to provide the City of Milpitas, other public agencies, and the general public with the relevant environmental information needed in considering the proposed project.

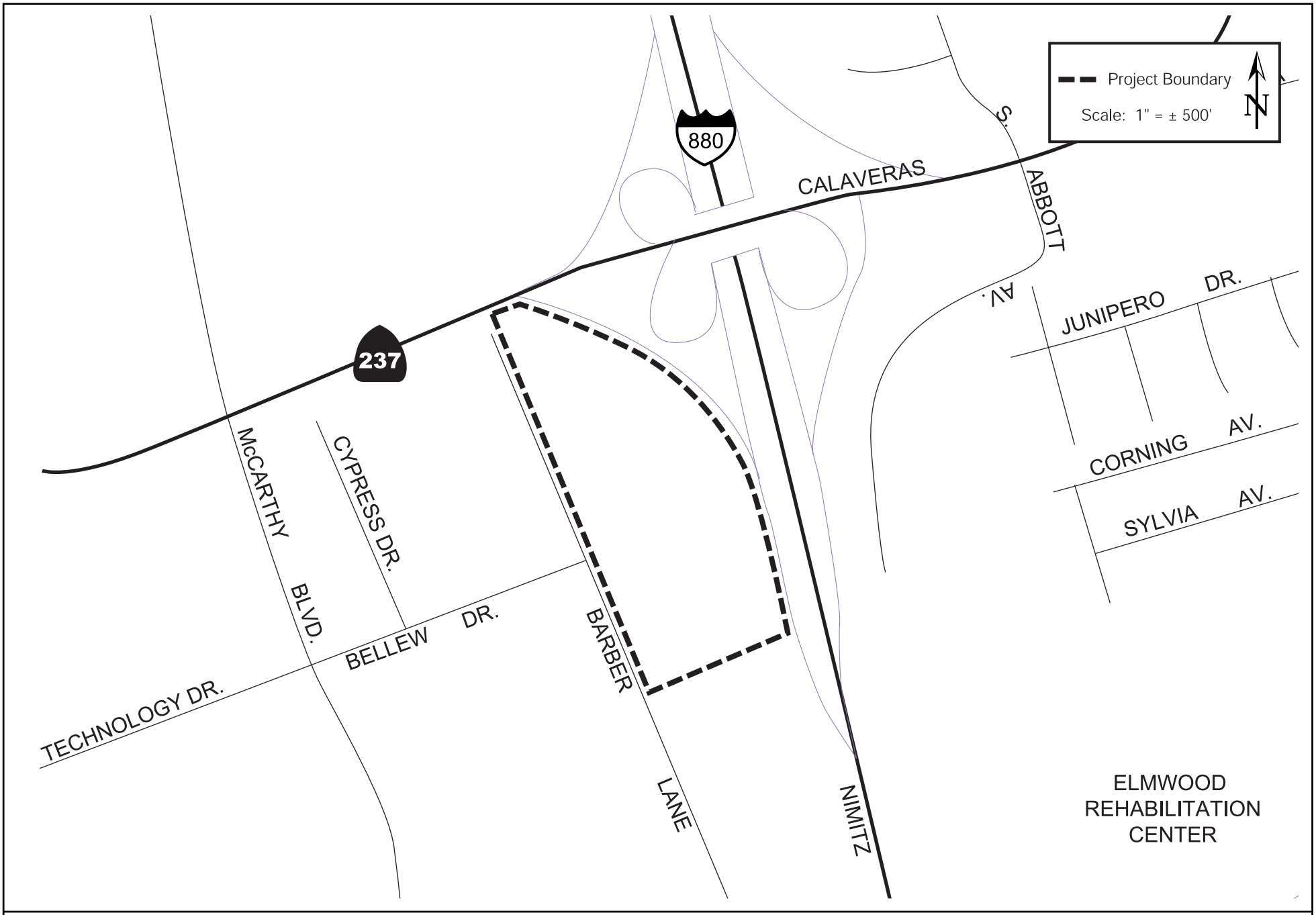
The City of Milpitas anticipates that the discretionary approvals, including but not limited to the following, will be required to implement the project addressed in this EIR:

1. General Plan Map Amendment
2. Zoning Amendment (Rezoning)
3. Site Development Permit (Site and Architectural Review)
4. Conditional Use Permit (height)
5. Development Agreement
6. Tentative Map
7. Sign Design approval (for shopping center identification signs)

The project may require Caltrans approval of the proposed shopping center identification signs with electronic displays. The City does not know of any other actions that would be required by other government agencies to implement the proposed project.

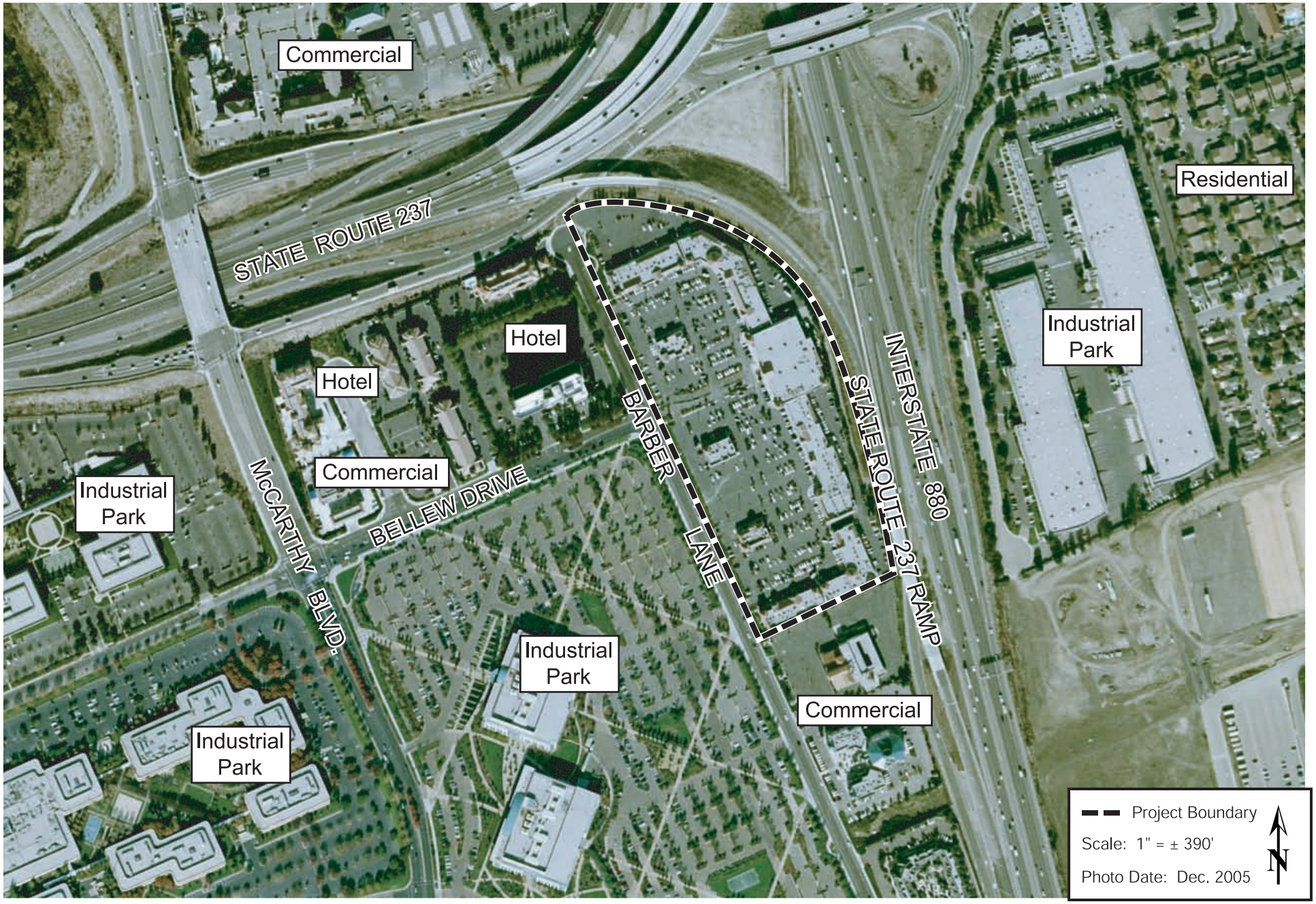


REGIONAL MAP FIGURE 1



VICINITY MAP

FIGURE 2



AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 3

SECTION 2.0 DESCRIPTION OF THE PROPOSED PROJECT

2.1 PROPOSED GENERAL PLAN AMENDMENT

The project proposes to change the General Plan land use designation on the site from *General Commercial* to *Boulevard Very High Density Mixed Use*. The proposed General Plan land use designation, *Boulevard Very High Density Mixed Use*, is intended to allow commercial offices, retail and personal service, high density residential and public and quasi-public uses. Mixed-use buildings can contain a combination of residential and commercial uses. Residential projects shall have a minimum average gross density of 41 units per acre and can be built up to between 60 to 90 units per acre. Sites developed with a mix of uses, or non-residential uses, must adhere to the FAR maximum which ranges from 1.5 to 2.25.

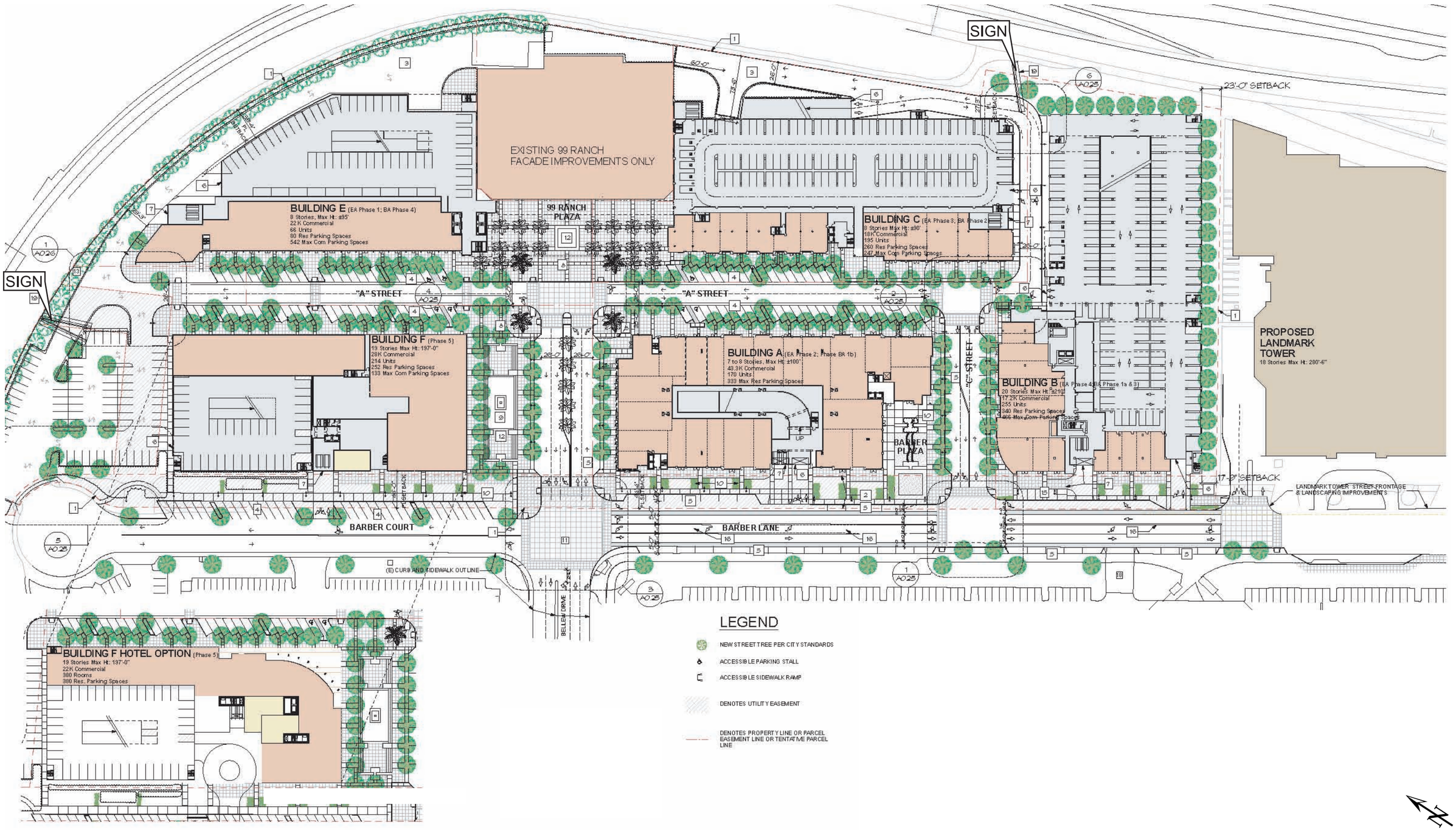
2.2 PROPOSED REZONING

The proposed project would rezone the site from *C2 – General Commercial* to a base zoning of *MXD3 – Mixed Use*. The proposed rezoning would allow construction of a mixed-use residential and commercial development on the site which is described in greater detail below.

2.3 PROPOSED DEVELOPMENT

The proposed General Plan amendment and rezoning of the 16.85-acre site would allow the development of 12,800 square feet of commercial space in addition to the existing 162,200 square feet of commercial space already existing on the site and a maximum of 900 residential units (refer to Figure 4). The project also proposes the option of constructing a 380-room hotel in place of 214 dwelling units, which would result in a maximum of 686 residential units and the same amount of commercial space on the site; for clarity's sake, this variation is referred to throughout this document as *"Hotel Option"* (refer to Figure 4). The proposed development would be constructed in five phases with a total of six structures on the site at buildout of the project. The existing 99 Ranch Market would be retained at its current size in its existing location, with aesthetic renovations to the façade facing the main entrance plaza. The phasing of the development is structured to keep as much retail space operational as possible throughout the duration of the construction on the site and to allow shop owners to relocate on the property.

The project would create an urban mixed-use residential and commercial development, including public plazas that would allow residents to seek services within walking distance of their homes. The proposed residential units would be either for sale housing or rental units depending on market conditions. The proposed commercial space would include restaurant uses, approximately 15 percent of which would have outdoor seating. The project will continue to provide a destination commercial center for employees of nearby office industrial parks and nearby hotel guests.



Scale: 1" = ± 125'
Source: Van Meter Williams Pollack LLP., April 2009.

SITE PLAN

FIGURE 4

The conceptual plans for the site and proposed buildings are described below in *Section 2.3.1*. The *phasing* of the project will be designed to protect existing businesses and maintain parking to meet their parking demand needs. The phasing options described in detail in *Section 2.3.6* of this Project Description are examples of the phasing concept.

2.3.1 Proposed Buildings

Building A

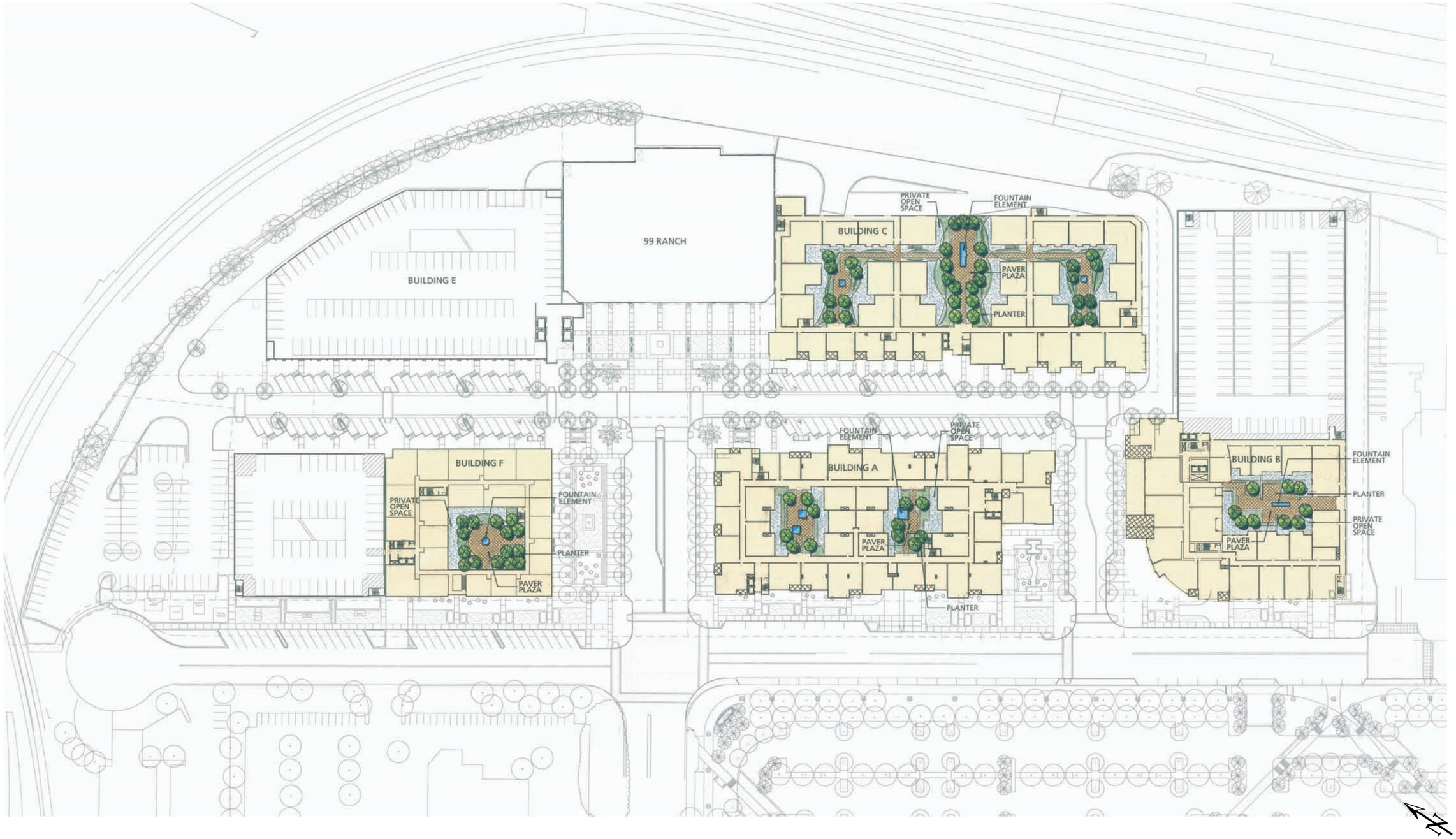
Building A would be located near the center of the site's street frontage on Barber Lane and south of the existing main drive aisle opposite Bellew Drive. This building includes approximately 43,200 square feet of ground floor commercial space and 170 residential units (refer to Figures 4 and 5). The proposed building would be eight stories with a maximum height of 100 feet. Parking is provided on the second through fourth floors of the building with vehicular access from Barber Lane. This building would provide 333 parking spaces for the proposed residential units and guest parking. The proposed residential units would be located in fourth through eighth floors surrounding two common open space areas atop the parking levels. An optional underground level of commercial parking may also be included in this building; however, parking spaces provided in an underground garage are not included in the number of parking spaces identified above and would provide additional parking on the site.

Building B

Building B would be located on the south end of the project site. This building includes approximately 17,200 square feet of commercial space oriented toward Barber Lane and a new west/east drive aisle extending from Barber Lane. Approximately 255 residential units would be constructed in this building. The residential units would be located in four stories above the ground level commercial space and parking and in a 20-story tower located in the northwest corner of the building. A common open space would be located on the south side of the tower, surrounded by the proposed residential units. The eastern half of the building would be a five to six-story parking structure with up to 806 dedicated and shared parking spaces including 340 spaces for residential use and 466 spaces for commercial use and residential guests (refer to Section 2.3.4). Access to the parking structure would be provided both from the internal drive and at the south end of the building directly off Barber Lane.

Building C

Building C would be located on the eastern portion of the site, south of the 99 Ranch Market and adjacent to Interstate 880. This building includes approximately 18,200 square feet of ground floor retail oriented toward the proposed internal drive. The proposed building would be eight stories in height, up to 90 feet, with six floors of residential units above the proposed commercial space and four floors of residential units above a three-story parking structure. Three common open space areas would be located atop the proposed parking structure. The proposed building includes 195 residential units and 507 dedicated and shared parking spaces of which 260 are proposed for residential use and 247 are proposed for commercial use and residential guests.



Scale: 1" = ± 100'
Source: The Guzzardo Partnership, Inc.

PRELIMINARY PODIUM PLAN

FIGURE 5

Building D

The 99 Ranch Market (Building D) would remain in its existing location. The building is approximately 38,800 square feet and would only require modification of its façade as part of the proposed project to blend architecturally with the new development. The parking for this building would be provided by the parking structure in Building E and/or Building C.

Building E

Building E would be located on the northeast corner of the site adjacent to the 99 Ranch Market (refer to Figure 4 and 5). Building E would consist of 22,000 square feet of ground floor commercial space with 66 residential units on six floors and a five- to six-story parking garage. The proposed eight-story building would be constructed to a maximum height of 95 feet and includes a parking structure on its eastern side behind and above the commercial space and residential units and adjacent to the SR 237 connector ramp to southbound I-880. The parking structure would provide up to 542 dedicated and shared parking spaces of which 80 spaces are proposed for residential use, 462 spaces are proposed for commercial use and residential guests, including the 99 Ranch Market (refer to Section 2.3.4). This building may also be alternatively developed solely with ground floor commercial space and commercial parking spaces in a four-story structure. The analysis in this EIR assumes this building would be constructed with the greater amount of development in the configuration described above.

Building F

Building F would be located in the northwest portion of the site adjacent to Barber Court. Building F would consist of approximately 28,000 square feet of ground floor commercial space along the existing drive aisle aligned with Bellew Drive and a proposed internal drive aisle aligned north to south across the site. The building would include 214 residential units located in four stories above the proposed commercial space and in a 19-story tower (up to 197 feet in height) located in the center of the building. A common open space would be located south of the proposed tower (refer to Figure 5). This building may also be developed with a 19-story, 380 room hotel instead of the proposed residential units. The configuration of the hotel building would not vary substantially from the proposed residential building and would include approximately 22,000 square feet of commercial space (refer to Figure 4). The northwest portion of the building would be a seven-story, 385-space parking structure of which 252 dedicated and shared spaces are proposed for residential use and 133 spaces are proposed for commercial use and residential guests (refer to Section 2.3.4).

2.3.2 Site Access and Circulation

Access to the project site would be provided from Barber Lane and Barber Court. The existing access at the north end of the site would remain in its current location. The main drive aisle to the site aligned with Bellew Drive would remain with the proposed project and would be altered at the intersection to include one left-turn lane, one through lane, and one shared through/right-turn lane. This drive aisle would connect to a north/south drive aisle through the site. An additional drive aisle north of Building B would provide access to the southern portion of the site from Barber Lane. This southernmost drive aisle would allow right- and left-turns in and out of the site (refer to Figure 4). Two driveways entering the proposed Buildings A and B parking structures would be located off Barber Lane.

Sidewalks would be located along the Barber Lane and Barber Court street frontages of the site. Sidewalks would also be provided on the site in front of all commercial spaces (refer to Figure 4).

2.3.3 Roadway Improvements

As shown in Figure 4, the project proposes roadway improvements to Barber Lane and intersection improvements to the westbound and northbound approaches to the Barber Lane/Bellew Drive intersection. The intersection currently has one lane (shared left-turn/through/right-turn) on the northbound and southbound approaches, two lanes on the westbound approach (one left-turn and shared through/right-turn lane), and three eastbound lanes (one left-turn, one through lane, and one right-turn lane). The proposed project would allow the southbound and eastbound approaches to remain with their existing lane configurations. The northbound approach would be altered to include one left-turn, one shared through/left-turn lane, and one right-turn lane. Access to the southernmost drive aisle on the site would be provided via a right-turn from northbound Barber Lane and a shared through/left-turn lane from southbound Barber Lane. Bike lanes would remain along both sides of Barber Lane. The westbound approach would also be altered to include one left-turn lane, one through lane, and one shared through/right-turn lane.

2.3.4 Parking

Parking would be provided on the site in a small surface lot, parking structures, and along some internal drive aisles. The angled parking on Barber Court would also be maintained with the project and 12 parallel parking spaces would be provided curbside on Barber Lane. Angled surface parking along the proposed drive aisles and in the small surface lot would provide 177 parking spaces, which are assumed to be used by the commercial businesses. Structured parking would be provided in each building on the site except Building D. With the exception of Building A, parking structures could be accessed from the internal drive aisles and a surface parking lot on the site. Sole access to the Building A parking structure and an additional access to the Building B parking structure would be provided from Barber Lane. The location and maximum number of parking spaces proposed by the project are summarized below in Table 2.3-1.

Table 2.3-1
Maximum Parking Summary

Location	Residential Parking	Commercial Parking	Total
Building A	333	0	333
Building B	340	466	806
Building C	260	247	507
Building E	80	462	542
Building F	252	133	385
Surface Parking	0	244	244

Building A would only provide parking for residents and guests of that building. A mix of commercial and residential parking spaces would be provided in buildings B, C, E, and F. Retail peak parking demand occurs on weekend afternoons and residential peak parking demand occurs during the late night and early morning hours. Due to the variations in parking demand the project is proposing 1,265 residential parking spaces and a minimum of 1,390 commercial parking spaces that would be shared with the proposed residential uses to provide additional resident and guest parking.

Depending on the final phasing selected for the project, a total of 2,686 to 2,721 parking spaces would be provided for the proposed development.

Building B would provide shared commercial spaces on levels one to three and dedicated residential parking on levels four through six. Building C would provide shared commercial spaces on levels one and two and dedicated residential parking on levels three and four. Building E would provide dedicated residential parking on levels five and six and shared commercial spaces on levels one through four. Building F would provide reserved residential parking on levels four through seven and shared commercial parking on levels one through three. The dedicated residential parking areas within the proposed structures may include auto-stacking systems.

The project proposes to construct the parking garages with parking guidance systems that use roadway sensors to track inbound and outbound vehicles on each level of parking. A central display board would inform users of available parking spaces at each garage. Display boards throughout the garages would also inform users of the available spaces on each parking level.

2.3.5 Demolition and Grading

The proposed project will require the phased demolition of approximately 123,400 square feet of commercial space located in eight buildings on the site. Concrete from the demolition of the existing development may be reused on-site; however, due to the proposed phasing of redevelopment on the site with commercial businesses remaining open during the proposed redevelopment, use of demolition materials on the site may be limited. Some of the demolition materials may be suitable for use as base rock on the site, however, the amount of material to be reused is not currently known. All demolition materials not reused on the site will be processed off-site and recycled.

Grading for the project would require approximately 7,000 cubic yards of cut and 15,000 cubic yards of fill.

2.3.6 Phasing

Examples of phasing for the development are summarized in Tables 2.3-2 and 2.3-3. The proposed project could be constructed in five phases beginning with either Building E (Option 1) or the garage portion of Building B and Building A (Option 2). The intent of both project phasing examples is to provide sufficient parking and commercial space in order to allow adequate parking for the businesses open during construction and to allow the majority of businesses on the site to relocate into the new commercial spaces prior to their existing locations being demolished.

Phasing Plan – Option 1

Under the Option 1 phasing plan, development would begin on the northeast portion of the site with Building E in Phase 1. Building A on the Barber Lane frontage of the site would be constructed in Phase 2. Phase 3 would include construction of Building C located on the south side of the 99 Ranch Market (Building D). Building B would be constructed in Phase 4 adjacent to the southern property line of the site. Building F on the northwest portion of the site would be constructed in Phase 5. The buildings to be demolished, square footage of the proposed commercial space, and number of additional residential units in each phase are shown in Table 2.3-2.

Table 2.3-2
Project Phasing Option 1

Phase	Buildings Demolished	Commercial Development (s.f.)	Building Constructed	New Development (s.f. retail/ dwelling units)	Net Development (s.f. retail/ dwelling units)*
1	E	-28,700	E	22,000/66	-6,700/66
2	G, H	-10,800	A	43,300/170	32,500/170
3	C	-29,800	C	18,200/195	-11,600/195
4	A, B	-31,800	B	17,215/255	-14,585/255
5	F, I	-22,300	F	28,000/214	5,700/214

Note: *Conceptual plans for the site currently show total commercial development on the site of 167,515 square feet although the proposed development agreement would allow up to 175,000 square feet of commercial space on the project site.

Phasing Plan – Option 2

Under the Option 2 phasing plan, development on the southern portion of the site would be completed in the first three phases and the northern portion of the site would be redeveloped in the fourth and fifth phases of the project (refer to Table 2.3-3). The construction of the Building B parking structure would take place in Phase 1 followed by the construction of Building A. Building C would be constructed in Phase 2 and the Building B tower would be constructed in Phase 3. Building E would be constructed in Phase 4 and Building F would be constructed in Phase 5. The buildings to be demolished, square footage of the proposed commercial space, and number of additional residential units in each phase are shown in Table 2.3-3.

Table 2.3-3
Project Phasing Option 2

Phase	Buildings Demolished	Commercial Development (s.f.)	Building Constructed	New Development (s.f. retail/ dwelling units)	Net Development (s.f. retail/ dwelling units)*
1	B, G, H	-30,500	B Garage/A	43,300/170	12,800/170
2	C	-29,800	C	18,200/195	-11,600/195
3	A	-12,100	B	17,215/255	5,115/255
4	E	-28,700	E	22,000/66	-6,700/66
5	F,I	-22,300	F	28,000/214	5,700/214

Note: *Conceptual plans for the site currently show total commercial development on the site of 167,515 square feet although the proposed development agreement would allow up to 175,000 square feet of commercial space on the project site.

2.3.7 Utility Improvements

The project would connect to existing 14-inch water lines in Barber Lane to provide water service to the site. The project also proposed to connect with existing eight-inch to 30-inch sanitary sewer lines in Barber Lane (refer to *Section 4.11 Utilities and Service Systems*).

2.3.8 Drainage Improvements

The project will connect to an existing 36-inch storm drain line in Barber Lane through three 15-inch storm drain laterals. In order to comply with C.3 storm water treatment requirements, the project is proposing to treat storm water runoff through a number of treatment control measures including

bioswales, a green roof, planter box, and media filtration systems (refer to *Section 4.7 Hydrology and Water Quality*).

2.3.9 Shopping Center Identification Signs

The project proposes the placement of up to two shopping center identification signs with electronic displays on the site that will be visible from both freeways adjacent to the site. The signs could display both video and textual messages. One sign would replace an existing shopping center identification sign with electronic display on the south end of the site that is not currently in use. The second sign would be located near the State Route 237 (SR 237) and Interstate 880 interchange (I-880). The existing development on the site was approved with a sign program that allowed for the construction of three monument signs of 45 feet, 25 feet, and 16.5 feet in height. The 45 foot tall sign was the only sign approved for an electronic display. The proposed shopping center identification signs with electronic displays would require an amendment to the existing sign program for the site. For the purposes of this analysis the approximate location of the signs is assumed to be at the north end of the site near SR 237 and I-880 and at the south end of the site adjacent to I-880 in the location of the existing sign (refer to Figure 4).

The signs are proposed to operate 24 hours per day and be double-faced to provide visibility from northbound and southbound freeway lanes as well as from SR 237. The sign nearest SR 237 may be V-shaped to provide additional visibility from adjacent roadways. The signs would be up to 70 feet in height. The maximum size of the electronic displays would be 20 feet high by 60 feet wide (1,200 square feet). The locations and final design of the signs will require Caltrans approval.

SECTION 3.0 CONSISTENCY WITH ADOPTED PLANS & POLICIES

In conformance with Section 15125(d) of the CEQA Guidelines, the following section discusses the consistency of the proposed project with relevant adopted plans and policies.

3.1 REGIONAL PLANS AND POLICIES

3.1.1 Bay Area 2005 Ozone Strategy

The Bay Area Air Quality Management District (BAAQMD), in cooperation with the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), prepared the Bay Area 2005 Ozone Strategy which serves as a roadmap showing how the San Francisco Bay Area will achieve compliance with the state one-hour air quality standard for ozone as expeditiously as practicable and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. The Bay Area 2005 Ozone Strategy updated Vehicle Miles Traveled (VMT) and other assumptions in the 2000 Clean Air Plan (CAP) related to the reduction of ozone in the atmosphere and serves as the current CAP for the Bay Area. The consistency of the proposed project with this regional plan is primarily a question of the consistency with the population/employment assumptions utilized in developing the Ozone Strategy which were based on ABAG *Projections 2002*.

Consistency: The existing General Plan land use designation for the site is *General Commercial.* The proposed project would change the land use designation to *Boulevard Very High Density Mixed Use*. The project site is located adjacent to employment areas and bus transit, and therefore, is consistent with the goals and policies of the Bay Area 2005 Ozone Strategy. However, since this site is not currently planned for residential use, the housing proposed by the project is not consistent with the current assumptions reflected in the adopted Ozone Strategy.

3.1.2 State Water Quality Control Board National Pollutant Discharge Elimination System Permit

The Federal Clean Water Act requires local municipalities to implement measures to control construction and post-construction pollution entering local storm drainage systems to the maximum extent practicable. In compliance with the Federal Clean Water Act, the State Water Resources Control Board (SWRCB) manages the National Pollution Discharge Elimination System (NPDES) General Permit for Construction Activities and the Regional Water Quality Control Board (RWQCB) manages the Municipal Storm Water NPDES Permit. Two programs, the Nonpoint Source Pollution Program and the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), have been implemented under the NPDES permit to regulate construction and post-construction runoff.

3.1.2.1 *Nonpoint Source Pollution Program*

In 1988 the SWRCB adopted the Nonpoint Source Management Plan in an effort to control nonpoint source pollution in California. In December 1999, the Plan was updated to comply with the requirements of Section 319 of the Clean Water Act and Section 6217 of the Coastal Zone Act Reauthorization Amendment of 1990. The Nonpoint Source Management Program requires individual permits to control discharge associated with construction activities. The Nonpoint Source Program is administered by the RWQCB under the NPDES General Permit for Construction Activities. Projects must comply with the requirements of the Nonpoint Source Program if:

- they disturb one or more acres of soil; or
- if they disturb less than one acre of soil but are part of a larger development that, in total, disturbs one acre or more of soil.

The NPDES General Permit for Construction Activities requires the developer to submit a Notice of Intent (NOI) to the RWQCB and to develop a Stormwater Pollution Prevention Plan (SWPPP) to control discharge associated with construction activities.

Consistency: The proposed development would not increase storm water runoff from the site. Development on the site will disturb more than one acre and will conform to the requirements of the City of Milpitas Stormwater C.3 Guidebook and the countywide National Pollutant Discharge Elimination System (NPDES) permit regarding erosion and sedimentation control during construction (refer to *Section 4.7 Hydrology and Water Quality*).

3.1.2.2 *Santa Clara Valley Urban Runoff Pollution Prevention Program*

The Santa Clara Valley Urban Runoff Pollution Prevention Program (Program) is an association of thirteen cities (including the City of Milpitas) and towns in the Santa Clara Valley, together with Santa Clara County and the Santa Clara Valley Water District. Program participants, referred to as Co-permittees, share a common permit to discharge stormwater to South San Francisco Bay. This common permit is the Municipal NPDES storm water permit. The Program incorporates regulatory, monitoring and outreach measures aimed at improving the water quality of South San Francisco Bay and the streams of the Santa Clara Valley to reduce pollution in urban runoff to the "maximum" extent practicable. The Municipal NPDES storm water permit includes provisions requiring regulation of storm water discharge quality and quantity with new development that creates, adds, or replaces 10,000 square feet or more of impermeable surfaces and development of an area-wide watershed management strategy. The permit also identifies recommended actions for the preservation, restoration, and enhancement of the San Francisco Bay Delta Estuary.

Consistency: As discussed in *Section 4.7 Hydrology and Water Quality*, the proposed project includes applicable Best Management Practices (BMPs) during and after construction. These BMPs will ensure, to the maximum extent practicable, that contaminants do not enter the stormwater system, erosion or sedimentation does not impact local waterways, and stormwater runoff from the project site is reduced. The implementation of erosion control and storm water management practices during and after project construction will be in accordance with the SCVURPPP, NPDES permit requirements, and the City's Stormwater C.3 Guidebook. The proposed project would not result in an impact upon the conservation and restoration of streams and riparian zones or areas of special or unique ecological significance. For these reasons, the proposed project would be consistent with the SCVURPPP Program.

3.1.3 <u>Santa Clara County Congestion Management Program</u>

The Santa Clara Valley Transportation Authority (SCVTA) oversees the Santa Clara County *Congestion Management Program* (CMP), last updated in July 1995. The relevant State legislation requires that all urbanized counties in California prepare a CMP in order to obtain each county's share of increased gas tax revenues. The CMP legislation requires that each CMP contain five mandatory elements: 1) a system definition and traffic level of service (LOS) standard element; 2) a transit service and standards element; 3) a transportation demand management and trip reduction

element; 4) a land use impact analysis element; and 5) a capital improvement element. Santa Clara County's CMP includes the five mandated elements and three additional elements, including a county-wide transportation model and database element, an annual monitoring and conformance element, and a deficiency plan element.

The Santa Clara County CMP includes intersections within Milpitas that are identified as CMP intersections. The project's impact on CMP intersections was analyzed for eight CMP intersections in Milpitas and neighboring municipalities (refer to *Section 4.2 Transportation*). The CMP also includes freeway segments. The traffic impacts on CMP freeway segments on Interstate 880, Interstate 680, and State Route 237 were analyzed for the project.

Consistency: The Transportation Impact Analysis prepared for the proposed project meets the requirements of the City of Milpitas and the Congestion Management Program Transportation Impact Analysis Guidelines. As discussed in *Section 4.2 Transportation*, the traffic impact analysis found that the proposed project conforms to the requirements of the CMP. The project would result in a significant impact to one CMP intersection that would be reduced to a less than significant level with mitigation and a significant and unavoidable impact to one freeway segment which would require freeway widening which is considered infeasible. In accordance with the CMP, pending the adoption of a Countywide Deficiency Plan, the lead agency and/or project applicant would be required to implement the "Immediate Actions" listed in the CMP TIA Guidelines since the project's freeway segment impact can not be reduced to a less than significant level. For this reason, the project is consistent with the provisions of the CMP.

3.2 LOCAL PLANS AND POLICIES

3.2.1 City of Milpitas General Plan

The Milpitas General Plan is a comprehensive, long-term plan that represents the City's official development policy. The following is a summary of major strategies and policies that apply to the proposed project.

3.2.1.1 *General Plan Map*

The City of Milpitas General Plan Map designates the project site *General Commercial*. This designation allows for a wide range of retail sales, and personal and business services accessed primarily by the automobile. The designation does not allow residential uses.

The project proposes to amend the General Plan land use designation for the site to *Boulevard Very High Density Mixed Use*. The *Boulevard Very High Density Mixed Use* land use designation is intended to allow for commercial offices, retail and personal service, high density residential and public and quasi-public uses. Mixed-use buildings can contain a combination of residential and commercial uses, including hotels. Residential projects shall have a minimum average gross density of 41 units per acre and can be built up to between 60 to 90 units per acre. Sites developed with a mix of uses, or non-residential uses, must adhere to the FAR maximum which ranges from 1.5 to 2.25.

Consistency: The project proposes approximately 900 residential units (53 dwelling units per acre) and an additional 12,800 square feet of commercial space for a total of 175,000

square feet of commercial space (total development FAR of 1.6) on the project site and, therefore; is not consistent with the site's existing General Plan land use designation. The project, with or without the *Hotel Option*, would, however, conform to the proposed General Plan land use designation for the site.

3.2.1.2 *Land Use Element*

The Land Use Element correlates land use policies contained in the other elements of the Milpitas General Plan. Land Use designations on the General Plan diagram and building densities and intensity standards contained in the Land Use Element provide a basis for determining future traffic conditions and the need for capital facilities, such as street improvements, parks, and schools.

Policy 2.a-G-2: Maintain a relatively compact urban form**.**

Policy 2.a-G-3: Provide for a variety of housing types and densities that meet the needs of individuals and families.

Policy 2.a-I-1: New developments should not exceed the building intensity limits established in the General Plan.[1]

Policy 2.a-I-2: Promote development within the incorporated limits which acts to fill-in the urban fabric rather than providing costly expansion of urban services into outlying areas.

Policy 2.a-I-3: Encourage economic pursuits which will strengthen and promote development through stability and balance.

Policy 2.a-I-12: Use zoning for new residential developments to encourage a variety and mix in housing types and costs.

Policy 2.a-I-13: Geographically disperse similar development types throughout the community so that denser districts are not concentrated within a single area of the City.

Policy 2.b-I-2: Consider locating housing in close proximity to industrial developments where they can be served by existing city services and facilities.

Policy 2.b-I-3: Provide housing opportunities in Milpitas by meeting the City's regional fair-share housing obligations.

Consistency: The proposed development will assist the City of Milpitas maintain a compact form by redeveloping a centrally located site with high-density residential and commercial uses. The project proposes an amendment to the General Plan allowing a mixed use development on the site. The proposed project will provide high density housing in proximity to existing and planned jobs and will help the City meet its fair share housing obligation. The project, therefore, is generally consistent with the policies of the General Plan Land Use Element.

[1] Unless permitted pursuant to access-mandated density bonuses for affordable housing as shown on page 2-11 of the Milpitas General Plan.

3.2.1.3 *Circulation Element*

The Circulation Element is correlated with the Land Use Element, which includes policies related to the physical framework for development that the circulation system is designed to serve. It is also related to the recreational plans and policies identified in the Open Space and Environmental Conservation Element.

Policy 3.a-G-1: Continue to utilize the City's adopted Level of Service standards in evaluating development proposals and capital improvements.

Policy 3.a-G-2: Maintain acceptable service standards for major streets and intersections.

Policy 3.a-I-1: Strive to maintain CMP LOS standards and goals for the CMP Roadway System in Milpitas.

Policy 3.a-I-5: Continue to monitor traffic service levels and implement Circulation Element improvements prior to deterioration in levels of service to below the stated standard.

Policy 3.b-I-1: Require new development to pay its share of street and other traffic improvements based on its impacts.

Policy 3.b-I-2: Require all projects that generate more than 100 peak-hour (A.M. or P.M.) trips to submit a transportation impact analysis that follows guidelines established by CMP.

Policy 3.d-I-15: Encourage new and existing developments to provide end-of-trip facilities such as secure bicycle parking, on-site showers and clothing storage lockers, etc.

Consistency: A transportation impact analysis was prepared for the project, refer to *Section 4.2 Transportation*. The project will comply with the standards in the CMP TIA Guidelines. In accordance with the Congestion Management Program Transportation Impact Analysis Guidelines, the City will require the project to implement the "Immediate Actions" list in Appendix D of the Draft Countywide Deficiency Plan as part of the project's approval. These actions (e.g., sidewalks, paths, and crosswalks) encourage the use of non-automobile modes. The CMP also encourages housing at infill locations, near job centers which is a goal supported by the project. The project would result in significant and unavoidable impacts to two intersections and one freeway segment. For this reason, the proposed project is not consistent with the Circulation Element of the City of Milpitas General Plan.

3.2.1.4 *Open Space & Environmental Conservation Element*

The purpose of the Conservation Element is to assure the conservation, development, and use of natural resources including water, forests, soils, rivers, fisheries, wildlife, minerals, and other natural resources. Similarly, the purpose of the Open Space Element is to assure the continued availability of land for the managed production of resources, to protect the enjoyment of scenic beauty and ensure provision of recreation, to identify and preserve lands whose indiscriminate development could compromise public health and safety, and to preserve natural resources.

Policy 4.a-I-1: Provide five acres of neighborhood and community parks for every 1,000 residents outside of the Midtown Specific Plan Area, and 3.5 acres of special use parks for every 1,000 residents within the Midtown Specific Plan Area.

Policy 4.a-I-2: For areas outside the Midtown Specific Plan Area, require land dedication or in lieu fees equivalent to the five acres/1,000 resident standard, but allow credit for private open space for up to two acres/1,000 residents for private open space provided in accordance with the criteria specified in the Subdivision Regulations.

Policy 4.d-I-1: Continue implementing the National Pollutant Discharge Elimination System (NPDES) requirements for the Regional Water Quality Control Board.

Consistency: The project is located on a developed urban site. Development of the project site will not result in the loss of natural resources. The proposed project will comply with the City's residential park requirement (refer to *Section 5.0 Public Facilities and Services* of this EIR) and the provisions of the NPDES permit (refer to *Section 4.7 Hydrology and Water Quality* of this EIR). The project, therefore, is consistent with the Open Space Element of the General Plan.

3.2.1.5 *Seismic and Safety Element*

The purpose of the Seismic and Safety Element is to protect the community from any unreasonable risks from seismic hazards identified pursuant to Chapter 7.8 of the Public Resources Code, and from other geologic hazards.

Policy 5.a-G-1: Minimize threat to life and property from seismic and geologic hazards.

Policy 5.a-I-3: Require projects to comply with the guidelines prescribed in the City's *Geotechnical Hazards Evaluation* manual.

Policy 5.b.G-1: Minimize the threat to life and property from flooding and dam inundation.

Policy 5.c-G-1: Provide high quality, effective and efficient fire protection services for the Milpitas area residents.

Consistency: The proposed project will comply with the requirements of the Uniform Building Code for Seismic Zone 4 (refer to *Section 4.6 Geology and Soils* of this EIR). The Uniform Building Code for Seismic Zone 4 addresses all the geotechnical hazards outlined in the City's *Geotechnical Hazards Evaluation Manual*. The project site is not within a 100-year floodplain and is not subject to wildland fires. The project is located on an infill site and, therefore, would not require the extension of existing fire protection services which supports the City's goal to provide high quality, effective, and efficient fire protection services. For these reasons, the proposed project is consistent with the Seismic and Safety Element of the General Plan.

3.2.1.6 *Noise Element*

The Noise Element provides an understanding of existing and future noise conditions in the Planning Area, establishes a basis for evaluating potential noise level impacts on future development, and includes policy statements to guide public and private planning to attain and maintain acceptable noise levels.

Policy 6-I-2: Require an acoustical analysis for projects located within a "conditionally acceptable" or "normally unacceptable" exterior noise exposure area. Require mitigation measures to reduce noise to acceptable levels.

Policy 6-I-4: Where actual or projected rear yard and exterior common open space noise exposure exceeds the "normally acceptable" levels for new single-family and multi-family residential projects, use mitigation measures to reduce sound levels in those areas to acceptable levels.

Policy 6-I-5: All new residential development (single family and multi-family) and lodging facilities must have interior noise levels of 45 dB DNL or less. Mechanical ventilation will be required where use of windows for ventilation will result in higher than 45 dB DNL interior noise levels.

Policy 6-I-13: Restrict the hours of operation, technique, and equipment used in all public and private construction activities to minimize noise impact. Include noise specifications in requests for bids and equipment information.

Consistency: An acoustical analysis was prepared for the proposed project in order to assess the project's conformance with the Noise and Land Use Compatibility standards of the General Plan Noise Element. The acoustical analysis identified measures to reduce project exterior and interior noise levels to acceptable levels, and these measures are included in the proposed project (refer to *Section 4.4 Noise* of this EIR). For these reasons, the proposed project is consistent with Noise Element of the General Plan.

SECTION 4.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

4.1 LAND USE

4.1.1 Existing Setting

4.1.1.1 *Existing Land Use*

The 16.85-acre project site is comprised of a single parcel that is designated *General Commercial* under the City of Milpitas's adopted General Plan. The site is zoned *C2-General Commercial.*

The project site is located in an urban area adjacent to a major freeway (Interstate 880) and State Route 237. The site is currently developed with a shopping center, large paved parking lot, and landscaping. Several utility easements are located along the western project frontage of the site and in Barber Lane and Barber Court.

4.1.1.2 *Surrounding Land Uses*

Development in the project area includes modern commercial and light industrial uses with building heights up to 12 stories tall. The project site is bordered to the east by I-880 and an elevated freeway on-ramp that is approximately 30 feet tall. South of the project site is a vacant two-story building with a large paved parking area, which is proposed to be redeveloped with an 18-story mixed-use (retail, office, and residential) building and attached 8-level parking garage (Landmark Tower). West of the project site is Barber Lane and a business park developed with two and three story office buildings and large, landscaped surface parking lots. Bellew Drive intersects Barber Lane and dead-ends at the western boundary of the project site, approximately midway from the north and south property boundaries. West of the project site and north of Bellew Drive is a 12-story hotel, the tallest existing building in the project area. North of the project site is State Route 237 (SR237), which has an approximately 15 to 25 foot tall elevated connector with southbound I-880 at the northeast corner of the project site. Refer to Figure 3 for an aerial photograph and surrounding land uses.

4.1.1.3 *Existing Land Use Designation and Zoning*

The City of Milpitas General Plan is an adopted statement of goals and policies for the future character and quality of development of the community. The Zoning Ordinance establishes various districts within the City and specifies the permitted, conditionally permitted, and prohibited uses within the districts to encourage the most appropriate use of land within the City.

The project site's existing General Plan land use designation is *General Commercial*. The *General Commercial* land use designation allows for a wide range of retail sales as well as personal and business services. Consistent with the General Plan, the project site is zoned *C2-General Commercial District.*

The project site is not the subject of any other land use plans, policies, or regulations.

4.1.2 Land Use Impacts

4.1.2.1 *Thresholds of Significance*

For the purposes of this EIR, a land use impact is considered significant if the project would:

- Convert prime farmland, unique farmland, or farmland of statewide importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural lands; or
- Conflict with existing zoning for agricultural use, or a Williamson Act Contract; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use; or
- Conflict with any applicable habitat conservation plan (HCP) or natural community conservation plan (NCCP); or
- Result in substantial shading of a public park or open space area; or
- Physically divide an established community; or
- Place incompatible land uses adjacent to existing uses; or
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

The existing project site is developed and located within an urbanized commercial/industrial area. The site is not designated by the California Resources Agency as Farmland of any type, and is not under a Williamson Act contract. There are no open space uses on or adjacent to the project site. The site is not within the boundaries of a habitat conservation plan (HCP) or natural community conservation plan (NCCP). The project will not create a physical barrier within an established community. For these reasons, the proposed project would not result in the loss of farmland directly or indirectly, conflict with a conservation plan or land use plan, or divide an established community.

4.1.2.2 *Land Use Conflicts*

Land use conflicts can arise from two basic causes: 1) a new development or land use may cause impacts to persons or the physical environment in the vicinity of the project site or elsewhere; or 2) conditions on or near the project site may have impacts on the persons or development introduced onto the site by the new project. Both of these circumstances are aspects of land use compatibility. Potential incompatibility may arise from placing a particular development or land use at an inappropriate location, or from some aspect of the project's design or scope. Depending on the nature of the impact and its severity, land use compatibility conflicts can range from minor irritations and nuisance to potentially significant effects on human health and safety. The discussion below distinguishes between potential impacts *from* the proposed project *upon* persons and the physical environment, and potential impacts *from* the existing surroundings *upon* the project itself.

Impacts from the Project

Land Use Compatibility

The proposed project is designed to be generally compatible with the existing commercial and office uses and the existing freeway located adjacent to the project site. Commercial parking is provided in accessible locations and commercial businesses will retain public visibility. The multiple utility

easements, including an existing high pressure gas line, located along the western project frontage would remain accessible with the proposed project. The proposed buildings would be located outside the easement and the contractor would protect the existing utilities within the easement from excess loads during project construction.

The project proposes the construction of two double-faced shopping center identification signs with electronic displays, one at the north end of the site adjacent to SR 237 and I-880 and one at the south end of the site in the general location of an existing shopping center identification sign with an inoperable electronic display. At the north end of the site, Building F would include a seven-story parking structure which would partially shield views of the electronic display from the Embassy Suites hotel southwest of the project site. The sign with an electronic display at the north end of the site would be visible from hotel uses west of the site such as the Hampton Inn. At the south end of the site, the parking garage of Building B would be up to 48 feet in height which would not shield views of the shopping center identification sign with electronic display from the planned future residents of Landmark Tower. Both shopping center identification signs with electronic displays would be visible from various locations on the project site including proposed residential units.

Although the project design could partially block views of the shopping center identification signs and electronic displays from future on-site residential uses and off-site residential and commercial land uses, the location of the shopping center identification signs could result in visual impacts for residents and the nearby hotels. The impacts of the proposed shopping center identification signs with electronic displays are discussed in greater detail in *Section 4.10 Visual and Aesthetics*.

Impact LU-1: The proposed project may result in land use compatibility impacts due to the proposed placement of two shopping center identification signs with electronic displays on the site and the potential for disturbance caused by nighttime light emission. **(Significant Impact)**

Shade and Shadow

The proposed mixed-use buildings would be substantially taller than the existing development on the site. The proposed buildings would result in shading both on the project site and in the project area. In an urban environment, virtually all land uses are subject to shading from adjacent properties to some extent. During summer, shading may even be desirable. Significant shade and shadow impacts occur when a building or other structure substantially reduces natural sunlight on public open spaces, measured midday on the first day of winter and on the two equinoxes.[2] Due to the orientation of the site, substantial off-site shading would only occur in the late afternoon during the winter and would primarily affect I-880. Morning shading would also extend in spring and fall to Barber Lane and Barber Court. The project site would be shaded at various times throughout the day; however, a project shading itself is not a significant impact.

Impact LU-2: The project would result in off-site shading due to the proposed building heights; however, the project would not shade existing public open spaces. **(Less Than Significant Impact)**

[2] On the first day of winter, the sun is lowest in the sky and shading is greatest. On both the vernal and autumnal equinoxes, the sun is at the same location, over the equator. This threshold evaluates shading from September 21 through March 21.

Land Use Impacts to the Project

The residential units are in mid- and high-rise structures designed to provide an urban interface with its immediate setting but with amenities (e.g., common open space and separated parking) consistent with residential needs. The proposed residential uses would be affected by air pollutant emissions and noise from the adjacent freeways. The air quality and noise impacts upon the proposed project from the adjacent freeways are discussed in *Section 4.3 Air Quality* and *Section 4.4 Noise*, respectively. Hazardous material impacts upon the proposed project from existing industrial uses in the project area are discussed in *Section 4.5 Hazards and Hazardous Materials*. The commercial and office uses near the project site do not have outdoor operations or storage areas that generate noise or dust or would otherwise adversely affect the proposed project.

Impact LU-3: As discussed in *Sections 4.3 Air Quality*, *4.4 Noise*, and *4.5 Hazards and Hazardous Materials*, the proposed project would not be subject to unmitigated land use compatibility impacts from surrounding land uses. **(Less Than Significant Impact)**

4.1.2.3 *City of Milpitas General Plan and Zoning Ordinance*

The proposed project includes up to 900 residential units and 175,000 square feet of commercial space which is not consistent with the existing General Plan land use designation and zoning district for the site. The existing General Plan land use designation and zoning district do not allow for residential development on the project site. The proposed project would be developed at approximately 53 dwelling units per gross acre and an FAR of approximately 1.6.

The project proposes to change the General Plan land use designation on the site from *General Commercial* to *Boulevard Very High Density Mixed Use*. The proposed General Plan land use designation, *Boulevard Very High Density Mixed Use*, is intended to allow for commercial offices, retail and personal service, high density residential and public and quasi-public uses. Mixed-use buildings can contain a combination of residential and commercial uses. Residential projects must have a minimum average gross density of 41 units per acre and can be built up to between 60 to 90 units per acre. Sites developed with a mix of uses, or non-residential uses, must adhere to the FAR maximum which ranges from 1.5 to 2.25.

The proposed project would rezone the site from *C2 – General Commercial* to a base zoning of *MXD3 – Mixed Use*. The proposed rezoning would allow construction of a mixed-use residential and commercial development on the site. A Conditional Use Permit would be required to allow the proposed building heights.

Impact LU-4: The proposed project would be consistent with the proposed General Plan land use designation and zoning district and would not be subject to unmitigated impacts from surrounding land uses that would result in any land use compatibility impacts. **(Less Than Significant Impact)**

4.1.2.4 *California Fire Code*

The California Fire Code section 1001.12 (as amended by the Milpitas Municipal Code, Title V, Chapter 300-2.39) requires buildings greater than 150 feet in height (above the lowest level of Fire Department access) to provide a helicopter pad meeting the requirements of the Fire Department.

The proposed project would have a maximum height of approximately 204 feet. The proposed project does not include a helicopter pad on either Building B (204 feet) or Building F (198 feet) and, therefore, does not conform to the requirements of the City's Municipal Code. As a condition of project approval, the project shall be required to construct a helicopter pad meeting the requirements of the Milpitas Fire Department.

Impact LU-5: The proposed project conflicts with the City's regulations adopted for the purpose of avoiding or mitigating an environmental effect. **(Significant Impact)**

4.1.3 Mitigation Measures for Land Use Impacts

As conditions of approval, the following mitigation measures will be implemented by the applicant to reduce the land use impacts of the project to a less than significant level:

MM LU-1.1: The proposed shopping center identification signs with electronic displays shall be oriented so that the displays are visible primarily from the adjacent freeway traffic in order to reduce the incidence of light spillover onto adjacent properties. The proposed shopping center identification signs with electronic displays shall also be located so that the proposed buildings on the site will provide a buffer and shield views of the signs, to the extent feasible, from adjacent sensitive land uses and the residential development proposed on the site. The final location of the shopping center identification signs with electronic displays may require some modifications to the proposed bioswales on the site; however, the function of the proposed swales will be retained.

MM LU-5.1: In accordance with the California Fire Code Section 1001.12, as amended by the Milpitas Municipal Code, the project will be conditioned to include the construction of helicopter pads on all buildings on the project site exceeding 150 feet in height (Buildings B and F) which meet the requirements of the Milpitas Fire Department. Prior to the issuance of an occupancy permit, the Fire Marshall shall inspect the helicopter pad to ensure compliance with the Municipal Code.

4.1.4 Conclusion

Impact LU-1: Implementation of the identified mitigation measure would reduce land use compatibility impacts of the proposed project to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact LU-2: The project would result in off-site shading due to the proposed building heights; however, the project would not shade existing public open spaces. **(Less Than Significant Impact)**

Impact LU-3: As discussed in *Sections 4.3 Air Quality*, *4.4 Noise*, and *4.5 Hazards and Hazardous Materials*, the proposed project would not be subject to unmitigated land use compatibility impacts from surrounding land uses. **(Less Than Significant Impact)**

Impact LU-4: The proposed project would be consistent with the proposed General Plan land use designation and zoning district and would not be subject to unmitigated impacts from surrounding land uses that would result in any land use compatibility impacts. **(Less Than Significant Impact)**

Impact LU-5: Implementation of the identified mitigation measure would bring the project into conformance with the City's Municipal Code. **(Less Than Significant Impact with Mitigation)**

4.2 TRANSPORTATION

The information provided in this section is based on a Traffic Impact Analysis prepared by *Fehr & Peers* in December 2008 and a Parking Study prepared by *Hexagon Transportation Consultants, Inc.* in April 2009. Copies of these reports are provided in Appendix A of this EIR.

4.2.1 Existing Setting

4.2.1.1 *Existing Roadway Network*

Regional access to the project site is provided by I-880, I-680, SR 237, Montague Expressway, and Tasman Drive/Great Mall Parkway. Local access to the site is provided by McCarthy Boulevard and Barber Lane. These roadways are described below and shown in Figure 6.

I-880 is a north-south freeway east of the project site extending south to the City of San José and north to the City of Oakland. In the vicinity of the project site, the freeway includes eight lanes north of State Route (SR) 237/Calaveras Boulevard and six lanes to the south. The I-880/SR 237 interchange includes direct ramp connections for High Occupancy Vehicle (HOV) lanes between the west and north legs of the interchange. Regional access to the project site is provided via the interchange at Tasman Drive/Great Mall Parkway. The peak direction of travel is southbound during the AM peak hour and northbound during the PM peak hour; though both travel directions are congested during the PM peak hour.

I-680 is a north-south freeway east of the project site extending south to the City of San José and north to Solano County. In the vicinity of the project site, the freeway includes six mixed-flow lanes plus a southbound HOV lane north of Calaveras Boulevard (SR 237) and eight mixed-flow lanes to the south. Access to the site is provided via an interchange at Calaveras Boulevard. Southbound I-680 is the commute direction during the AM peak hour, and northbound I-680 is the commute direction during the PM peak hour.

SR 237 is an east-west roadway that includes two distinct facilities: a six-lane freeway extending from I-880 west to US 101, and a four- to six-lane arterial roadway between I-880 and I-680 with an elevated section over the Union Pacific Railroad tracks. The arterial section is locally designated as Calaveras Boulevard, which is six lanes except on the bridge over the Union Pacific railroad tracks and Main Street, where it is four lanes. Calaveras Boulevard serves as a major commute route with heavy directional travel during the peak hours (westbound in the morning and eastbound in the afternoon). Regional access to the project site is provided via the interchange at McCarthy Boulevard.

Montague Expressway is an east-west, six- to eight-lane divided arterial roadway extending from US 101 east to I-680. This facility is designated San Tomas Expressway west of US 101 and Landess Avenue east of I-680. Montague Expressway includes directional HOV lanes during peak periods (westbound during the morning and eastbound during the afternoon commute hours). Montague Expressway connects with I-880 via a full cloverleaf interchange.

Tasman Drive is an east-west, six-lane divided arterial roadway extending from I-880 west into the Cities of San José, Santa Clara, and Sunnyvale. Tasman Drive is designated Great Mall Parkway east of I-880 and extends to Montague Expressway. Great Mall Parkway is an east-west, six-lane divided arterial roadway extending from I-880 east to Montague Expressway. Great Mall Parkway becomes Capitol Avenue east of Montague Expressway and continues south through the City of

EXISTING ROADWAY NETWORK AND STUDY INTERSECTIONS FIGURE 6

San José. VTA operates light-rail transit (LRT) service along the median of Tasman Drive/Great Mall Parkway/Capitol Avenue.

McCarthy Boulevard is a north-south, four- to six-lane arterial roadway extending from Dixon Landing Road (north of Ranch Drive) south to Montague Expressway. McCarthy Boulevard is designated as O'Toole Avenue south of Montague Expressway.

Barber Lane is a north-south, two-lane collector roadway extending from Bellew Drive south to McCarthy Boulevard (near Montague Expressway). Barber Lane runs parallel to and between McCarthy Boulevard and I-880. Barber Lane crosses under Tasman Drive, which is accessed via Alder Drive.

Alder Drive is an east-west, four-lane collector roadway extending from McCarthy Boulevard east to Barber Lane. Alder Drive serves as the connection between Barber Lane and Tasman Drive.

4.2.1.2 *Existing Pedestrian and Bicycle Facilities*

Pedestrian facilities are comprised of sidewalks, crosswalks, and off-street paths. Sidewalks are provided on both sides of Bellew Drive and on Barber Lane from Bellew Drive to north of Tasman Drive. A pedestrian path, parallel to Tasman Drive, provides a connection from Alder Drive to the sidewalk on the west side of Barber Lane. There are no sidewalks on Barber Lane south of the Tasman Drive overpass. Sidewalks are also provided on one or both sides of Alder Drive and McCarthy Boulevard near the site. Crosswalks are located at all signalized intersections in the study area.

Bicycle facilities are comprised of paths (Class I), lanes (Class II), and routes (Class III). Bicycle paths are paved trails that are separate from roadways. Bicycle lanes are lanes on roadways designated for bicycle use by striping, pavement legends, and signs. Bicycle routes are roadways designated for bicycle use by signs only.

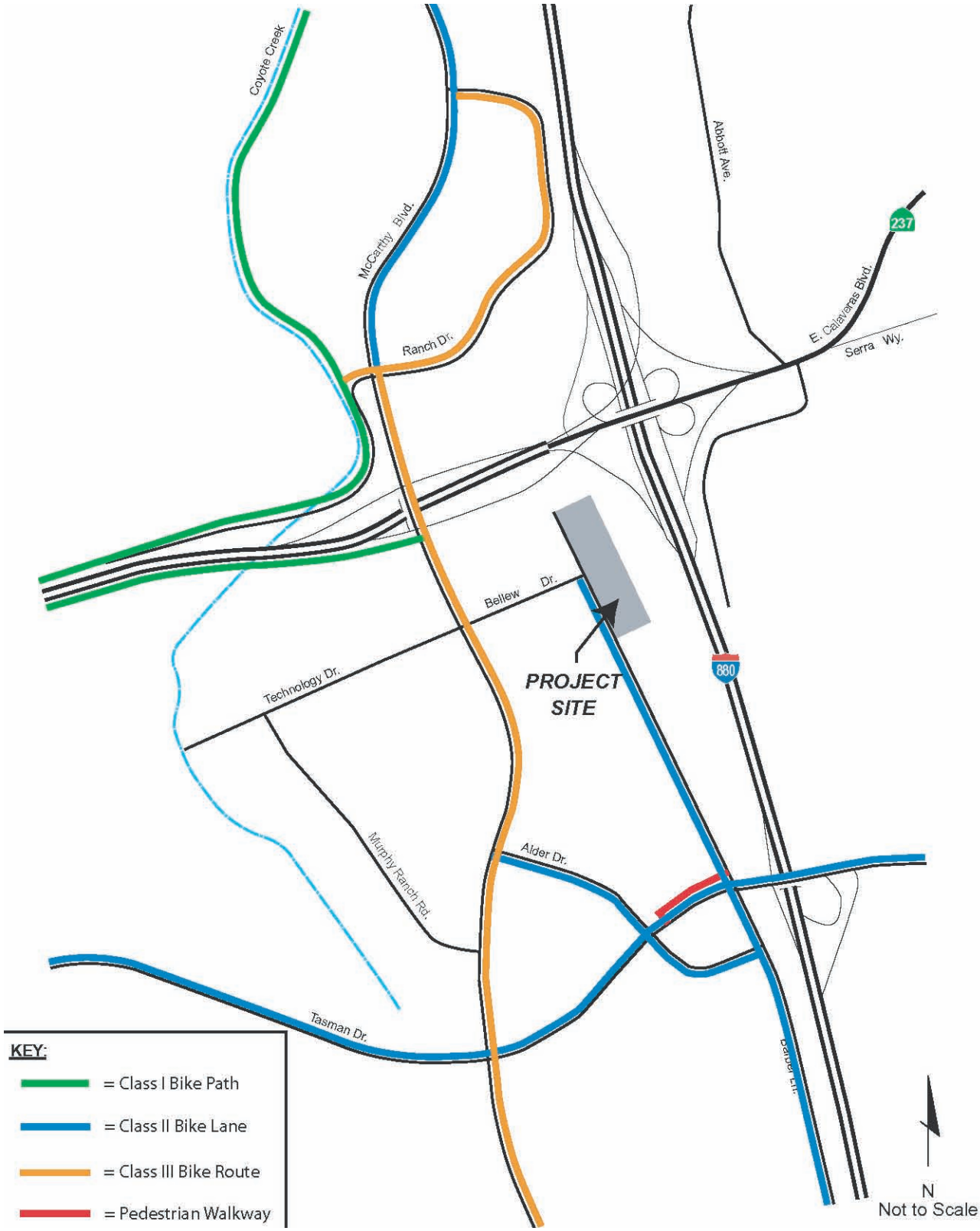
Class I bicycle paths are located on the north and south sides of SR 237 west of McCarthy Boulevard and the east side of Coyote Creek north of SR 237. Class II bicycle lanes are located on Barber Lane, Bellew Drive, McCarthy Boulevard (from Dixon Landing Road to Ranch Drive), and Tasman Drive/Great Mall Parkway. Class III bicycle routes are located on McCarthy Boulevard (from Ranch Road south to Montague Expressway) and Ranch Drive.

Figure 7 shows existing pedestrian and bicycle facilities in the study area.

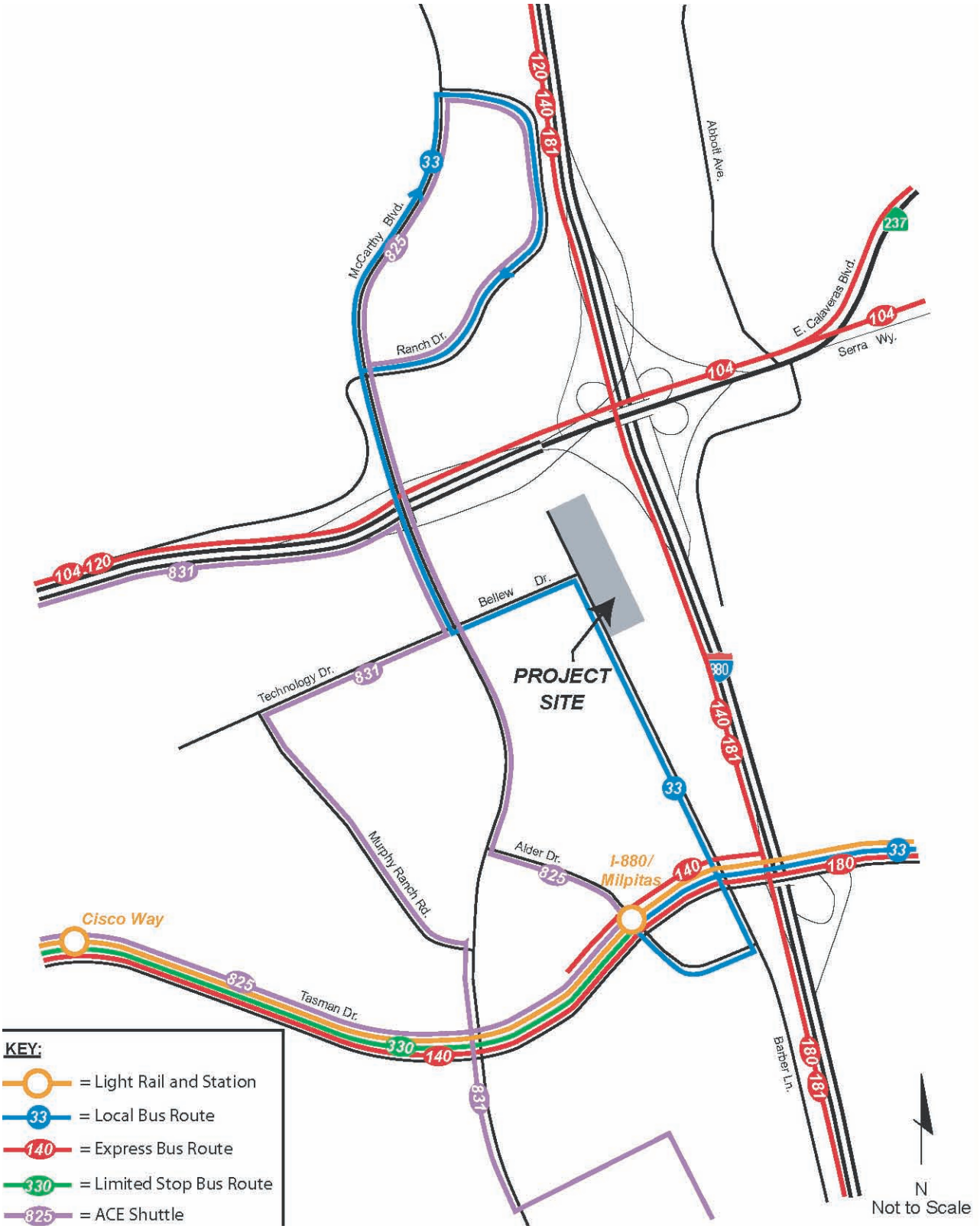
4.2.1.3 *Existing Transit Service*

Existing transit service to the project area is provided by the VTA. The existing VTA service is described below and shown in Figure 8.

Bus Route 33 operates on Barber Lane adjacent to the project site. The Altamont Commuter Express (ACE) Purple Shuttle (route 825) and ACE Violet Shuttle (route 831) operate along portions of McCarthy Ranch Boulevard with stops located at Bellew Drive for both routes. Routes 140 and 330 and the Santa Teresa-Alum Rock light rail line operate along Tasman Drive with stops located at Alder Drive. Bus routes 180 and 181 pass through the I-880/Tasman Drive interchange without making stops in the project area. Bus routes 104 and 120 operate along SR 237 without making stops



EXISTING PEDESTRIAN AND BICYCLE FACILITIES FIGURE 7



EXISTING TRANSIT SERVICE FIGURE 8

in the project area. The Santa Teresa-Alum Rock light rail line operates on Tasman Drive with stops located at Alder Drive, approximately 2,500 feet south of the project site.

Table 4.2-1 summarizes the destinations, hours and days of operation, and service frequencies for the bus routes and light-rail line.

Table 4.2-1
Existing Transit Service

Route	From	To	Weekdays			Weekends	
			Operating Hours	Peak	Midday	Operating Hours	Midday
LRT	Santa Teresa	Alum Rock	4:20a – 2:15a	15	15	4:20a – 2:15a	15
33	Baypointe Station	Great Mall/Main Station	6:10a – 9:20p	30	30	8:10a – 8:25p	30-45
104	Penitencia Creek Station	Palo Alto	5:20a – 7:45a 3:15p – 5:50p	35-45	–	No Service	–
120	Fremont BART Station	Lockheed Martin	6:15a – 9:00a 4:00p – 7:00p	60-75	–	No Service	–
140	Fremont BART Station	Sunnyvale Caltrain Station	6:00a – 9:25a 4:00p – 7:20p	30-60	–	No Service	–
180	Fremont BART Station	San Jose Diridon Station	5:10a – 12:30a	15-20	15	7:10a – 12:30a	30
181	Fremont BART Station	San Jose Diridon Station	6:00a – 6:45p	15-20	–	No Service	–
330	Almaden/Camden	I-880/Milpitas Station (Tasman/Alder)	6:25a –9:05a 4:20p – 7:10p	40-55	–	No Service	–
825	Great America ACE/Amtrak Station	McCarthy Ranch (Tasman/Alder)	6:35a – 9:00a 3:20p – 5:30p	60-75	–	No Service	–
831	Great America ACE/Amtrak Station	McCarthy Ranch (McCarthy/Barber)	6:40a – 9:00a 3:10p – 5:15p	60-75	–	No Service	–

Source: VTA, January 2008.

4.2.2.2 *Existing Traffic Operations*

The operations of 37 study intersections were evaluated during the weekday AM and PM peak hours. Intersection operations were evaluated for the highest one-hour volume between 7:00 and 9:00 AM and between 4:00 and 6:00 PM. Figures showing the existing AM and PM peak-hour turning movement volumes and existing intersection lane configurations and traffic control devices at the study intersections are included in Appendix A.

Level of Service Methodology

The operations of roadway facilities are described with the term level of service (LOS). LOS is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, with the best operating conditions, to LOS F, with the worst operating conditions. LOS E represents “at-capacity” operations. Operations are designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions.

The Cities of Milpitas and Santa Clara have established a minimum acceptable operating level of LOS D for local intersections that are not listed in the Congestion Management Program (CMP). The minimum acceptable standard for San José and Fremont intersections is LOS D. The minimum acceptable level for CMP-monitored intersections is LOS E.

Signalized Intersections

The level of service method approved by the Cities of Milpitas, Santa Clara and San José, and by VTA analyzes a signalized intersection's operation based on average control vehicular delay, as calculated using the method described in Chapter 16 of the *2000 Highway Capacity Manual* (HCM) by the Transportation Research Board, with adjusted saturation flow rates to reflect conditions in Santa Clara County.[3] The City of Fremont intersections were also evaluated using these adjusted saturation flow rates. The average control delay for signalized intersections is calculated using TRAFFIX analysis software and is correlated to a LOS designation as shown in Table 4.2-2.

Table 4.2-2
Signalized Intersection Level of Service Definitions

LOS	Description	Average Control Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B+ B B-	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 12.0 12.1 to 18.0 18.1 to 20.0
C+ C C-	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 23.0 23.1 to 32.0 32.1 to 35.0
D+ D D-	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0 39.1 to 51.0 51.1 to 55.0
E+ E E-	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.1 to 60.0 60.1 to 75.0 75.1 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0

Source: Santa Clara Valley Transportation Authority, *Congestion Management Program (CMP) Traffic Level of Service Analysis Guidelines*, June 2003, and Transportation Research Board, *Highway Capacity Manual*, 2000.

Unsignalized Intersections

Operations of the unsignalized study intersections are evaluated using the method contained in Chapter 17 of the 2000 HCM and calculated using TRAFFIX analysis software. LOS ratings for stop-sign controlled intersections are based on the average control delay expressed in seconds per vehicle. At two-way or side-street-stop controlled intersections, control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, control delay is computed as the average of all movements in that lane. For all-way stop-controlled

[3] Average Control Delay time includes the time for initial deceleration delay, queue move-up time, stopped delay, and final acceleration.

locations, a weighted average delay for the entire intersection is presented. Table 4.2-3 summarizes the relationship between delay and LOS for unsignalized intersections.

Table 4.2-3
Unsignalized Intersection Level of Service Definitions

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Little or no delay.	≤ 10.0
B	Short traffic delays.	10.1 to 15.0
C	Average traffic delays.	15.1 to 25.0
D	Long traffic delays.	25.1 to 35.0
E	Very long traffic delays.	35.1 to 50.0
F	Extreme traffic delays with intersection capacity exceeded.	> 50.0

Source: Highway Capacity Manual, Transportation Research Board, 2000.

Freeway Segments

Freeway segments are evaluated using VTA's analysis procedure, which is based on the density of the traffic flow using methods described in the 2000 HCM. Density is expressed in passenger cars per mile per lane. The Congestion Management Program range of densities for freeway segment level of service is shown in Table 4.2-4. The LOS standard for the freeway segments is LOS E. This methodology was reviewed by all of the CMP member agencies and was provided for comment to regional transportation agencies, including Caltrans, before being adopted.

Table 4.2-4
Freeway Level of Service

Level of Service	Density (vehicles/mile/lane)
A	≤ 11.0
B	11.0 to 18.0
C	18.1 to 26.0
D	26.1 to 46.0
E	46.1 to 58.0
F	> 58.0

Source: VTA, CMP Traffic Level of Service Analysis Guidelines, June 2003.

Existing Intersection Levels of Service

Existing intersection lane configurations, signal timings, and peak-hour turning movement volumes were used as inputs for the levels of service calculations. The results of the LOS analysis for Existing Conditions are presented in Table 4.2-5.

Most of the study intersections operate at acceptable levels of service according to their designated level of service standard. The intersection of SR 237/I-880 Northbound Ramps is operating at LOS E (LOS D standard) during the PM peak hour. Three intersections on Montague Expressway, in the City of San José, operate below City's LOS D standard but are considered acceptable based on the CMP LOS E standard.

Table 4.2-5
Existing Intersection Levels of Service

Intersection	Peak Hour	Delay[1]	LOS[2]
1. McCarthy Blvd/SR 237 WB Ramps [M]	AM PM	16.4 18.1	B B-
2. McCarthy Blvd/SR 237 EB Ramps [M]	AM PM	16.3 15.1	B B
3. SR 237/I-880 SB Ramps [M]	AM PM	11.3 8.4	B+ A
4. Calaveras Blvd (SR237)/I-880 NB Ramps [M]	AM PM	22.9 69.4	C+ E
5. Calaveras Blvd/Abel Street [CMP/M]	AM PM	55.4 43.5	E+ D
6. Calaveras Blvd/Milpitas Blvd [CMP/M]	AM PM	70.2 41.6	E D
7. McCarthy Blvd/Bellew Dr [M]	AM PM	20.3 32.2	C+ C-
8. Bellew Dr/Barber Ln [M]	AM PM	11.8 17.2	B+ B
9. McCarthy Blvd/Alder Dr [M]	AM PM	20.5 16.4	C+ B
10. McCarthy Blvd/Tasman Dr [M]	AM PM	51.3 37.5	D- D+
11. Tasman Dr/Alder Dr [M]	AM PM	14.5 46.6	B D
12. Barber Ln/Alder Dr [M]	AM PM	13.1 15.9	B B
13. Tasman Dr/I-880 SB Ramps [M]	AM PM	20.4 19.7	C+ B-
14. Great Mall Parkway/I-880 NB Ramps [M]	AM PM	23.0 27.4	C C
15. McCarthy Blvd/Barber Ln [M]	AM PM	15.3 21.6	B C
16. McCarthy Blvd-O'Toole/Montague Expy [CMP/SJ/M]	AM PM	40.8 65.1	D E
17. Montague Expy/Great Mall Parkway-Capitol Ave [CMP/M]	AM PM	46.6 53.6	D D-
18. Montague Expy/Trimble Rd [CMP/SJ]	AM PM	27.2 38.9	C D+
19. Montague Expy/River Oaks Parkway-E. Plumeria Rd [SJ]	AM PM	33.0 28.1	C- C
20. Montague Expy/Zanker Rd [CMP/SJ]	AM PM	39.9 56.5	D- E

Table 4.2-5
Existing Intersection Levels of Service

Intersection	Peak Hour	Delay[1]	LOS[2]
21. Montague Expy/N. 1st St. [CMP/SJ]	AM PM	54.6 72.5	D E+
22. Montague Expy/De la Cruz Blvd – Agnew Rd [CMP/SC]	AM PM	40.1 41.0	D D
23. Capitol Ave/Cropley Dr-Trade Zone Blvd [SJ]	AM PM	35.8 56.1	D+ E+
24. Great Mall Parkway/Main Street [M]	AM PM	27.9 40.7	C D
25. Great Mall Parkway/Abel St [M]	AM PM	40.6 39.3	D D
26. Tasman Dr./Zanker Rd [SJ]	AM PM	33.5 31.3	C- C
27. Tasman Dr./N. 1st St. [SJ]	AM PM	31.2 37.0	C D+
101. Dixon Landing Rd/McCarthy Blvd [F]	AM PM	9.7 7.9	A A
102. Dixon Landing Rd/I-880 SB Ramps [M]	AM PM	9.5 9.2	A A
103. Dixon Landing Rd/I-880 NB Ramps – California Circle [M]	AM PM	16.6 20.8	B C+
104. California Circle/I-880 NB Ramps [M]	AM PM	12.2 14.6	B B
105. Dixon Landing Rd/N. Milpitas Blvd [M]	AM PM	52.3 50.1	D- D
106. Scott Creek Rd./Warm Springs Blvd. [F]	AM PM	27.5 36.0	C D+
107. Scott Creek Rd./I-680 SB Ramps [Unsignalized] [F]	AM PM	18.4 13.5	C B
108. Scott Creek Rd./I-680 NB Ramps [Unsignalized] [F]	AM PM	8.0 9.4	A A
109. McCarthy Blvd/Ranch Dr North [M]	AM PM	6.8 11.3	A B+
110. McCarthy Blvd/Ranch Dr South [M]	AM PM	12.8 15.6	B B

Notes:
[1] Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the 2000 HCM, with adjusted saturation flow rates to reflect Santa Clara County Conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
[2] LOS = Level of service. LOS calculations completed using the TRAFFIX level of service analysis software package.
(CMP) Congestion Management Program intersection, (F) City of Fremont intersection, (M) City of Milpitas intersection, (SC) City of Santa Clara intersection, (SJ) City of San Jose intersection

Existing Freeway Segment Levels of Service

Freeway segment densities reported in VTA's *2006 Monitoring and Conformance Report* were used to calculate the levels of service during the AM and PM peak hours for the key freeway segments. The results of the freeway segment LOS analysis are shown in Table 4.2-6.

The following eleven freeway segments operate at unacceptable levels (LOS F) under Existing Conditions:

- I-880 Northbound, Dixon Landing Road to Mission Boulevard (PM peak hour)
- I-880 Northbound, SR 237 to Dixon Landing Road (PM peak hour)
- I-880 Southbound, Great Mall Parkway to Montague Expressway (PM peak hour)
- I-880 Southbound, Montague Expressway to Brokaw Road (PM peak hour)
- SR 237 Westbound, I-880 to Zanker Road (AM peak hour)
- SR 237 Westbound, McCarthy Boulevard to Zanker Road (AM and PM peak hours)
- I-680 Northbound, Calaveras Boulevard to Jacklin Road (PM peak hour)
- I-680 Northbound, Jacklin Road to Scott Creek Road (PM peak hour)
- I-680 Northbound, Scott Creek Road to Mission Boulevard (PM peak hour)
- I-680 Southbound, Yosemite Drive to Montague Expressway (PM peak hour)
- I-680 Southbound, Montague Expressway to Capitol Avenue (PM peak hour)

Table 4.2-6
Existing Freeway Segment Levels of Service

Freeway	Direction	From	To	Peak Hour	Lanes	Density[1]	LOS[2]
I-880	Northbound	Brokaw Road	Montague Expressway	AM PM	3 3	31 26	D C
		Montague Expressway	Great Mall Parkway	AM PM	3 3	26 26	C C
		Great Mall Parkway	SR 237	AM PM	3 3	31 46	D D
		SR 237	Dixon Landing Road	AM PM	4 4	35 112	D F
		Dixon Landing Road	Mission Blvd. (SR 262)[3]	AM PM	3 3	38 107	D F
	Southbound	Mission Blvd. (SR 262)	Dixon Landing Road[3]	AM PM	3 3	43 24	D C
		Dixon Landing Road	SR 237	AM PM	4 4	45 23	D C
		SR 237	Great Mall Parkway	AM PM	3 3	22 21	C C
		Great Mall Parkway	Montague Expressway	AM PM	3 3	29 85	D F
		Montague Expressway	Brokaw Road	AM PM	3 3	26 80	C F

Table 4.2-6
Existing Freeway Segment Levels of Service

Freeway	Direction	From	To	Peak Hour	Lanes	Density[1]	LOS[2]
SR 237[4]	Eastbound	Zanker Road	McCarthy Boulevard	AM PM	2 2	26 42	C D
		McCarthy Boulevard	I-880	AM PM	2 2	15 54	B E
	Westbound	I-880	McCarthy Boulevard	AM PM	2 2	164 29	F D
		McCarthy Boulevard	Zanker Road	AM PM	2 2	147 94	F F
I-680[4]	Northbound	Capitol Avenue	Montague Expressway	AM PM	4 4	39 22	D C
		Montague Expressway	Yosemite Drive	AM PM	4 4	30 28	D D
		Yosemite Drive	Calaveras Blvd. (SR 237)	AM PM	4 4	48 44	E D
		Calaveras Blvd. (SR 237)	Jacklin Road	AM PM	3 3	41 95	D F
		Jacklin Road	Scott Creek Road	AM PM	3 3	35 80	D F
		Scott Creek Road	Mission Blvd. (SR 262)3	AM PM	3 3	33 73	D F
	Southbound	Mission Blvd. (SR 262)	Scott Creek Road3	AM PM	3 3	38 28	D D
		Scott Creek Road	Jacklin Road	AM PM	3 3	33 29	D D
		Jacklin Road	Calaveras Blvd. (SR 237)	AM PM	3 3	36 28	D D
		Calaveras Blvd. (SR 237)	Yosemite Drive	AM PM	4 4	25 53	C E
		Yosemite Drive	Montague Expressway	AM PM	4 4	31 92	D F
		Montague Expressway	Capitol Avenue	AM PM	4 4	23 98	C F

Notes:
[1]Measured in passenger cars per mile per lane.
[2]LOS = level of service.
[3]Density is calculated by using the travel speed from the adjacent segment, as well as the volume (flow) from the adjacent segment adjusted by the volume entering/exiting the freeway at the interchange.
[4]The high-occupancy vehicle (HOV) lanes were not analyzed because project traffic is expected to utilize the mixed-flow lanes while entering and exiting the freeway.
Source: VTA, December 2006.

Parking

The existing parking supply for the project site consists of 1,090 off-street spaces with an additional 51 on-street spaces (26 angled and 25 parallel spaces) along the project's frontage on Barber Lane.

Parking occupancy surveys were completed at the existing retail center during a weekday and a Saturday in early December 2007 and on two Saturdays in February 2009. The parking surveys also captured on-street parking demand and overflow parking to the Cisco campus and to the Crown Plaza hotel located across the street. The 2007 surveys were conducted every 30 minutes between 9:00 AM and 8:00 PM for both surveyed days. The 2009 surveys were conducted every hour between 9:00 AM and 9:00 PM.

During the weekday, the peak parking demand occurred during the mid-day at 12:30 PM with a parking demand of 1,020 spaces (980 on-site, 38 on-street, and two in nearby Cisco or hotel lots). Excluding the spaces in the adjacent lots, the parking occupancy for the on-site and on-street spaces was 89 percent. The weekday parking occupancy tapered to approximately 60 percent or less from 2:00 pm until 8:00 pm.

The surveyed 2007 Saturday peak parking demand was 1,079 spaces at 1:00 PM (1,035 on-site, 37 on-street, and seven in nearby Cisco or hotel lots). This corresponds to an occupancy of 94 percent for the on-site and on-street spaces. After 2:00 PM, the parking occupancy ranged between 65 percent (4:40 PM) to 89 percent (8:00 PM). The surveyed 2009 Saturday peak parking demand was 991 spaces at 1:00 PM.

Inherent to any parking lot are certain inefficiencies, such as imbalanced usage, duration of visits, circulation of vehicles, and walking distances, which reduce the effective supply. The "effective parking supply" typically ranges from 85 to 95 percent of the total supply depending on the type of use. When parking demand reaches or exceeds the effective parking supply, motorists have to search extensively to find available parking and often have to walk longer distances. The existing lots and on-street supply are 89 to 94 percent occupied during the weekday and Saturday peak hours.

4.2.2.3 *Background Traffic Operations*

The following discussion describes background traffic conditions in the project area. Background Conditions are conditions anticipated to exist prior to completion of the proposed project. Traffic volumes for Background Conditions comprise existing volumes plus traffic generated by approved but not yet constructed projects. Traffic generated by Phase 1 of the North San José Development Policies Update project is included in this scenario.[4] This scenario also includes traffic associated with the approved build-out and re-occupancy of the Veritas Office Campus (991,000 s.f.) located on McCarthy Boulevard north of SR 237.

Background Roadway Improvements

Background Conditions also include planned intersection or roadway improvements, such as improvements required as mitigation for previously approved projects that have not yet been constructed, including the following:

[4] The North San José Development Policies Update project includes the construction of up to 26.7 million square feet of new industrial, office, and research development and up to 32,000 new dwelling units.

- Montague Expressway will be widened from six to eight lanes between Lick Mill Boulevard and I-680 to provide three mixed-flow lanes and one HOV lane in each direction. Several of the study intersections along Montague Expressway have already been widened to accommodate the additional lanes, and these improvements have already been accounted for under existing conditions and included in background conditions. The HOV lanes are expected to operate in both directions during AM and PM commute periods on Montague Expressway at Great Mall Parkway.

- The County of Santa Clara is planning to construct a flyover to serve westbound Montague Expressway to southbound Trimble Road.

- The southbound approach at the intersection of McCarthy Boulevard and Tasman Drive will be restriped from its current geometry (two left-turn lanes, one through lane, and one shared-through-right turn lane) to a geometry that includes two left-turn lanes, one through lane, and one right turn lane with a corresponding overlap phase.

No other background improvements were identified at the other study intersections.

Figures showing the background AM and PM peak-hour turning movement volumes and existing intersection lane configurations and traffic control devices at the study intersections are included in Appendix A.

Background Intersection Levels of Service

Level of service calculations were completed for the study intersections to evaluate Background Condition operations. The results of the Background LOS analysis are shown in Table 4.2-7. The corresponding calculation sheets are included in Appendix A.

The following 13 intersections are projected to exceed LOS standards and operate at unacceptable levels under Background Conditions:

- Calaveras Boulevard/I-880 SB Ramps (LOS F, PM peak)
- W. Calaveras Boulevard/Abel Street (LOS F, AM peak)
- E. Calaveras Boulevard/S. Milpitas Boulevard (LOS F, AM peak)
- Alder Drive/McCarthy Boulevard (LOS E, PM peak)
- Alder Drive/Tasman Drive (LOS F, PM peak)
- Tasman Drive/I-880 SB Ramps (LOS E, PM peak)
- Great Mall Parkway/I-880 NB Ramps (LOS E, AM peak; LOS E+, PM peak)
- McCarthy Boulevard-O'Toole Avenue/Montague Expressway (LOS F, PM peak)
- Montague Expressway/Great Mall Parkway-Capitol Avenue (LOS F, PM peak)
- Montague Expressway/ Zanker Road (LOS E, PM peak)
- Montague Expressway/First Street (LOS F, AM and PM peak)
- Capitol Avenue/Cropley Drive – Trade Zone Boulevard (LOS E, PM peak)
- Dixon Landing Road/N. Milpitas Boulevard (LOS E, AM and PM peak)

Table 4.2-7
Background Intersection Levels of Service

Intersection	Peak Hour	Delay[1]	LOS[2]
1. McCarthy Blvd/SR 237 WB Ramps [M]	AM PM	17.9 24.9	B C
2. McCarthy Blvd/SR 237 EB Ramps [M]	AM PM	15.9 16.6	B B
3. SR 237/I-880 SB Ramps [M]	AM PM	11.2 9.5	B+ A
4. Calaveras Blvd (SR237)/I-880 NB Ramps [M]	AM PM	22.6 89.3	C+ F
5. Calaveras Blvd/Abel Street [CMA/M]	AM PM	89.2 53.0	F D-
6. Calaveras Blvd/Milpitas Blvd [CMA/M]	AM PM	127.0 45.7	F D
7. McCarthy Blvd/Bellew Dr [M]	AM PM	24.0 51.1	C D-
8. Bellew Dr/Barber Ln [M]	AM PM	10.9 18.5	B+ B-
9. McCarthy Blvd/Alder Dr [M]	AM PM	17.2 61.5	B E
10. McCarthy Blvd/Tasman Dr [M]	AM PM	59.8 41.9	E+ D
11. Tasman Dr/Alder Dr [M]	AM PM	21.4 137.0	C+ F
12. Barber Ln/Alder Dr [M]	AM PM	16.2 20.3	B C+
13. Tasman Dr/I-880 SB Ramps [M]	AM PM	23.0 61.7	C+ E
14. Great Mall Parkway/I-880 NB Ramps [M]	AM PM	61.0 58.7	E E+
15. McCarthy Blvd/Barber Ln [M]	AM PM	13.6 23.4	B C
16. McCarthy Blvd-O'Toole/Montague Expy [CMA/SJ/M]	AM PM	53.4 116.3	D- F
17. Montague Expy/Great Mall Parkway-Capitol Ave [CMA/M]	AM PM	80.1 96.2	F F
18. Montague Expy/Trimble Rd [CMA/SJ]	AM PM	30.0 44.0	C D
19. Montague Expy/River Oaks Parkway-E. Plumeria Rd [SJ]	AM PM	44.0 43.7	D D
20. Montague Expy/Zanker Rd [CMA/SJ]	AM PM	50.8 71.8	D E
21. Montague Expy/N. 1st St. [CMA/SJ]	AM PM	146.0 > 150	F F

Table 4.2-7
Background Intersection Levels of Service

Intersection	Peak Hour	Delay[1]	LOS[2]
22. Montague Expy/De la Cruz Blvd – Agnew Rd [CMA/SC]	AM PM	40.3 47.6	D D
23. Capitol Ave/Cropley Dr-Trade Zone Blvd [SJ]	AM PM	36.4 62.1	D+ E
24. Great Mall Parkway/Main Street [M]	AM PM	31.8 39.6	C D
25. Great Mall Parkway/Abel St [M]	AM PM	41.2 44.8	D D
26. Tasman Dr./Zanker Rd [SJ]	AM PM	39.5 39.1	D D
27. Tasman Dr./N. 1st St. [SJ]	AM PM	39.9 49.0	D D
101. Dixon Landing Rd/McCarthy Blvd [F]	AM PM	10.0 9.4	B+ A
102. Dixon Landing Rd/I-880 SB Ramps [M]	AM PM	9.9 7.8	A A
103. Dixon Landing Rd/I-880 NB Ramps – California Circle [M]	AM PM	16.9 21.5	B C+
104. California Circle/I-880 NB Ramps [M]	AM PM	12.6 15.3	B B
105. Dixon Landing Rd/N. Milpitas Blvd [M]	AM PM	67.0 62.2	E E
106. Scott Creek Rd./Warm Springs Blvd. [F]	AM PM	28.1 36.3	C D+
107. Scott Creek Rd./I-680 SB Ramps [Unsignalized] [F]	AM PM	19.8 13.6	C B
108. Scott Creek Rd./I-680 NB Ramps [Unsignalized] [F]	AM PM	8.2 9.5	A A
109. McCarthy Blvd/Ranch Dr North [M]	AM PM	11.6 14.0	B+ B
110. McCarthy Blvd/Ranch Dr South [M]	AM PM	14.6 20.9	B C+

Notes:
[1] Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the 2000 HCM, with adjusted saturation flow rates to reflect Santa Clara County Conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
[2] LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.
(CMA) Congestion Management Agency intersection, (F) City of Fremont intersection, (M) City of Milpitas intersection, (SC) City of Santa Clara intersection, (SJ) City of San Jose intersection

4.2.2 Transportation Impacts

4.2.2.1 *Thresholds of Significance*

For the purpose of this EIR, a transportation impact is considered significant if the project would:

- Cause the level of service at a non-CMA City of Milpitas or City of Santa Clara intersection or any City of San José or City of Fremont intersection operating at LOS D or better under Background Conditions to deteriorate to LOS E or F; or
- Cause an increase in the critical movement delay at any City of Milpitas or City of Santa Clara non-CMA intersection or any City of San José intersection with unacceptable operations (LOS E or F) under Background Conditions of four (4) or more seconds and an increase in the critical V/C ratio by 0.01 or more; or
- Cause an increase in the V/C ratio of 0.01 or more at any City of Milpitas or City of Santa Clara non-CMA intersection or any City of San José intersection with unacceptable operations (LOS E or F) under Background Conditions when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change; or
- Cause an increase of the average delay at any City of Fremont intersection with unacceptable operations (LOS E or F) under Background Conditions of four (4) or more seconds; or
- Cause the level of service at a CMA intersection operating at LOS E or better under Background Conditions to deteriorate to LOS F; or
- Cause an increase in the critical movement delay at a CMA intersection with unacceptable operations (LOS F) under Background Conditions of four (4) or more seconds and an increase in the critical V/C ratio by 0.01 or more; or
- Cause an increase in the V/C ratio of 0.01 or more at any CMA intersection with unacceptable operations (LOS F) under Background Conditions when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change; or
- Cause a freeway segment to operate at LOS F, or contribute traffic in excess of one percent (1%) of segment capacity to a freeway segment already operating at LOS F; or
- Substantially increase hazards due to a design feature (e.g., dangerous intersection) or incompatible uses; or
- Result in inadequate emergency access; or
- Result in inadequate parking capacity; or
- Conflict with adopted plans or policies supporting alternative transportation.

4.2.2.2 *Project Trip Estimates*

The amount of traffic added to the roadway system by the proposed project is estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. The first step estimates the amount of added traffic to the roadway network. The second step estimates the direction of travel to and from the project site. The trips are assigned to specific street segments and intersection turning movements during the third step. The results of this process for the proposed project are described in the following sections.

Trip Generation Rates

The amount of traffic added to the surrounding roadway system by the proposed project was estimated by applying the appropriate trip generation rates to the development proposal (i.e., the number of dwelling units and net new commercial square footage proposed). Trip generation rates

for Condominium and Community Shopping Center/High-Turnover Restaurant land uses identified in *San Diego Traffic Generators* (San Diego Association of Governments, April 2002) were used to estimate project trip generation. The San Diego Association of Governments (SANDAG) trip generation rates were used because they are based on projects located in California and provide a conservative or worst-case analysis of trip generation resulting from the project. The use of SANDAG trip generation rates is consistent with the VTA guidelines.

According to VTA guidelines (*Transportation Impact Analysis Guidelines*, May 1998), reductions may be applied to the trip estimates for mixed-use projects and for sites that are located in close proximity to transit facilities. A 13 percent reduction for the development's mix of retail and housing land uses was applied.

In addition, a 25 percent reduction for diverted-link trips was applied to the retail and restaurant use to account for vehicles that are already traveling on the roadways adjacent to the project site. These trips are included in the analysis of traffic that enters and exits the project site but are not considered "new" trips that are added to the street system by the project.

The project trip generation estimates are presented in Table 4.2-8. The proposed project is estimated to generate 8,204 net new daily trips, 576 net new AM peak-hour trips (115 inbound and 461 outbound) and 801 net new PM peak-hour trips (556 inbound and 245 outbound).

Table 4.2-8
Project Trip Generation Rates and Estimates

Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Trip Rates								
Community Shopping Center/ High Turnover Restaurant	1,000 sf	160	0.0	0.0	0.0	7.68	5.12	12.80
Condominium	1 unit	8	0.13	0.51	0.64	0.55	0.23	0.78
Trip Estimates								
Retail	12,800 sf	2,048	0	0	0	98	66	164
Housing-Retail Reduction (13% off housing)[1]		(266)	-	-	-	(13)	(8)	(21)
Diverted Link Trips (25% off retail)		(512)	-	-	-	(25)	(16)	(41)
Net Retail Trips		1,270	0	0	0	60	42	102
Condominiums	900 units	7,200	115	461	576	504	216	720
Housing-Retail Reduction (13% off housing)[1]		(266)	-	-	-	(8)	(13)	(21)
Net Residential Trips		6,934	115	461	576	496	203	699
Net Total Trips		*8,204*	*115*	*461*	*576*	*556*	*245*	*801*

Notes:
[1]Housing-retail reduction taken off the smaller trip generator. Housing is the smaller generator for daily and PM peak hour trips; Retail is the smaller generator during the AM peak hour.
Source: San Diego Traffic Generators, SANDAG, April 2002. Fehr & Peers, 2008.

Trip Distribution

The directions of approach and departure for the proposed project were estimated using VTA's travel demand forecasting model, existing travel patterns, and the relative locations of complementary land uses. The major directions of approach and departure form the trip distribution pattern for the net new trips generated by the project's residential and commercial components.

Trip Assignment

The trips generated by the project were assigned to the roadway system based on the directions of approach and departure discussed above. Project trips were added to background traffic volumes to establish intersection volumes for Project Conditions.

4.2.2.3 *Intersection Level of Service Analysis*

Project Roadway Improvements

The project applicant is proposing to modify the Barber Lane/Bellew Drive intersection. The intersection currently has one lane (shared left-turn/through/right-turn) on the northbound and southbound approaches, two lanes on the westbound approach (one left-turn and shared through/right-turn lane), and three eastbound lanes (one left-turn, one through lane, and one right-turn lane). The project proposes the following lane configurations for the intersection:

- Northbound approach – one left-turn, one shared through/left-turn lane, and one right-turn lane
- Southbound and Eastbound approaches – same as Existing Conditions
- Westbound approach – one left-turn lane, one through lane, one shared through/right-turn lane

Project Intersection Levels of Service

The results of the intersection level of service calculations for Project Conditions are shown in Table 4.2-9. The level of service calculation sheets are included in Appendix A. The results for Background Conditions are included for comparison purposes, along with the projected increases in critical delay and critical volume-to-capacity (V/C) ratios. Critical delay represents the delay associated with the critical movements of the intersection, or the movements that require the most "green time" and have the greatest effect on overall intersection operations. The changes in critical delay and critical V/C ratio between Background and Project Conditions are used to identify significant impacts.

Table 4.2-9
Project Intersection Levels of Service

Intersection	Peak Hour	Background		Project			
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]
1. McCarthy Blvd / SR 237 WB Ramps [M]	AM	17.9	B	17.9	B	0.000	0.0
	PM	24.9	C	25.2	C	0.007	0.8
2. McCarthy Blvd / SR 237 EB Ramps [M]	AM	15.9	B	16.1	B	0.062	1.3
	PM	16.6	B	18.0	B	0.07	2.6
3. SR 237 / I-880 SB Ramps [M]	AM	11.2	B+	11.5	B+	0.009	0.4
	PM	9.5	A	11.0	B+	0.037	2.3
4. Calaveras Blvd (SR237) / I-880 NB Ramps [M]	AM	22.6	C+	22.6	C+	0.003	0.1
	PM	89.3	F	90.7	F	0.007	3.2
5. Calaveras Blvd / Abel Street [CMP/M]	AM	89.2	F	89.5	F	0.002	1.0
	PM	53.0	D-	53.8	D-	0.006	0.7
6. Calaveras Blvd / Milpitas Blvd [CMP/M]	AM	127.0	F	128.5	F	0.005	2.8
	PM	45.7	D	46.6	D	0.019	2.0
7. McCarthy Blvd / Bellew Dr [M]	AM	24.0	C	25.2	C	0.017	3.8
	PM	51.1	D-	**81.7**	**F**	**0.118**	**57.6**
8. Bellew Dr / Barber Ln [M]	AM	10.9	B+	16.0	B	0.208	2.4
	PM	18.5	B-	24.8	C	0.110	6.9
9. McCarthy Blvd / Alder Dr [M]	AM	17.2	B	17.1	B	0.010	0.1
	PM	61.5	E	**65.2**	**E**	**0.012**	**5.5**
10. McCarthy Blvd / Tasman Dr [M]	AM	59.8	E+	62.5	E	0.011	3.1
	PM	41.9	D	42.4	D	0.008	0.4
11. Tasman Dr / Alder Dr [M]	AM	21.4	C+	22.4	C+	0.007	0.2
	PM	137.0	F	**156.4**	**F**	**0.092**	**23.8**
12. Barber Ln / Alder Dr [M]	AM	14.0	B	15.7	B	0.135	0.6
	PM	13.7	C+	18.5	B-	0.071	-0.1
13. Tasman Dr / I-880 SB Ramps [M]	AM	23.0	C+	23.2	C	0.004	0.2
	PM	61.7	E	**64.5**	**E**	**0.026**	**10.8**
14. Great Mall Parkway / I-880 NB Ramps [M]	AM	61.0	E	**85.0**	**F**	**0.004**	**32.7**
	PM	58.7	E+	60.1	E	-0.005	3.2
15. McCarthy Blvd / Barber Ln [M]	AM	16.2	B	19.7	B-	0.076	4.9
	PM	24.0	C	25.7	C	0.042	3.5
16. McCarthy Blvd-O'Toole / Montague Expy [CMP/SJ/M]	AM	53.4	D-	**58.7**	**E+**	**0.022**	**7.7**
	PM	116.3	F	**120.9**	**F**	**0.014**	**6.5**
17. Montague Expy / Great Mall Parkway-Capitol Ave [CMP/M]	AM	79.8	E-	79.8	E-	0.001	0.6
	PM	94.6	F	96.6	F	0.008	3.7
18. Montague Expy / Trimble Rd [CMP/SJ]	AM	23.7	C	25.2	C	0.039	1.4
	PM	35.7	D+	37.8	D+	0.111	4.5

Table 4.2-9
Project Intersection Levels of Service

Intersection	Peak Hour	Background Delay[1]	Background LOS[2]	Project Delay[1]	Project LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]
19. Montague Expy / River Oaks Parkway-E. Plumeria Rd [SJ]	AM	43.9	D	42.2	D	0.008	- 0.3
	PM	43.7	D	44.8	D	0.024	1.9
20. Montague Expy / Zanker Rd [CMP/SJ]	AM	50.8	D	50.8	D	0.007	0.1
	PM	71.8	E	72.3	E	0.004	0.9
21. Montague Expy / N. 1st St. [CMP/SJ]	AM	106.4	F	107.8	F	0.006	2.4
	PM	107.4	F	108.7	F	0.002	1.0
22. Montague Expy / De la Cruz Blvd – Agnew Rd [CMP/SC]	AM	40.1	D	40.1	D	0.005	0.1
	PM	47.6	D	47.8	D	0.003	0.5
23. Capitol Ave / Cropley Dr-Trade Zone Blvd [SJ]	AM	36.4	D+	39.4	D	0.055	3.4
	PM	62.1	E	63.1	E	0.003	0.6
24. Great Mall Parkway / Main Street [M]	AM	25.8	C	25.8	C	0.001	0.0
	PM	39.6	D	39.6	D	0.001	0.0
25. Great Mall Parkway / Abel St [M]	AM	49.5	D	49.5	D	0.003	0.2
	PM	44.8	D	44.9	D	0.001	0.0
26. Tasman Dr. / Zanker Rd [SJ]	AM	39.7	D	39.9	D	0.006	0.4
	PM	39.1	D	39.2	D	0.007	0.2
27. Tasman Dr. / N. 1st St. [SJ]	AM	40.1	D	40.4	D	0.004	0.5
	PM	49.0	D	49.6	D	0.005	1.1
101. Dixon Landing Rd / McCarthy Blvd [F]	AM	10.0	B+	9.9	A	0.001	0.0
	PM	9.4	A	9.5	A	0.006	-4.5
102. Dixon Landing Rd / I-880 SB Ramps [M]	AM	9.8	A	9.8	A	0.001	0.0
	PM	7.8	A	13.4	B	0.089	5.3
103. Dixon Landing Rd / I-880 NB Ramps – California Circle [M]	AM	16.9	B	16.9	B	0.001	0.0
	PM	21.5	C+	21.5	C+	0.001	0.0
104. California Circle / I-880 NB Ramps [M]	AM	12.6	B	12.6	B	0.000	0.0
	PM	15.3	B	15.3	B	0.000	0.0
105. Dixon Landing Rd / N. Milpitas Blvd [M]	AM	67.0	E	68.3	E	0.009	2.4
	PM	62.2	E	63.4	E	0.011	2.7
106. Scott Creek Rd. / Warm Springs Blvd. [F]	AM	28.1	C	28.5	C	0.008	0.5
	PM	36.3	D+	36.3	D+	0.000	0.0
107. Scott Creek Rd. / I-680 SB Ramps [Unsignalized] [F]	AM	19.8	C	19.8	C		
	PM	13.6	B	13.6	B		
108. Scott Creek Rd. / I-680 NB Ramps [Unsignalized] [F]	AM	8.2	A	8.2	A		
	PM	9.5	A	9.7	A		
109. McCarthy Blvd / Ranch Dr North [M]	AM	11.7	B+	13.3	B	0.008	0.1
	PM	14.0	B	16.9	B	0.005	0.1

Table 4.2-9
Project Intersection Levels of Service

Intersection	Peak Hour	Background		Project			
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]
110. McCarthy Blvd / Ranch Dr South [M]	AM	14.7	B	20.3	C+	0.008	10.3
	PM	20.9	C+	20.9	C+	-0.229	-1.1

Notes:
[1] Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the 2000 HCM, with adjusted saturation flow rates to reflect Santa Clara County Conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
[2] LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.
[3] Change in the critical volume-to-capacity ratio (V/C) between Background and Project Conditions.
[4] Change in critical movement delay between Background and Project Conditions.
(CMP) Congestion Management Program intersection, (F) City of Fremont intersection, (M) City of Milpitas intersection, (SC) City of Santa Clara intersection, (SJ) City of San Jose intersection
Bold text denotes intersections with significant impacts.

The impacts of the project were evaluated by comparing the results of the level of service calculations under Project Conditions to the results under Background Conditions. The proposed project would have an impact at six study intersections. These impacts are described below.[5]

City of Milpitas

Based on the thresholds of significance listed in *Section 4.2.2.1*, the results shown in Table 4.2-9 indicate the project would have a significant impact at the following City of Milpitas intersections:

Impact TRANS-1: McCarthy Boulevard/Bellew Drive – Intersection operations degrade from LOS D- to LOS F during the PM peak hour. **(Significant Impact)**

Impact TRANS-2: McCarthy Boulevard/Alder Drive – Project traffic exacerbates LOS E during the PM peak hour. **(Significant Impact)**

Impact TRANS-3: Alder Drive/Tasman Drive – Project traffic exacerbates LOS F operations during the PM peak hour. **(Significant Impact)**

Impact TRANS-4: Tasman Drive/I-880 SB Ramps – Project traffic exacerbates LOS E operations during the PM peak hour. **(Significant Impact)**

Impact TRANS-5: Great Mall Parkway/I-880 NB Ramps – Project traffic exacerbates LOS E operations in the AM peak hour. **(Significant Impact)**

[5] Although only six intersections are significantly impacted by the project, seven impacts are listed. This is because the McCarthy Boulevard-O'Toole Avenue/Montague Expressway intersection is under the jurisdiction of both the CMP and the City of San José. Because the CMP and the City of San José have different thresholds of significance, this intersection has a significant impact during the PM peak hour under the CMP thresholds and an AM peak hour impact under the City of San José thresholds and, therefore, is listed twice.

CMP Intersection

Impact TRANS-6: McCarthy Boulevard-O'Toole Avenue/Montague Expressway – Project traffic degrades intersection operations from LOS D- to LOS E+ in the AM peak hour and exacerbates LOS F operations during the PM peak hour. **(Significant Impact)**

City of San Jose

Impact TRANS-7: McCarthy Boulevard-O'Toole Avenue/Montague Expressway – Project traffic degrades intersection operations from LOS D- to LOS E+ in the AM peak hour and exacerbates LOS F operations during the PM peak hour. **(Significant Impact)**

Midday Peak Hour

Due to the existing midday traffic in the project area that is associated with the retail and restaurant development on the site, a midday traffic analysis was completed for three intersections in the immediate vicinity of the site (i.e., McCarthy Boulevard/Bellew Drive, Bellew Drive/Barber Lane, and Barber Lane/Alder Drive).

The amount of traffic generated by the proposed project was estimated for the weekday mid-day peak hour. The mid-day rates were based on driveway counts conducted at the project driveways and were applied to the future retail space. The residential mid-day rates are based upon survey rates of other residential developments in the Bay Area. As shown in Table 4.2-10, the project is estimated to generate 459 net new midday peak-hour trips (243 inbound and 216 outbound). Results of the midday analysis are shown in Table 4.2-11.

Table 4.2-10
Project Midday Trip Generation Rates and Estimates

Land Use	Size	Daily	Midday Peak Hour		
			In	Out	Total
Trip Rates					
Community Shopping Center/ High Turnover Restaurant	1,000 sf	160	6.02	4.06	10.08
Condominium	1 unit	8	0.22	0.20	0.42
Trip Estimates					
Retail	12,800 sf	2,048	77	52	129
Housing-Retail Reduction (13% off housing)[1]		(266)	(10)	(7)	(17)
Diverted Link Trips (25% off retail)		(512)	(19)	(13)	(32)
Net Retail Trips		1,270	48	32	80
Condominiums	900 units	7,200	202	194	296
Housing-Retail Reduction (13% off housing)[1]		(266)	(7)	(10)	(17)
Net Residential Trips		6,934	195	184	379
Net Total Trips		*8,204*	*243*	*216*	*459*

Notes:
[1]Housing-retail reduction taken off the smaller trip generator. Housing is the smaller generator for daily and PM peak hour trips; Retail is the smaller generator during the AM peak hour.
Source: San Diego Traffic Generators, SANDAG, April 2002. Fehr & Peers, 2008.

Table 4.2-11
Project Midday Intersection Levels of Service

Intersection	Peak Hour	Existing		Project			
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]
Milpitas Square Only							
7. McCarthy Blvd / Bellew Dr	Mid	24.8	C	43.3	D	+0.350	+24.8
8. Bellew Dr / Barber Ln [M]	Mid	43.5	D	22.7[5]	D	+0.021	+99.9
12. Barber Ln / Alder Dr [M]	Mid	15.9	B	18.9	B-	+0.060	+0.4

Notes:
[1] Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the 2000 HCM, with adjusted saturation flow rates to reflect Santa Clara County Conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
[2] LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.
[3] Change in the critical volume-to-capacity ratio (V/C) between Existing and Project Conditions.
[4] Change in critical movement delay between Existing and Project Conditions.
(CMP) Congestion Management Program intersection, (F) City of Fremont intersection, (M) City of Milpitas intersection, (SC) City of Santa Clara intersection, (SJ) City of San Jose intersection.
[5] Includes improvements proposed by the applicant to widen northbound and westbound approaches.
Bold text denotes intersections with significant impacts.

Impact TRANS-8: With the construction of the project roadway improvements at the Bellew Drive and Barber Lane intersection, the proposed project would not result in any impacts during the mid-day peak hour. **(Less Than Significant Impact)**

4.2.2.4 *Freeway Segment Analysis*

Project-generated traffic volumes were added to existing traffic volumes for each freeway segment. These volumes were then used to re-calculate density for each segment under Project Conditions. The results of the freeway segment analysis are located in Table 4.2-12.

Table 4.2-12
Project Freeway Segment Levels of Service

Freeway Direction	From	To	Peak Hour	Existing Conditions		Project Conditions			
				Density[1]	LOS[2]	Trips	Density[1]	LOS[2]	% Impact[3]
I-880 Northbound	Brokaw Road	Montague Expressway	AM	31	D	8	31	D	0.12%
			PM	26	C	73	26	D	1.06%
	Montague Expressway	Great Mall Parkway	AM	26	C	4	26	D	0.06%
			PM	26	C	43	26	D	1.06%
	Great Mall Parkway	SR 237	AM	31	D	9	31	D	0.13%
			PM	46	D	30	46	E	0.43%
	SR 237	Dixon Landing Road	AM	35	D	31	33	D	0.37%
			PM	112	F	27	106	F	0.33%
	Dixon Landing Road	Mission Blvd. (SR 262)	AM	38	D	31	39	D	0.45%
			PM	107	F	27	108	F	0.39%
I-880 Southbound	Mission Blvd. (SR 262)	Dixon Landing Road	AM	43	D	8	43	D	0.12%
			PM	24	C	61	24	C	0.88%
	Dixon Landing Road	SR 237	AM	45	D	8	38	D	0.09%
			PM	23	C	61	20	C	0.66%
	SR 237	Great Mall Parkway	AM	22	C	2	22	C	0.03%
			PM	21	C	18	21	C	0.26%
	Great Mall Parkway	Montague Expressway	AM	29	D	17	29	D	0.25%
			PM	85	F	33	86	F	0.48%
	Montague Expressway	Brokaw Road	AM	26	C	34	26	D	0.49%
			PM	80	F	33	81	F	0.48%
SR 237 Eastbound	Zanker Road	McCarthy Boulevard	AM	26	C	5	26	D	0.11%
			PM	42	D	105	43	D	2.28%
	McCarthy Boulevard	I-880	AM	15	B	55	23	C	1.20%
			PM	54	E	**60**	**82**	**F**	**1.30%**
SR 237 Westbound	I-880	McCarthy Boulevard	AM	164	F	14	165	F	0.20%
			PM	29	D	152	30	D	2.20%
	McCarthy Boulevard	Zanker Road	AM	147	F	21	149	F	0.38%
			PM	94	F	45	95	F	0.82%
I-680 Northbound	Capitol Avenue	Montague Expressway	AM	39	D	0	39	D	0.0%
			PM	22	C	0	22	C	0.0%
	Montague Expressway	Yosemite Drive	AM	30	D	0	30	D	0.0%
			PM	28	D	0	28	D	0.0%
	Yosemite Drive	Calaveras Blvd. (SR 237)	AM	48	E	0	48	E	0.0%
			PM	44	D	0	44	D	0.0%
	Calaveras Blvd. (SR 237)	Jacklin Road	AM	41	D	0	41	D	0.0%
			PM	95	F	0	95	F	0.0%
	Jacklin Road	Scott Creek Road	AM	35	D	0	35	D	0.0%
			PM	80	F	0	80	F	0.0%
	Scott Creek Road	Mission Blvd. (SR 262)	AM	33	D	0	33	D	0.0%
			PM	73	F	0	73	F	0.0%

Table 4.2-12
Project Freeway Segment Levels of Service

Freeway Direction	From	To	Peak Hour	Existing Conditions		Project Conditions			
				Density[1]	LOS[2]	Trips	Density[1]	LOS[2]	% Impact[3]
I-680 Southbound	Mission Blvd. (SR 262)	Scott Creek Road	AM	38	D	0	38	D	0.0%
			PM	28	D	0	28	D	0.0%
	Scott Creek Road	Jacklin Road	AM	33	D	0	33	D	0.0%
			PM	29	D	0	29	D	0.0%
	Jacklin Road	Calaveras Blvd. (SR 237)	AM	36	D	0	36	D	0.0%
			PM	28	D	0	28	D	0.0%
	Calaveras Blvd. (SR 237)	Yosemite Drive	AM	25	C	0	25	C	0.0%
			PM	53	E	0	53	E	0.0%
	Yosemite Drive	Montague Expressway	AM	31	D	0	31	D	0.0%
			PM	92	F	0	92	F	0.0%
	Montague Expressway	Capitol Avenue	AM	23	C	0	23	C	0.0%
			PM	98	F	0	98	F	0.0%

Notes:
[1] Measured in passenger cars per mile per lane.
[2] LOS = level of service.
[3] Percent impact on mixed flow lanes determined by dividing the number of project trips by the freeway segment's capacity.
Bold text denotes freeway segments with significant impacts.
Source: VTA, December 2006.

Impact TRANS-9: Eastbound SR 237, McCarthy Boulevard to I-880 – Traffic from the proposed project causes the freeway segment to degrade from LOS E to LOS F during the PM peak hour. **(Significant Impact)**

4.2.2.5 *Transit, Pedestrian, and Bicycle Facilities*

The project site is served by fixed-route bus service with stops located just south of the project site. According to the VTA, the average load factor for Route 33 is 0.11 in the Barber Lane area (this information is based upon surveys conducted prior to the new January 2008 schedules). This results in an average load of approximately four passengers on a 38-seat bus. Existing transit services would be able to accommodate the increased demand created by the project.

Existing sidewalks are provided adjacent to and in the vicinity of the site. Crosswalks are provided at all study intersections in the study area. Sidewalks and paths provide direct links to adjacent land uses and to the VTA light rail station on Tasman Drive. Existing pedestrian facilities would be able to accommodate the increased demand created by the project. Bicycle lanes are provided on Barber Lane and bicycle facilities are provided on other roadways near the site.

Impact TRANS-10: The proposed project would not result in a significant adverse impact to existing or planned transit, pedestrian, or bicycle facilities. **(Less Than Significant Impact)**

4.2.2.6 *Site Access and On-Site Circulation*

The site plan for the proposed project is shown on Figure 4. The site plan includes roadway improvements on Barber Lane to support the project and potential future development (Landmark Tower) directly south of the project site by providing a center left turn lane along the Milpitas Square frontage.

Milpitas Square proposes to provide five driveways on Barber Lane including one located north of Bellew Drive, one forming the east leg of the Barber Lane/Bellew Drive intersection, and three located south of Bellew Drive. Of the driveways south of Bellew Drive, one provides full access (left-turns in and out and right-turns in and out) to the Building A parking structure, one provides access to the internal on-site circulation roadway (left-turns in and out and right-turns in and out), and the third provides access (left-turn in and right-turns in and out) to the Building B parking structure. This development also reconfigures the intersection geometry at Barber Lane/Bellew Drive to accommodate a dedicated northbound left-turn lane in addition to improvements to the westbound approach on the site.

Impact TRANS-11: The proposed project includes adequate site access and circulation for the project and would not result in any safety hazards. **(Less Than Significant Impact)**

4.2.2.7 *Parking*

The project proposes approximately 2,442 to 2,477 off-street parking spaces. The majority of these spaces are located in garages in Buildings A, B, C, E, and F. Approximately 177 surface spaces are provided on the main north-south aisle and the parking lot north of Building F. Parking would also be provided in angled parking spaces on Barber Court and parallel parking spaces on Barber Lane.

Based on the parking surveys completed on the site, peak parking demand of 6.65 spaces per 1,000 square feet of commercial space occurs at 1:00 PM on Saturdays. The parking demand for residential development proposed on the site was analyzed using the Urban Land Institute's (ULI) *Shared Parking* (2nd Edition, 2005). The ULI rates include a ten percent cushion to account for account for empty spaces and circulating vehicles at parking facilities. The project's proposed use of parking guidance systems would reduce the necessary parking cushion to five percent.

Under certain circumstances, multiple land uses within a single development may provide the opportunity for shared parking on-site. The combined land uses may result in a demand for parking that will be less than the demand that would be generated by separate free-standing development. To determine the potential shared parking demand reduction, an evaluation of the peaking characteristics for the proposed development was completed based on ULI's *Shared Parking* guide. Weekend retail peak demand generally occurs between the hours of 2:00 PM and 3:00 PM and residential peak demand occurs between 10:00 PM and 6:00 AM. Peak parking demand of the residential and retail uses for the site was determined to occur between 2:00 PM and 3:00 PM on the weekend. A summary of the estimated parking demand for the project is shown in Table 4.2-13.

Table 4.2-13 Parking Supply Summary with Parking Guidance System			
Land Use	**Size**	**Rate**	**Recommended Stalls**
Community Shopping Center	175,000 s.f.	6.98 per 1,000 s.f.[1]	1,222
Residential	900 units	1.61 per d.u.[2]	1,449
		0.15	135
Total Estimated Land Use Demand			**2,806**
Total Estimated Shared Demand[2]			**2,533**
Minimum Provided Spaces (1,265 residential, 1,390 shared commercial)			**2,665**

Notes:
[1] Based on parking demand surveys conducted by Fehr & Peers at the existing Ranch 99 retail development in December 2007.
[2] Urban Land Institute, *Shared Parking*, 2nd Edition, 2005.
Source: Hexagon Transportation Consultants, April 2009.

In order for parking to create an environmental impact, the project would have to result in such a significant shortfall of spaces that overflow parking would create substantial safety or land use impacts. The project proposes a range of 2,686 to 2,721 parking spaces on the site to accommodate peak parking demand. The project includes 1,265 dedicated residential parking spaces and a minimum of 1,390 commercial parking spaces. As shown in Table 4.2-13, the proposed parking supply exceeds the estimated shared peak parking demand for the site.

Impact TRANS-12: The proposed project includes adequate parking capacity to serve the proposed mixed-use development. **(Less Than Significant Impact)**

4.2.3 Mitigation and Avoidance Measures for Transportation Impacts

As conditions of approval, the project applicant shall be responsible for the implementation of the following measures to reduce transportation impacts:

4.2.3.1 *McCarthy Boulevard/Bellew Drive*

The applicant shall implement the following measures, which would reduce the project's impact at the intersection of McCarthy Boulevard/Bellew Drive to a less than significant level. These measures shall be printed on all construction documents, contracts, and project plans:

MM TRANS-1.1: ***McCarthy Boulevard/Bellew Drive***

Prior to issuance of a building permit, the developer shall modify the roadway and traffic signal facilities or pay a fair share contribution into an account created by the City of Milpitas for the sole purpose of providing two left turn lanes and one shared through/right turn lane, which would provide acceptable (LOS D-) operations. This improvement, in conjunction with optimizing the signal coordination along the McCarthy Boulevard corridor, would also provide acceptable midday operations at this intersection. Installation of the double eastbound left turn lanes requires median island and traffic signal modification work on Bellew Drive from Barber Lane to Technology Drive and on McCarthy Boulevard from Bellew Drive to Ranch Drive. To ensure

proper operation, these improvements must also be coordinated with modifications for the intersection of Bellew Drive and Cypress Drive.

4.2.3.2 *McCarthy Boulevard/Alder Drive*

The following mitigation measure would reduce the project's impact at the intersection of McCarthy Boulevard/Alder Drive to a less than significant level.

MM TRANS-2.1: ***McCarthy Boulevard/Alder Drive***

Project traffic exacerbates unacceptable intersection operations (LOS E) during the PM peak hour. The addition of a second southbound left-turn lane (from McCarthy Boulevard to Alder Drive) improves intersection operations to acceptable levels (LOS B-). The southbound approach and southbound receiving through lanes on McCarthy Boulevard would need to be shifted westward to accommodate a second southbound left-turn lane.

4.2.3.3 *Alder Drive/Tasman Drive*

Traffic from the proposed project exacerbates LOS F operations during the PM peak hour. There are no feasible mitigation measures available to reduce the project impact at the intersection of Alder Drive/Tasman Drive to a less than significant level. Conversion of one southbound (Alder Drive) through lane to a left turn lane to provide a total of three southbound left turn lanes improves intersection operations; however, this improvement would impact pedestrian and bicycle activity, which would increase substantially with this and other recently approved residential projects. This improvement would also degrade vehicle progression and VTA light rail transit operations along Tasman Drive. Thus, the identified mitigation is not considered feasible and the project impact at this intersection is significant and unavoidable.

The following measures will be required as conditions of approval to reduce the project's impact at the signalized intersection to the greatest extent feasible.

MM TRANS-3.1: ***Alder Drive/Tasman Drive***

There are no feasible mitigation measures available to reduce the project impact at the intersection of Alder Drive/Tasman Drive to a less than significant level. Conversion of one southbound (Alder Drive) through lane to a left turn lane to provide a total of three southbound left turn lanes improves intersection operations; however, this improvement would impact pedestrian and bicycle activity (which would increase substantially with this and other recently approved residential projects), and degrade vehicle progression and VTA light rail transit operations along Tasman Drive. Thus, the project impact at this intersection is significant and unavoidable. Prior to issuance of a building permit, the developer shall provide all funding necessary for the design and implementation of traffic operation improvements to help in signal coordination with adjacent intersections (i.e. Tasman Drive/I-880 SB Ramps and Great Mall Parkway/I-880 NB Ramps).

4.2.3.4 *Tasman Drive/I-880 SB Ramps and Great Mall Parkway /I-880 NB Ramps*

There are no feasible mitigation measures available to reduce project impacts at the intersections of Tasman Drive/I-880 SB Ramps and Great Mall Parkway/I-880 NB Ramps to a less than significant level.

Traffic from the proposed project exacerbates LOS E operations at the Tasman Drive/I-880 SB Ramps during the PM peak hour. The addition of a free right-turn movement from eastbound Tasman Drive to the southbound I-880 on-ramp would mitigate the impact. However, this improvement is considered infeasible due to right-of-way constraints. The overpass would require widening to accommodate the channelized eastbound right-turn movement and the elevated on-ramp would require widening to accommodate the receiving vehicles from the eastbound approach. These improvements are beyond the scope of an individual development and the improvement is not identified in a Capital Improvement Programs or other funding mechanism that would allow for a fair-share contribution to this mitigation.

Traffic from the proposed project exacerbates LOS E operations at the Great Mall Parkway/I-880 NB Ramps during the AM peak hour. Widening of the northbound I-880 Ramp approach to provide a third dedicated left-turn lane would mitigate the impact. This mitigation is considered infeasible, because implementation of this mitigation would require relocation of Valley Transportation Authority Light Rail Transit system tracks and centenary power systems, reconstruction of the Great Mall Parkway bridges over I-880, relocation of existing sound walls and fences along the east-side of the off-ramp, and reduce neighborhood open space within the Pines Neighborhood of Milpitas that is adjacent to the off-ramp. This improvement is not identified in an adopted Capital Improvements Program or other funding mechanism that would allow for a fair-share contribution to this mitigation.

The following measures are included in the proposed project to reduce project impacts at these signalized intersections to the greatest extent feasible. These measures shall be printed on all construction documents, contracts, and project plans:

MM TRANS-4.1: ***Tasman Drive/I-880 SB Ramps***

Prior to issuance of a building permit, the applicant shall provide all funding necessary for the design and implementation of traffic operation improvements to help in signal coordination with adjacent intersections (i.e., Tasman Drive/Alder Drive and Great Mall Parkway/I-880 NB Ramps). This mitigation will improve operations at this intersection, but will not reduce the impact to a less than significant level.

MM TRANS-5.1: ***Great Mall Parkway/I-880 NB Ramps***

Prior to issuance of a building permit, the applicant shall provide all funding necessary for the design and implementation of traffic operation improvements to help in signal coordination with adjacent intersections (i.e. Tasman Drive/I-880 SB Ramps and Tasman Drive/Alder Drive). This mitigation will improve operations at this intersection, but will not reduce the impact to a less than significant level.

4.2.3.5 *McCarthy Boulevard-O'Toole Avenue/Montague Expressway*

There are two options that would mitigate the project's impact at the intersection of McCarthy Boulevard-O'Toole Avenue/Montague Expressway to a less than significant level. The applicant shall implement one of the following measures, which would reduce the project's impact at the intersection to a less than significant level. The measure to be implemented shall be printed on all construction documents, contracts, and project plans:

MM TRANS-6.1: ***McCarthy Boulevard-O'Toole Avenue/Montague Expressway (Option 1)***

Prior to the issuance of a building permit, the developer shall construct the identified improvements or pay a fair share contribution for the value of the improvement and right-of-way needed into an account created by the City of Milpitas for the sole purpose of providing the necessary improvements. Mitigation that reduces sidewalk widths below the City standard is not allowed under City of San José Transportation Impact Policy 5-3. The standard sidewalk width in North San José is five feet. The existing sidewalk is five and one-half feet wide. Therefore, in order to implement this mitigation consistent with adopted policy, approximately two and one-half feet of right-of-way behind the sidewalk in the landscape area of the adjacent development would need to be acquired from the adjacent private property for the length of the dedicated right turn lane. This equates to the acquisition of approximately 513 square feet of right-of-way (i.e., 2.5 square feet x 250 feet = 625 square feet). The mitigation would also require relocating existing utilities (e.g., a light pole). The landscape reduction and utility relocation would not result in a significant impact. The south half of the intersection is within the jurisdiction of the City of San José and, therefore this mitigation is outside the control of the City of Milpitas to implement.

MM TRANS-6.2: ***McCarthy Boulevard-O'Toole Avenue/Montague Expressway (Option 2)***

A square-loop interchange is planned to be constructed at the intersection of McCarthy Boulevard-O'Toole Avenue/Montague Expressway under Phase 3 of the North San José Area Development Policy (NSJADP). With the square loop interchange, a level of service is not reported at this location because the intersection is eliminated (Montague Expressway will be elevated over McCarthy Boulevard with on and off-ramps located to the west) and the project's impact at this location will be less than significant. The City of San José has stated that payment of an in-lieu fee towards the planned square-loop interchange is acceptable and is the preferred mitigation for the project impact at this intersection. The dollar amount of the in-lieu fee would be equal to the appraised value of the right-of-way needed to construct the dedicated right turn lane (625 square feet, described in Option 1, above) and the value of the identified improvements. The NSJADP is the adopted program that would allow for a fair-share contribution to this mitigation. The NSJADP does not establish a timeline for the development phases. As with this proposed project and its impacts, the amount of development in North San José and its timing will be determined by the economy, markets, and the decisions made by private sector property owners and developers. Therefore, if the City of Milpitas accepts the City of San José's timeline for implementation of the

mitigation (i.e., unknown), then payment of the in-lieu fee would mitigate the project's traffic impact at the intersection of McCarthy Boulevard-O'Toole Avenue/Montague Expressway.

4.2.3.6 *Traffic Impact Fees*

In addition to the mitigation measures described above, the applicant for the project shall also pay traffic impact fees. The Milpitas Business Park traffic impact fee goes towards payment of all the existing improvements in the project area (e.g., signal lights, street medians, etc.). The Montague Expressway traffic impact fee goes towards the widening of Montague Expressway. The Calaveras Boulevard traffic impact fee goes towards the widening of the Calaveras bridge over the railroad tracks from four to six lanes and also increasing the lanes between I-680 and I-880.

The applicant shall provide the following traffic impact fees:

- Milpitas Business Park traffic impact fee (includes the Montague Expressway Fee)
- Calaveras Boulevard traffic impact fee

4.2.3.7 *Freeway Segment Impacts*

MM TRANS-9: The proposed project would impact the segment of Eastbound SR 237 between McCarthy Boulevard and I-880. Mitigation of the project's impacts to SR 237 would require roadway widening that is infeasible for an individual development project to implement due to the extensive nature of the improvements required. When project mitigation measures on CMA facilities are not feasible or fail to improve the level of service to the CMA's LOS standard, a CMA-approved Deficiency Plan must be prepared. The City of Milpitas is currently preparing a Citywide Deficiency Plan (CDP) to identify local and regional transportation improvements. The CDP will include the "Immediate Actions" list in Appendix D of the Transportation Impact Analysis Guidelines. Pending final approval of the CDP, the City of Milpitas will require the project applicant to implement, the "Immediate Actions" list in Appendix D of the Transportation Impact Analysis Guidelines (May 1998), as part of the project's approval. These actions include measures to encourage alternative modes of transportation and site design guidelines for new development. Measures from the "Immediate Actions" list (refer to Appendix A of this EIR for the full list) that are appropriate for this project include:

- Improve Pedestrian Facilities (A-4)
- Shuttle (B-3)
- Bus Stop Improvements (B-8)
- Traffic signal timing and synchronization program (F-3)
- HOV parking preference program (G-1)
- Bike facilities (G-2)
- Pedestrian circulation system (G-4)

While implementation of these measures would incrementally reduce traffic, they would not reduce the project's freeway impacts to a less than significant

level. For this reason and those listed above, the project's freeway impacts are significant and unavoidable. **(Significant Unavoidable Impact)**

4.2.4 Conclusion

Impact TRANS-1: Implementation of the mitigation measure identified above would reduce the project's LOS impacts to the McCarthy Boulevard/Bellew Drive intersection during the PM Peak Hour to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact TRANS-2: The identified mitigation measure would reduce the project's LOS impacts to the McCarthy Boulevard/Alder Drive intersection during the PM peak hour to a less than significant level. The City recently approved an office development directly west of this intersection which precludes the acquisition of the necessary right-of-way to construct the improvement. The project's impact to this intersection, therefore, is significant and unavoidable. **(Significant Unavoidable Impact)**

Impact TRANS-3: Traffic from the proposed project exacerbates LOS F operations at the intersection of Alder Drive/Tasman Drive during the PM peak hour. There are no feasible mitigation measures available to reduce this impact to a less than significant level. Conversion of one southbound (Alder Drive) through lane to a left turn lane to provide a total of three southbound left turn lanes improves intersection operations; however, this improvement would impact pedestrian and bicycle activity, which would increase substantially with this and other recently approved residential projects. This improvement would also degrade vehicle progression and VTA light rail transit operations along Tasman Drive. The project shall provide all funding necessary for the design and implementation of traffic operation improvements to help in signal coordination with adjacent intersections (i.e. Tasman Drive/I-880 SB Ramps and Great Mall Parkway/I-880 NB Ramps), which will help improve overall traffic circulation in the project area; however, it will not fund specific improvements necessary to mitigate the project's impact. Thus, the project impact at this intersection is significant and unavoidable. **(Significant Unavoidable Impact)**

Impact TRANS-4:
Impact TRANS-5: Traffic from the proposed project exacerbates LOS E operations during the PM peak hour at the intersection of Tasman Drive/I-880 SB Ramps and LOS F operations during the AM peak hour at the intersection of Great Mall Parkway/I-880 NB Ramps. Signal coordination between these intersections and Tasman Drive/Alder Drive will improve operations at these intersections, but will not reduce these impacts to a less than significant level. There is no feasible mitigation available to reduce these impacts to a less than significant level. The project shall provide all funding necessary for the design and implementation of traffic operation improvements to help in signal coordination with Tasman Drive/Alder Drive, which will help improve overall traffic circulation in the project area; however, it will not fund specific improvements necessary to mitigate the project's impact. Thus, the project impact at these intersections is significant and unavoidable. **(Significant Unavoidable Impact)**

Impact TRANS-6:
Impact TRANS-7: Implementation of one of the mitigation options identified above would reduce the project's LOS impacts to the McCarthy Boulevard-O'Toole Avenue/Montague Expressway intersection during the AM and PM peak hour to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact TRANS-8: With the construction of the project roadway improvements at the Bellew Drive and Barber Lane intersection, the proposed project would not result in any impacts during the mid-day peak hour. **(Less Than Significant Impact)**

Impact TRANS-9: Mitigation of the project's impacts to SR 237 would require roadway widening that is infeasible for an individual development project to implement due to the extensive nature of the improvements required. The project applicant will be required, as part of the project's approval, to implement the "Immediate Actions" list in Appendix D of the Transportation Impact Analysis Guidelines (May 1998). While implementation of these measures would incrementally reduce traffic, they would not reduce the project's freeway impacts to a less than significant level and, therefore, the project's freeway impacts are significant and unavoidable. **(Significant Unavoidable Impact)**

Impact TRANS-10: The proposed project would not result in a significant adverse impact to existing or planned transit, pedestrian, or bicycle facilities. **(Less Than Significant Impact)**

Impact TRANS-11: The proposed project includes adequate site access and circulation for the project and would not result in any safety hazards. **(Less Than Significant Impact)**

Impact TRANS-12: The proposed project includes adequate parking capacity to serve the proposed mixed-use development. **(Less Than Significant Impact)**

4.3 AIR QUALITY

The information provided in this section is based on an Air Quality Study prepared by *Illingworth & Rodkin, Inc.*, in December 2008. A copy of this report is included as Appendix B in this EIR.

4.3.1 Existing Setting

4.3.1.1 *Introduction and Regulatory Overview*

Air pollution typically refers to air that contains chemicals in concentrations that are high enough to cause adverse effects to humans, other animals, vegetation, or materials. Air pollutants include those from natural sources (e.g., forest fires, volcanic eruptions, windstorms, etc.) and human sources (e.g., factories, transportation, power plants, etc.). In the Santa Clara Valley, vehicular emissions are the predominant source of air pollutants.

In recognition of the adverse effects of degraded air quality, Congress and the California Legislature enacted the Federal and California Clean Air Acts, respectively. As a result of these laws, the Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for what are commonly referred to as "criteria pollutants", because they set the criteria for attainment of good air quality. Criteria pollutants include carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, and particulate matter.[6] In general, the California standards are more stringent than the federal standards. Table 4.3-1 lists these standards.

The Bay Area Air Quality Management District (BAAQMD) oversees air quality in the San Francisco Bay Area. BAAQMD periodically prepares and updates plans to achieve the goal of healthy air. The BAAQMD plans are prepared with the cooperation of the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). The *Bay Area 2005 Ozone Strategy* (Ozone Strategy) is the most recent plan prepared by BAAQMD. The Ozone Strategy serves as a roadmap showing how the San Francisco Bay Area will achieve compliance with the state one-hour air quality standard for ozone and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. The Ozone Strategy updates Vehicle Miles Traveled (VMT) and other assumptions in the *2000 Clean Air Plan* (CAP) related to ozone in the atmosphere and is the current plan to achieve healthy air for the Bay Area.

BAAQMD also operates its Toxic Air Contaminant Control Program, which implements and enforces all Maximum Achievable Control Technology (MACT) standards and Airborne Toxic Control Measures (ATCMs) pertaining to stationary source emissions of these substances. This program also monitors toxic air contaminants at various locations in the Bay Area.

[6] In addition, state standards have been established for lead, sulfates, hydrogen sulfide and visibility reducing particles. The state also recognizes vinyl chloride as a toxic air contaminant. Discussion of these criteria pollutants in this EIR, however, will be limited, because the project is not expected to emit these pollutants. Vinyl chloride and hydrogen sulfide emissions are generally generated from mining, milling, refining, smelting, landfills, sewer plants, cement manufacturing, or the manufacturing or decomposition of organic matter. Because the proposed project does not contain any of these uses, they need not be addressed further in this EIR. As to lead, sulfate and visibility reducing particles, the state standards are not exceeded anywhere in the Bay Area; therefore, these pollutants are not relevant to air quality planning and regulation and need not be further addressed in this EIR.

Table 4.3-1:
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards[a]	
			Primary[b,c]	Secondary[b,d]
Ozone	8-hour	0.07 ppm	0.08 ppm	---
	1-hour	0.09 ppm	---[e]	Same as primary
Carbon monoxide	8-hour	9.0 ppm	9 ppm	---
	1-hour	20 ppm	35 ppm	---
Nitrogen dioxide	Annual	0.03 ppm	0.053 ppm	Same as primary
	1-hour	0.18 ppm	0.030 ppm	---
Sulfur dioxide	Annual	---	0.03 ppm	---
	24-hour	0.04 ppm	0.14 ppm	---
	3-hour	---	---	0.5 ppm
	1-hour	0.25 ppm	---	---
PM_{10}	Annual	20 $\mu g/m^3$	---[f]	Same as primary
	24-hour	50 $\mu g/m^3$	150 $\mu g/m^3$	Same as primary
$PM_{2.5}$	Annual	12 $\mu g/m^3$	15 $\mu g/m^3$	---
	24-hour	---	35 $\mu g/m^3$	---
Lead	Calendar quarter	---	1.5 $\mu g/m^3$	Same as primary
	30-day average	1.5 $\mu g/m^3$	---	---

Notes:
[a] Standards, other than for ozone and those based on annual averages, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.
[b] Concentrations are expressed first in units in which they were promulgated.
[c] Primary standards: the levels of air quality necessary, with an adequate margin of safety to protect public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the EPA.
[d] Secondary standards: the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
[e] The national 1-hour ozone standard was revoked by USEPA on June 15, 2005.
[f] The annual PM_{10} standard was revoked by USEPA on September 21, 2006 and a new $PM_{2.5}$ 24-hour standard was established.

4.3.1.2 *Criteria Air Pollutants and Effects*

Air quality studies generally focus on five pollutants that are most commonly measured and regulated: carbon monoxide (CO), ozone (O_3), nitrogen oxides (NO_2), sulfur oxides and particulate matter. Table 4.3-2 identifies the major criteria pollutants[7], characteristics, health effects, and typical sources. In Santa Clara County, ozone and particulate matter are the pollutants of greatest concern since their measured air pollutant concentrations exceed ambient air quality standards at times.

[7] Ambient air quality standards cover what are called "criteria" pollutants because the health effects of each pollutant are described in criteria documents.

Table 4.3-2:
Major Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources
Carbon Monoxide	Carbon monoxide is an odorless, colorless gas that results from the incomplete combustion of fuels.	- Impairment of oxygen transport in the bloodstream. - Aggravation of cardiovascular disease - Fatigue, headache, confusion, dizziness - Can be fatal in the case of very high concentrations	Automobile exhaust, combustion of wood in stoves and fireplaces.
Ozone	A highly reactive photochemical pollutant created by the action of sunshine on ozone precursors, primarily reactive hydrocarbons and oxides of nitrogen. Often called photochemical smog.	- Eye irritation - Respiratory function impairment	The major sources ozone precursors are combustion sources such as factories and automobiles, and evaporation of solvents and fuels.
Nitrogen Dioxide	Reddish-brown gas that discolors the air, formed during combustion.	- Increased risk of acute and chronic respiratory disease	Automobile and diesel truck exhaust, industrial processes, fossil-fueled power plants.
Sulfur Dioxide	Sulfur dioxide is a colorless gas with a pungent, irritating odor.	- Aggravation of chronic obstruction lung disease - Increased risk of acute and chronic respiratory disease	Diesel vehicle exhaust, oil-powered power plants, industrial processes.
Particulate Matter	Solid and liquid particles of dust, soot, aerosols and other matter which are small enough to remain suspended in the air for a long period of time.	- Aggravation of chronic disease and heart/lung disease symptoms	Combustion, automobiles, field burning, factories and unpaved roads. Also a result of photochemical processes.

4.3.1.3 *Existing Air Quality*

The project site is located in Milpitas, at the north end of the Santa Clara Valley. The climate is affected by its proximity to both the Pacific Ocean and the San Francisco Bay, which has a moderating influence. The valley is bounded by the San Francisco Bay to the north and by mountains to the east, south, and west. The surrounding terrain greatly influences winds in the valley, resulting in a prevailing wind that follows along the valley's northwest-southeast axis. During the afternoon and early evening, a north-northwesterly sea breeze often flows from the Bay through the valley, and a light south-southeasterly drainage flow often occurs during the late evening

and early morning hours. Wind data collected at Alviso and Mineta San José International Airport characterize wind flow at the project site. Winds occur from the northwest approximately 50 percent of the time and from the southeast approximately 25 percent of the time, with light and variable winds occurring the other 25 percent of the time.

Average maximum temperatures range from the low 80s in the summer to the high 50s or low 60s in winter with average minimum temperatures from the high 50s in the summer to the upper 30s and low 40s in the winter. Rainfall in the valley is approximately 15 to 20 inches per year, occurring mostly in the months of November through March.

Air quality standards for ozone traditionally are exceeded when relatively stagnant conditions occur for periods of several days during the warmer months of the year. Weak wind flow patterns combined with strong inversions substantially reduce normal atmospheric mixing. Key components of ground-level ozone formation are sunlight and heat; therefore, significant ozone formation only occurs during the months from late spring through early fall. Prevailing winds during the summer and fall can transport and trap ozone precursors from the more urbanized portions of the Bay Area. Meteorological factors make air pollution potential in the Santa Clara Valley quite high. The clear skies with relatively warm conditions that are typical in summer combine with transported and localized air pollutant emissions to elevate ozone levels. The surrounding mountains up slope and down slope flows may also recirculate pollutants already present, contributing to the buildup of air pollution. Light winds and stable conditions during the late fall and winter contribute to the buildup of particulate matter from motor vehicles, agriculture, and wood burning in fireplaces and stoves.

Air Monitoring Data

Air quality in the region is controlled by the rate of pollutant emissions and meteorological conditions. Meteorological conditions such as wind speed, atmospheric stability, and mixing height may all affect the atmosphere's ability to mix and disperse pollutants. Long-term variations in air quality typically result from changes in air pollutant emissions, while frequent, short-term variations result from changes in atmospheric conditions. The San Francisco Bay Area is considered one of the cleanest metropolitan areas in the country with respect to air quality. The BAAQMD monitors air quality conditions at over 30 locations throughout the Bay Area. There are several BAAMQD monitoring stations in San José, which are closest to the project site.

The pollutant of most concern in the Milpitas area is ozone. Prevailing summertime wind conditions tend to cause a build up of ozone in the Santa Clara Valley. Ozone levels measured in San José exceeded the state ozone standard from zero to five times in 2002-2006. The 8-hour national ozone standard was only exceeded once in the last five years during an extended heat wave in 2006. Measured exceedances of the state PM_{10} standard have occurred between two and three measurement days each year in San José (estimated at 12 to 18 days). PM_{10} and $PM_{2.5}$ are measured every sixth day. Exceedances of the federal $PM_{2.5}$ standard of 65 $\mu g/m^3$ were not measured in San José; however, the new standard of 35 $\mu g/m^3$ was exceeded on six measurement days during 2006 (estimated 36 days per year). The entire Bay Area, including San José, did not experience any exceedances of other air pollutants. Table 4.3-3 reports the number of days that an ambient air quality standard was exceeded at any of the stations in San José near the project and in the entire Bay Area.

Table 4.3-3
Annual Number of Days Exceeding Ambient Air Quality Standards

Pollutant	Standard	Monitoring Station	Days Exceeding Standard				
			2002	2003	2004	2005	2006
Ozone (O_3)	NAAQS 1-hr	San Jose	0	0	0	--	--
		Bay Area	2	1	0	--	--
	NAAQS 8-hr	San Jose	0	0	0	0	1
		Bay Area	7	7	0	1	12
	CAAQS 1-hr	San Jose	0	4	0	1	5
		Bay Area	16	19	7	9	18
	CAAQS 8-hr	San Jose	--	--	--	1	5
		Bay Area	--	--	--	9	22
Fine Particulate Matter (PM10)	NAAQS 24-hr	San Jose	0	0	0	0	0
		Bay Area	0	0	0	0	0
	CAAQS 24-hr	San Jose	2	2	3	2	2
		Bay Area	6	6	7	6	15
Fine Particulate Matter ($PM_{2.5}$)	NAAQS 24-hr*	San Jose	NA	0	0	0	6
		Bay Area	7	0	1	0	10
All Other (CO, NO_2, Lead, SO_2)	All Other	San Jose	0	0	0	0	0
		Bay Area	0	0	0	0	0

Notes:
NAAQS = National Ambient Air Quality Standard
CAAQS = California Ambient Air Quality Standard
-- = No standard in place at that time
NA = Data not available
* Based on standard of 65 ug/m^3 that was in place until September 21, 2006.

Attainment Status

Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. The Bay Area as a whole does not meet state or federal ambient air quality standards for ground level ozone or state standards for PM_{10} and $PM_{2.5}$.

Under the Federal Clean Air Act, the US EPA has classified the region as marginally "nonattainment" for the 8-hour ozone standard. EPA required the region to attain the standard by 2007. The Bay Area has met the CO standards for over a decade and is classified as "attainment maintenance" by the US EPA. The US EPA grades the region unclassified for all other air pollutants, which include PM_{10} and $PM_{2.5}$.

At the state level, the region is considered "serious non-attainment" for ground level ozone and non-attainment for PM_{10}. California ambient air quality standards are more stringent than the national ambient air quality standards. The region is required to adopt plans on a triennial basis that show progress towards meeting the state ozone standard. The area is considered attainment or unclassified for all other pollutants.

Recent $PM_{2.5}$ monitoring data for San José suggest that Santa Clara County exceeds the new national $PM_{2.5}$ standards for 24-hour exposures. U.S. EPA is expected to make rulings on area attainment

designations in 2010 based on 2007 to 2009 monitoring data. Most nonattainment areas would have until 2015 to attain the standards with some extensions to 2020 possible.

Odors

There are several sources of odors located northeast of the project site. These include the Newby Island Landfill and Compost Facility, the Zanker Materials Processing Facility, the Zanker Road Resource Recovery Operation and Landfill, the San Jose/Santa Clara Water Pollution Control Plant (WPCP), and the salt evaporation ponds. The project site is approximately one and one-half miles southeast of the WPCP and two and three-quarter miles southeast of the Newby Island Landfill. The WPCP includes treatment facilities and sludge drying beds that sometimes generate odors that are perceptible off-site. The Newby Island Landfill includes landfilling and composting operations which could generate odors. The prevailing wind direction in the project area is generally from the northwest. Wind blows from the northwest approximately 50 percent of the time. When WPCP facilities and the Newby Island Landfill generate odors and the wind is blowing towards the project site, the odors may be perceptible at the project site.

The Bay Area Air Quality Management District (BAAQMD) is responsible for receiving and confirming odor complaints. According to information provided by BAAQMD, between April 2002 and April 2005, there were a total of 30 WPCP odor complaints in the project area from locations greater in distance from the WPCP than the project site. Of these 30 complaints, nine were confirmed and 21 were unconfirmed by BAAQMD (i.e., a BAAQMD representative went to the location of the complaint and verified the odor).

4.3.1.4 *Sensitive Receptors*

Some groups of people are more affected by air pollution than others. CARB has identified the following people who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks.

Sensitive receptors are not located adjacent to the project site. The nearest sensitive receptors include the Cisco Day Care Center located at 800 Barber Lane, approximately 800 feet south of the project site and single family residences located to the east of I-880, approximately 1,300 feet east of the project site.

4.3.2 <u>Air Quality Impacts</u>

4.3.2.1 *Thresholds of Significance*

For the purposes of this EIR, an air quality impact is considered significant if the project would:

- Conflict with or obstruct implementation of the applicable air quality plan; or
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation; or
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative threshold for ozone precursors); or

- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

4.3.2.2 *Long-Term Air Quality Impacts*

Bay Area 2005 Ozone Strategy

The Ozone Strategy serves as the current plan to achieve healthy air for the Bay Area. The consistency of the proposed project with the Ozone Strategy is primarily a question of consistency with population/employment assumptions utilized in developing this regional plan. The population/employment assumptions are based on the Association of Bay Area Governments' (ABAG) *Projections 2002*. In turn, ABAG *Projections 2002* are based on the General Plan's of the City's that comprise the Bay Area, including the City of Milpitas.

The City of Milpitas has substantially more jobs than employed residences. The proposed project is infill development that would create additional residential development and will incrementally improve the jobs/housing balance in the City. Providing housing for more of the City's workers is anticipated to help reduce traffic congestion, commute times, and regional air pollution levels. The proposed project includes commercial and retail services that would accommodate the residential development proposed by the project. In addition, the project is served by local transit with direct connections to regional transit, such as the VTA light rail located on Tasman Drive approximately one-half mile from the project site. However, the project would result in a General Plan amendment that would change the land use designation of the site from a non-residential use to a mixed commercial and residential use, which would increase population beyond that anticipated in the General Plan, ABAG *Projections 2002*, and the Ozone Strategy. Therefore, although the project is anticipated to reduce air pollution levels, the project is technically inconsistent with the Ozone Strategy. This inconsistency would exist until the ABAG projections are updated to include the revised land use designation and the Ozone Strategy is updated to reflect those projections.

<u>Transportation Control Measures</u>

Determining consistency of local plans with the Ozone Strategy also involves assessing whether transportation control measures (TCMs), for which local governments are implementing agencies, are indeed being implemented. The Ozone Strategy identifies implementing agencies/entities for each of the TCMs included in the Strategy. Cities and counties are identified among the implementing agencies for seven of the TCMs, which are listed in Table 4.3-4, below.

Table 4.3-4
CAP Transportation Control Measures to be Implemented by Cities

Transportation Control Measure	Description
1. Expand Employee Assistance Program	▪ Provide assistance to regional and local ride sharing organizations.
9. Improve Bicycle Access and Facilities	▪ Establish and maintain bicycle advisory committees in all nine Bay Area Counties. ▪ Develop comprehensive bicycle plans. ▪ Encourage employers and developers to provide bicycle access and facilities. ▪ Improve and expand bicycle lane system.

Table 4.3-4
CAP Transportation Control Measures to be Implemented by Cities

Transportation Control Measure	Description
12. Improve Arterial Traffic Management	▪ Continue ongoing local signal timing programs. ▪ Study signal preemption for buses on arterials with high volume of bus traffic. ▪ Expand signal timing programs. ▪ Improve arterials for bus operations and to encourage bicycling.
15. Local Clean Air Plans, Policies and Programs	▪ Incorporate air quality beneficial policies and programs into local planning and development activities, with a particular focus on subdivision, zoning and site design measures that reduce the number and length of single-occupant automobile trips.
17. Conduct Demonstration Projects	▪ Promote demonstration projects to develop new strategies to reduce motor vehicle emissions. ▪ Projects include low emission vehicle fleets and LEV refueling infrastructure.
19. Pedestrian Travel	▪ Review/revise general/specific plan policies to promote development patterns that encourage walking and circulation policies that emphasize pedestrian travel and modify zoning ordinances to include pedestrian-friendly design standards. ▪ Include pedestrian improvements in capital improvement programs. ▪ Designate a staff person as a Pedestrian Program Manager.
20. Promote Traffic Calming Measures	▪ Include traffic calming strategies in the transportation and land use elements of general and specific plans. ▪ Include traffic calming strategies in capital improvement programs.

Impact AQ-1: The project would generate less air pollution than residences built at more suburban locations. Developing residential uses near commercial and job centers is consistent with the policies of the Ozone Strategy and with ABAG projections. **(Less than Significant Impact)**

Impacts on Regional Air Quality

The Bay Area is considered a non-attainment area for ground-level ozone under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM_{10}), and particulate matter with a diameter of less than 2.5 micrometers ($PM_{2.5}$) under the California Clean Air Act, but not the federal act. Vehicle trips generated by the project would result in air pollutant emissions affecting the entire San Francisco Bay Air Basin. Regional emissions associated with project vehicle use were calculated using the URBEMIS2007 emission model. The methodology used to estimate vehicular emissions is described in Appendix B.

The incremental daily emission increase associated with the project is identified in Table 4.3-5 for reactive organic gases and oxides of nitrogen (two precursors of ozone), as well as PM_{10} and $PM_{2.5}$. The Bay Area Air Quality Management District established a threshold of significance for ozone precursors and PM_{10} of 80 pounds per day. Project emissions are shown in Table 4.3-5, on the following page. The results indicate that emissions of PM_{10} and ROG would exceed BAAQMD thresholds.

Table 4.3-5
Project Regional Emissions in Pounds Per Day

	Reactive Organic Gases (ROG)	Nitrogen Oxides (NOx)	Respirable Particulates (PM_{10})
Vehicular Emissions	56	59	118
Area Source Emissions	51	7	<1
Total	**107**	66	**118**
BAAQMD Significance Threshold	*80.0*	*80.0*	*80.0*

Impact AQ-2: The proposed project would result in significant regional air quality impacts associated with reactive organic gases (ROG) and respirable particulates (PM_{10}) emissions. **(Significant Impact)**

Impacts on Local Air Quality

The project would increase traffic and traffic congestion on the local street network, increasing carbon monoxide levels along roadways used by project traffic. Carbon monoxide is an odorless, colorless poisonous gas. The primary source of carbon monoxide in the Bay Area is automobiles. Concentrations of this gas are highest near major roadway intersections that are highly congested.

Future carbon monoxide levels were predicted for existing and project conditions near two congested intersections that would be affected by project-generated traffic. Emissions for the West Calaveras Boulevard/South Abel Street and Tasman Drive/McCarthy Boulevard intersections were calculated using the EMFAC2007 model, developed by the California Air Resources Board, with conservative assumptions for atmospheric conditions and intersection lane configurations. The results are shown in Table 4.3-6. The highest 8-hour concentration with the proposed project is predicted to be 6.3 parts per million (ppm), and would occur at the intersection of West Calaveras Boulevard/South Abel Street. Lower concentrations would occur at other intersections affected by project traffic. The results of the carbon monoxide screening analysis indicate that the proposed project would not increase carbon monoxide levels at congested intersections above the established BAAQMD significance threshold of 9.0 ppm.

Table 4.3-6
Predicted Carbon Monoxide 8-hour Concentrations

Intersection	Existing Conditions 2007	Project Conditions
W. Calaveras Blvd./ S. Abel St.	6.8 ppm	6.3 ppm
Tasman Dr./McCarthy Blvd.	5.8 ppm	5.9 ppm
BAAQMD Thresholds	9.0 ppm	9.0 ppm

Note: Lower carbon monoxide levels in the future are the result of decreased vehicle emissions from new cars.

Impact AQ-3: Vehicle emissions from project-generated traffic would not result in a significant increase in carbon monoxide levels at congested intersections. **(Less Than Significant Impact)**

Diesel Particulate Matter Emissions

In 1998 the California Air Resources Board (CARB) identified particulate matter from diesel fueled engines as a toxic air contaminant (TAC) because it is known to cause cancer. CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines. High volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (e.g., distribution centers and truckstops) were identified as having the highest associated risk. The project site is located immediately adjacent to SR 237 and I-880.

An analysis to assess the risk of exposing residents of the proposed project to future diesel particulate matter (DPM) emissions from traffic on SR 237 and I-880 was completed. Emission factors were developed for 2010, 2015, 2020, 2025, and 2030. Maximum concentrations of DPM would occur at the proposed residences closest to SR 237 and I-880 (refer to Figure 9). The maximum individual cancer risks were computed using the methods recommended by BAAQMD and the California Office of Environmental Health Hazard Assessment (OEHHA). Results of the analysis are shown in Table 4.3-7. Over the course of a 70-year lifetime exposure, the Maximally Exposed Individual (MEI) of the proposed project would increase their chance of contracting cancer from seven to 12 chances in a million. The BAAQMD CEQA Guidelines threshold of significance is an incremental risk of greater than 10 chances per million. The increased DPM exposure to residents of the proposed project would result in a significant impact.

Table 4.3-7
Maximum Computed Cancer Risk due to Diesel Particulate Matter (DPM) Exposure

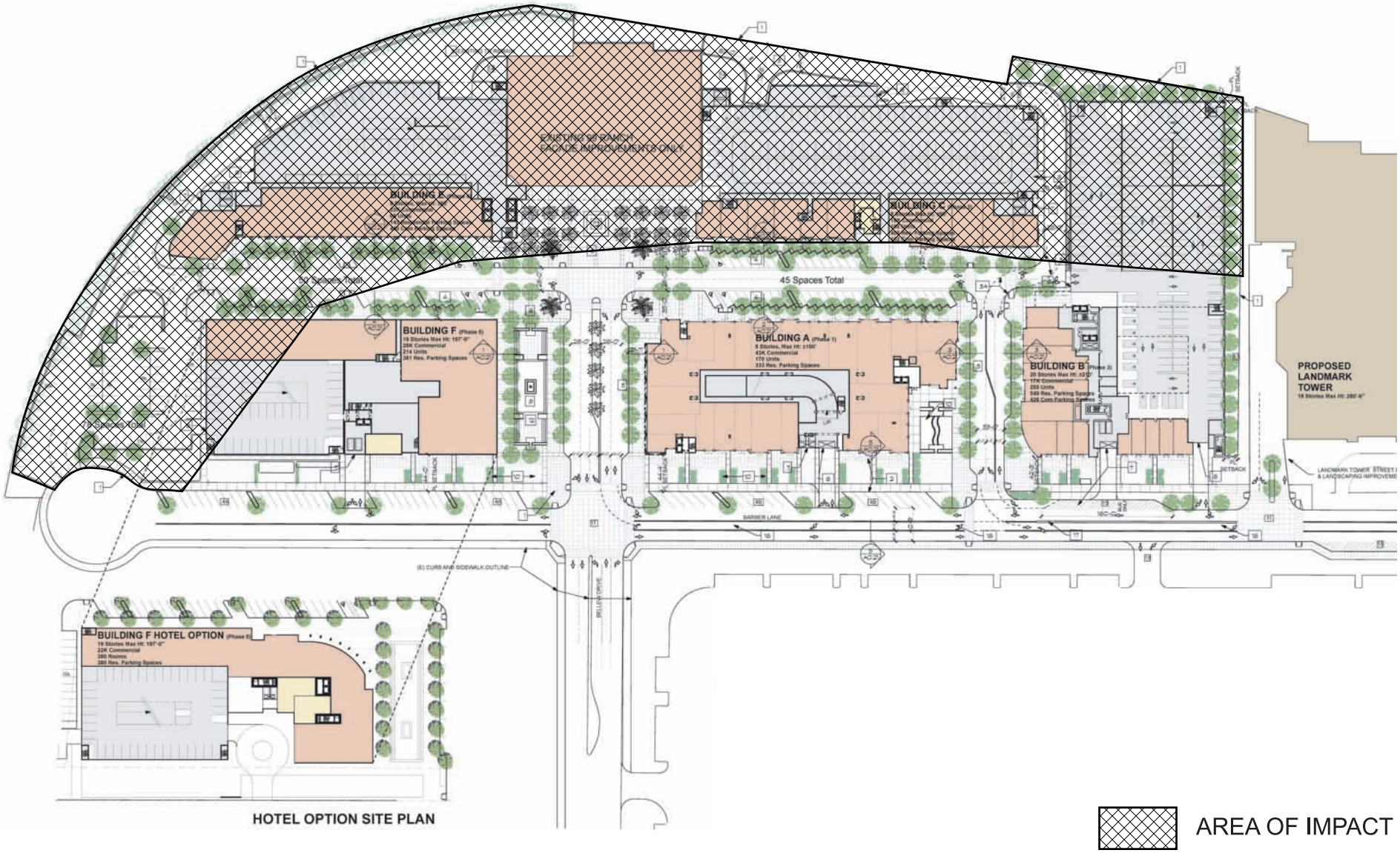
Exposure Type	Maximum Cancer Risk Per Million
70-Year Lifetime	**12.2**
BAAQMD Significance Threshold	*10*

It should be noted that emission rates of diesel particulate matter from traffic are anticipated to decrease substantially in the future. The EMFAC2007 model used in this analysis indicates that emission rates in 2015 would be 35 percent lower than in 2010. The rates in 2020 would be nearly half of 2010 rates, and the 2030 rates would decrease by 70 percent from the 2010 rates. The decrease would be attributable to many of the CARB measures implemented as part of the Diesel Risk Reduction Plan. The decrease in emissions rates, however, would be partially offset by traffic growth. As a result, the health risks associated with the project are primarily due to exposure to higher levels of diesel particulate matter that would occur during the first five years of the project.

Impact AQ-4: The proposed project would expose residents to levels of diesel particulate matter (DPM) in excess of BAAQMD thresholds. **(Significant Impact)**

Odors

The project site is located in a commercial and industrial area that has experienced odors in the past. Several potential sources of odors exist to the northwest. These sources include two compost facilities, two landfills, the San José/Santa Clara Water Pollution Control Plant (WPCP), and salt ponds. The distance to these sources varies from one and one-half miles to two and three-quarter miles from the project site.



70-YEAR CANCER RISK FROM DPM EMISSIONS

FIGURE 9

The BAAQMD CEQA Guidelines state that a significant odor impact should be identified if a project is locating near an existing odor source and the project site is closer to the existing odor source than any location where there has been:

1) more than one confirmed complaint per year averaged over a three year period, or
2) three unconfirmed complaints per year averaged over a three year period.

In an effort to address odor complaints in the City of Milpitas, BAAQMD developed a "Rapid Notification" system that emails any real-time odor complaint advisories to potential odor sources and Milpitas City staff. According to information provided by BAAQMD, between June 1, 2005 and November 12, 2008, there were a total of 27 odor complaints in the project area from locations greater in distance from the odor source than the project site (one confirmed and 26 unconfirmed). Over the time period June 1, 2005 to November 12, 2008, BAAQMD did not receive any odor complaints from the waste facilities on Zanker Road in San Jose; however, odor complaints were received for the WPCP and Newby Island Landfill. Over a three year period, odor complaints at locations further from the WPCP and Newby Island Landfill than the project site averaged nine complaints per year. Although the existing Rapid Notification system has reduced odor complaints in the City of Milpitas, based on the BAAQMD guidelines the project site would be significantly impacted by odor sources in the area.

Impact AQ-5: Odor complaints in the vicinity of the project site indicate objectionable odors would impact residents of the proposed project. **(Significant Impact)**

4.3.2.3 *Short-Term Air Quality Impacts*

Construction Dust Emissions

Dust created during demolition and construction on the project site would affect local air quality. The dry, windy climate of the area during the summer months creates a high potential for dust generation when and if underlying soils are exposed to the atmosphere. The proposed project would require substantial excavation and earthmoving. The movement of earth on the site is a construction activity with a high potential for creating air pollutants (i.e., PM_{10}). After grading, dust would continue to affect local air quality during construction of the project. If uncontrolled, construction of the proposed project would produce increased dustfall and locally elevated levels of PM_{10} downwind of construction activity.

Impact AQ-6: Construction activities on the project site could result in PM_{10} levels downwind of the project site that exceed State standards. **(Significant Impact)**

Construction Diesel Particulate Matter (DPM) Emissions

Unlike the exposure of project residents to diesel particulate matter from SR 237 and I-880, construction diesel emissions are temporary, affecting an area for limited period of time. The initial construction activities would not be near sensitive receptors, such as the Cisco Day Care Center located approximately 800 feet south of the site, and are expected to occur during a relatively short time period. Subsequent construction activities may occur on the site when a portion of the project becomes occupied by residences. BAAQMD encourages all feasible measures to reduce construction equipment exhaust to lessen the exposure to TACs. With implementation of the mitigation measures

listed in Section 4.3.3, impacts from construction equipment exhaust would be reduced to a less than significant level.

Impact AQ-7: The proposed project could result in significant diesel particulate matter emissions during project construction. **(Significant Impact)**

4.3.3 Mitigation and Avoidance Measures for Air Quality Impacts

4.3.3.1 *Long Term Air Quality Impacts*

Impacts on Regional Air Quality

As conditions of approval, the following mitigation and avoidance measures shall be implemented by the applicant to reduce impacts to regional air quality from the proposed project:

AM AQ-1.1: To ensure incorporation of appropriate CMP and Clean Air Plan TCMs, the features listed below shall be included in the project. Implementation of the measures listed below along with the City's General Plan requirements would incrementally reduce increased traffic congestion and would reduce vehicle-related emissions in a manner consistent with the Clean Air Plan.

- Bicycle amenities should be provided which include secure residential bicycle parking, bicycle racks for commercial and residential visitors, and bike lane connections.
- Pedestrian facilities should include easy access to bus stops and roadways that serve the site.
- Implement a landscape plan that provides shade trees along adjacent sidewalks, where feasible.
- Unbundle a portion of the residential parking spaces.[8]

MM AQ-2.1: The measures listed below represent reasonable and feasible measures that would reduce air pollutant emissions from the project.

- Provide exterior electrical outlets to encourage use of electrical landscape equipment.
- Prohibit idling of trucks at loading docks for more than three minutes and include signage indicating such a prohibition.
- If necessary, provide 110- and 220-volt electrical outlets at loading docks to eliminate any idling of trucks to operate auxiliary equipment.
- Implement a landscape plan that provides shade trees along pedestrian pathways.
- Implement "Green Building" designs, such as Leadership in Energy and Environmental Design (LEED) or GreenPoint Rated for new buildings to increase energy efficiency, which would reduce the future energy demand caused by the project, thus reducing air pollutant emissions indirectly.

[8] Unbundled residential parking would allow residents to rent or purchase parking spaces separately in their rental lease or lease spaces as needed from an HOA. Unbundled parking requires that a parking space is not automatically connected to the lease or purchase of a residential unit and promotes the use of alternatives to automobile transportation because a cost is associated with the use of a parking space.

- Explore options to provide or share shuttle service to the Tasman Light Rail Station.
- Provide Eco-passes to all new residents.

Diesel Particulate Matter (DPM) Emissions

MM AQ-4.1: Controlling the exposure of future occupants to diesel particulate matter during the first five years of the project could reduce the impact to a less than significant level.

The exposure could be controlled in two ways: delay occupancy of Buildings C, E, and F by up to three years (until 2015) where significant health risks are predicted, or provide centralized forced air mechanical ventilation systems with appropriate filter systems in those units and discourage the occupants from using the windows.

A properly designed and installed heating, ventilation and air conditioning (HVAC) system with proper filtration would adequately reduce exposure to particulate matter. This HVAC system shall maintain positive pressure in all living areas and include high efficiency filters for particulates. Air intakes for the HVAC systems shall be placed at positions that minimize roadway air pollution sources. A licensed mechanical engineer shall certify that the designed HVAC system offers the best available technology to minimize outdoor to indoor transmission of air pollution. The developer shall ensure an ongoing maintenance plan for the HVAC and filtration systems. Residences would have to be equipped with low-air infiltration windows and sealed doors to prevent air contamination. Opening of windows by occupants would reduce the effectiveness of this measure. Instructions regarding the proper use of any installed air filtration systems shall be provided to future occupants.

In addition, the project applicant shall provide notification (e.g., in the form of a fact sheet) to new affected project residents of the incremental health risks presented by exposure to concentrations of diesel particulate matter generated by SR 237 and I-880 truck traffic. This notification shall describe the harmful effects of diesel particulate matter, sources of this contaminant, potential level of exposure and the planning/regulatory efforts being taken to reduce harmful effects.

Odor Impacts

MM AQ-5.1: New residents of the project shall be provided notice that the project site may be affected by odors generated by a number of facilities in the area. This would inform people who choose to live at the project site of the potential to experience odors. While the mitigation measures may reduce or eliminate potential odor complaints, it cannot reduce the impact to a less-than-significant level.

4.3.3.2 *Short Term Air Quality Impacts*

Construction Dust Emissions

MM AQ-6.1: Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level. These measures are required as conditions of approval and shall be included on the construction documents and plans.

- Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.
- Cover all hauling trucks or maintain at least two feet of freeboard.
- Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously-graded areas that are inactive for 10 days or more).
- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.
- Limit traffic speeds on any unpaved roads to 15 mph.
- Replant vegetation in disturbed areas as quickly as possible.
- Suspend construction activities that cause visible dust plumes to extend beyond the construction site.

Diesel Particulate Matter (DPM) Emissions

MM AQ-7.1: As conditions of approval, the applicant shall implement the following measures to reduce the short-term health impacts of diesel particulate matter and $PM_{2.5}$ emissions to nearby sensitive receptors from construction to a less than significant level. These measures shall be included on the construction documents and plans.

- Diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite.
- Prohibit the use of "dirty" equipment. Opacity is an indicator of exhaust particulate emissions from off-road diesel-powered equipment. The applicant shall ensure that emissions from all construction diesel-powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately.
- The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g. compressors).
- Properly tune and maintain equipment for low emissions.

4.3.4 Conclusion

Impact AQ-1: The project is anticipated to reduce air pollution levels through the location of residential uses near commercial and job centers and, therefore, the technical inconsistency with the Ozone Strategy would not result in a significant air quality impact. **(Less than Significant Impact)**

Impact AQ-2: The proposed project would result in significant regional air quality impacts associated with reactive organic gases (ROG) and respirable particulates

(PM_{10}) emissions. Implementation of mitigation measure MM AQ-2.1 would reduce this impact; however, the impact would remain significant and unavoidable. **(Significant Unavoidable Impact)**

Impact AQ-3: Vehicle emissions from project-generated traffic would not result in a significant increase in carbon monoxide levels at congested intersections. **(Less Than Significant Impact)**

Impact AQ-4: The proposed project would expose residents to excessive levels of diesel particulate matter (DPM). Implementation of mitigation measure MM AQ-4.1 would reduce this impact to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact AQ-5: The project would expose sensitive receptors to objectionable odors from the San José/Santa Clara Water Pollution Control Plant (WPCP) and Newby Island Landfill. BAAQMD advises that the most effective method of avoiding odor impacts is distance (i.e., separation between the odor source and sensitive receptors); however, the project's proximity to and downwind location of these sources makes it susceptible to objectionable odors. Forced-air mechanical ventilation will be required for residential units on the site to reduce interior noise levels which would also reduce residents' exposure to objectionable odors. In addition, notification would be required for future residents that potential odor sources affecting the site exist in the project area. These measures would not, however, reduce the odor impacts to the project to a less than significant level and no other feasible measures are available to reduce this impact to a less than significant level. **(Significant Unavoidable Impact)**

Impact AQ-6: Implementation of MM AQ-6.1 would reduce the impacts of construction dust emissions from construction activities on the project site to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact AQ-7: Implementation of MM AQ-7.1 would reduce the impact of diesel particulate matter emissions during project construction to a less than significant level. **(Less Than Significant Impact with Mitigation)**

4.4 NOISE AND VIBRATION

The information provided in this section is based on an Environmental Noise Assessment prepared by *Illingworth and Rodkin, Inc.* in January 2009. A copy of this report is included as Appendix C in this EIR.

4.4.1 Existing Setting

4.4.1.1 *Fundamental Concepts of Environmental Noise and Vibration*

Environmental Noise

Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing.

Most of the sounds we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all of the frequencies of a sound in accordance with a weighting that reflects the facts that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This is called "A" weighting, and the decibel level so measured is called the A-weighted sound level (dBA). In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. Typical A-weighted levels measured in the environment and in industry are shown in Table 4.4-1 for different types of noise.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources, which create a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, L_{01}, L_{10}, L_{50}, and L_{90}, are commonly used. They are the A-weighted noise levels equaled or exceeded during one percent, 10 percent, 50 percent, and 90 percent of a stated time period. A single number descriptor called the L_{eq} is also widely used. The L_{eq} is the average A-weighted noise level during a stated period of time.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. However, most household noise also decreases at night and exterior noise becomes very noticeable. Further, most people sleep at night and are very sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, DNL (day/night average sound level), was developed. The DNL divides the 24-hour day into the daytime of 7:00 AM to 10:00 PM and the nighttime of 10:00 PM to 7:00 AM. The nighttime noise level is weighted ten dB higher than the daytime noise level. The Community Noise Equivalent Level (CNEL) is another 24-hour average, which includes both an evening and nighttime weighting.

Table 4.4-1
Typical Sound Levels Measured in the Environment

Common Outdoor Noise Source	Noise Level (dBA)	Common Indoor Noise Source
	120 dBA	
Jet fly-over at 300 meters		Rock concert
	110 dBA	
Pile driver at 20 meters	100 dBA	
		Night club with live music
	90 dBA	
Large truck pass by at 15 meters		
	80 dBA	Noisy restaurant
		Garbage disposal at 1 meter
Gas lawn mower at 30 meters	70 dBA	Vacuum cleaner at 3 meters
Commercial/Urban area daytime		Normal speech at 1 meter
Suburban expressway at 90 meters	60 dBA	
Suburban daytime		Active office environment
	50 dBA	
Urban area nighttime		Quiet office environment
	40 dBA	
Suburban nighttime		
Quiet rural areas	30 dBA	Library
		Quiet bedroom at night
Wilderness area	20 dBA	
	10 dBA	Quiet recording studio
Threshold of human hearing	0 dBA	Threshold of human hearing

Groundborne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV) and another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration. In this analysis, a PPV descriptor with units of millimeters per second (mm/sec.) or inches per second (in/sec.) is used to evaluate construction generated vibration for building damage and human complaints. The reactions of people and the effects on buildings that continuous vibration levels produce are shown in Table 4.4-2.

Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels,

this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Table 4.4-2
Reaction of People and Damage to Buildings for Continuous Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.006 to 0.019	Threshold of perception, possibility of intrusion	Vibration unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
0.20	Vibration annoying to people in buildings	Threshold at which there is a risk of "architectural" damage to normal dwellings such as plastered walls or ceilings.
0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations	Vibration at this level would cause "architectural" damage and possibly minor structural damage.

Source: A Survey of Traffic Induced Vibrations, Whiffen and Leonard, Transport and Road Research Laboratory, RRL Report LR418, Crowthorne, Berkshire, England, 1971.

4.4.1.2 *Regulatory Background*

Environmental Noise

The State of California and the City of Milpitas have established plans and policies designed to limit noise exposure at noise sensitive land uses. These plans and policies are contained in the following documents: (1) the State CEQA Guidelines, Appendix G, (2) the California Building Code, (3) the City of Milpitas Noise Element of the General Plan, (4) the City of Milpitas Municipal Code, and (5) Groundborne vibration guidelines.

State CEQA Guidelines

The California Environmental Quality Act (CEQA) contains guidelines to evaluate the significance of effects resulting from a proposed project. These guidelines have been used in this EIR as thresholds for establishing potentially significant noise impacts and are listed in *Section 4.4.2.1 Thresholds of Significance.*

CEQA does not define what noise level increase would be considered substantial. Typically, an increase in the DNL noise level resulting from the project at noise sensitive land uses of three dBA or greater would be considered a significant impact when projected noise levels would exceed those considered acceptable for the affected land use (60 dBA DNL). An increase of five dBA or greater would be considered a significant impact when projected noise levels would remain within those considered acceptable for the affected land use.

2007 California Building Code

New multi-family housing in the State of California is subject to the environmental noise limits set forth in Chapter 12, Appendix Section 1207.11.2 of the California Building Code. The noise limit is a maximum interior noise level of 45 L_{dn} (same as DNL). Where exterior noise levels exceed 60 $L_{dn,}$ a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the noise limit.

City of Milpitas General Plan

The Noise Element of the City of Milpitas General Plan includes policy statements to guide public and private planning to attain and maintain acceptable noise levels. The City's goal is to, "maintain land use compatibility with noise levels similar to those set by State guidelines" and to "minimize unnecessary, annoying, or injurious noise." The City's guidelines for noise and land use compatibility indicate that multi-family residential land uses are "normally acceptable" in noise conditions up to 65 dBA DNL, "conditionally acceptable" between 60 and 70 dBA DNL, "normally unacceptable" between 70 and 75 dBA DNL, and "clearly unacceptable" in environments that exceed 75 dBA DNL.

City of Milpitas Municipal Code

The Public Health, Safety, and Welfare chapter of the City of Milpitas Municipal Code states that no person shall engage or permit others to engage in construction of any building or related road or walkway, pool or landscape improvement or in the construction operations related thereto, including, delivery of construction materials, supplies, or improvements on or to a construction site except within the hours of 7:00 AM and 7:00 PM on weekdays and weekends. No construction work shall be conducted or performed on the holidays indicated in Section V-213-2-2.05 of that chapter.

Groundborne Vibration

There are no local, state, or federal vibration impact criteria that are applicable to this project. The California Department of Transportation uses a vibration limit of 12.7 mm/sec (0.5 inches/sec), PPV for buildings structurally sound and designed to modern engineering standards. A conservative vibration limit of five mm/sec (0.2 inches/sec), PPV has been used for buildings that are found to be structurally sound but structural damage is a major concern. For historic buildings or buildings that are documented to be structurally weakened, a conservative limit of two mm/sec (0.08 inches/sec), PPV is often used to provide the highest level of protection. All of these limits have been used successfully and compliance to these limits has not been known to result in appreciable structural damage. All vibration limits referred to herein apply on the ground level and take into account the response of structural elements (i.e. walls and floors) to groundborne excitation.

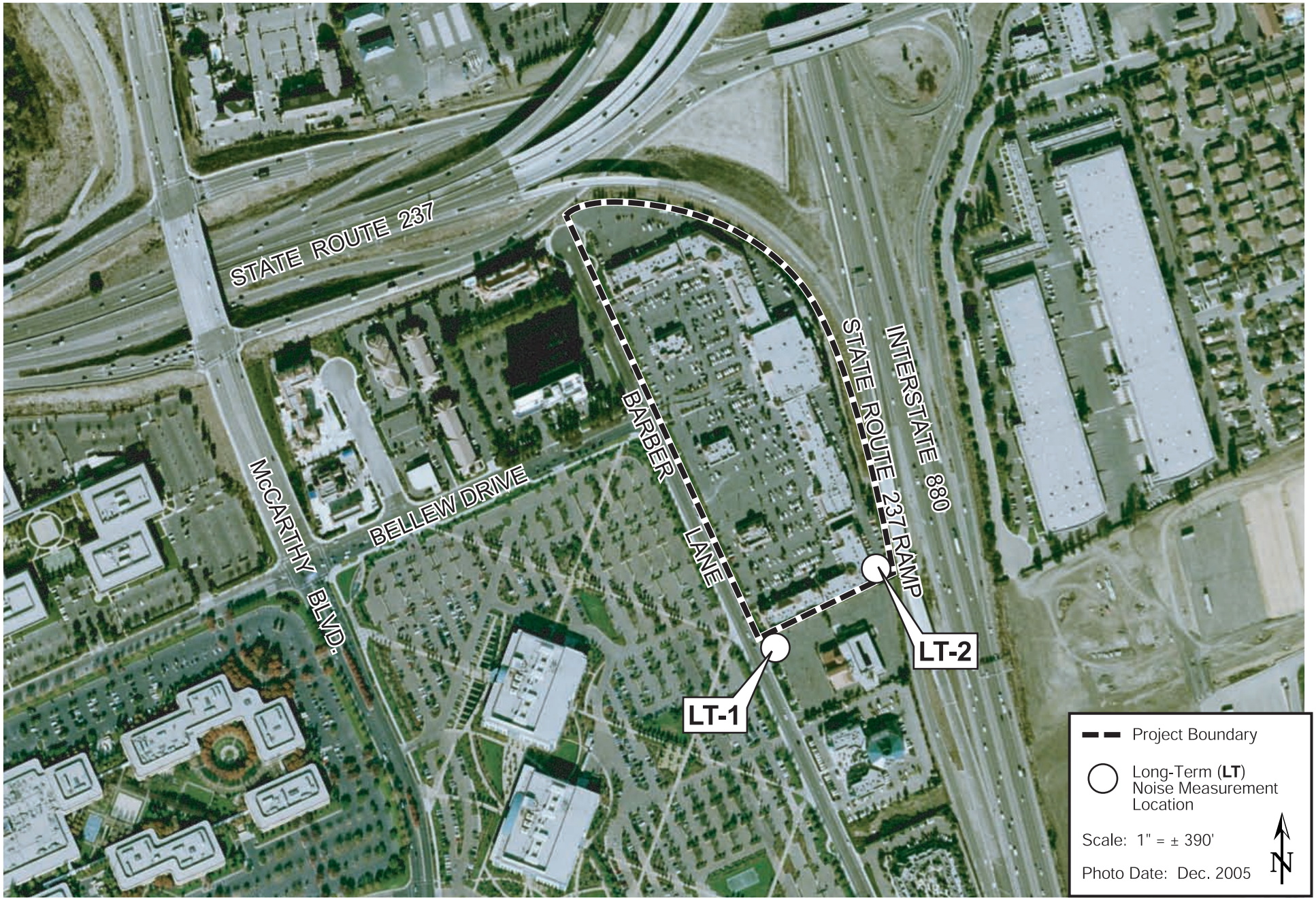
4.4.1.3 *Existing Noise Environment*

The project site is located southwest of the I-880/SR 237 intersection in Milpitas. I-880 and two highway ramps border the site to the east and SR 237 is elevated above the site to the north. The I-880 off-ramp that is located closest to the site is elevated, allowing direct line of sight to mainline I-880 traffic. The project is bordered to the south and west by commercial, retail, and office uses. I-880 and SR 237 traffic dominate the noise environment of the site. Traffic noise from Barber Lane acts as a local noise source. Due to the complexity of the freeway on-ramp configurations and the height of the proposed buildings on the project site, future noise levels at the residential units were

modeled using *SoundPlan 6.4*. Two long-term noise measurements were completed at representative ground level positions for use in calibrating the model and to measure the daily trend in noise levels throughout the daytime and nighttime hours for local road traffic (LT-1) and freeway traffic (LT-2). The locations of these noise measurements are shown in Figure 10.

Noise measurements were taken on the site from August 1 to August 3, 2006. The first long-term noise measurement (LT-1) was taken at a distance of approximately 50 feet from the centerline of Barber Lane, and about 12 feet above the surrounding ground. The location was partially shielded from I-880 by the existing structure on the project site. The primary noise sources at this location were I-880, which acts as a constant ambient background noise source, and Barber Lane, which generates more intermittent noise levels that were closer to the noise measurement position. The day-night average noise level over the course of the measurement period was 65 dBA DNL. Daytime noise levels typically ranged from 61 to 64 dBA L_{eq}, but were raised as high as 68 dBA L_{eq} during the 6:00 PM hour on August 1 and the 12:00 PM hour on August 2. During the early morning, noise levels dropped as low as 52 to 53 dBA L_{eq}.

The second long-term noise measurement (LT-2) was taken at a distance of approximately 200 feet from the centerline of I-880, and approximately 10 feet above the surrounding ground. An elevated freeway ramp was located adjacent to the measurement location, but did not block line-of-sight between the microphone and I-880. The day-night average noise level over the course of the measurement period was 80 dBA DNL. Daytime noise levels typically ranged from 73 to 77 dBA L_{eq} and noise levels dropped to a low of 68 to 69 dBA L_{eq} in the early morning.



NOISE MEASUREMENT LOCATIONS

FIGURE 10

4.4.2 Noise and Vibration Impacts

4.4.2.1 *Thresholds of Significance*

For the purposes of this EIR, a noise or vibration impact is considered significant if the project would:

- Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; or
- Expose persons to, or generate excessive groundborne vibration or groundborne noise levels; or
- Create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or
- Create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; or
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

4.4.2.2 *Noise Impacts to the Project Site*

Future Noise Levels

The project proposes the removal of all buildings on the site, with the exception of the 99 Ranch Market building (Building D), and the construction of five new structures which would include up to 175,000 square feet of commercial space and a maximum of 900 residential units. The project also proposes the option of constructing a 380-room hotel in place of 214 residential units, which would result in a maximum of 686 residential units on the site; this variation is referred to as the "Hotel Option". The proposed development would be constructed in five phases with a total of six structures on the site at build out of the project.

For the purposes of the following discussion, the five new structures are referred to as Buildings A, B, C, E and F, and according to current design documents would have the following general characteristics:

Building A: Eight-story structure with three levels of parking, commercial on ground level and residential units at fourth through eighth levels with noise protected outdoor courtyards on the fifth level of the building.

Building B: Twenty-story residential tower with ground level commercial attached to a five-story structure which combines a parking garage, residential units and a noise protected outdoor courtyard.

Building C: Eight-story structure with four levels of parking, commercial on ground level and residential units at third through eighth levels and a noise protected outdoor courtyard on the fifth level of the building.

Building E: Eight-story linear residential structure with ground floor commercial attached to a four-story parking garage with ground floor commercial and an outdoor use area at the roof level of the garage.

Building F: Nineteen-story residential tower with ground level commercial attached to a parking garage, residential units and a noise protected outdoor courtyard. This building has the option of being built as a nineteen-story hotel with attached parking garage.

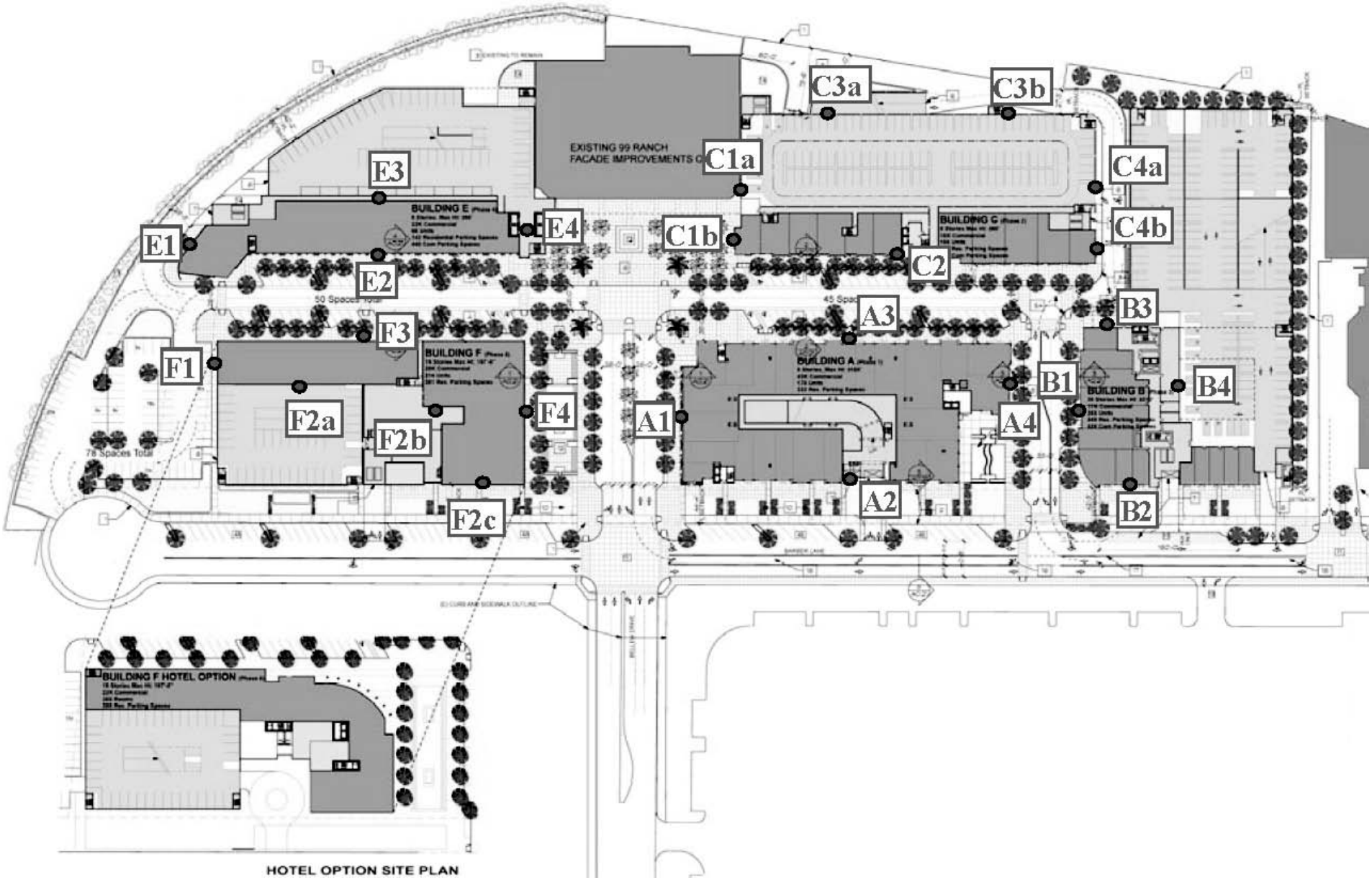
The building geometries and roadway characteristics for the project were entered into *SoundPLAN 6.4*[9] to calculate future noise levels at proposed upper level outdoor use areas and across the proposed building facades. Based on typical ramped lower level parking garage designs, the garage structures are anticipated to act as effective acoustical barriers and were modeled as a solid structure. Noise measurements completed during the noise monitoring survey were used to calibrate the model. Future exterior noise levels for residential facades are summarized in Table 4.4-3 and the receiver locations used to calculate the facade exposures are shown on Figure 11.

Table 4.4-3:
Summary of Exterior Noise Exposure at Residential Unit Facades

Floor Level	Noise Levels at Façade modeling points, dBA DNL																								
	Building A				Building B				Building C							Building E				Building F					
	A1	A2	A3	A4	B1	B2	B3	B4	C1a	C1b	C2	C3a	C3b	C4a	C4b	E1	E2	E3	E4	F1	F2a	F2b	F2c	F3	F4
1	63	70	58	61	62	70	65	*	*	60	58	*	*	78	67	71	67	*	60	71	*	*	70	68	63
2	64	70	59	62	63	70	65	*	*	60	58	*	*	78	68	72	68	*	60	72	*	*	70	69	64
3	64	70	59	62	63	70	65	53	73	64	58	*	*	78	68	73	69	*	60	73	*	64	70	70	64
4	65	70	60	62	63	70	65	54	73	66	59	*	*	78	68	73	69	*	61	73	*	64	70	70	65
5	65	70	61	62	63	70	65	58	73	68	59	78	78	78	68	74	70	*	61	74	*	66	70	71	65
6	65	70	63	61	62	67	68	65	74	71	58	78	78	79	69	74	70	*	61	74	*	68	70	71	65
7	66	69	64	61	62	66	69	69	74	72	59	78	78	79	70	74	70	74	62	74	66	69	69	71	66
8	66	69	65	60	62	67	71	71	75	73	60	78	78	79	72	74	70	74	62	74	70	70	69	71	66
9	-	-	-	-	63	67	72	72	-	-	-	-	-	-	-	-	-	-	-	74	70	70	69	71	67
10	-	-	-	-	63	66	72	72	-	-	-	-	-	-	-	-	-	-	-	74	70	70	68	71	68
11	-	-	-	-	64	66	73	72	-	-	-	-	-	-	-	-	-	-	-	74	71	70	68	71	68
12	-	-	-	-	65	66	74	72	-	-	-	-	-	-	-	-	-	-	-	74	71	70	68	71	68
13	-	-	-	-	66	67	74	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	69	71	69
14	-	-	-	-	67	67	75	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	69	71	69
15	-	-	-	-	67	67	75	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	69	71	69
16	-	-	-	-	68	67	76	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	69	71	69
17	-	-	-	-	69	68	76	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	70	71	69
18	-	-	-	-	69	68	76	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	70	71	70
19	-	-	-	-	69	68	76	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	70	71	70
20	-	-	-	-	70	68	76	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes: * No residential façade, or a residential façade shielded by garage structure at this level.
- Building does not continue to this floor level

[9] *SoundPLAN* is a three-dimensional ray tracing program that takes into account the characteristics of the noise source, the locations of the receiving points where sound levels are calculated, and conditions in the sound transmission path that affect sound propagation primarily including ground absorption and the effects of intervening barriers or topography.



FUTURE NOISE LEVEL MODELING LOCATIONS

FIGURE 11

Exterior Noise Levels

Noise levels were modeled at the proposed outdoor use areas of the five proposed buildings, and with the exception of the rooftop garden proposed for Building E, all of the identified outdoor use areas were found to have noise levels below 60 dBA DNL, primarily because these spaces are proposed in areas shielded from traffic noise by the buildings (Buildings A, B, and F) or roof edge noise barriers (Building C). Due to the lack of significant attenuation from the roof edge or the presence of roof edge barriers on Building E, noise levels in the roof garden were found to be between 72 and 74 dBA DNL. A small noise reduction could be provided by a noise barrier along the perimeter of the garage rooftop garden area. A 6-foot-high barrier would reduce noise levels by about one dBA and a 12-foot-high barrier would reduce noise levels by about four dBA. Noise levels would continue to exceed 70 dBA DNL in portions of the Building E garage rooftop garden, even with a 12-foot high barrier around the perimeter of the roof. The use of localized barriers, such as a 10-foot-high soundwall, arranged around specific rooftop open spaces can create 25 foot wide areas where noise levels are reduced to 60 dBA or less. The use of linear soundwalls, as currently proposed, may not create usable passive open space due to the limited width of the space that could be acoustically protected and the shading of the area that would result due to the soundwall height requirements. Active common open space areas not requiring a quiet environment, such as a pool or basketball court, may be more appropriate in areas of the Building E rooftop where noise cannot be reduced to 60 dBA or less.

Impact NV-1: The proposed common open space area in Building E would be exposed to exterior noise levels exceeding 65 dBA DNL. **(Significant Impact)**

Interior Noise Levels

Proposed residential unit facades would be exposed to exterior noise levels of up to 79 dBA DNL. Where exterior day-night average noise levels are less than 65 to 70 dBA DNL, interior noise levels can typically be maintained below the city and state standards of 45 dBA DNL with the incorporation of forced air mechanical ventilation systems in residential units. Where noise levels exceed 65 dBA DNL, forced-air mechanical ventilation systems and sound-rated construction would be required. Noise levels at the building exteriors exceeding 75 dBA DNL are considered clearly unacceptable and would require construction materials and methods with high sound ratings to meet the standards. Specifications of window and wall systems in areas exposed to sound levels of 70 dBA DNL or greater shall be determined during the final design stage of the project when building elevations and floor plans are available. Such systems are feasible and available.

Impact NV-2: The proposed project would be exposed to interior noise levels exceeding 45 dBA DNL without the incorporation of noise attenuation measures in the building design. **(Significant Impact)**

4.4.2.3 *Project-Generated Traffic Noise Impacts*

The nearest sensitive receptors include the Cisco Day Care Center on Barber Lane, approximately 800 feet south of the project site and single family residences located to the east of I-880, approximately 1,300 feet east of the project site. Residences are also located east of I-880 both north across E. Calaveras Boulevard (approximately 3,000 feet from the site) and south across Great Mall Parkway (approximately 2,500 feet from the site). Based on traffic volumes anticipated from the project, noise levels would not significantly increase at these nearby noise sensitive receptors.

Impact NV-3: Project-generated traffic would not significantly increase noise levels at sensitive receptors near the project site. **(Less Than Significant Impact)**

4.4.2.4 *Project-Generated Operational Noise Impacts*

High-rise multi-use structures typically include various mechanical equipment such as air conditioners, exhaust fans, and air handling equipment, if required, for the proposed parking structures. Truck deliveries for the project commercial uses also could generate noise. The project site is not in close proximity to any noise sensitive uses. In addition, the project site is located in an area that is dominated by freeway traffic noise. Noise-generating activities associated with the operation of the project, therefore, are not anticipated to be audible at noise sensitive uses.

Impact NV-4: The proposed operational noise from the project would not result in any significant noise level increase for noise sensitive uses in the project area. **(Less Than Significant Impact)**

4.4.2.5 *Construction Impacts*

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Construction noise impacts primarily occur when construction activities occur during noise-sensitive times of the day (i.e., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction noise lasts over extended periods of time. Where noise from construction activities lasts for more than one year and is anticipated to disrupt indoor activities, the impact would be considered significant.

Construction of the project would be completed in phases. Construction would involve site improvements such as the establishment of utilities, removal of existing pavement, substantial excavation to create subgrade parking and to lay foundations, building erection, paving, and landscaping. Construction of the foundation may involve pile driving. A portable rock crusher would be used for recycling existing building materials. Construction activities for each phase are expected to be carried out in stages. During each stage of construction, there would be a different mix of equipment operating. Construction noise levels would vary by stage and vary within stages based on the amount of equipment in operation and location where the equipment is operating. Most demolition and construction noise is in the range of 80 to 90 dBA at a distance of 50 feet from the source.

The highest noise levels would be generated during grading, excavation, and foundation construction. The erection of large buildings with steel framing can also cause considerable noise for fairly long durations and would not typically be shielded by the surrounding structures. Jackhammers typically generate maximum noise levels of 85 dBA at a distance of 50 feet. Portable rock crushers can produce noise levels of between 87 to 91 dBA at 50 feet. Large pieces of earth-moving equipment, such as graders, scrapers, and bulldozers, generate maximum noise levels of 85 to 90 dBA at a distance of 50 feet. Pile driving can produce very high noise levels of about 105 dBA at 100 feet. Mat slab construction would generate lower noise levels than pile driving activities, but would introduce a large number of trucks into the construction area.

Commercial uses, which may remain in use during various phases of the project, are located on the site, and other commercial uses are located west and south of the project area. During construction,

noise levels would be elevated at these nearby businesses. Due to the proximity of the site to I-880, existing ambient noise levels at the site are high. Daytime noise levels at adjacent uses are estimated to range from 74 to 77 dBA L_{eq} in areas adjacent to and in line-of-sight with I-880 to about 62 dBA L_{eq} in areas that are well shielded and located west of the freeway. Noise levels are typically around 30 dBA lower inside commercial structures, which are anticipated to be fully ventilated with windows normally closed. Due to high ambient noise levels in the project area, the closest noise sensitive receptors to the project, located approximately 800 feet south of the site, would not be affected by project construction noise.

Average exterior noise levels at 100 feet from typical construction activity at this site would range from 70 to 80 dBA during busy construction periods. These noise levels drop off at a rate of roughly six dBA per doubling of distance between the noise source and receptor. Noise levels inside adjacent commercial structures could reach 40 to 50 dBA during busy construction periods and 75 dBA during pile driving activities. Most construction activities would typically be similar to or below noise levels generated by activities within these uses (i.e., conversations, ambient music, etc.). Pile-driving activities would generate noise levels that would be anticipated to disturb occupants, but activities would be intermittent and over a short duration within the overall construction schedule.

Impact NV-5: Businesses within the project area would be exposed to intermittent high noise levels from project construction. **(Significant Impact)**

Groundborne Vibration

Construction activities would include demolition of existing pavement, site preparation work, foundation work, and new building erection. These activities may, at times, produce substantial vibration. Pile driving may also be required for building foundation support. Use of pile drivers and other construction equipment would generate vibration levels on the site and in the site vicinity that could be perceptible to nearby occupants and could have the potential to cause structural and/or architectural damage to adjacent structures.

Past studies have established a peak vertical particle velocity of 0.20 inches/sec, PPV from pile driving activities as the limit where vibration would begin to annoy people in buildings and at which there is a risk of “architectural” damage to normal dwellings such as plastered walls or ceilings. A vibratory limit of 0.50 inches/sec, PPV is established by the California Department of Transportation as the limit at which structurally sound buildings are at risk for structural damage. Construction vibration impacts would be considered significant when construction activities are anticipated to generate a peak vertical particle velocity over this limit.

Depending on the phasing and occupancy of the remaining commercial buildings on the site, these structures may be close to construction activities. Pile driving, if used, has the potential of generating the highest ground vibration levels and is of primary concern to structural and architectural damage. Other project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (i.e., tracked vehicles, compactors, etc.) may also potentially generate vibration in the immediate vicinity, but would not be anticipated to cause structural or architectural damage to buildings. Erection of the building structure is not anticipated to be a source of substantial vibration with the exception of sporadic events such as dropping of heavy objects, which should be avoided to the extent possible.

Vibration levels generated by construction activities would vary depending on project conditions such as soil conditions, construction methods, and equipment used. At a distance of 50 feet, impact

pile drivers typically generate vibration levels of 0.48 inches/sec, PPV and vibratory pile drivers typically generate vibration levels of 0.23 inches/sec, PPV. Impact pile driving would not exceed 0.50 inches/sec, ppv at distances of 50 feet or further and vibratory pile driving would not exceed 0.50 inches/sec, ppv at distances of 25 feet or further.

Structural or architectural damage could potentially occur if impact pile driving were to take place within 50 feet of structures. Vibration would likely be annoying to occupants of the adjacent buildings to the north and south within about 100 feet from impact pile driving. Vibratory pile driving would likely be annoying to occupants of the adjacent buildings within about 75 feet, but would not be expected to cause structural damage to adjacent buildings. Other construction activities would not be anticipated to generate vibration levels high enough to be perceptible inside adjacent uses.

If impact pile driving were to take place within 50 feet of adjacent structures, significant impacts could occur.

Impact NV-6: Businesses on the project site and in the vicinity of the project could be exposed to construction related vibration during the excavation and foundation work of the project, particularly if pile driving is used as a construction method. **(Significant Impact)**

4.4.3 Mitigation and Avoidance Measures for Noise and Vibration Impacts

As conditions of approval, the project applicant shall be responsible for the implementation of the following measures to reduce noise and vibration impacts:

4.4.3.1 *Exterior Noise Levels*

MM NV-1.1: Proposed rooftop open space areas on Building E should be located away from sources of roadway noise and must include 25-foot-wide areas that are acoustically shielded by walls at least ten feet in height. Having some activity areas (e.g. pools) that exceed 60 dBA DNL may be acceptable if residents have usable quiet areas available that are acoustically protected. A qualified acoustical consultant shall review final site plans and building elevations prior to the issuance of a building permit to calculate noise levels in proposed open spaces and ensure compliance with City policies.

4.4.3.2 *Interior Noise Levels*

MM NV-2.1: A project-specific acoustical analyses is required by the City of Milpitas prior to issuance of building permits to insure that interior noise levels will be reduced to 45 dBA DNL or lower. Building sound insulation requirements will need to include the provision of forced-air mechanical ventilation for all outer facing residential units so that windows could be kept closed at the occupant's discretion to control noise. Special building construction techniques may be required in areas exposed to sound levels of 70 dBA DNL or greater. These treatments could include sound rated windows and doors, sound rated wall constructions, acoustical caulking, etc. Results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City along with the building plans and approved prior to

issuance of a building permit. Feasible construction techniques such as these would adequately reduce interior noise levels to 45 dBA DNL or lower.

A qualified acoustical consultant shall review final site plans, building elevations, and floor plans prior to the issuance of a building permit to calculate expected interior and exterior noise levels and ensure compliance with City policies and State noise regulations.

4.4.3.3 *Short-Term Construction Noise Impacts*

MM NV-5.1: With the implementation of the following measures, construction noise impacts would be reduced to a less than significant level:

- Utilize 'quiet' models of air compressors and other stationary noise sources where technology exists;
- Prohibit all unnecessary idling of internal combustion engines and equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment;
- Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from businesses or noise-sensitive land uses;
- Notify all adjacent land uses of the construction schedule in writing;
- Designate a disturbance coordinator, responsible for responding to complaints about construction noise. The name and telephone number of the disturbance coordinator shall be posted at the construction site and made available to businesses, residences or noise-sensitive land uses adjacent to the construction site;
- If pile driving is necessary, pre-drill foundation pile holes to minimize the number of impacts required to seat the pile; and
- If pile driving is necessary, when possible the project shall work with the owners and managers of adjacent commercial uses to select days and times to conduct pile-driving activities that would minimize the impact on these uses.

4.4.3.4 *Short-Term Construction Vibration Impacts*

MM NV-6.1: With the implementation of the following measures, in addition to the measures specified in **MM NV-5.1**, construction vibration impacts would be reduced to a less than significant level:

- Avoid impact pile driving where possible. Drilled piles or slab mats causes lower vibration levels where geological conditions permit their use;
- Identify any highly vibration sensitive uses located on the adjoining properties and/or remaining commercial uses;
- If impact pile driving is proposed within 50 feet of adjacent structures or within 200 feet of any highly sensitive uses identified in the adjoining buildings, a construction vibration-monitoring plan would need to be implemented to document conditions prior to, during and after vibration generating construction activities. All plan tasks shall be undertaken under the direction of a licensed Professional Structural Engineer in the State of California and be in accordance

with industry accepted standard methods. The construction vibration monitoring plan shall be implemented to include the following tasks:

- Schedule pile driving so that piles furthest from adjacent structures are driven first, and only after vibration levels are found to be within the limits is pile driving allowed at closer distances.
- Performance of a photo survey, elevation survey, and crack monitoring survey for each impacted structure. Surveys shall be performed prior to any construction activity, in regular interval during construction and after project completion and shall include internal and external crack monitoring in structures, settlement, and distress and shall document the condition of foundations, walls and other structural elements in the interior and exterior of said structures.
- Development of a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions. Construction contingencies would be identified for when vibration levels approached the limits.
- At a minimum, vibration monitoring shall be conducted during pavement demolition, excavation, and pile driving activities. Monitoring results may indicate the need for more or less intensive measurements.
- If vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures.
- Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.
- Conduct post-survey on structures where either monitoring has indicated high levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities.
- The results of all vibration monitoring shall be summarized and submitted in a report shortly after substantial completion of each phase identified in the project schedule. The report will include a description of measurement methods, equipment used, calibration certificates and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits will be included together with proper documentation supporting any such claims.

4.4.4 Conclusion

Impact NV-1: Implementation of the mitigation measure, identified above, would reduce impacts to exterior noise levels in Building E rooftop open space to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact NV-2: Implementation of the mitigation measure, identified above, would reduce impacts to interior noise levels to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact NV-3: Project-generated traffic would not significantly increase noise levels at sensitive receptors near the project site. **(Less Than Significant Impact)**

Impact NV-4: The proposed operational noise from the project would not result in any significant noise level increase for noise sensitive uses in the project area. **(Less Than Significant Impact)**

Impact NV-5: Implementation of the mitigation measure, identified above, would reduce short-term construction noise impacts to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact NV-6: Implementation of the mitigation measure, identified above, would reduce short-term construction vibration impacts to a less than significant level. **(Less Than Significant Impact with Mitigation)**

4.5 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based on a Phase I Environmental Site Assessment prepared by *United Soil Engineering, Inc.* in September 2007. This report can be found in Appendix D of this EIR. The following discussion is also based on a Vicinity Hazardous Materials Users Survey report prepared by *Belinda Blackie, P.E., R.E.A.* in October 2007 and a Screening Level Chemical Risk Appraisal prepared by *Risicare, LLC* in November 2007. These reports can be found in Appendix E of this EIR.

4.5.1 Existing Setting

The proposed project site is located in an area of Milpitas with a mix of industrial and commercial land uses. The project site is currently developed with nine single-story commercial buildings constructed in 1996 which are surrounded by landscaping and parking areas. The project site is flat, and groundwater flow is in a northwest direction. Depth to groundwater on-site is approximately 12 feet below ground surface (bgs). The following analyses were performed to evaluate the potential risk associated with locating a mixed use development in this area:

1. A Phase I Environmental Site Assessment (September 2007) was prepared for the project site. This included site reconnaissance, property interviews, and a regulatory agency database review.
2. A Vicinity Hazardous Materials Users Survey (October 2007) was prepared for the project site by Belinda Blackie, P.E., R.E.A.
3. A Screening Level Chemical Risk Appraisal (December 2007) was prepared for the project site by Risicare, LLC.

4.5.1.1 *On-Site Hazards*

Aerial photographs prepared by various agencies were reviewed to evaluate past land uses of the subject site and surrounding area. The photographs were examined for signs of industrial activity, soil stockpiles, leach ponds, oil drums, unusual surface features, or any other recognizable environmental condition that might have adversely impacted the project site. No such recognizable environmental conditions were identified.

The project site was used as farmland up until 1996 when the Milpitas Square shopping center was constructed on the site. The existing development on the project site was constructed following the phasing out of lead-based paint and asbestos in building materials.

4.5.1.2 *Off-Site Sources of Soil and Groundwater Contamination*

A regulatory agency database search was completed as part of the Phase I Environmental Site Assessment. Six leaking underground storage tank (LUST) facilities were listed within one-half mile of the project site. Three of the sites are located down-gradient and cross-gradient to the site and therefore would not impact the site. One site located at 1400 Bellew Drive contained diesel impacted soil that was reported in 1989. Due to this site receiving regulatory case closure in 1998 and the northwesterly groundwater flow direction, this site does not have the potential to impact the project site. The second LUST site located at 97 South Abbott Avenue contained groundwater and soil contamination. Given the northwesterly groundwater flow and the depth of the groundwater table, this site would not have an adverse environmental impact on the project site. An ARCO station at 43 South Abbott Avenue reported diesel impacted groundwater in 1987. This site received regulatory

case closure in 1996. Based on the case closure, depth to the groundwater table and the groundwater flow direction, this site would not have an adverse environmental impact on the project site.

4.5.1.3 *Hazardous Materials Use and Storage in the Project Vicinity*

The project site is located in an area of Milpitas with a mix of industrial and commercial land uses. A visual survey of the businesses in the project vicinity (within one-half mile) that are likely to use, handle, and/or store significant quantities of hazardous substances was completed in September 2007. In addition the location of railroad tracks, hazardous materials pipelines and gas facilities with the potential to impact the site were identified. No railroad spurs or mainlines were observed within one-half mile of the project site. Pacific Gas & Electric Company operates a natural gas facility approximately 0.1-mile north by northwest of the project site. Six additional facilities including the San José/Santa Clara Water Pollution Control Plant (WPCP), Nanogram, Amptech, JDS Uniphase, OLS Energy Agnews, and the Calpine Los Esteros Critical Facility are located within one-mile of the project site and use toxic gases.

To evaluate the potential significance of businesses identified during the visual survey, readily available hazardous materials usage and storage for the observed businesses was reviewed at the Milpitas Fire Department (MFD). Many of the identified facilities had no hazardous materials files on record at the MFD and, if evidence of the presence of hazardous substances was not identified through other sources, these facilities were discounted as posing a potentially significant hazardous materials threat to the proposed development. Facilities for which hazardous materials release modeling was warranted are discussed in the greater detail in *Section 4.5.2.3*.

Regulatory Controls

Facilities that store, handle, and use hazardous materials are regulated at local, state, and federal levels. The primary regulations that limit the risks of releases of significant quantities of acutely hazardous materials include the Santa Clara County Toxic Gas Ordinance (TGO), Risk Management and Prevention Programs (RMP), California Accidental Release Program (CalARP), and Process Safety Standards (OSHA). These regulations require containment, hazard analysis, process and program integrity, risk reduction, and the active management of hazardous chemical facilities to reduce the risks and potential consequences of catastrophic chemical releases.

The net result of regulatory control programs and industry innovation is reduced likelihood of chemical releases and reduced likelihood of off-site migration of hazardous materials in the event of a release. These regulatory control programs and industry innovations are assumed in the conclusions of the screening level risk evaluations discussed in *Section 4.5.2.3*.

4.5.2 <u>Hazardous Materials Impacts</u>

4.5.2.1 *Thresholds of Significance*

For the purposes of this EIR, a hazardous materials impact is considered significant if the project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

4.5.2.2 *Impacts from On-Site Hazardous Materials*

Agricultural Pesticides

The project site was used for agricultural purposes up until the construction of the existing commercial center in 1996. Because organochloride pesticides and associated heavy metals are known to persist in soil long after their use has ceased, there is a possibility that soil on the project site may be contaminated with organochloride pesticides and/or heavy metals. If soils are contaminated with agricultural chemicals development of the proposed project would not create any exposure pathways for future residents to come into contact with contaminated soils; however, construction personnel working on the proposed project would be exposed to these chemicals. The site is completely developed and, therefore, a comprehensive testing program is not feasible at this time.

Impact HM-1: If on-site soils are contaminated with agricultural chemicals, construction personnel working on the proposed project would be exposed to these chemicals. **(Significant Impact)**

Grading required for the project would result in approximately 7,000 cubic yards of cut and 15,000 cubic yards of fill. If soils are contaminated with agricultural chemicals they may not be suitable for use as fill and would require off-hauling from the site. If the soil is not disposed at a facility designed and operated to accept contaminated soil, then disposal of the soil could contaminate the environment.

Impact HM-2: If on-site soils are contaminated with agricultural chemicals, improper disposal of soil could contaminate the environment. **(Significant Impact)**

Lead-Based Paint and Asbestos

The project site was used as farmland up until 1996 when the Milpitas Square shopping center was constructed on the site. The existing development on the project site was constructed following the phasing out of lead-based paint and asbestos in building materials.

Impact HM-3: Due to their date of construction, the existing buildings on the site do not contain lead-based paint or asbestos building materials and, therefore, would not expose construction workers or the public to harmful levels of asbestos containing materials or lead. **(No Impact)**

4.5.2.3 *Impacts from Hazardous Materials Use in the Project Vicinity*

Modeling of accidental chemical releases was completed for the AmpTech and Nanogram facilities in accordance with City of Milpitas Fire Department requirements and their Guidelines for Preparation of Risk Assessments. All other facilities identified in the Vicinity Hazardous Materials Users Survey were found unlikely to pose a significant threat to residents of the project site.

The Bay Area Air Quality Management District recommends the use of American Industrial Hygiene Association's (AIHA) Emergency Response Planning Guidelines exposure level 2 (ERPG-2) as the threshold for evaluating significant exposure impacts. In addition, the U.S. Environmental Protection Agency (EPA) Risk Management Program defines concentration endpoints for off-site consequence analysis of accidental releases of toxic substances as the ERPG-2 concentrations, where available, or an equivalent under these regulations. The ERPG-2 is defined as the maximum airborne concentration that a person can be exposed to for up to one (1) hour without permanent ill effects or impairment of person's ability to take protective actions. ERPG values are intended to provide estimates of concentration ranges where an individual reasonably might anticipate observing adverse effects as a consequence of exposure to the specific substance. The risk appraisal also relied on the Temporary Emergency Exposure Limits (TEEL-2) for chemicals where no ERPG was available. The TEEL-2 is defined as the maximum concentration in air below which it is believed nearly all individuals could be exposed without experiencing or developing irreversible or other serious health effects or symptoms that could impair their abilities to take protective action.

<u>AmpTech</u>

For this facility, located approximately 4,330 feet from the project site, three scenarios were modeled based on the chemicals used at this facility. Three releases of arsine, chlorine, and silane were modeled for this facility and assumed that the contents of the largest chemical container were released over a 10-minute period. The results indicate that worst-case chemical releases from this facility would not significantly impact residents of the project site.

<u>Nanogram Corporation</u>

This facility is located approximately one mile from the project site. A release of 154 cubic feet of a ten percent phosphine mixture was modeled for this facility and found not to significantly impact the project site.

Previous Screening Level Chemical Risk Appraisals

<u>San José/Santa Clara Water Pollution Control Plant</u>

An accidental release of chlorine from the WPCP could significantly impact residents at the proposed project site. The WPCP, however, is complaint with the Toxic Gas Ordinance (TGO), and is currently seeking bids to convert the plant from chlorine to sodium hypochlorite, which reduces risk impacts. Notwithstanding the chlorine changeover, a significant impact from this facility is considered unlikely due to the WPCP's risk management prevention program (RMP) that includes

measures to minimize the potential for chlorine releases to occur, the distance from the site (e.g. plume travel time), atmospheric conditions, and objects in the plume path that would aid dispersal.

JDS Uniphase

Previous modeling completed for recent residential developments in the project area have identified JDS Uniphase as having a possible worst-case chemical release impact area with the potential to reach the project site.[10] This facility is located approximately 1.75 miles west of the project site and the only chemical used by JDS Uniphase with a potential impact area reaching the project site is phosphine (1.8 miles). Semiconductor gases, such as phosphine, when released into the air in pure form are expected to spontaneously ignite and/or react with moisture in the air. The modeling identifying the phosphine impact area did not take into account its reactivity and characteristics, mechanical and/or institutional controls that this facility is required to have in place (e.g., TGO), and the release limiting effects of restrictive flow orifices (RFOs).[11] When accounting for all these factors, the phosphine impact area from JDS Uniphase is unlikely to reach and/or significantly impact residents of the project site.

OLS Energy – Agnews

The OLS Energy facility is located approximately 0.80 miles southwest of the project site at 3800 Cisco Way in San José and has the potential for a release of ammonia that could impact the project site. This facility is subject to Federal RMP and has a program in place that reduces the likelihood and the potential for impacts of any release of ammonia. The RMP program elements include engineering, mechanical integrity, and management improvements and safeguards. This facility, however, is not subject to the TGO which requires secondary containment of primary containment and gas piping systems.

Screening level modeling of the worst-case release from this facility during periods of calm indicates a significant impact at the project site. If normal wind speed and direction, and/or a more likely alternative release scenario occurred, however, the impact from the accidental release of ammonia would be much lower at the project site. Alternative release scenarios are generally considered more realistic with respect to probable release risks associated with chemical facilities. In this case, the operators of the facility, through engineering judgment and through the conduct of the facility specific hazard and operability study, determined that the alternative release scenario is more likely in comparison to the worst-case release scenario. The alternative release scenario of ammonia at the facility during normal conditions would result in an impact of approximately 0.41 miles which would not significantly impact the project site.

Based on the mechanical and/or institutional controls in place (e.g., RMP), and the more likely release scenario (i.e., alternative release during normal conditions), the proposed project would not be impacted by an ammonia release at this facility.[12]

[10] TRC Lowney. Screening Level Chemical Risk Appraisal Selected Hazardous Materials Inventories Vicinity of 3300 Zanker Road San José, California. February 13, 2007.
[11] Standard industry controls include valves equipped with RFOs for the primary gas containment (cylinder). The gas cylinders are equipped with RFOs to limit the release of toxic gases in the rare event of an equipment and/or valve failure during processing.
[12] TRC Lowney. Screening Level Chemical Risk Appraisal Selected Hazardous Materials Inventories Vicinity of 3300 Zanker Road San José, California. February 13, 2007.

Calpine Los Esteros Critical Facility

The Calpine Los Esteros Facility is located approximately 0.65 miles northwest of the project site at 1515 Alviso-Milpitas Road in San José. This facility is subject to the CalARP program due to the use and storage of aqueous ammonia on the site. The facility is designated as a Program 1 facility which indicates that risk assessment modeling has been completed and determined that a catastrophic release of the regulated chemical would not leave the boundaries of the facility. The project site, therefore, would not be impacted due to an accidental release at this facility.

PG&E Natural Gas Terminal

Based on previously completed hazardous materials risk modeling for facilities in the vicinity of the project site, a worst-case accidental chemical release of 3,000 gallons of "pipeline liquids" (hydrocarbon compounds) from the PG&E natural gas facility was modeled to have an impact area of 0.18 miles. The modeling assumed the hydrocarbon compounds were released into a secondary containment forming a 1,000 gallon evaporating pool. In order to assess the specific risk to the proposed project site a subsequent review of the modeling for the PG&E natural gas facility was completed. The hydrocarbon compound of concern at this facility is identified as naptha which has a high molecular weight and low vapor pressure. The facility hazardous materials inventory statement indicated that the hydrocarbon compounds at this facility are primarily aliphatic hydrocarbons (85 percent of the mixture). The previous risk modeling analysis completed for this facility assumed the conservative surrogate hydrocarbon compound of pentane which is an aliphatic hydrocarbon. Pentane has a lower molecular weight and higher vapor pressure than naptha which made the previous analysis more conservative.

For the purposes of the risk analysis for the proposed project a release of hexane and heptane were reviewed in addition to pentane. These chemicals are progressively of higher molecular weight and lower vapor pressure. The hydrocarbon compound used at the PG&E facility is likely closer to the chemical characteristics of heptane than pentane. The results of the Screening Level Evaluation are shown in Table 4.5-1.

The definitions of the ERPG and TEEL concentrations were identified previously in this section. The Immediately Dangerous to Life and Health (IDLH) concentrations represent maximum concentrations from which, in the event of a respirator failure, one could escape within 30 minutes without experiencing escape impairing or irreversible health effects. IDLHs are typically applied to healthy adult workers in the workplace and were identified as required by the City of Milpitas Guidelines for Preparation of Risk Assessments. The guidelines also require identification of the 1/10 IDLH which applies to the chemicals lower explosive limit in air.

The IDLH criteria identified for pentane and hexane does not identify the toxicity of these chemicals but rather the lower explosive limit in air. In addition the $1/10^{th}$ IDLH in actuality represents the $1/100^{th}$ IDLH of the lower explosive limit for pentane and hexane. Therefore, the TEEL criteria provide a better representation of the risk of chemical exposure for residents of the site due to an accidental chemical release. TEEL concentrations are not exceeded for any chemical and heptane exceeds none of the identified criteria at the project site. The results of the screening level risk evaluation show that it is unlikely that a worst-case spill of pipeline liquids would impact residents of the project site.

Table 4.5-1
Screening Level Evaluation

Chemical of Concern	Maximum Project Outdoor Concentration*	Emergency Planning Guidelines
PG&E Gas Terminal		
Pentane (3,000 gallons of pipeline liquids into 1,000 s.f. containment)	389 ppm	IDLH** = 1,500 ppm 1/10th IDLH = 150ppm TEEL-1&2 = 610 ppm TEEL-3 = 1,500 ppm ERPG = NE
Hexane (3,000 gallons of pipeline liquids into 1,000 s.f. containment)	119 ppm	IDLH** = 1,100 ppm 1/10th IDLH = 110ppm TEEL-1 = 150 ppm TEEL-2 = 250 ppm TEEL-3 = 1,100 ppm ERPG = NE
Heptane (3,000 gallons of pipeline liquids into 1,000 s.f. containment)	43.4 ppm	IDLH = 750 ppm 1/10th IDLH = 75 ppm TEEL-1&2 = 440 ppm TEEL-3 = 750 ppm ERPG = NE

Note: All releases assume U.S. EPA Worst-Case conditions: loss of container contents over 10-minute period, Stability Class F and Wind Speed of 1.5 meters per second.
NE = Not established.

*The maximum outdoor concentration is the concentration predicted at the project exterior after the plume reaches the site (ALOHA model).
**IDLH for this compound represents 1/10th of the lower explosive limit in air.

A natural gas release from gas lines along the Barber Lane project frontage were not analyzed because these pipes are below ground. These lines are carefully monitored during construction activities and a loss of pressure in these lines would initiate a computer controlled shutdown of these pipelines.

Impact HM-4: Future residents of the proposed project would not be significantly impacted by a chemical release at any of the industrial facilities in the vicinity of the site. **(Less Than Significant Impact)**

4.5.2.5 *Other Hazards*

The project site is not located within two miles of a public airport. Development of the proposed project would not affect an emergency response plan or emergency evacuation plan. The site is not located within an area subject to wildfires.[13] The project does not propose any on-site use of hazardous materials other than those commonly used by residential, commercial, and retail uses. The use, storage, and transportation of these materials would be managed in accordance with federal, state, and local laws and regulations. The implementation of the proposed project in accordance with

[13] State of California Department of Forestry and Fire Protection. Santa Clara County Draft Fire Hazard Severity Zones in Local Responsibility Areas (LRAs). October 4, 2007. http://www.fire.ca.gov/wildland_zones_maps.php

federal, state, and local laws and regulations would ensure that the on-site use of chemicals does not result in a significant hazardous materials impact.

Impact HM-5: The proposed project would result in any significant hazards from airport operations, wildfires, or hazardous materials use and storage on the project site. **(Less than Significant Impact)**

4.5.3 Mitigation and Avoidance Measures for Hazardous Materials Impacts

4.5.3.1 *On-Site Hazardous Materials Contamination*

As conditions of approval, the project applicant shall be responsible for the implementation of the following measures to reduce impacts from hazardous materials on the proposed project to a less than significant level:

MM HM-1.1 & 2.1: Prior to the issuance of a Grading Permit, but after removal of pavement for each of the project phases, the developer shall implement the following measures, which would reduce potential impacts related to pesticide contaminated soil to a less than significant level. These measures shall be printed on all construction documents, contracts, and project plans:

- Soil on the site will be sampled and tested for organochloride pesticides and associated heavy metals.
- If the results of the soil sampling/testing indicate that the soil on the project site is contaminated with agricultural pesticides and/or heavy metals above regulatory agency thresholds, a Soil Management Plan (SMP) will be prepared for the proposed project. The SMP would detail the handling/disposal of the contaminated soil in a manner that ensures workers, adjacent uses, and the environment are protected. The main objective of the SMP is to establish protocols for the contractor in handling on-site soil during redevelopment of the site (e.g., preparation of a Health and Safety Plan).
- If the results of the soil sampling/testing indicate that the soil on the project site is contaminated with agricultural pesticides and/or heavy metals above regulatory agency thresholds, all soil off-hauled from the project site will be disposed at an appropriate facility that is designed and operated to accept and dispose of contaminated soils.

4.5.4 Conclusion

Impact HM-1: Implementation of the identified mitigation measures would reduce the impact of contaminated soils on construction personnel to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact HM-2: Implementation of the identified mitigation measures would reduce the impact of contaminated soil disposal to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact HM-3: Due to their date of construction, the existing buildings on the site do not contain lead-based paint or asbestos building materials and therefore would

not expose construction workers or the public to harmful levels of asbestos containing materials or lead. **(No Impact)**

Impact HM-4: The proposed project would not be significantly impacted from a chemical release at any of the industrial facilities in the vicinity of the site. **(Less Than Significant Impact)**

Impact HM-5: The proposed project would result in any significant hazards from airport operations, wildfires, or hazardous materials use and storage on the project site. **(Less than Significant Impact)**

4.6 GEOLOGY AND SOILS

The following discussion is based in part on a Soil and Foundation Investigation prepared for the existing development on the project site by *Advance Soil Technology, Inc.* in June 1995, and a design-level Geotechnical Investigation prepared for the proposed project by *Cornerstone Earth Group* in April 2008. Copies of these reports are included in Appendix F of this EIR.

4.6.1 Existing Setting

4.6.1.1 *Regional and Site Geology*

The City of Milpitas is located in the Santa Clara Valley, a relatively flat alluvial basin, bounded by the Santa Cruz Mountains to the southwest and west, the Diablo Mountain Range to the east, and San Francisco Bay to the north. The Santa Clara Valley was formed when sediments derived from the Santa Cruz Mountains and the Mt. Hamilton-Diablo Range were exposed by continued tectonic uplift and regression of the inland sea that had previously inundated this area. As a result of this process, the project area is generally flat. The City of Milpitas and project site do not contain any significant mineral resources, all of which are located in the City's Planning Area outside of the City limits.

The project site consists of highly variable, interbedded alluvial soils. Soil explorations on the southern portion of the site revealed clays in the upper 20 feet, with silts and sands underneath. Explorations on the northern portion of the site revealed sandy soils in the upper 20 feet, with clays and silts underneath. Groundwater was encountered at depths ranging from seven to 12.5 feet below current grades. Based on well measurements in the project area, historic high groundwater levels at the site are approximately 5 to 6 feet below ground surface. The near-surface soils at the project site have a low expansion potential when exposed to moisture. When expansive soil conditions are present on a site, there is potential for structures and improvements to be damaged.

4.6.1.2 *Seismicity and Seismic Hazards*

The San Francisco Bay Area is classified as Zone 4 for seismic activity, the most seismically active region in the United States. Strong ground shaking can therefore be expected at the site during moderate to severe earthquakes in the region. The significant earthquakes that occur in the Bay Area are generally associated with crustal movement along well defined, active fault zones of the San Andreas Fault system, which regionally trends in a northwesterly direction.

The project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone (formerly known as a Special Studies Zone) or Santa Clara County Fault Hazard Zone. Fault rupture through the site, therefore, is not anticipated. The nearest active fault zones to the project site are the Hayward Fault Zone and the Calaveras Fault Zone, which are located approximately 2.8 miles and 6.5 miles northeast of the project site, respectively.

Liquefaction

Liquefaction is the transformation of water saturated soil from a solid to a liquid state during ground shaking. Soils most susceptible to liquefaction are loose to moderately dense, saturated granular soils with poor drainage, such as silty sands or sands and gravels capped by or containing seams of impermeable sediment. Exploratory borings were drilled on the site to a depth of 50 feet. Based on the material encountered in the exploratory borings, the liquefiable soils at the subject property are

overlain with an 18-foot cap of non-liquefiable material, leaving low potential for liquefaction on the project site.

Lateral Spreading

Lateral spreading occurs when a continuous layer of soil liquefies at depth and the soil layers above move toward an unsupported face, such as a shoreline slope of creek channel, or in the direction of a regional slope or gradient. Lateral spreading is commonly associated with liquefaction. Coyote Creek is located approximately 2,200 feet northwest of the project site. Lateral spreading has not been known to occur on the project site, but has been documented in the project vicinity on sites closer to Coyote Creek.

4.6.1.3 *Uniform Building Code*

The Uniform Building Code is a model code used in most western US states. This model code is adopted by each state with amending regulations added to make changes applicable to that jurisdiction. California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, is a compilation of three types of building standards from three different origins:

- Building standards that have been adopted by state agencies without change from building standards contained in national model codes
- Building standards that have been adopted and adapted from the national model code standards to meet California conditions
- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns

Notwithstanding, the national model code standards adopted into Title 24 apply to all occupancies in California except for modifications adopted by state agencies and local governing bodies.

4.6.2 <u>Geologic and Soils Impacts</u>

4.6.2.1 *Thresholds of Significance*

For the purposes of this EIR, a geologic impact is considered significant if the project would:

- Expose people or structures to substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure (including liquefaction), landslides, or expansive soils;
- Cause substantial erosion or siltation;
- Expose people or property to major geologic hazards that cannot be mitigated through the use of standard engineering design and seismic safety techniques.
- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
- Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

4.6.2.2 *Geologic Impacts to the Project Site*

The project site includes low expansive soils, which may expand and contract as a result of seasonal or man-made soil moisture conditions. The site is also located in a seismically active region and, therefore, strong ground shaking is expected during the lifetime of the proposed project. While no active faults are known to cross the project site, groundshaking on the site could damage buildings and threaten the welfare of residents. Although the potential for liquefaction on the site is considered low, there is a potential for liquefaction of localized sand layers during a seismic event with settlement of two to three inches resulting in differential settlement of one and one-half inches.

Geologic conditions in the project area will require that the proposed structures be designed and built in conformance with the Uniform Building Code for Seismic Zone 4. Geologic and soils impacts resulting from conditions on the site can be mitigated by utilizing standard engineering and construction techniques. With incorporation of these measures the project will not expose people or property to significant impacts associated with the geologic conditions of the site. Slope instability, erosion, or landslide related hazards will be minimal due to the flat topography of the site.

Buildings will be designed and constructed in accordance with the design-level geotechnical investigation prepared for the site, which identifies specific design features that will be required for the project, including site preparation, compaction, trench excavations, foundation and subgrade design, drainage, and pavement design. The geotechnical investigation shall be reviewed and approved by the City prior to issuance of a building permit for the project.

Impact GEO-1: The proposed project will be built in conformance with the requirements of the Uniform Building Code for Seismic Zone 4 and, therefore, will not expose people or property to significant impacts associated with the geologic conditions of the site. **(Less Than Significant Impact)**

4.6.2.3 *Mineral Resources*

The proposed project site is within a developed urban area and does not contain any known or designated mineral resources. Implementation of the proposed project will not result in the loss of availability of any known mineral resources.

Impact GEO-2: Implementation of the proposed project will not result in the loss of known mineral resources within the City of Milpitas. **(Less Than Significant Impact)**

4.6.3 <u>Conclusion</u>

Impact GEO-1: The proposed project will be built in conformance with the requirements of the Uniform Building Code for Seismic Zone 4 and, therefore, will not expose people or property to significant impacts associated with the geologic conditions of the site. **(Less Than Significant Impact)**

Impact GEO-2: Implementation of the proposed project will not result in the loss of known mineral resources within the City of Milpitas. **(Less Than Significant Impact)**

4.7 HYDROLOGY AND WATER QUALITY

The following information is based on FEMA Flood Insurance Rate Maps and a Stormwater Control Plan prepared by *Kier & Wright Civil Engineers and Surveyors, Inc* in January 2009. A copy of the Stormwater Control Plan is included as Appendix G of this EIR.

4.7.1 Regulatory Setting

The Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality. Regulations set forth by the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board have been developed to fulfill the requirements of this legislation. EPA's regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by water quality control boards. The project site is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB).[14]

The Santa Clara Valley Urban Runoff Pollution Prevention Program, of which the City of Milpitas is a participant, was developed in accordance with the requirements of the RWQCB's San Francisco Bay Basin Water Quality Control Plan, as well as the requirements of EPA's NPDES permit program. Additional water quality control measures were approved in October 2001 (revised in 2005), when the RWQCB adopted an amendment to the NPDES permit for the portions of Santa Clara County that drain to the San Francisco Bay. This amendment, which is commonly referred to as "C.3" (referring to the applicable section of the permit amendment), requires all new and redevelopment projects that result in the addition or replacement of impervious surfaces totaling 10,000 square feet or more to be designed with Best Management Practices (BMPs) that reduce stormwater pollution through source control measures and stormwater treatment measures. In practical terms, the C.3 requirements seek to reduce water pollution by both reducing the volume of stormwater runoff and the amount of pollutants that are contained within the runoff. The methods used to achieve these objectives vary from site to site, but can include reducing impervious surfaces, on-site detention facilities, biofiltratration swales, settlement/debris basins, etc.

Pursuant to the C.3 requirements, the Santa Clara Valley Urban Runoff Pollution Prevention Program prepared and approved a Hydromodification Management Plan (HMP) for the purpose of managing increases in the magnitude, volume, and duration of stormwater runoff from project sites to protect streams from increased erosion or other adverse effects of increased stormwater runoff.[15]

[14] Historically, efforts to prevent water pollution focused on "point" sources (e.g., a sewage treatment plant, power plant, factory, etc.). Recent efforts focus on pollution caused by "non-point" sources, meaning the discharge comes from multiple locations. The best example of this latter category is urban stormwater runoff, the source of which is a myriad of impervious surfaces (e.g., highways, rooftops, parking lots, etc.) that are found in a typical city or town.
[15] Source: "Hydromodification Management Plan", Santa Clara Valley Urban Runoff Pollution Prevention Program, April 2005.

4.7.2 Existing Setting

4.7.2.1 *Flooding*

Based on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps, the project site is not located within the 100-year flood zone of Coyote Creek. The project site is identified as being within an area protected from the 100-year flood by a levee, dike, or other structure subject to possible failure or overtopping during large floods.[16] The site is protected from flooding by the levees located along Coyote Creek.

4.7.2.2 *Storm Drainage System*

The City of Milpitas owns and maintains the storm drainage system which serves the project site. There is an existing 36-inch to 48-inch storm drain line located in Barber Court/Barber Lane. This line discharges into Coyote Creek through the Bellew Storm Pump Station located near the northeast corner of the Murphy Ranch site. Coyote Creek carries stormwater runoff into the San Francisco Bay. According to the City's 2001 Storm Drainage Master Plan, the portion of the site north of Bellew Drive would experience ponding during a 10-year storm event.

The project site is currently mostly paved. Asphalt parking areas and driveways surround the existing buildings on the site. Pervious landscaped areas are located along the site perimeter, drive aisles, and throughout the parking lot on the site.

4.7.2.3 *Water Quality*

Urban runoff is a significant source of water pollution in the San Francisco Bay area. Runoff from most developed areas flows untreated to local creeks and rivers, and the Bay, carrying pollutants that are detrimental to the beneficial uses of these water bodies. Examples of pollutants commonly generated in the San Francisco Bay area include: sediment from construction sites; products of internal combustion engine operation such as hydrocarbons from automobiles; metals, such as copper from automobile brake pad wear and zinc from tire wear; dioxin as a product of combustion; mercury from atmospheric deposition; and naturally-occurring minerals from local geology.

The water quality of Coyote Creek and San Francisco Bay is directly affected by pollutants contained in stormwater runoff from a variety of urban and non-urban uses. Section 303(d) of the federal Clean Water Act requires that each state develop a list of water bodies that do not meet water quality standards, establish priority rankings for waters on the list, and develop action plans, called Total Maximum Daily Loads (TMDLs), to improve water quality. Stormwater runoff from the site enters Coyote Creek and flows to the San Francisco Bay. Currently, Coyote Creek is listed on the California 303(d) list and its Total Maximum Daily Load (TMDL[17]) has been approved and is being addressed by the U.S. Environmental Protection Agency.[18] San Francisco Bay is impaired due to

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[16] Federal Emergency Management Agency. Flood Insurance Rate Map, City of Milpitas California Santa Clara County Community-Panel Number 060344 0003 G. June 22, 1998.

[17] A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards. The TMDL high priority schedule denotes the most severely impaired water bodies on the 303(d) list.

[18] State Water Resources Control Board. 2006 CWA Section 303(d) List of Water Quality Limited Segments. June 28, 2007. http://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/303dlists2006/epa/state_usepa_combined.pdf Accessed June 22, 2008.

chlordane, DDT, diazinon, dieldrin, mercury, and PCBs, all of which are constituents of urban runoff.[19]

The increased stormwater peak flows and volumes associated with existing urbanization have led to adverse impacts such as bank erosion, channel widening, flooding, channel modification and loss of the natural floodplain. This occurs because development typically increases the amount of impervious surface area within a watershed by converting natural ground cover to impervious surfaces such as paved highways, streets, rooftops, and parking lots, thereby diminishing the stormwater retention, detention and purification characteristics provided by vegetated soils.

Under existing conditions, the project site is mostly covered with impermeable surfaces consisting of buildings and asphalt parking areas. Runoff from the site may currently contain litter, oil and grease from parked vehicles, and herbicides, pesticides, and sediment from landscaped areas.

4.7.2.4 *Groundwater*

Borings from the project site found groundwater at depths ranging from seven to 12.5 feet below the ground surface (bgs). Groundwater levels will typically fluctuate due to variations in seasonal rainfall and urbanization of the project site and surrounding area.

4.7.3 Hydrology and Water Quality Impacts

4.7.3.1 *Thresholds of Significance*

For the purposes of this EIR, a hydrology and water quality impact is considered significant if the project would:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- Inundation of the site by seiche, tsunami, or mudflow.

[19] Ibid.

4.7.3.2 *Long-Term Water Quality Impacts*

There are two components of development that can result in long-term water quality degradation. These are stormwater volume and the pollutant load of stormwater runoff. Increased stormwater volume can result in erosion and/or the need to channelize waterways. Erosion and/or channelization both degrade water quality.

The project would replace more than 10,000 square feet of impervious surface area on the site and, therefore, must comply with the City of Milpitas Stormwater C.3 requirements and the SWRCB NPDES permit. In conformance with the City's Stormwater C.3 Guidebook, a Stormwater Control Plan was prepared for the project (refer to Appendix G). The range of BMPs proposed on the project site to comply with C.3 are constrained by a number of factors, including the low permeability of clayey soils which extend several feet below the ground surface, the close proximity of proposed building foundations to narrow landscaped areas along the building perimeters, and the presence of utility easements along the western property line which contain two high pressure gas lines.

In order to treat stormwater runoff from the site, the project proposes the use of bioswales in existing and proposed landscaping areas, a green roof, roof planter box, and mechanical media filtration systems. The proposed project would increase the building setback from the southern property line from approximately ten feet currently to 17 to 23 feet. Several bioswales are proposed within this setback area to treat rooftop drainage from Building B. An existing landscaping area behind the Ranch 99 Market building would be graded for a bioswale to treat a portion of that building's rooftop drainage. The project would also remove parking spaces from the northern property line to accommodate a bioswale that would treat runoff from the surface parking lot in this area of the site.

The project proposes the use of four media filtration systems to treat the portions of the site not draining to bioswales. These units are necessary due to the site constraints associated with the high-density mixed-use nature of the proposed project. A green roof would also provide treatment for the southern portion of the Building F rooftop. As an added measure, the green rooftop would also drain to one of the media filtration systems proposed on the site. A planter box would also be located on the east side of the parking structure rooftop to treat runoff from this area. The existing landscaped area on the western portion of the site located above the utility easements would remain with the possibility of pervious pavers being used for proposed walkways within this area.

The proposed project would not result in a substantial increase in impervious surfaces on the site. The use of bioswales, a green roof, planter box, and media filtration system, consistent with C.3 requirements would increase the water quality of stormwater runoff from the site. The bioswales, planter boxes, and green roofs would be underdrained. The underdrains[20] would connect to the storm drainage system on the site to convey treated stormwater runoff from the site.

The project site is located in an area that is more than 90 percent built out and due to its size (less than 50 acres), is not required to implement hydrograph modification management requirements. The onsite treatment of stormwater runoff, however, would reduce the rate of stormwater runoff from the site which would reduce the project's potential to contribute to bank erosion, channel widening, flooding, channel modification and loss of the natural floodplain.

[20] A perforated conduit installed beneath the ground and surrounded by a filter composed of soil, suitable aggregate, and/or filter fabric to filter and remove pollutants from groundwater and/or surface waters.

Impact HYD-1: Based on the implementation of the stormwater treatment measures proposed in the Stormwater Control Plan, the proposed project would not result in significant long-term water quality impacts. **(Less Than Significant Impact)**

4.7.3.3 *Short-term Construction Water Quality Impacts*

Construction of the proposed development, including grading and excavation activities, may result in temporary impacts to surface water quality. Construction of the project buildings and parking areas would result in the disturbance of underlying soils, thereby increasing the potential for sedimentation and erosion. When disturbance to underlying soils occurs, the surface runoff that flows across the site may contain sediments that are ultimately discharged into the storm drainage system.

Impact HYD-2: Construction of the proposed project could result in a significant temporary increase in the amount of contaminants in stormwater runoff during construction and, therefore, requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). **(Significant Impact)**

Dewatering

Groundwater levels on the project site range from seven to 12.5 feet below the ground surface (bgs). Fluctuations in the level of groundwater may occur due to variations in rainfall and local underground drainage patterns. The proposed project may include below grade parking which would require approximately 16 to 18 feet of excavation below the ground surface in Building A and would require dewatering during construction. Groundwater pumped from below the project has the potential to pollute surface water with sediment or hazardous materials, if the groundwater is contaminated. Dewatering may also be necessary throughout the life of the project, if groundwater enters the below grade parking level. Sediment-laden discharges from temporary dewatering are not allowed under the State General Construction Permit and City ordinance. Pollutant-laden discharges from permanent dewatering systems are not allowed under the City's Municipal NPDES Permit and City ordinance. In addition to a Stormwater Control Plan, the applicant would be required to prepare a Stormwater Operations and Maintenance Plan to ensure the project would not impact the quality of stormwater runoff.

Impact HYD-3: Dewatering during project construction and, if needed, after construction could pollute surface water with sediment or hazardous materials. **(Significant Impact)**

4.7.3.4 *Flooding*

The project site is located outside the Coyote Creek 100-year flood zone because of the levees along the creek. The proposed project would not expose persons and property to impacts from such a flood and would not impede flood flows across the site. No habitable floors would be located at the ground level which further minimizes the potential exposure of project residents to flood hazards including a breach of the Coyote Creek levee system.

Impact HYD-4: Implementation of the proposed project will not expose people or structures to flood hazards or redirect flood flows. **(Less Than Significant Impact)**

4.7.3.5 *Storm Drainage Impacts*

The existing 48-inch storm drain line located in Barber Lane is anticipated to have adequate capacity to serve the southern portion of the project site. Areas of the project north of Bellew Drive and adjacent to Barber Court would be subject to residual stormwater ponding during a 10-year storm event. The City's 2001 Storm Drain Master Plan shows 10-year residual ponding occurring north of Bellew Drive from McCarthy Boulevard to the project site. The extent of the ponding would reach Building F on the site. The applicant shall design and construct all necessary storm drains and appurtenances to serve the project, in accordance with the City's Storm Drain Master Plan and City Engineering Standards and Guidelines. The project will not result in a substantial increase in stormwater runoff from the site and will be required to address additional storm drainage capacity in Barber Court as part of the site development review, as necessary.

Impact HYD-5: Due to the developed nature of the site, the proposed project would not substantially increase stormwater runoff and, therefore, would not result in a new significant impact to existing storm drainage lines in Barber Court. **(Less Than Significant Impact)**

4.7.3.6 *Groundwater Impacts*

Depth to groundwater at the project site is approximately seven to 12.5 feet below the ground surface. The project site is underlain by clayey soils that do not provide substantial percolation of rainfall to underground aquifers. In addition, the City of Milpitas does not rely on groundwater for domestic water needs and the proposed impervious surfaces on the project site would not affect the City's ability to provide water to its own residents. Other cities around Milpitas do rely on groundwater, but designated recharge areas have been established to help maintain the groundwater supply.

Impact HYD-6: Implementation of the proposed project would not substantially interfere with groundwater recharge. **(Less Than Significant Impact)**

4.7.4 <u>Mitigation and Avoidance Measures for Hydrology and Water Quality Impacts</u>

As conditions of approval, the project applicant shall be responsible for the implementation of the following measures to reduce hydrology and water quality impacts:

4.7.4.1 *Post-Construction Water Quality*

AM HYD-1.1: The following measures, based on Regional Water Quality Control Board Best Management Practices, shall be implemented by the developer to reduce post-construction water quality impacts. The project shall also be compliant with all applicable requirements of the City's NPDES permit in place when the project application is deemed complete. These measures shall be printed on all construction documents, contracts, and project plans:

- As part of the mitigation for post-construction runoff impacts addressed in the SWPPP, Stormwater Control Plan, and Stormwater Operation and Maintenance Plan, the project will implement regular maintenance activities (i.e., sweeping, maintaining vegetative swales, litter control, and other activities as specified by the City) at the site to prevent soil, grease,

and litter from accumulating on the project site and contaminating surface runoff. Storm water catch basins will be stenciled to discourage illegal dumping.

- In compliance with Section XI-16-6 of the Milpitas Municipal Code, the project shall include Permanent Stormwater Pollution Prevention Measures in order to reduce water quality impacts of urban runoff from the entire project site for the life of the project. These measures will include:
  - Landscape designs for stormwater treatments and media filtration systems that meet the requirements of Provision C.3 of the City's NPDES permit will be submitted with the Site Development Plans and must be approved by the Planning Department prior to issuance of building permits.
  - The proposed project will incorporate Low Impact Development Design techniques to minimize stormwater runoff volume and pollutants. Source control examples include covered outdoor loading docks and vehicle wash areas, and plumbing fire sprinkler test water to the sanitary sewer system. Site design examples include draining impervious surface areas to pervious surfaces such as swales or other landscape and minimizing impervious surfaces.
  - The proposed project will be required to sign an Operation & Maintenance (O&M) agreement with the City to insure the property owner's continued maintenance and performance of post-construction measures for the life of the project. The property owner will be required to maintain stormwater management facilities and pay an annual fee to offset the cost of inspecting the project site. In the event the City Manager or a City designee determines the Operation & Maintenance agreement is not being followed the property owner will be subject to criminal and civil penalties and citations.

4.7.4.2 *Construction Phase Water Quality*

MM HYD-2.1: The following measures, based on Regional Water Quality Control Board Best Management Practices, have been included in the project to reduce construction-related water quality impacts. All mitigation will be implemented prior to the start of earthmoving activities on-site and will continue until the construction is complete. These measures shall be printed on all construction documents, contracts, and project plans:[21]

- Burlap bags filled with drain rock shall be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities shall be suspended during periods of high winds.
- All exposed or disturbed soil surfaces shall be watered at least twice daily to control dust as necessary.
- Stockpiles of soil or other materials that can be blown by the wind shall be watered or covered.

[21] Additional measures may be required to prevent water quality impacts.

- All trucks hauling soil, sand, and other loose materials shall be covered and all trucks would be required to maintain at least two feet of freeboard.
- All paved access roads, parking areas, staging areas and residential streets adjacent to the construction sites shall be swept daily (with water sweepers). In addition, a tire wash system may be required.
- Vegetation in disturbed areas shall be replanted as quickly as possible.
- All unpaved entrances to the site shall be filled with rock to knock mud from truck tires prior to entering City streets. A tire wash system may also be employed at the request of the City.
- A Storm Water Permit will be administered by the Regional Water Quality Control Board. Prior to construction grading for the proposed land uses, the project proponent will file a "Notice of Intent" (NOI) to comply with the General Permit and prepare a Storm Water Pollution Prevention Plan (SWPPP) which addresses measures that would be included in the project to minimize and control construction and post-construction runoff. Measures will include, but are not limited to, the aforementioned RWQCB mitigation.
- The project proponent will submit a copy of the draft SWPPP to the City of Milpitas for review and approval prior to start of construction on the project site. The certified SWPPP will be posted at the project site and will be updated to reflect current site conditions.
- When construction is complete, a Notice of Termination (NOT) for the General Permit for Construction will be filed with the Regional Water Quality Control Board and the City of Milpitas. The NOT will document that all elements of the SWPPP have been executed, construction materials and waste have been properly disposed of, and a post-construction storm water management plan is in place as described in the SWPPP for the site.

MM HYD-3.1: The following measures shall be implemented by the applicant to reduce water quality impacts that could result during dewatering to a less than significant level. The project shall also be compliant with all applicable requirements of the City's NPDES permit in place when the project application is deemed complete. All mitigation shall be implemented prior to the start of earthmoving activities on-site and will continue until dewatering is complete. These measures shall be printed on all construction documents, contracts, and project plans:

- Groundwater below the project site shall be sampled and tested for contaminants.
  - If groundwater contaminant levels are below discharge thresholds, the project must receive City approval prior to discharge of groundwater into the City's storm drain system. This permit will specify the sediment removal measures to be implemented during dewatering (e.g., settling tank, particulate filters, etc.) and the frequency of ongoing water quality testing.
  - If groundwater contaminant levels are above discharge thresholds, the project shall obtain an NPDES permit from the RWQCB prior to discharging the water into the stormdrain system. This permit will specify the groundwater treatment measures and the water quality

treatment standards that shall be achieved prior to discharge into the storm drain system, the sediment removal measures to be implemented during dewatering (e.g., settling tank, particulate filters, etc.), and the frequency of ongoing water quality testing.

4.7.5 Conclusion

Impact HYD-1: Based on the implementation of the stormwater treatment measures proposed in the Stormwater Control Plan, the proposed would not result in significant long-term water quality impacts. **(Less Than Significant Impact)**

Impact HYD-2: Implementation of the identified construction BMPs would reduce the temporary increase in the amount of contaminants in stormwater runoff to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact HYD-3: Implementation of the identified mitigation measure would reduce the impacts of dewatering on surface water quality to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact HYD-4: Implementation of the proposed project will not expose people or structures to flood hazards or redirect flood flows. **(Less Than Significant Impact)**

Impact HYD-5: Due to the developed nature of the site, the proposed project would not substantially increase stormwater runoff and, therefore, would not result in a new significant impact to existing storm drainage lines in Barber Court. **(Less Than Significant Impact)**

Impact HYD-6: Implementation of the proposed project would not substantially interfere with groundwater recharge. **(Less Than Significant Impact)**

4.8 BIOLOGICAL RESOURCES

The following information is based in part on a tree survey prepared by *Concentric Ecologies* in September 2007. A copy of this report is included as Appendix H in this EIR.

4.8.1 Regulatory Setting

Biological resources include plants and animals and the habitats that support them. Individual plant and animal species that are listed as rare, threatened or endangered under the state and/or federal Endangered Species Act, and the natural communities of habitats that support them, are of particular concern. Sensitive natural communities (e.g., wetlands, riparian woodlands, and oak woodland) that are critical to wildlife or ecosystem function are also important biological resources.

The avoidance and mitigation of significant impacts to biological resources under CEQA is consistent with and complimentary to various federal, state, and local laws and regulation that are designed to protect these resources. These regulations often mandate that project sponsors obtain permits that include measures to avoid and/or mitigate impacts required as permit conditions, prior to the commencement of development activities.

4.8.2 Existing Biological Resources

4.8.2.1 *Habitat*

The project site is fully developed and located in a developed urbanized area adjacent to a major freeway (I-880) and highway (SR 237). The project site, a shopping center, has extremely low value in terms of biological habitat. The most substantial habitat on and adjacent to the project site is landscaping. There are no streams, creeks, or other waterways on or adjacent to the project site. The project site does not function as a wildlife corridor or nursery site, and is not within the boundaries of a conservation plan.

4.8.2.2 *Special Status Animal Species*

Special status species are those plants and animals listed under the state and federal Endangered Species Acts (including candidate species); plants listed on the California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California (1994); and animals designated as Species of Special Concern by the California Department of Fish and Game. Special status species do not occur on the project site. This conclusion is based upon the fact that the project site and surrounding area is developed and, as a result, does not contain suitable habitat for special status species known to occur in the project area (i.e., marsh, wetland, or serpentine soils). Due to their small size, the landscape trees on the project site do not provide nesting habitat for raptors.

4.8.2.3 *Trees*

On developed commercial property, such as the project site, the City of Milpitas Tree Ordinance defines an ordinance-sized tree as any tree having a trunk that measures 37 inches or greater in circumference at a height of four and one-half feet above the ground. A multi-stem tree is considered a single tree and it ordinance-size if any one of its trunks measures 37 inches or greater in circumference. A tree removal permit is required from the City for removal of ordinance-sized trees.

The tree survey completed for the proposed project identified a total of 242 trees, of which 23 are ordinance-sized (refer to Table 4.8-1). There are 92 Carolina Laurel Cherry trees, 48 Redwoods, 38 New Zealand Christmas trees, 16 White Pines, 20 Crabapple, 20 Laurel, and eight miscellaneous trees. There are 23 trees on-site protected by the City of Milpitas Tree Ordinance. For a complete list of the trees on-site and an aerial photo showing their location, refer to Appendix H of this EIR.

Table 4.8-1
Ordinance-Sized Trees

Common Name	Circumference (inches)	Condition
Redwood	44	Average Health
Redwood	44	Average Health
Redwood	44	Average Health
Redwood	41	Average Health
Redwood	38	Average Health
Redwood	38	Average Health
Redwood	44	Average Health
Redwood	41	Average Health
Redwood	44	Average Health
Redwood	38	Average Health
Redwood	41	Average Health
Redwood	41	Average Health
Redwood	44	Average Health
Redwood	41	Average Health
Redwood	41	Average Health
Redwood	41	Average Health
Redwood	44	Average Health
Redwood	44	Average Health
Redwood	38	Average Health
Redwood	41	Average Health
Redwood	41	Average Health
Redwood	41	Average Health
Fan Palm	72	Average Health

4.8.3 Biological Resource Impacts

4.8.3.1 *Thresholds of Significance*

For the purposes of this EIR, a vegetation and wildlife impact is considered significant if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local ordinances protecting biological resources, such as a tree preservation ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.8.3.2 *Vegetation, Habitats, and Wildlife*

The project site is a developed, urban site adjacent to a major freeway with no habitat suitable for special status plant or animal species. Development of the proposed project, therefore, will not directly affect special status plant or animal species, sensitive habitat, wildlife movement, wildlife nurseries, or wetlands, and will not conflict with any local ordinances protecting biological resources or with the provisions of a conservation plan.

The increased density of development on the project site proposed by the project would incrementally increase the amount of non-point source water pollutants (e.g., automobile tire rubber, brake pad dust, and litter) entering waterways (e.g., Coyote Creek and San Francisco Bay) and will incrementally increase air pollutants (e.g., carbon monoxide) in the project area. These indirect impacts to biological resources that would result from the proposed project would not be substantial. The air and water quality impacts of the proposed project are discussed in detail in *Section 4.3 Air Quality* and *Section 4.7 Hydrology and Water Quality* of this EIR.

Impact BIO-1: The proposed project would not impact special status plant and animal species and the property does not contain wildlife movement corridors or nursery sites. **(Less Than Significant Impact)**

4.8.3.3 *Trees*

The project will result in the removal of approximately four ordinance-size trees located in the planter boxes along the perimeter of the site, due to the location of the proposed bioswales. The remaining 19 ordinances-size trees on the site are located in the planter strip along the northern and eastern property lines of the site and are not anticipated to be removed as part of grading for the project. Approximately 153 non-ordinance trees are located throughout the parking lot on the site and would be removed by the project.

Impact BIO-2: The proposed project will remove four ordinance-size trees on the site. **(Significant Impact)**

4.8.4 <u>Mitigation and Avoidance Measures for Biological Resource Impacts</u>

As conditions of approval, the project applicant shall be responsible for the implementation of the following measures to reduce biological resource impacts:

MM BIO-2.1: Prior to receiving an occupancy permit, the applicant shall implement the following measures, which would reduce the impact of the loss of ordinance-size trees on the project site to a less than significant level. These measures shall be printed on all construction documents, contracts, and project plans:

- In conformance with the City of Milpitas Zoning Ordinance, all trees removed from the site that measure 37 inches or greater in circumference (12-inches in diameter) at four feet six inches above the ground surface will be replaced in-kind at a 3:1 ratio within the project site.

- Trees that are removed but cannot be mitigated on-site due to lack of available planting area, will be mitigated by fees paid to the City. The funds will be deposited in the City's Tree Replacement Fund and will be used to plant trees within the City of Milpitas.

4.8.5 Conclusion

Impact BIO-1: The proposed project would not impact special status plant and animal species or wildlife movement corridors or nursery sites. **(Less Than Significant Impact)**

Impact BIO-2: Implementation of the identified mitigation measures will reduce impacts to ordinance-size trees to a less than significant level. **(Less Than Significant Impact with Mitigation)**

4.9 CULTURAL RESOURCES

The following discussion is based on an archaeological literature review prepared by *Holman & Associates* in November 2007. Because this report may discuss the location of specific archaeological sites, it is considered administratively confidential and is not included in this EIR. Qualified personnel may request a copy from the City's Planning Division located at 455 East Calaveras Boulevard, during normal business hours.

4.9.1 Regulatory Setting

4.9.1.1 *California Public Resources Code*

California Public Resources Code, Sections 21083.2 and 21084.1 defines archaeological and historical resources, respectively. These include resources listed on or eligible for the California Register of Historical Resources (CRHR) or the National Register of Historic Places and those resources listed on a local register. Public Resources Code, Sections 5020.1 through 5024.6 (effective 1992) creates the California Register of Historical Resources (CRHR) and sets forth requirements for protection of historic cultural resources.

4.9.2 Existing Setting

4.9.2.1 *Archeological Resources*

An archaeological literature review was completed at the Northwest Information Center (NWIC) at Sonoma State University to determine if any known resources are located on the project site. There are no known historic and/or prehistoric archaeological sites recorded on the project site. There are a number of recorded prehistoric archaeological sites within one quarter-mile of Milpitas Square including several archaeological sites located along Coyote Creek at the Agnews complex, a large site located under the Elmwood Correctional Complex (Scl-38) and two additional sites (Scl-126 and Scl-678) located northeast of the project site. The project site was previously the subject of a visual reconnaissance in 1986 which did not result in the discovery of any prehistoric cultural resources on the project site. During the previous reconnaissance survey historic farming complexes, which were removed, and several suspected archaeological deposits were identified in the immediate vicinity of the site. The NWIC files do not contain any record of prehistoric archaeological resources on the project site discovered during the construction of the existing development.

4.9.2.2 *Historic Resources*

The project site was farmland prior to the construction of Milpitas Square in 1996. Farming complexes in the vicinity of the site were previously removed. No known historical buildings previously occupied or currently occupy the site.

4.9.2.3 *Other Resources*

There are no known paleontological resources (i.e., fossils), geologic features (e.g., cavern, crater, river, etc.), or human remains on or adjacent to the project site. The nearest geologic feature to the project site is Coyote Creek.

4.9.3 Cultural Resources Impacts

4.9.3.1 *Thresholds of Significance*

For the purpose of this EIR, a cultural resources impact is considered significant if the project would:

- Cause a substantial adverse change in the significance of a historical resource;
- Cause a substantial adverse change in the significance of an archaeological resource;
- Directly or indirectly destroy a unique paleontological resource or site or unique geological feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

4.9.3.2 *Impacts to Archaeological Resources*

No evidence of prehistoric or historic archaeological or historic resources has been recorded on the project site. The project site, however, still retains archaeological sensitivity, in particular for prehistoric deposits, based upon its proximity to existing recorded prehistoric archaeological sites.

Impact CULT-1: The project site is located in an area that contains several recorded prehistoric archaeological sites and, therefore, excavation for the project has the potential to encounter and damage archaeological resources. **(Significant Impact)**

4.9.3.3 *Impact to Historic Buildings*

The existing buildings on the project site were constructed in 1996. No historic buildings were previously located on the project site.

Impact CULT-2: The proposed project will not result in any impact to historic buildings. **(No Impact)**

4.9.4 Mitigation and Avoidance Measures for Cultural Resources

As conditions of approval, the applicant shall implement the following mitigation measures to avoid possible impacts from the project to archaeological resources, or reduce them to a less than significant level:

MM CULT-1.1: A qualified archaeologist shall be retained to inspect the parcel for buried resources following demolition of existing buildings and site clearing during each phase of the project. In the event that any archaeological materials are encountered, work shall be stopped in the area designated by the project archaeologist until a plan has been submitted to the Milpitas Planning Division for the evaluation of the resource as required by CEQA. Evaluation typically takes the form of limited hand excavation of the suspected deposit to determine if it 1) possesses integrity (is not historically disturbed) and 2) possesses information and/or materials which would make it eligible for inclusion on the California Register of Historic Resources.

MM CULT-1.2: If evaluative testing demonstrates that further construction related earthmoving will affect a register eligible resource, a plan for the mitigation of impacts to the resource shall be submitted to the Milpitas Planning

Director for approval. Mitigation can include limited additional hand excavation to retrieve additional data from the deposit, coupled with archaeological monitoring of all subsequent construction related earthmoving inside the area designated as archaeologically sensitive to insure that significant archaeological materials and/or information are retrieved for future analysis and report preparation.

MM CULT-1.3: Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California, in the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified by the project applicant and the Coroner shall make a determination as to whether the remains are Native American.

If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

4.9.5 Conclusion

Impact CULT-1: The proposed project with the implementation of the identified mitigation measures will reduce the impacts of the project to archaeological resources to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact CULT-2: The proposed project will not result in any impact to historic buildings. **(No Impact)**

4.10 VISUAL AND AESTHETICS

4.10.1 Background

The City of Milpitas Redevelopment Agency analyzed the visual impacts related to new advertising sign construction and existing advertising sign renovation or replacement locations as part of the Milpitas Redevelopment Project Area Merger Program Final Environmental Impact Report that was certified in November 2006. The location of the advertising signs analyzed in that Final EIR included redevelopment areas along the I-680 and I-880 freeway corridors. The analysis contained in this section does not rely on the analysis or conclusions contained in the Milpitas Redevelopment Project Area Merger Program Final EIR due to the changes in the site conditions resulting from the proposed project.

4.10.2 Existing Setting

4.10.2.1 *Visual Character of the Project Area*

The project site is located in an urban area adjacent to a major freeway (Interstate 880) and State Route 237 (SR 237). The site is currently developed with a shopping center, large paved parking lot, and landscaping that includes mature trees. The site contains a 35-foot tall off-site advertising sign that is only partially visible, due to elevated ramps, from the freeways adjacent to the project site. Development in the project area includes modern commercial and light industrial uses with building heights up to 12 stories tall. The project site is bordered to the east by I-880 and an elevated freeway on-ramp that is approximately 30 feet tall. Currently under construction across I-880 from the project site is a 59-acre project that at full build out will contain 315 condominiums, 165 detached houses, 203 townhouses, and three auto dealerships. South of the project site is a vacant two-story building with a large paved parking area, which is proposed to be developed with an 18-story mixed-use (retail, office, and residential) building and attached eight-level parking garage. West of the project site is Barber Lane and a business park developed with two and three story office buildings and large, landscaped surface parking lots. Bellew Drive crosses Barber Lane and dead-ends at the western boundary of the project site, approximately midway from the north and south property boundaries. West of the project site and north of Bellew Drive is a 12-story hotel, the tallest existing building in the project area. North of the project site is SR 237, which has an interchange with I-880 at the northeast corner of the project site. Photos of the project site and nearby uses are shown in Photos 1 through 5 on the following pages.

Photo 1 - View of the project site from the end of Bellew Drive, the main entrance to the site.

Photo 2 - View of the freeway on-ramp and interchange located north of the project site.

PHOTOS 1 AND 2

Photo 3 - View looking west of the vacant building south of the project site.

Photo 4 - View from the project site looking west at the existing business park.

PHOTOS 3 AND 4

Photo 5 - View from the project site looking west at the existing 12-story hotel.

PHOTO 5

4.10.2.2 *Scenic Views and Resources*

The project site and the surrounding area are flat, and as a result, the site is only visible from the immediate area. The project area is not located within a city-designated scenic corridor[22] and I-880 is not a state-designated scenic highway. The project site is, however, located adjacent to scenic connectors[23] SR 237 and I-880 identified in the Milpitas General Plan. Scenic views in the project area include the east hills; however, due to the flat topography and existing development in the project area, including the adjacent elevated freeway ramp, views of the east hills from the project site area are limited and intermittent for viewers in cars or on the ground. Views of the east foothills can be seen from the public sidewalk along Barber Lane.

4.10.2.3 *Light and Glare*

Sources of light and glare are abundant in the urban environment of the project area, including but not limited to street lights, parking lot lights, security lights, vehicular headlights, internal building lights, and reflective building surfaces and windows.

4.10.3 <u>Visual and Aesthetic Impacts</u>

4.10.3.1 *Thresholds of Significance*

For the purposes of this EIR, a visual and aesthetic impact is considered significant if the project would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Aesthetic values are largely subjective. Particular viewpoints as to what constitutes an adverse visual impact will differ among individuals. The discussion below, therefore, focuses on change in visual perception and views, without placing value on the aesthetic quality of a particular condition.

4.10.3.2 *Change in Visual Character*

Proposed Building Height and Mass

The site is currently developed with a shopping center, large paved parking lot, and landscaping. The site is located immediately adjacent to an elevated (approximately 30-foot tall) freeway on-ramp and eight-lane freeway in a highly urbanized area that is developed primarily with low to mid-rise industrial and commercial buildings. There is no established residential neighborhood in the project vicinity.

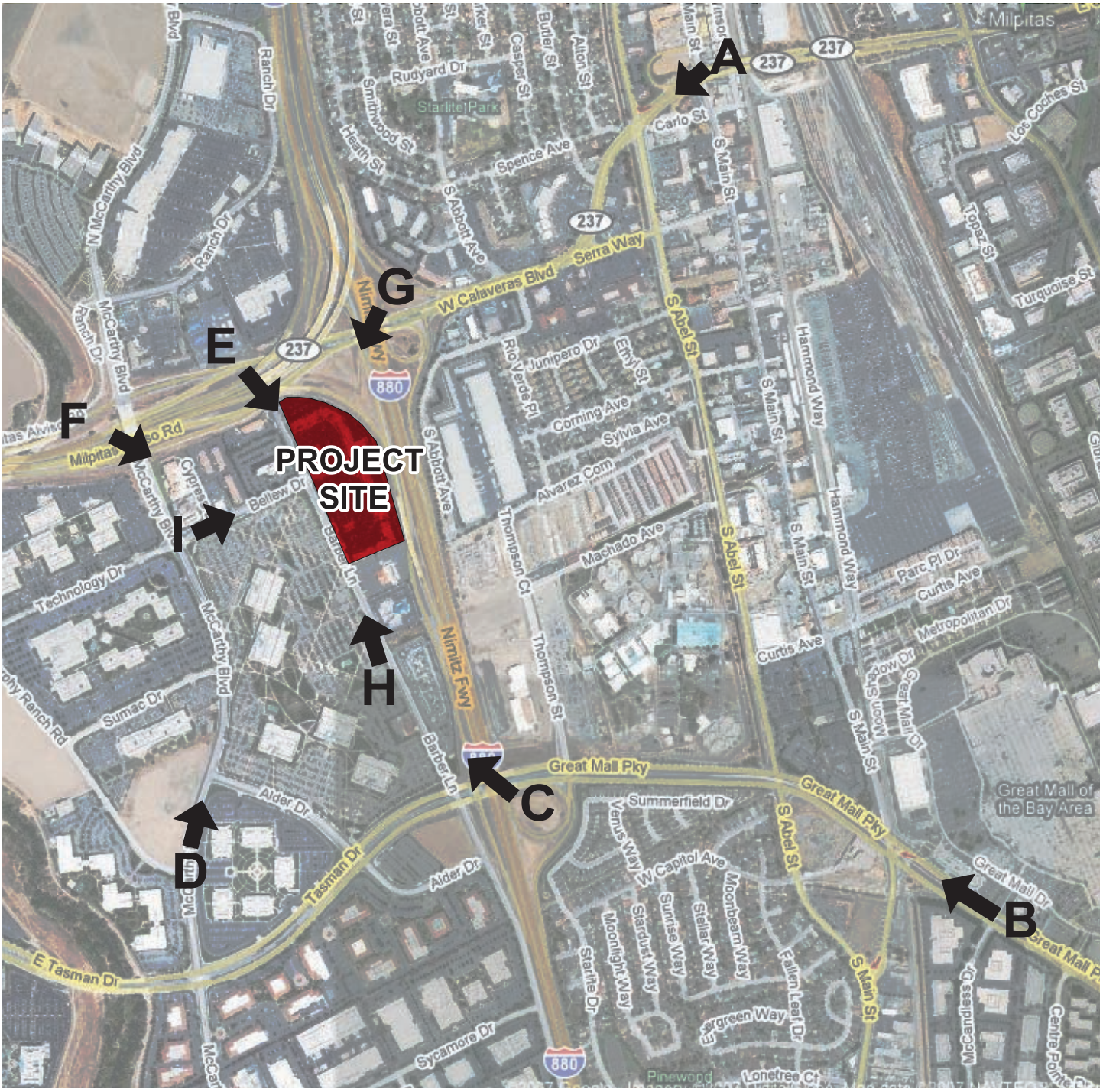
[22] Scenic Corridors are located along designated streets that pass through an area of scenic value.
[23] A designated street connecting or providing access to Scenic Corridors or distant views. A Scenic Connector may not necessarily traverse an area of scenic value, and the abutting land is not subject to the Scenic Corridor land use controls. However, special design treatment – which may include roadside landscaping, undergrounding of utility lines, and street furnishings – will be carried out to provide a visual continuity with the Scenic Corridors.

The proposed Buildings B and F on the site would be the tallest buildings in Milpitas with the exception of the proposed Landmark Tower project located south of the site that was recently approved (November 2008). Buildings similar in height and mass to the project located near the project site and within the City of Milpitas include the 12-story Crowne Plaza Hotel (located on the west side of Barber Court) and the 10-story Embassy Suites Hotel (located approximately 8,200 feet east of the site). Buildings proposed on the project site would be taller than existing development in the City of Milpitas; however, the proposed towers (Buildings B and F) would not be substantially more massive than existing development in the City of Milpitas.

In order to evaluate the impacts of the project on the existing skyline profile, photosimulations of the project were prepared that illustrate the proposed building massing and scale in its surroundings, from a variety of vantage points in the City. The photosimulations are based on building elevations provided by the project architect. Nine views from within the City were selected to illustrate the visual character with and without the project. Views A through D are from the surrounding area, and Views E thru I are from the immediate vicinity of the project site. A map of the view point locations is shown on Figure 12. Figures 13 through 22 show each of the nine views under existing conditions and photosimulations of how each view would appear with development of the proposed project.

While the proposed project includes buildings that are substantially taller than the buildings located on surrounding properties, it is not substantially out of character with the existing development in the project area (refer to Figures 13-22). The project area is highly urbanized. There is a 12-story building (Crowne Plaza Hotel) located west of Barber Court across from the project site. State Route 237 and an elevated 25-foot tall connector ramp to I-880 is located immediately north of the site. Interstate 880 and an elevated, approximately 30-foot tall on-ramp to Interstate 880 is located immediately east of the project site. Due to the flat topography and existing urban development in the project area, views further from the project site would not substantially change with development of the proposed project. As shown in Figures 13 through 22, the visual change between the existing views and those with the proposed development is not substantially altered. The proposed project will be subject to architectural and design review as a part of the City permitting process, to ensure that the final design is a high quality development. The redevelopment of the project site with modern, mixed-use buildings, including two high-rise buildings up to 20 stories in height (210 feet) would not substantially degrade the existing visual character of the site or its surroundings.

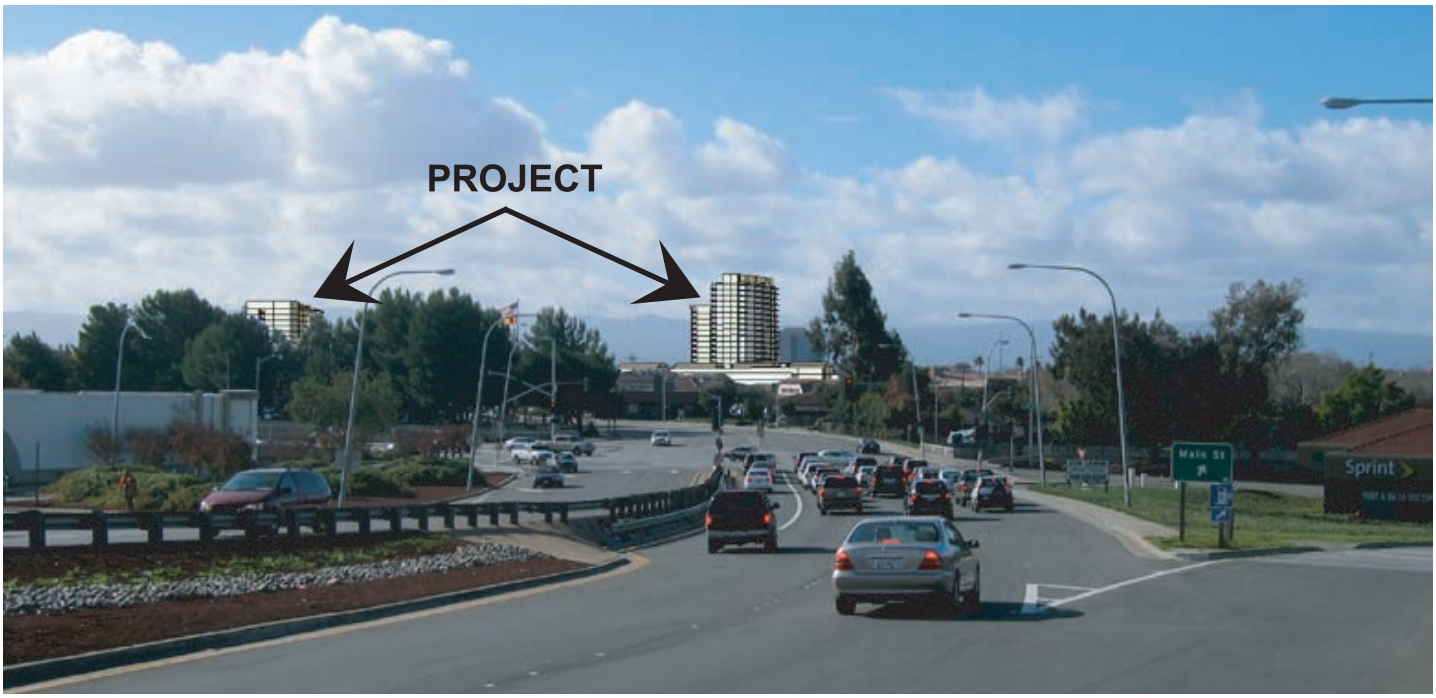
Impact VIS-1: The proposed development on the site, including high-rise buildings, would not substantially degrade the visual character of the project site or surrounding area. **(Less Than Significant Impact)**



Source: Van Meter Williams Pollack, May 2008.

PHOTOSIMULATION VANTAGE POINTS FIGURE 12

EXISTING VIEW - LOOKING SOUTHWEST FROM THE CALAVERAS BOULEVARD RAILROAD OVERPASS.

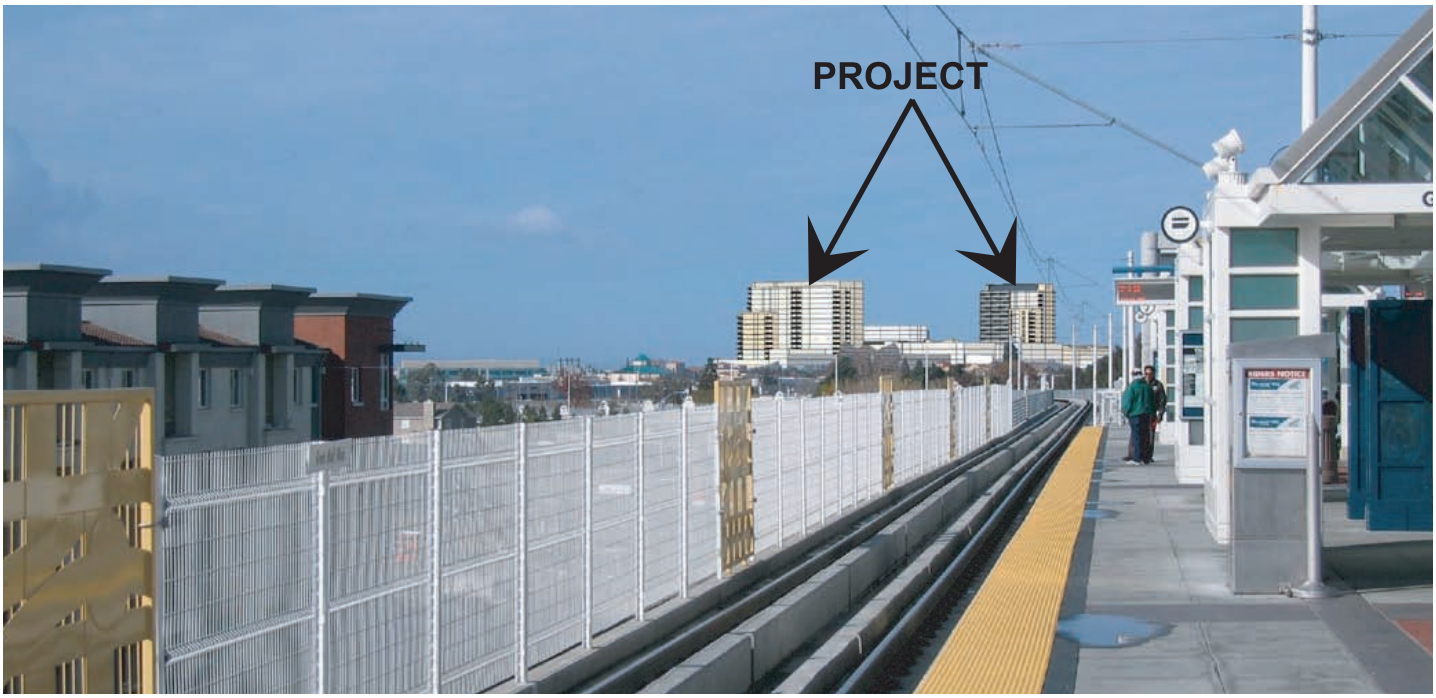


PROPOSED VIEW - LOOKING SOUTHWEST FROM THE CALAVERAS BOULEVARD RAILROAD OVERPASS.

PHOTOSIMULATION - VIEW A

FIGURE 13

EXISTING VIEW - LOOKING NORTHWEST FROM THE GREAT MALL LIGHT RAIL TRANSIT STATION.

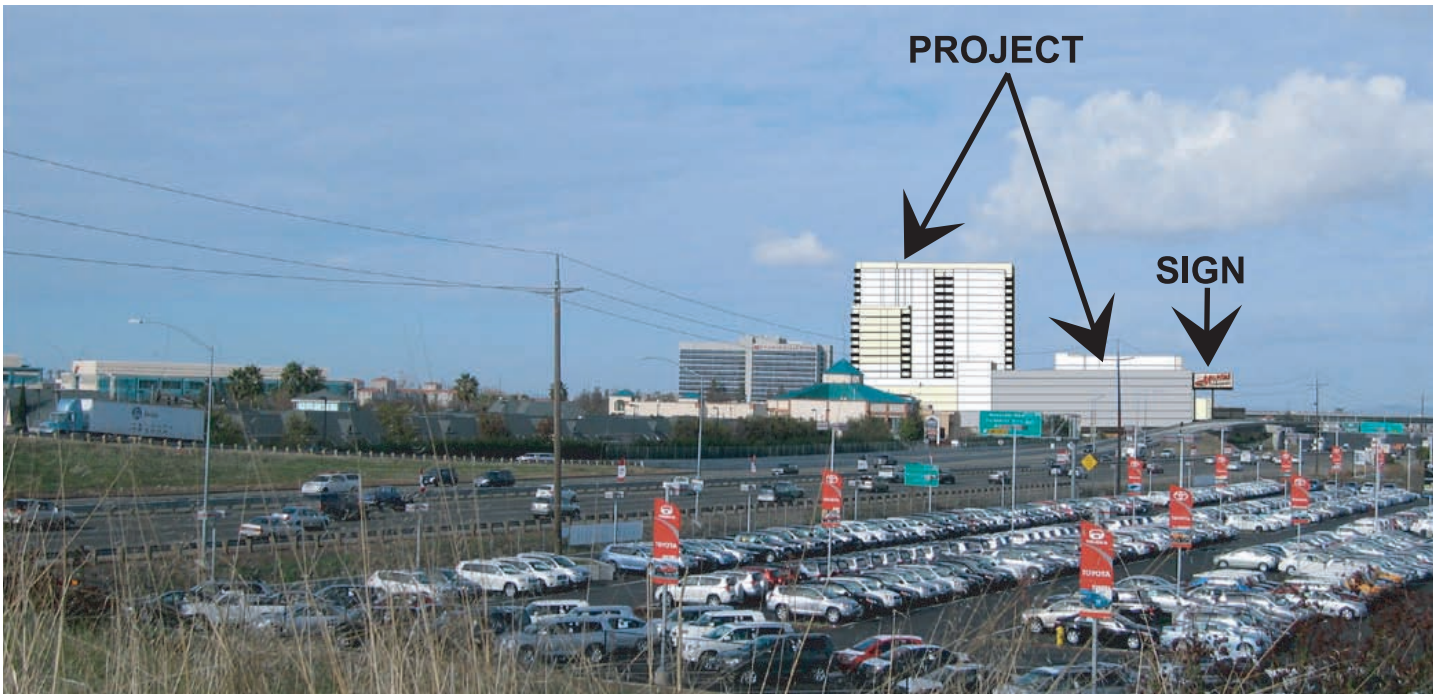


PROPOSED VIEW - LOOKING NORTHWEST FROM THE GREAT MALL LIGHT RAIL TRANSIT STATION.

PHOTOSIMULATION - VIEW B

FIGURE 14

EXISTING VIEW - LOOKING NORTHWEST FROM THE GREAT MALL PARKWAY AT I-880 OVERPASS.



PROPOSED VIEW - LOOKING NORTHWEST FROM THE GREAT MALL PARKWAY AT I-880 OVERPASS.

PHOTOSIMULATION - VIEW C

FIGURE 15

EXISTING VIEW - LOOKING NORTHEAST FROM MCCARTHY BOULEVARD APPROACHING THE ALDER DRIVE INTERSECTION.

PROPOSED VIEW - LOOKING NORTHEAST FROM MCCARTHY BOULEVARD APPROACHING THE ALDER DRIVE INTERSECTION.

PHOTOSIMULATION - VIEW D

FIGURE 16

EXISTING VIEW - LOOKING SOUTHEAST FROM BARBER COURT.

PROPOSED VIEW - LOOKING SOUTHEAST FROM BARBER COURT.

PHOTOSIMULATION - VIEW E

FIGURE 17

EXISTING VIEW - LOOKING EAST FROM THE MCCARTHY BOULEVARD AT STATE ROUTE 237 ON-/OFF-RAMP INTERSECTION.

PROPOSED VIEW - LOOKING EAST FROM THE MCCARTHY BOULEVARD AT STATE ROUTE 237 ON-/OFF-RAMP INTERSECTION.

PHOTOSIMULATION - VIEW F

FIGURE 18

EXISTING VIEW - LOOKING SOUTHWEST FROM THE CALAVERAS BOULEVARD AT I-880 OVERPASS.

PROPOSED VIEW - LOOKING SOUTHWEST FROM THE CALAVERAS BOULEVARD AT I-880 OVERPASS.

PHOTOSIMULATION - VIEW G

FIGURE 19

EXISTING VIEW - LOOKING NORTH FROM BARBER LANE.

PROPOSED VIEW - LOOKING NORTH FROM BARBER LANE.

PHOTOSIMULATION - VIEW H

FIGURE 20

EXISTING VIEW - LOOKING NORTHEAST FROM MCCARTHY BOULEVARD AND BELLEW DRIVE INTERSECTION.

PROPOSED VIEW - LOOKING NORTHEAST FROM MCCARTHY BOULEVARD AND BELLEW DRIVE INTERSECTION.

PHOTOSIMULATION - VIEW I.1

FIGURE 21

EXISTING VIEW - LOOKING NORTHEAST FROM BELLEW DRIVE.

PROPOSED VIEW - LOOKING NORTHEAST FROM BELLEW DRIVE.

PHOTOSIMULATION - VIEW I.2

FIGURE 22

Shopping Center Identification Signs

The proposed shopping center identification signs with electronic displays would be 70 feet in height and designed to be viewed from the adjacent freeways, elevated ramps, and roadways in the vicinity of the project site. Based on the existing building heights in the project area, the proposed building heights on the project site, and the adjacent elevated freeway ramps, the proposed signs would not rise substantially above the urban plane. As part of the City's permitting process, architectural and design review would be completed to ensure the signs' visual prominence would be maintained at an acceptable level. The process may involve reducing the height of the proposed signs, reducing the electronic elements, and/or reduction in the mass of the sign support structure.

Impact VIS-2: Based on the location of the proposed shopping center identification signs with electronic displays on the project site and the height of development in the project area the proposed signs would not substantially degrade the visual character of the site or area. **(Less Than Significant Impact)**

4.10.3.3 *Effect on Scenic Views*

Proposed Buildings

The Diablo Range foothills to the east provide the only visible natural habitat in the project area. The City of Milpitas General Plan designates the hilltops, hillsides, and ridgelines within Ed Levin Park as scenic resources. There are no designated scenic view corridors in the project area. The project site is, however, located adjacent to scenic connectors SR 237 and I-880. Existing development west of the project site is industrial and commercial. The proposed project would not block or obscure views of Ed Levin Park from any scenic connectors based on the location of the site. Views of the foothills would remain intermittent from various vantage points in the public right-of-way.

Impact VIS-3: The proposed buildings would not block any designated scenic views in the project area. **(Less Than Significant Impact)**

Shopping Center Identification Signs

The two shopping center identification signs with electronic displays have the potential to intrude into views of the Diablo Range foothills from nearby hotel suites. The placement of a shopping center identification sign with electronic displays on the north end of the site could be more or less visually intrusive depending on the location (refer to Figure 4). The proposed location of the sign adjacent to SR 237 would increase the visual prominence of the sign and intrude into views from nearby commercial uses such as hotel suites. The proposed sign at the south end of the site would be shielded from adjacent land uses by the proposed buildings on the site.

Impact VIS-4: The proposed shopping center identification signs with electronic displays would intrude into views of the foothills from adjacent land uses such as the hotels located on Bellew Drive and Barber Court. **(Significant Impact)**

4.10.3.4 *Light and Glare*

Project Buildings

The developed project site is located adjacent to I-880 in a highly urbanized area of Milpitas that is developed with shopping centers and business parks and contains numerous existing sources of light and glare. The proposed project would incrementally add to the existing light and glare in the project area. The project includes outdoor security night lighting along walkways and in the parking structures and entrance areas and light standards would be located along the driveways. Outdoor lighting would also be provided in the common open-space areas including the common open space areas located on the podiums of Buildings A, B, C, and F. Lighting on the project site would be directed downward to avoid spillover onto adjacent areas. The headlights of vehicles traveling to and from the project site and within the parking structure would also incrementally add to existing light levels in the project area. Similar to the existing development in the project area, the proposed project will include reflective surfaces such as window panes and trim. The sun reflecting off these surfaces would create glare. Compared to the existing sources of light and glare on and adjacent to the project site, the light and glare created by the proposed project buildings would not be substantial.

Impact VIS-5: The proposed buildings on the project site would not result in a substantial new source of light or glare affecting daytime or nighttime views. **(Less Than Significant Impact)**

Shopping Center Identification Signs

The proposed shopping center identification signs with electronic displays proposed on the project site would create additional illumination in the project area. The proposed signs could be visible from surrounding vantage points and may affect nighttime views from adjacent land uses. The degree of stray light effects associated with the signs would result from any additional proposed illumination of the signs. The highly urbanized condition along I-880 already compromises nighttime views; however, the electronic displays could potentially cast spillover light onto adjacent land uses and substantially increase light and glare impacts on nighttime views. The proposed signs would also create light and glare on the project site and would be highly visible from the proposed residential units on the site; however, the proposed project would not significantly impact itself or residents of the site because it is assumed the signs would be operational prior to occupancy of the proposed residential units.

Impact VIS-6: The two proposed shopping center identification signs with electronic displays may result in light and glare impacts on nighttime views from light spillover onto adjacent properties. **(Significant Impact)**

4.10.4 <u>Mitigation and Avoidance Measures for Visual and Aesthetic Impacts</u>

As conditions of project approval, the applicant shall implement the following mitigation measures to ensure that the visual and aesthetic impacts of the project are reduced to a less than significant level:

4.10.4.1 *Scenic View Impacts*

MM VIS-4.1: The proposed project will be subject to architectural and design review. The proposed shopping center identification signs with electronic displays shall be located and oriented in a manner which avoids or minimizes their direct

exposure from adjacent or nearby hotel suite uses. Spot or floodlight sources shall be directed to prevent spill light or glare onto adjacent land uses. In order to minimize visual intrusion impacts, the proposed signs shall be located on the site so that, to the extent feasible, the proposed buildings provide shielding of the signs for adjacent land uses.

4.10.4.2 *Light and Glare Impacts*

MM VIS-6.1: The proposed shopping center identification signs with electronic displays shall be oriented to avoid light spillover onto adjacent properties to the extent feasible. The proposed signs shall also be located so that the proposed buildings on the site will provide a buffer and shield views of the signs, to the extent feasible, from hotel and residential land uses.

4.10.5 Conclusion

Impact VIS-1: The proposed development on the site, including high-rise buildings, would not substantially degrade the visual character of the project site or surrounding area. **(Less Than Significant Impact)**

Impact VIS-2: Based on the location of the proposed shopping center identification signs on the project site and the height of development in the project area, the proposed signs would not substantially degrade the visual character of the site or area. **(Less Than Significant Impact)**

Impact VIS-3: The proposed buildings would not block any designated scenic views in the project area. **(Less Than Significant Impact)**

Impact VIS-4: Implementation of the identified mitigation measure would reduce visual intrusion impacts on adjacent land uses from the proposed shopping center identification signs with electronic displays to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact VIS-5: The proposed buildings on the project site would not result in a substantial new source of light or glare affecting daytime or nighttime views. **(Less Than Significant Impact)**

Impact VIS-6: Implementation of the identified mitigation measure would reduce light and glare impacts to adjacent land uses from the proposed shopping center identification signs with electronic displays to a less than significant level. **(Less Than Significant Impact with Mitigation)**

4.11 UTILITIES AND SERVICE SYSTEMS

The information provided in this section is based, in part, on a Water Supply Assessment prepared by the City of Milpitas and approved by the Milpitas City Council on October 21, 2008. The following discussion is also based, in part, on a Sewer Evaluation prepared by *RMC Water and Environment*. Copies of these reports are included as Appendix I and Appendix J, respectively, in this EIR.

4.11.1 Existing Setting

4.11.1.1 *Water Service*

The City of Milpitas provides water to the project site. Currently, the sources of domestic water used in Milpitas include the San Francisco Public Utility Commission (SFPUC) and the Santa Clara Valley Water District (SCVWD). The SFPUC and the SCVWD will continue to supply all potable water to the City for the next 30 years. No new water sources will be added. The proposed project site is within the SCVWD wholesale distribution area.

The City of Milpitas 2005 Urban Water Management Plan assumed that the land use on the project site would remain consistent with the build out scenario of the 2002 Water Master Plan. The Master Plan classified the site as a large water user, through 2018, which signifies the existing water use on the site is in excess of 30,000 gallons per day (gpd). Based on the assumed land use of *General Commercial*, the existing development on the project site uses 40,440 gallons per day (gpd) of water.[24] The site has a significant number of restaurants and the site was allocated a much larger amount of water in the 2002 Water Master Plan. There is currently a 14-inch water main located in Barber Lane/Barber Court that serves the project site.

Recycled Water

The City of Milpitas purchases water from the South Bay Water Recycling program. The South Bay Water Recycling program (SBWR) is an on-going, multi-year effort to use high quality recycled water from the San José/Santa Clara Water Pollution Control Plant (WPCP) for irrigation, industrial, and other purposes. Phase 1 consists of approximately 60 miles of distribution pipeline to serve 240 customers in Milpitas, San Jose, and Santa Clara. Construction on the Milpitas Pipeline segment began in winter of 1997 and provides recycled water to business/retail areas surrounding McCarthy Ranch and Oak Creek Industrial Park. An existing transmission line located in Bellew Drive conveys recycled water to a series of mains that serve landscape irrigation users within the City and would serve the project site. Recycled water use has surpassed 600 acre-feet per year (AFY) since 2000 and is expected to rise to approximately 1,100 AFY by 2010. The City will be working with SBWR to connect approximately 70 customers over the next few years.

4.11.1.2 *Sanitary Sewer/Wastewater Treatment*

The City's sanitary sewer/wastewater treatment system has two distinct components: 1) a network of sewer mains/pipes that collects and conveys effluent from its source to the treatment plant, and 2) the water pollution control plant that treats the effluent, including a system of mains/pipes that transports a portion of the treated wastewater for non-potable uses (e.g., irrigation of landscaping, agricultural irrigation, dust suppression during construction, etc.).

[24] City of Milpitas. 2002 Water Master Plan. Table 3-1: Water Use Factors. December 2002.

Sanitary Sewer Mains

The Milpitas Sanitary Sewer Collection System is owned and maintained by the City of Milpitas. There is currently an eight-inch to 30-inch sanitary sewer line located in Barber Court/Barber Lane. The 2004 Sewer Master Plan did not identify any sewer line deficiencies in the vicinity of the project or downstream of the project. The City's sewer system has sufficient capacity for the existing land use. Based on the Sewer Evaluation prepared for the proposed project, the site currently generates approximately 124,000 gallons per day of wastewater.[25]

San José/Santa Clara Water Pollution Control Plant

The San José/Santa Clara Water Pollution Control Plant (WPCP), which is located at the northerly end of San José, cleans the wastewater of over 1,500,000 people that live and work in the 300-square mile area encompassing San José, Santa Clara, Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno. The WPCP has existing capacity to treat 167 million gallons of effluent per day (mgd). Of this total amount, the capacity allocated to the City of Milpitas is roughly 13.5 mgd. While the capacity of the WPCP is 167 mgd, the amount of treated wastewater that can be discharged to San Francisco Bay by the WPCP is limited to 120 mgd (dry weather peak). This limitation is based upon the concerns of the State Water Resources Control Board and the Regional Water Quality Control Board over the effects of additional freshwater discharges from the WPCP on saltwater marsh habitat, as well as pollutant loading to the Bay from the WPCP. This limitation has led to the development of programs to reduce the volume of wastewater generated at the source, as well as a system that recycles some of the wastewater for non-potable uses, as described above.

The City of Milpitas estimates that at buildout the City's wastewater treatment demand will reach 14.2 mgd. The City currently has 13.5 mgd of capacity at the WPCP. The City is in the process of purchasing additional allocated capacity of 750,000 gallons per day from the Cupertino Sanitary District to meet the projected increase in demand. As of December 2007, the City's sanitary sewer discharge was 10.2 mgd which indicates the City currently has remaining capacity of 3.3 mgd.[26]

4.11.1.3 *Storm Drainage System*

The City of Milpitas owns and maintains the storm drainage system which serves the project site. There is an existing 36-inch to 48-inch storm drain line located in Barber Court/Barber Lane. This line discharges into Coyote Creek through the pump station located near the northeast corner of the Murphy Ranch site. Coyote Creek carries stormwater runoff into the San Francisco Bay. According to the City's 2001 Storm Drainage Master Plan, the portion of the site north of Bellew Drive would experience ponding during a 10-year storm event.

4.11.1.4 *Solid Waste*

Allied Waste Services of Santa Clara County provides solid waste and recycling collection services for the City of Milpitas. Allied Waste Services owns and operates Newby Island Landfill.

[25] RMC Water and Environment. Milpitas Square Development Sewer Evaluation. July 3, 2008.
[26] Marilyn Nickel, City of Milpitas. Email communication. October 23, 2008.

The expected closure date for Newby Island Landfill is 2025.[27] The project site currently generates approximately 1,197 tons of solid waste per year.[28]

4.11.2 Utilities and Service Systems Impacts

4.11.2.1 *Thresholds of Significance*

For the purposes of this EIR, a utility and service impact is considered significant if the project would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new/expanded water or wastewater treatment facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new stormwater or wastewater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, and would require new or expanded entitlements;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- Be inconsistent with federal, state or local statutes and regulations related to solid waste.

4.11.2.2 *Water Impacts*

The project would be supplied by water from the SCVWD. The City's historic water use from the SCVWD peaked in 1996/1997 at 5.06 mgd and its current water use in 2007/2008 is 3.67 mgd. The City's 2005 Urban Water Management Plan (UWMP) projected future water demand and supply from the SCVWD under normal year conditions of 7.13 mgd. The City's UWMP assumed land uses within the project area would be consistent with the buildout scenario of the 2002 Water Master Plan, in which the assumption was that the project site would remain commercially zoned and developed.

[27] California Integrated Waste Management Board. Active Landfills Profile for Newby Island Sanitary Landfill (43-AN-0003). 21 January 2008. http://www.ciwmb.ca.gov/Profiles/Facility/Landfill/LFProfile1.asp?COID=43&FACID=43-AN-0003.

[28] Solid waste generation rates for the site are based upon the waste generation rates of 31.2 lbs./1,000 s.f./day for supermarket uses (38,800 square feet), 13 lbs./1,000 s.f./day for commercial uses (42,300 square feet), and 10.8 tons per 1,000 square feet of restaurant space per year (81,100 square feet). Source: California Integrated Waste Management Board. Estimated Solid Waste Generation Rates for Commercial Establishments. Updated: November 1, 2007. http://www.ciwmb.ca.gov/wastechar/WasteGenRates/ Commercial.htm Accessed: January 21, 2008.

Table 4.11-1
Project Water Demand

Use	Development Density	Water Use Factor	Water Demand (gpd)
Residential	900 DU	243 gpd/du	218,700
Commercial	175,000 s.f.	0.11 gpd/s.f.	19,250
		Total	237,950 gpd

Notes: DU = dwelling units, s.f. = square feet

The project's demand would increase water demand on the site by approximately 197,550 gpd when compared to the existing use. The City also assumes a 6.1 percent increase in the project's water use increase for unaccounted water demand. With the increase for unaccounted water demand, the project's total increase in water demand would be 209,540 gpd or 235 acre-feet[29] per year. Due to the proposed phasing of the project, the Water Supply Assessment assumed the project's total increase in water demand would occur by 2030. Based on the 2004 Water Master Plan, the project would use slightly more water if the site were developed with the hotel option (4,500 gpd/acre vs. 4,320 gpd/acre). The quantity of water required under the hotel option is comparable to the water use from Building F as a commercial and residential mixed-use building and would not result in any significantly greater water use impacts. To reduce potable water demand, the project will incorporate water conservation practices to the maximum extent practicable in accordance with City policies and utilize recycled water to the maximum extent practicable. Recycled water was not factored into the water demand for the project and will continue to supply the project's irrigation and ornamental features.

The net increase in demand of 235 acre-feet per year (AFY) associated with the project was not included in the analysis performed for SCVWD's UWMP. As the primary water wholesaler in Santa Clara County, SCVWD has a commitment to ensure that the water supply is reliable to meet future demands, consistent with the County's and cities' General Plans and other appropriate regional and statewide projections. As part of the Integrated Water Resources Planning Study (IWRP) and the UWMP, the SCVWD performed planning and modeling analysis, which indicated that future countywide demands can reliably be met if additional investments are made. SCVWD's water supply, with implementation of the needed investments in water supply and infrastructure, is anticipated to meet future countywide demands during normal, single-dry, and multiple-dry water years. The City's actual water demand has not exceeded the projected demand included in the 2005 Urban Water Management Plan for the past three years. The incremental increase in water demand resulting from the project would not cause the City to exceed the projected supply. The City, in coordination with SCVWD, has determined that there is sufficient water supply to provide service to the project. In addition, the project will be required to incorporate water conservation practices to the maximum extent practicable in accordance with City policies.

The existing 14-inch water main located in Barber Lane/Barber Court has sufficient capacity to serve the proposed project (including fire flow). No new or extended entitlements will be required to supply water to the project.

Impact UTIL-1: The proposed project will substantially increase water demand from the project site. **(Significant Impact)**

[29] Demand = 209,540 gpd * 365 days/yr. * 1 ft^3/7.48 gal * 1 ac-ft/43,560 ft^3

4.11.2.3 *Sanitary Sewer/Wastewater Impacts*

Based on an analysis of sanitary sewer capacity prepared for the project, the proposed development of 900 residential units and 175,000 square feet of commercial space would result in wastewater flows of 226,750 gallons per day (gpd). The proposed project would increase wastewater flows from the site by 102,750 gpd. Development of the project site incorporating the hotel option would slightly increase wastewater flows from the site (100 gpd/person vs. 90 gpd/person). The wastewater flows resulting from development of the site with the hotel option would be comparable to the flows resulting from development of Building F as a commercial and residential mixed-use development. The City's sewer model was analyzed for deficiencies after adding the wastewater flows resulting from the project. With development of the project the sanitary sewer pipes serving the site would have excess capacity with no deficiencies or overflows caused by the project.

The City currently is allocated 13.5 million gallons per day (mgd) of wastewater treatment capacity at the San José/Santa Clara Water Pollution Control Plant (WPCP). It cannot currently be assumed that the City's allocated treatment capacity can serve development beyond that identified in the Midtown Specific Plan or August 2004 Sewer Master Plan zoning amounts. It is anticipated that the citywide demand will exceed the existing 13.5 mgd WPCP allocation upon General Plan buildout. The City is anticipating wastewater treatment need at General Plan buildout will be 14.2 mgd and is in the process of purchasing additional allocated capacity of 750,000 gallons per day from the Cupertino Sanitary District to meet the projected increase in demand. The City's WPCP allocation is available upon a first-come, first-served basis, based on the project application date. The project could, therefore, result in a determination that the City's existing WPCP allocation is not adequate to serve the project's demand in addition to the City's existing commitments. Based on the current sanitary sewer discharge, the City has adequate sewer capacity to serve the project. Long-term, the City's ability to serve the project through its treatment allocation at the WPCP is dependent on an agreement to purchase additional capacity from another agency such as the Cupertino Sanitary District.

The City of Milpitas' Main Sewer Pump Station lifts flows from local sewer mains to the WPCP. Construction on a replacement pump station is nearing completion. The existing station is being replaced in kind because the existing station is very old, has outlived its useful life, has seismic deficiencies, and is relatively expensive to operate and maintain. The existing pump station has a wet weather pumping capacity of 42 to 45 mgd. The new pump station can pump between 39 to 44 mgd. The additional flows attributable to the proposed project would not cause the City's overall wet weather flow to exceed this capacity.

Impact UTIL-2: The existing allocated wastewater treatment capacity for the City of Milpitas could be exceeded with development of the project. **(Significant Impact)**

4.11.2.4 *Storm Drainage Impacts*

The proposed project would not result in a substantial increase in impervious surfaces on the site and therefore would not substantially increase stormwater runoff from the site. The project would implement required stormwater treatment measures including bioswales, a green roof, planter box, and media filtration system, consistent with C.3 requirements (refer to *Section 4.7 Hydrology and Water Quality*). The bioswales, planter boxes, and green roofs would be underdrained. The

underdrains[30] would connect to the storm drainage system on the site to convey treated stormwater runoff from the site. The existing 48-inch storm drain line located in Barber Lane is anticipated to have adequate capacity to serve the southern portion of the project site. Areas of the project north of Bellew Drive and adjacent to Barber Court would be subject to residual stormwater ponding during a 10-year storm event. The City's 2001 Storm Drain Master Plan shows 10-year residual ponding occurring north of Bellew Drive from McCarthy Boulevard to the project site. The extent of the ponding would reach Building F on the site.[31] The applicant shall design and construct all necessary storm drains and appurtenances to serve the project, in accordance with the City's Storm Drain Master Plan and City Engineering Standards and Guidelines. The project will not result in a substantial increase in stormwater runoff from the site and will be required to address additional storm drainage capacity in Barber Court as part of the site development review, as necessary.

Impact UTIL-3: Due to the developed nature of the site, the proposed project would not substantially increase stormwater runoff and, therefore, would not result in a new significant impact to existing storm drainage lines in Barber Court. **(Less Than Significant Impact)**

4.11.2.5 *Solid Waste Impacts*

The proposed project would produce approximately 1,843 tons of solid waste per year.[32] The existing shopping center generates an estimated 1,197 tons of solid waste per year. The proposed project, therefore, would result in increased solid waste generation from the site of approximately 646 tons per year.

According to the *County of Santa Clara Integrated Waste Management Plan, Summary Plan and Siting Element*, the County is served by six fully permitted solid waste disposal sites. At the time this Summary Plan and Siting Element was prepared, the County estimated that between 29 and 47 years of disposal capacity remained within the County.[33] Solid waste from the site would likely be disposed of at the Newby Island Sanitary Landfill. Capacity estimates at Newby Island indicate that the facility currently has capacity for an additional 18,274,953 cubic yards of waste.[34]

The City of Milpitas is currently operating a residential recycling program for single-family houses and apartments and a business recycling program that all comply with state-mandated waste reduction goals specified in the Public Resources Code Section 40500. The proposed project will recycle demolition/construction materials on the site, will participate in the City's solid waste program, and will participate in the City's residential and business recycling programs to reduce the total amount of garbage taken to the landfill. Coordination with the solid waste hauler is necessary to insure that sufficient space is allocated on-site for the necessary facilities.

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[30] A perforated conduit installed beneath the ground and surrounded by a filter composed of soil, suitable aggregate, and/or filter fabric to filter and remove pollutants from groundwater and/or surface waters.

[31] Schaaf & Wheeler. City of Milpitas Storm Drain Master Plan. Figure 5-20. July 2001.

[32] Based on the following waste disposal and generation rates: 0.46 tons per multi-family residence per year, 13 pounds per 1,000 square feet of commercial space per year (31,200 sf), 31.2 pounds per 1,000 square feet of supermarket space per year (38,800 sf), and 10.8 tons per 1,000 square feet of restaurant space per year (105,000). Source: California Integrated Waste Management Board. Solid Waste Characterization. Updated December 21, 2007. http://www.ciwmb.ca.gov/wastechar/ Accessed: June 22, 2008

[33] County of Santa Clara. County of Santa Clara Integrated Waste Management Plan, Summary Plan and Siting Element. November 1995. p. II-7.

[34] California Integrated Waste Management Board. Active Landfills Profile for Newby Island Sanitary Landfill (43-AN-0003). Updated: October 22, 2007. Available at: http://www.ciwmb.ca.gov/Profiles/Facility/ Accessed June 22, 2008.

Based on the available disposal capacity in the County, and implementation of the City's residential recycling program and solid waste program, the proposed project would not result in a significant impact on solid waste facilities serving the City of Milpitas.

Impact UTIL-4: The proposed project would not exceed secured landfill capacity. **(Less Than Significant Impact)**

4.11.3 Mitigation and Avoidance Measures

AM UTIL-1.1: Per the recommendations of the SCVWD, the developer is encouraged to implement the following water conserving measures:

- Installation of high-efficiency fixtures (e.g. washing machines 1.2-gallon-per-flush toilets),
- Metering or sub-metering for each individual unit,
- Dual plumbing for interior recycled water use.

As conditions of project approval, which the City of Milpitas will place on the project, the applicant shall implement the following mitigation measures to ensure that the utility and service system impacts of the project are reduced to a less than significant level:

MM UTIL-1.1: The proposed project would substantially increase water demand at the site compared to the existing commercial use and zoning designation. Prior to issuance of an occupancy permit, the developer shall implement the following measures, which would reduce impacts to the water system to a less than significant level. These measures shall be printed on all construction documents, contracts, and project plans:

- The developer shall design and install all water lines necessary to serve the development (including fire flow), sized in accordance with the City's Water Master Plan and Guidelines.
- The developer shall purchase adequate public system water capacities for the project, including costs for capacity and storage needs above the master plan capacities, as determined by the City.
- Prior to receiving recycled water, the site shall be permitted by South Bay Water Recycling (SBWR). In general, a permit will be granted after the following steps have been completed:
  - Plan Submittal and Approval
  - Inspection
  - Retailer Service Meter
  - Customer Training

MM UTIL-1.2: In accordance with City Ordinance 238.2, the project shall install low-water use landscaping and use high efficiency devices for outdoor water use.

MM UTIL-2.1: The project will reduce the City's available limited treatment capacity at the WPCP. Prior to issuance of an occupancy permit, the developer shall

implement the following measures. These measures shall be printed on all construction documents, contracts, and project plans:

- The developer shall purchase adequate public sewage system capacities for the respective development. Fees shall consist of connection fees, treatment plant fees up to the buildout master plan levels, plus additional fees for costs of sewage collection and regional plant capacity needs above the build-out master plan capacities, and proportional replacement costs for a new Main sewage pump station above the existing 2004 Master Plan capacities, as determined by the City.

4.11.4 Conclusion

Impact UTIL-1: Implementation of the identified mitigation measures would reduce the project's increase in water demand to a less than significant level. **(Less Than Significant with Mitigation)**

Impact UTIL-2: Implementation of the identified mitigation measure, the purchase of additional sewer treatment capacity, would reduce the project's impact to sanitary sewer service to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact UTIL-3: Due to the developed nature of the site, the proposed project would not substantially increase stormwater runoff and, therefore, would not result in a new significant impact to existing storm drainage lines in Barber Court. **(Less Than Significant Impact)**

Impact UTIL-4: The proposed project would not exceed secured landfill capacity. **(Less Than Significant Impact)**

4.12 ENERGY

This section was prepared pursuant to CEQA Guidelines Section 15126.4(a)(1)(C) and Appendix F (Energy Conservation of the Guidelines), which require that EIRs include a discussion of the potential energy impacts of proposed projects with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy.

4.12.1 Introduction

Energy consumption is analyzed in an EIR because of the environmental impacts associated with its production and usage. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emissions of pollutants during both the production and consumption phases.

Energy usage is typically quantified using the British Thermal Unit (BTU). As points of reference, the approximate amount of energy contained in a gallon of gasoline, a cubic foot of natural gas, and a kilowatt hour (kWh) of electricity are 123,000 BTUs, 1,000 BTUs, and 3,400 BTUs, respectively.

Energy conservation is embodied in many federal, state and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the EnergyStar program) and transportation (e.g., fuel efficiency standards). At the state level, Title 24 of the California Administrative Code sets forth energy standards for buildings, rebates/tax credits are provided for installation of renewable energy systems, and the *Flex Your Power* program promotes conservation in multiple areas. At the local level, the City's General Plan does not include policies to reduce energy use. There are currently no adopted City policies for the reduction of energy use.

In addition, independent green building rating systems (i.e. LEED and GreenPoint Rated) have been developed by organizations such as the U.S. Green Building Council and Build It Green to promote green building practices and reduce energy use. The project is proposing to be GreenPoint Rated under the Build It Green program's GreenPoint rating system which is a third party rating system that scores a project based on its use of green building practices. Build It Green is the result of a merger in 2005 of Bay Area Build It Green and the Green Resource Center. Bay Area Build it Green was formed in 2003 by a number of local and regionally focused public agencies, building industry professionals, manufacturers, and suppliers. The Green Resource Center was started as a joint project of the City of Berkeley, the Northern California Chapter of Architects, Designers and Planners for Social Responsibility (ADPSR), and the Sustainable Business Alliance. Funding for Build It Green comes from a variety of sources including contract revenue from PG&E and other sources, event attendance fees, sponsorships, grants and contributions, and membership and service fees. The board of directors is comprised of lawyers, builders, realtors, public servants, energy consultants, suppliers, and members of non-profit organizations.

The GreenPoint rating system uses a checklist which requires a minimum point requirement be met through incorporation of green building practices such as the use of infill sites, recycling of demolition waste, and the incorporation of energy and water saving systems (refer to Appendix K). The GreenPoint rating system takes into account the overall energy efficiency, resource conservation, indoor air quality, water conservation, and community amenities of the project.

4.12.2 Existing Setting

Total energy usage in California was 8,360 trillion BTUs in the year 2005 (the most recent year for which this specific data was available), which equates to an average of 232 million BTUs.[35] Of California's total energy usage in 2005, the consumption breakdown by sector was approximately 18 percent (1,516 trillion BTUs) for residential uses, 19 percent (1,551 trillion BTUs) for commercial uses, 24 percent (2,001 trillion BTUs) for industrial uses, and 39 percent (3,291 trillion BTUs) for transportation.[36] This energy is primarily supplied in the form of coal, natural gas, petroleum, nuclear electric power, hydroelectric power, and renewable sources.

Given the nature of the proposed project (i.e., a land use decision in the City of Milpitas), the remainder of this discussion will focus on the three most relevant sources of energy: electricity for residential and commercial uses, natural gas for residential and commercial uses, and gasoline for vehicle trips associated with residential and commercial uses.

4.12.2.1 *Electricity*

Electricity is provided to the site by Pacific Gas & Electric Company (PG&E). The State of California currently requires that energy-saving measures be applied to new dwellings through the Uniform Building Code. Milpitas requires all buildings to conform to the energy conservation requirements of California Administrative Code Title 24.

Electricity consumption in California increased by approximately 12 percent from approximately 245,000 gigawatt hours (GWh[37]) in 1997 to approximately 285,000 GWh in 2007.[38] In 2006, electricity consumption in California was dominated by the commercial and residential sectors: approximately 37 percent of electricity use is by the commercial sector, 32 percent by the residential sector, 16 percent by the industrial sector, and the remaining 15 percent by agriculture, transportation, communication, utilities, mining, and street lighting.[39] Electricity consumption is forecast to increase by approximately 12 percent from approximately 285,000 GWh in 2007 to approximately 320,000 GWh in 2017.[40]

The California Energy Commission reviewed electricity supply and demand information from publicly owned utilities throughout the state and has concluded that, in total, the utilities have sufficient resources to meet the anticipated electricity demand for the next several years.[41]

Electricity usage in California for differing land uses varies substantially by the type of uses in a building, the type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. The average annual usage of electricity is roughly 6,500 kWh

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[35] United States Energy Information Administration. Annual Energy Review. September 4, 2008. Available at: http://tonto.eia.doe.gov/state/state_energy_profiles.cfm?sid=CA#related_reports
[36] United States Energy Information Administration. State Data for Consumption and Sales. April 5, 2007. Available at: http://tonto.eia.doe.gov/state/SEP_MoreConsump.cfm
[37] One gigawatt = one thousand megawatts = one million kilowatts = one billion watts.
[38] California Energy Commission 2007. 2007 Integrated Energy Policy Report (CEC-100-2007-008CMF). Figure 2-2, page 37.
[39] California Energy Commission 2007. 2007 Integrated Energy Policy Report (CEC-100-2007-008CMF). Figure 1-9, page 25.
[40] California Energy Commission 2007. 2007 Integrated Energy Policy Report (CEC-100-2007-008CMF). Figure 2-2, page 37.
[41] California Energy Commission 2007. 2007 Integrated Energy Policy Report (CEC-100-2007-008CMF). Page 41.

per residence. The average annual usage of electricity is roughly 13 kWh per square foot for all commercial buildings.

4.12.2.2 *Natural Gas*

Natural gas provides almost one-third of California's total energy requirements. Approximately 14 percent of natural gas used in California is generated within the state. The remaining 86 percent comes from other states (63 percent) and Canada (23 percent). Natural gas from out-of-state producers is delivered into California via five major interstate natural gas pipelines. Most of the natural gas used in California (98 percent) is distributed by three major utility companies including Southern California Gas Company, SDG&E, and PG&E. The remaining two percent is distributed by municipalities and smaller companies.[42]

In 2006, natural gas was used in California to produce electricity (44 percent), in industrial uses (23 percent), in commercial uses (10 percent), in residential uses (22 percent), and for transportation (less than one percent).[43] Natural gas usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all gas-consuming devices within a building. That said, the average annual usage of natural gas is roughly 45,000 cubic feet per residence. The average annual usage of natural gas is roughly 37 cubic feet/square foot for all commercial buildings.

As California strives to reduce its greenhouse gas emissions, natural gas sources and use will depend on new technologies (e.g., hybrid vehicles, solar heating) and methods of supply (e.g., liquefied natural gas shipped by tanker, biogas). These developments will depend on and influence natural gas supplies, and contribute to the uncertainty in past and future projections.[44]

4.12.2.2 *Gasoline for Motor Vehicles*

Californians consume roughly 16 billion gallons of gasoline and four billion gallons of diesel annually.[45] This represents a 50 percent increase over the amount that was used 20 years prior. The primary factors contributing to this increase are: 1) population growth and more on-road vehicles, 2) low per-mile cost of gasoline for the past two decades, 3) lack of alternatives to conventional gasoline and diesel fuels, 4) consumer preference for larger, less fuel-efficient vehicles, and 5) land-use planning that places jobs and housing farther apart without transportation integration.[46] Although gasoline consumption is expected to increase in California by 1 to 2 percent each year, Californians used approximately 63 million less gallons of gasoline in 2007 than they did in 2006.[47]

The average fuel economy for the fleet of light-duty vehicles (autos, pickups, vans, and SUVs) steadily increased from about 12.6 miles-per-gallon (mpg) in the mid-1970s to approximately 20.7 mpg, in 1985 as a result of federal standards which had not substantially changed in 22 years.[48] In

[42] California Energy Commission, Energy Almanac. Overview of Natural Gas in California. N.d. Available at: http://www.energyalmanac.ca.gov/naturalgas/overview.html
[43] California Energy Commission. 2007 Integrated Energy Policy Report. Pages 167-168.
[44] California Energy Commission. 2007 Integrated Energy Policy Report. Pages 167-171.
[45] California Energy Commission. 2007 Integrated Energy Policy Report. Page 189.
[46] California Energy Commission. 2005 Integrated Energy Policy Report. November 2005. Page 7.
[47] California Energy Commission. 2007 Integrated Energy Policy Report. Page 9.
[48] California Energy Commission. 2007 Integrated Energy Policy Report. Page 200.

December 2007, the Energy Independence and Security Act of 2007 was signed which mandates a national fuel economy standard of 35 miles per gallon by 2020.[49]

Although no new refineries have been constructed in California since 1969, supply has kept pace with demand through a combination of refinery upgrades/modernizations and out-of-state imports. Imports of foreign crude oil will increase as in-state and Alaskan supplies diminish. Since California refineries are already operating close to their full capacity, daily imports of refined gasoline and diesel are expected to double over the next 20 years. Unless out-of-state facilities expand, the gasoline and diesel markets will become increasingly volatile, with the likelihood of shortages and more prolonged periods of high prices.[50]

4.12.3 Energy Impacts

4.12.3.1 *Thresholds of Significance*

For the purposes of this EIR, an energy impact is considered significant if the project would:

- Use fuel or energy in a wasteful manner; or
- Result in a substantial increase in demand upon energy resources in relation to projected supplies; or
- Result in longer overall distances between jobs and housing.

4.12.3.2 *Energy Efficiency and Use*

The proposed project would be constructed to meet the requirements of Title 24 of the California Administrative Code, as it pertains to energy efficiency. The project proposes development of up to 900 residential units and 175,000 square feet of commercial space or a net increase of 12,800 square feet of commercial space. The estimated net increase in annual energy use resulting from the proposed project is shown in Table 4.12-1, below.

Table 4.12-1
Estimated Net Annual Average Energy Use

Land Use	Type of Energy	Usage/Unit	Square Footage/# of Units/Trips	Annual Energy Used
Residential	Electricity	6,500 kWh/du/year	900	5.85 million kWh
	Natural Gas	45,000 ft^3/ft^2/year		40.5 million ft^3
Commercial	Electricity	13 kWh/ ft^2/year	12,800	166,400 kWh
	Natural Gas	37 ft^3/ft^2/year		473,600 ft^3
Transportation	Gasoline	0.048 gallons/mile	8,204	1,200,179 gallons
Total	Electricity			6.0 million kWh
	Natural Gas			41 million ft^3
	Gasoline			1,200,179 gallons

Notes: du= dwelling unit, ft^2= square feet, ft^3= cubic feet, kWh=kilowatt hour, Average vehicle trip length = 8.35 miles. Annual gasoline used = (trips/day)(8.35 miles/trip)(0.048 gallons/mile)(365 days/year)

[49] The White House. Energy Security for the 21st Century. February 20, 2008. http://www.whitehouse.gov/infocus/energy/
[50] California Energy Commission. 2007 Integrated Energy Policy Report. Pages 190-191.

As shown in Table 4.12-1, operation of the proposed project is roughly estimated to consume six million kilowatt hours of electricity, 41 million cubic feet of natural gas, and 1.2 million gallons of gasoline per year. Although projected energy supplies are limited, the energy consumption of the proposed project is a small percentage of the total energy consumed in the City of Milpitas.

The proposed project is a mixed-use, infill development that would place residents proximate to public transit, employment and commercial uses. These are all features that would reduce vehicle use to and from the project site and, therefore, reduce energy consumption. Mixed-use development reduces the need travel off-site for commercial services and may also provide on-site job opportunities for residents. Similarly, the location of retail uses within easy walking distance to the site reduces vehicle use by project residents, visitors, and employees. The proximity of public transit increases the use of public transit by the project residents, visitors, and employees, and the proximity of employment would allow residents to walk to work.

The proposed project would create additional residential development, which would incrementally improve the jobs/housing balance in the City of Milpitas. Providing housing for more of the City's workers would reduce distances between jobs and housing, thereby, reducing energy consumption. This is a beneficial impact of the proposed project.

In addition, development of the proposed project will exceed existing state and federal regulations regarding the energy efficiency of buildings, appliances, lighting, etc. The project proposes to be GreenPoint Rated which requires a minimum of 50 points be earned in the categories of energy efficiency, resource conservation, indoor air quality, water conservation, and community amenities.

Impact ENER-1: The project would not result in the wasteful use of fuel or energy, a substantial increase in demand upon energy resources in relation to projected supplies, or longer overall distances between jobs and housing. **(Less Than Significant Impact)**

4.12.4 Avoidance Measures for Energy Impacts

The project proposes implementation of the following avoidance measure to ensure that the energy impacts of the project are reduced in excess of federal, state, and local regulations:

AM ENER-1.1: The project proposes to be GreenPoint Rated and incorporate sufficient green building and site design elements to meet the energy efficiency, resource conservation, indoor air quality, water conservation, and community benefit requirements of the GreenPoint rating system.

4.12.5 Conclusion

Impact ENER-1: The project would not result in the wasteful use of fuel or energy, a substantial increase in demand upon energy resources in relation to projected supplies, or longer overall distances between jobs and housing. **(Less Than Significant Impact)**

4.13 POPULATION, JOBS, AND HOUSING

4.13.1 Setting

The jobs/housing ratio quantifies the relationship between the number of housing units required as a result of local jobs and the number of residential units available in the City. When the ratio reaches 1.0, a balance is struck between the supply of local housing and local jobs. The jobs/housing ratio is determined by dividing the number of local jobs by the number of employed residents that can be housed locally.

According to the Association of Bay Area Governments (ABAG) *Projections 2007*, the population for 2005 within the City of Milpitas's Sphere of Influence was 64,900 in 17,890 households. For 2030, the projected population is 90,500 in 25,500 households. The average number of persons per household in Milpitas in 2005 was 3.63.

The City of Milpitas is a job-rich city, and one of the fastest growing employment centers in Santa Clara County. Although Milpitas had a deficiency of jobs per employed resident in 1980, the City achieved a ratio of 1.34 jobs per employed resident in the year 2000. Despite this increase in jobs, only 21 percent of the workers in Milpitas actually live in the City.[51]

The project site is the location of the Milpitas Square shopping center. The site is currently designated *General Commercial* on the City of Milpitas General Plan Map and is zoned *General Commercial*, which allows for a wide range of retail sales, and personal and business services accessed primarily by the automobile. The designation does not allow residential uses.

4.13.2 Population, Jobs, and Housing Impacts

For the purposes of this EIR, a population, jobs, and housing impact is considered significant if the project would:

- Induce substantial population growth in an area, either directly or indirectly; or
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The proposed project includes an amendment to the City of Milpitas General Plan that would change the existing non-residential land use designation (i.e., *General Commercial*) on the site to *Boulevard Very High Density Mixed-Use*, which allows for both residential and commercial development. The proposed project is, therefore, inconsistent with the population assumptions in the existing General Plan. The project proposes to construct up to 900 residential units and 12,800 net square feet of commercial space (175,000 total square feet of commercial space) on the approximately 16.85-acre site. Based on an average of 2.7 residents per unit and 425 square feet per commercial employee[52] the proposed project is expected to provide housing for approximately 2,430 new residents (at a density of approximately 53 dwelling units per acre) and 30 new jobs (411 total jobs).

[51] City of Milpitas. General Plan. March 19, 2002.
[52] City of Milpitas. General Plan. March 19, 2002. Table 2-7.

The additional 2,430 residents on the site would increase the City's population by approximately four percent, which is less than one-tenth of the 25,600 new residents predicted to live in the City of Milpitas by the year 2030. The incremental population increase that would result from the proposed project is not substantial and is within the projected growth parameters for the City. The project site is located in an existing urban area close to jobs and services. Because the existing development on the project site does not provide housing, the proposed project will not displace existing housing or people.

Although the 900 residences proposed by the project would improve the jobs/housing balance in the City of Milpitas, there would also be approximately 30 new jobs that would be created by the project. The proposed project would still, however, incrementally reduce the jobs/housing imbalance in the City of Milpitas.[53] Providing housing for more of the City's workers would help reduce traffic congestion, commute times, energy consumption, and regional air pollution levels.

Impact PH-1: The population increase from the proposed project is not a substantial increase when compared to the projected development in the City of Milpitas. Implementation of the proposed project would help to improve the City's jobs/housing imbalance. **(Less Than Significant Impact)**

4.13.3 Conclusion

Impact PH-1: The population increase from the proposed project is not considered a substantial increase when compared to the projected development in the City of Milpitas. Implementation of the proposed project would help to improve the City's jobs/housing imbalance. **(Less Than Significant Impact)**

[53] Santa Clara County has an average of 1.23 employed residents per household. Therefore, the proposed project would provide housing for approximately 1,107 employees. This represents housing for 696 more employees than the number of jobs anticipated to be provided on the project site (i.e., 411).

SECTION 5.0 PUBLIC FACILITIES AND SERVICES

Unlike utility services, public facility services are provided to the community as a whole, usually from a central location or from a defined set of nodes. The resource base for delivery of the services, including the physical service delivery mechanisms, is financed on a community-wide basis, usually from a unified or integrated financial system. The service delivery agency can be a city, county, service or other special district. Usually, new development will create an incremental increase in the demand for these services; the amount of demand will vary widely, depending on both the nature of the development (residential vs. commercial, for instance) and the type of services, as well as on the specific characteristics of the development (such as senior housing vs. family housing).

The impact of a particular project on public facilities services is generally a fiscal impact. By increasing the demand for a type of service, a project could cause an eventual increase in the cost of providing the service (more personnel hours to patrol an area, additional fire equipment needed to service a tall building, etc.). That is a fiscal impact, however, not an environmental one.

CEQA does not require an analysis of fiscal impacts. CEQA analysis is required if the increased demand triggers the need for a new facility (such as a school or fire station), since the new facility would have a physical impact on the environment. CEQA requires that an EIR then identify and evaluate the physical impacts on the environment from the new or physically altered facility. To reiterate, the impact that must be analyzed in an EIR is the impact that would result from constructing a new public facility (should one be required), not the fiscal impact of a development on the capacity of a public service system.

For the purposes of the EIR, a public facilities and services impact is considered significant if the project would result in substantial adverse physical impacts associated with the provision or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities.

5.1 FIRE SERVICES

Fire protection on the project site would be provided by the City of Milpitas Fire Department, which has four fire stations and an administration facility. The Milpitas Fire Department (MFD) is responsible for emergency medical services, rescue services, hazardous and toxic materials emergency response, coordination of City-wide disaster response efforts, enforcement of fire and life safety codes, enforcement of state and federal hazardous materials regulations, and investigation of fire cause, arson and other emergency events for cause and origin. The City is involved in a Statewide Mutual Aid Agreement and Auto Aid & Mutual Aid with surrounding cities, including the Santa Clara County Mutual Aid Plan and Bay Area Intercounty Fire Mutual Aid Plan for Local Resources. The San José Fire Department and/or the Fremont Fire Department provide mutual aid to Milpitas in emergencies.

The closest fire station to the site is Station No. 4, located at 775 Barber Lane, approximately 0.5 miles south of the site. Station No. 4 is typically staffed with three personnel. The station is equipped with a combined engine/ladder company and a Hazardous Materials response team. Fire Station No. 1 is located at 25 West Curtis Avenue, and the Fire Department's headquarters is located next to this station at 777 South Main Street, approximately 1.8 miles southeast of the project site.

The emergency response time goal of the Fire Department is to deploy one engine to the scene of an emergency within four minutes. The response time to the project site for Station No. 4 would be under three minutes.[54]

The existing condition on the site creates relatively little demand for fire services. The proposed project would place high density residential and commercial development on the site of an existing shopping center, resulting in an increase in demand for fire protection services. The project would incrementally increase demand for fire protection as a result of increased density of development on the site and would also change the type of emergency response services requested, as well as increase the number of requests received during the night-time and weekend hours. Fire Station No. 4, however, is less than one mile from the project site and its response time to the project site is within the Fire Department's goal of four minutes. The proposed project will be built to current Fire Code standards, including sprinklers and smoke detectors, and include features that would reduce potential fire hazards. Access to the project site for emergency vehicles will be provided from three project driveways, built to Fire Department specifications.

In addition, the Fire Department may require one or more of the following be performed at the developer's expense to insure adequate communications between emergency responders inside buildings and the public safety dispatch facility: (1) pre-construction design review by a professional engineering firm specializing in radio frequency systems, (2) post-construction radio coverage testing by a technician employed by the City, and (3) installation of equipment to mitigate in-building radio coverage problems and its maintenance, and periodic re-testing. The Fire Department may also require the project to implement a Community Warning System and equipment access easements may be required to be granted to the City of Milpitas.

Impact PF-1: Although the proposed project would incrementally increase demand for fire response and related emergency services, it will not require the development of new fire service facilities, and therefore, will not result in a significant physical impact on the environment. **(Less Than Significant Impact)**

5.2 POLICE SERVICES

Police protection services would be provided to the project site by the City of Milpitas Police Department (MPD). Services are provided from one central station, located at 1275 North Milpitas Boulevard. The Department employs 95 sworn officers and operates 26 marked patrol cars. The City is divided into six geographical beats and on most shifts and most days each beat is filled.

The average response time within the City is approximately four minutes and 40 seconds. Highest priority is assigned to emergency calls where life-threatening conditions occur. The target response time for such emergency calls is three minutes. Currently, the average police response time for non-emergency calls within the City is estimated to be approximately five minutes.

Although the proposed project would increase demand for police services, the project is located on a developed urban site within the existing service area of the MPD. The construction of new police facilities, therefore, would not be required to provide adequate police services to the project site. The proposed development would be constructed in conformance with current codes, including appropriate safety features to minimize criminal activity. In addition, the project design will be

[54] City of Milpitas. Draft Environmental Impact Report Landmark Tower Mixed-Use Development. April 2008.

reviewed by the City of Milpitas Police Department to ensure that it incorporates appropriate safety features to minimize criminal activity.

Impact PF-2: The proposed project is located on an infill site currently served by the Milpitas Police Department and would not require the construction of additional police facilities to provide service to the site. **(Less Than Significant Impact)**

5.3 SCHOOLS

The project site is located within the Milpitas Unified School District (MUSD). The district serves 9,682 students in grades kindergarten through 12, with nine elementary schools, two middle schools, one high school, one continuation high school, and one day school.[55]

The nearest elementary school is Anthony Spangler Elementary School, located at 140 North Abbott Avenue, approximately 1.3 miles northeast of the project site. The nearest middle school is Thomas Russell Middle School, located at 1500 Escuela Parkway, approximately 3.4 miles northeast of the project site. The nearest high school is Milpitas High School, located at 1285 Escuela Parkway, approximately three miles northeast of the project site.

The project proposes to develop a total of 900 multi-family residential units. Using the District's student generation rate of 0.134 students per multi-family dwelling unit, the proposed residential units would generate approximately 120 students.[56] The capacity[57] and current enrollment at the schools students from the project would attend are shown in Table 5.3-1.[58] As shown, there is currently some capacity available at all three schools serving the project.

Table 5.3-1
Local School Capacity

School	Capacity	2006-2007 Enrollment
Anthony Spangler Elementary School	716	548
Thomas Russell Middle School	807	786
Milpitas High School	3,265	2,945

State law (Government Code Section 65996) specifies that the acceptable method of offsetting a project's effect on the adequacy of school facilities is the payment of a school impact fee prior to issuance of a building permit. California Government Code Sections 65995-65998, sets forth provisions for the payment of school impact fees by new development as the exclusive means of "considering and mitigating impacts on school facilities that occur or might occur as a result of any legislative or adjudicative act, or both, by any state or local agency involving, but not limited to, the

[55] Education Data Partnership. District Profile Fiscal Year: 2006-2007. November 16, 2007. http://www.ed-data.k12.ca.us/Navigation/fsTwoPanel.asp?bottom=%2Fprofile%2Easp%3Flevel%3D06%26reportNumber%3D16 December 12, 2007.
[56] Karl Black, Superintendent, Milpitas Unified School District. Email Communication. October 9, 2006.
[57] Capacity assumes that every seat in every classroom is full at all times. Allowance has been made for a dedicated science lab and computer lab at each elementary school and a dedicated computer lab at each middle school. This loading does not allow for additional designated classrooms for special uses, nor does it allow for assignment of classrooms to a teacher or subject such that the classroom would only be used for certain periods of the day. Thus some of the capacity which appears to be available, particularly at Milpitas High School is not true. Because MHS is so large, academies have been established to maintain a high quality of educational experience.
[58] Karl Black, Superintendent, Milpitas Unified School District. Email Communication. August 28, 2007.

planning, use, or development of real property." [§65996(a)]. The legislation goes on to say that the payment of school impact fees "are hereby deemed to provide full and complete school facilities mitigation" under CEQA. [§65996(b)]. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code. The school impact fees and the school districts' methods of implementing measures specified by Government Code 65996 would offset project-related increases in student enrollment.

Construction of the proposed project would increase the number of school children that live in the project area. An increase in the student population would result in increases in school children attending the public schools identified. The project is currently located outside the MUSD's transportation area and, therefore, no busing for regular education students to Spangler Elementary School from the project site is anticipated to be available.

As discussed above, state law requires that impacts to schools be mitigated through the payment of fees. The proposed project would generate approximately 120 students for the Milpitas Unified School District but based on information currently available would not result in the need to construct new schools; however, the project may require expansion of one or more existing schools. The construction of additional educational facilities on existing school sites in an urban area is not anticipated to result in significant environmental impacts.

Impact PF-3: The proposed project would not result in the need to construct additional schools within the Milpitas Unified School District. **(Less Than Significant Impact)**

5.3.1 Mitigation and Avoidance Measures for School Impacts

Although the proposed project would not result in a significant impact requiring construction of new schools, the proposed project, as required by state law, includes the following measure:

MM PF-3.1: In accordance with state law (Government Code Section 65996), the developer shall provide payment of a school impact fee prior to issuance of a building permit. The school impact fees and the school districts' methods of implementing measures specified by Government Code 65996 would offset project-related increases in student enrollment.

5.4 PARKS AND RECREATION

The City of Milpitas owns more than 157 acres of park and recreation facilities.[59] In addition, Ed Levin County Park is within the City boundary and provides 1,539 acres of regional parkland.

The nearest park to the project site is Starlite Park, located at the intersection of Rudyard Drive and North Abbott Avenue, approximately 1.5 miles northeast of the project site. Starlite Park is a four acre park with horseshoe pits, play equipment, three barbeque pits, and five tables.[60]

Due to the infill nature of the project, the Midtown Specific Plan Area requirement of 3.5 acres of neighborhood and community parks per 1,000 residents will be applied to the project. This

[59] City of Milpitas General Plan Open Space Element, 2001. http://www.ci.milpitas.ca.gov/citydept/planning/general_plan/ch4.pdf.
[60] City of Milpitas, Parks and Recreation Services Department. http://www.ci.milpitas.ca.gov/citydept/planning/recreation/parkfacilityreservation.htm#map. December 12, 2007.

requirement can be fulfilled through land dedication or through equivalent in-lieu fees. Up to 1.5 acres per 1,000 residents can be developed as usable on-site common or private open space within new residential developments, and the remaining two acres must be developed as public parkland.[61]

Based on an estimate of 2.7 residents per unit, the project could result in a population increase of 2,430[62] residents and would require approximately 8.51 acres of new parkland to serve the proposed project consistent with City policies. The proposed project includes approximately 66,420 square feet of common and private open space (1.5 acres) which would partially offset the increased demand for recreational space resulting from the project.

Impact PF-4: The project would increase the demand for park and recreational facilities in the City of Milpitas and would partially offset that demand through the provision of open spaces in the proposed development. **(Significant Impact)**

5.4.1 Mitigation and Avoidance Measures for Park and Recreation Impacts

As a condition of project approval, the proposed project includes the following measure to reduce its impacts on park and recreational facilities to a less than significant level:

MM PF-4.1: Consistent with the City of Milpitas General Plan for new developments within the Midtown Specific Plan Area, three and one-half acres of neighborhood/community parks would be required per 1,000 residents due to the infill nature of the project. This requirement can be fulfilled through land dedication or through equivalent in-lieu fees. Up to 1.5 acres per 1,000 residents can be developed as usable on-site common or private open space within new residential developments, and the remaining three acres must be developed as public parkland. The proposed project would provide housing for approximately 2,430 residents and, therefore, would be required to provide approximately 8.51 acres of neighborhood/community park. The on-site common open space areas proposed by the project total approximately 1.5 acres. In accordance with the General Plan, the project would pay in-lieu fees for the remaining parkland acres required by the City.

5.5 LIBRARIES

The Santa Clara County Library System consists of eight libraries and one bookmobile. The Santa Clara County Libraries are governed by the Joint Powers Authority, which is comprised of one City Council member from each of the eight member City jurisdictions and two members from the Santa Clara County Board of Supervisors. Property taxes pay for more than half the cost of operating the Library. In addition to the property tax, property within the district is also assessed for enhanced service through a County Service Area.

The City completed a *Library Needs Assessment* in June 2002. The assessment reviewed the use of the existing facilities, benchmark library size, staffing, and operations with comparable libraries, and assessed the community's library needs. The assessment compared the Milpitas Library with nine other libraries and concluded that the Milpitas Library is deficient in areas such as square footage and collection size. A new, 60,000 square foot library at the historic Milpitas Grammar School site,

[61] City of Milpitas, General Plan Open Space and Conservation Element, 2002. Policy 4.a-I-2.
[62] City of Milpitas, General Plan Land Use Element, 2002. Table 2-4.

located at 160 North Main Street, in the Midtown redevelopment area is anticipated to open in January 2009.

The existing Milpitas Library, located at 40 North Milpitas Boulevard currently serves approximately 50,000 visitors per month and circulates approximately 116,000 items a month. The City of Milpitas plans to reuse the existing library which closed November 17, 2008, as a senior center after the opening of the new library.

The development of the proposed project would add up to 2,430 additional residents to the City of Milpitas. The population increase resulting from the project would incrementally increase the need for library services.

Impact PF-5: The proposed project would not require the construction of a new library facility, other than that already being constructed for the City. **(Less Than Significant Impact)**

5.6 CONCLUSION

Impact PF-1: Although the proposed project would incrementally increase demand for fire response and related emergency services, it will not require the development of new fire service facilities, and therefore, will not result in a significant physical impact on the environment. **(Less Than Significant Impact)**

Impact PF-2: The proposed project is located on an infill site currently served by the Milpitas Police Department and would not require the construction of additional police facilities to provide service to the site. **(Less Than Significant Impact)**

Impact PF-3: The proposed project would not result in the need to construct additional schools within the Milpitas Unified School District. **(Less Than Significant Impact)**

Impact PF-4: Although the project would increase the demand for park and recreational facilities in the City of Milpitas it would partially offset that demand through the provision of open spaces in the proposed development and will also pay in-lieu fees. **(Less Than Significant Impact with Mitigation)**

Impact PF-5: The proposed project would not require the construction of a new library facility, other than that already proposed and planned for by the City. **(Less Than Significant Impact)**

SECTION 6.0 CUMULATIVE IMPACTS

6.1 INTRODUCTION

Cumulative impacts, as defined by CEQA, refer to two or more individual effects, which when combined, are considerable or which compound or increase other environmental impacts. Cumulative impacts may result from individually minor, but collectively significant projects taking place over a period of time. The CEQA Guidelines state (§15130) that an EIR should discuss cumulative impacts "when the project's incremental effect is cumulatively considerable." The discussion does not need to be in as great detail as is necessary for project impacts, but is to be "guided by the standards of practicality and reasonableness."

The purpose of the cumulative analysis is to allow decision-makers to better understand the potential impacts which might result from approval of past, present and reasonably foreseeable future projects, in conjunction with the proposed project addressed in this EIR. The CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence. The effects of past projects are generally reflected in the existing conditions described in the specific sections of this EIR. Present projects are those approved but not yet developed. For instance, the traffic from recently-approved but not yet constructed and/or occupied projects is reflected in the Background Conditions scenario described in *Section 4.2 Transportation*. To evaluate the cumulative impacts of past, present and reasonably foreseeable future projects, this cumulative analysis includes a list of probable future projects (see Table 6.1-1).

For each subject area, the discussions below address the following aspects of cumulative impacts:

- Would the effects of the proposed project, when combined with the effects of all of the past, existing, and pending development, result in a cumulatively significant impact on the resources in question?

- If a cumulative impact is likely to be significant, would the contribution of the proposed project to that impact be cumulatively considerable?

Table 6.1-1
Cumulative Projects

Name	Location	Type	Size	Status
Apton Plaza	230 N. Main St.	Mixed-Use	93 condominiums	Under Construction
Alexan	1556 S. Main St.	Residential	397 apartments	Approved
Aspen Family	1666 S. Main St.	Residential	101 apartments	Under Construction
Fairfield Murphy Ranch	Murphy Ranch Rd.	Residential	285 town homes and 374 apartments	Approved
Centria	Abel/Main/Great America Pkwy.	Residential	464 condominiums	Under Construction
Matteson	S. Main St./S. Abel St.	Residential	126 condominium units	Approved
Terra Serena	East and west sides of Abel St., north of Curtis Ave.	Residential	368 single family and townhouses, and 315 condominiums	Under Construction

Table 6.1-1
Cumulative Projects

Name	Location	Type	Size	Status
Paragon	1696 S. Main St., 75 Montague Expwy.	Residential	147 condominiums	Under Construction
Devries Place	West side of N. Main St.	Residential	103 affordable senior housing units	Complete
Town Center	E. Calaveras Blvd./N. Milpitas Blvd./Hillview	Residential	65 townhouses	Under Construction
Venture Corporation	1100 Cadillac Ct.	Industrial	10 industrial R&D condominium buildings	Under Construction
Landmark Tower	600 Barber Ln.	Mixed-Use	375 condominiums, 148,805 sf of retail uses and 48,960 sf of office uses	Approved
Mixed-Use Project	1880 N. Milpitas Blvd.	Mixed-Use	13,040 sf including retail, office and three one-bedroom units	Approved
Sinclair Renaissance	253 Sinclair Frontage Rd.	Residential	80 single-family residences	Approved
Parktown Shopping Center	1350 S. Park Victoria Dr.	Commercial	5,400 sf	In Process
The Campus at McCarthy Ranch	115-245 N. McCarthy Blvd.	Office	1,415,814 sf	Approved
Peery-Arrillaga	McCarthy Boulevard at Alder Drive	Office	238,400 sf	Approved
Honda Dealership	Thompson St.	Commercial	47,000 sf	Under Construction
McCarthy Ranch Office/ Commercial	McCarthy Blvd.	Office/ Commercial	Up to 1.2 million sf	Withdrawn
Transit Area Specific Plan	Vicinity of Great Mall Pkwy., South Main St., Trade Zone Blvd., and Milpitas Blvd.	Mixed-Use	7,109 residential units, 993,843 sf of office uses, 287,075 sf retail uses, and 350 hotel rooms	Approved

Based on the analysis in this EIR, the proposed project would not contribute to a cumulative land use, hazards and hazardous materials, geology and soils, hydrology and water quality, biological resource, cultural resource, or population, jobs, and housing impact.

Development of the proposed project would contribute to and, therefore, it is possible that in combination with past, present and reasonably foreseeable future projects that the project may have cumulatively significant impacts in the following areas:

- Transportation
- Air Quality
- Noise
- Visual and Aesthetic Resources
- Utilities and Service Systems
- Energy
- Public Services
- Global Climate Change

6.2 CUMULATIVE TRANSPORTATION IMPACTS

The cumulative traffic analysis evaluated projected roadway link volumes for two Year 2030 scenarios, Year 2030 General Plan and Year 2030 General Plan Plus Project. This long-term analysis evaluated roadway link volumes, which is consistent with the City's policy and practice when analyzing General Plan scenarios.

6.2.1 Year 2030 Cumulative Analysis

The Year 2030 cumulative analysis evaluated projected roadway link volumes for two Year 2030 scenarios, Year 2030 General Plan and Year 2030 General Plan Plus Project. This long-term analysis evaluated roadway link volumes, which is consistent with the City's policy and practice when analyzing General Plan scenarios.

Year 2030 AM and PM peak-hour roadway segment traffic volumes were obtained from the Valley Transportation Authority's (VTA) regional travel demand model. The VTA is the Congestion Management Agency for Santa Clara County. This regional model is used by the VTA to produce traffic projections for use in transportation and air quality planning and includes buildout of the City of Milpitas according to its General Plan. The Year 2030 General Plan volumes assume that the site remains developed with its current retail uses.

The net increase in new trips generated by the proposed project, compared to the existing site use was added to the Year 2030 General Plan volumes to establish Year 2030 Plus Project volumes (refer to Appendix A). The roadway segment levels of service under these two scenarios were then compared to determine if the traffic generated by the proposed project would result in a significant cumulative traffic impact.

2030 Roadway Improvements

The Year 2030 roadway network includes any planned transportation improvements that have a high probability of receiving funding in the future. Within the study area, the following improvements were identified:

- I-880 Widening Projects – I-880 will be widened to include a high-occupancy vehicle lane and auxiliary lane in each direction from Montague Expressway in the south into Alameda County in the north.

- Fremont Boulevard Extension to Dixon Landing Road – Fremont Boulevard will be extended southward from its current terminus near Lakeview Drive to Dixon Landing Road. The extension will include two lanes of travel in each direction and will form the fourth leg of the

McCarthy Boulevard/Dixon Landing Road intersection. This extension is located within the City of Fremont and will be funded by the developer of the King-Lyon Property.

- Calaveras Boulevard – Calaveras Boulevard will be widened to six lanes between Milpitas Boulevard and Abel Street. Operational improvements are also planned for intersections along Calaveras Boulevard between I-680 and I-880.

- Montague Expressway – Montague Expressway will be configured to provide eight mixed-flow lanes between I-680 and I-880.

2030 Roadway Segment Levels of Service

Under Year 2030 Cumulative Conditions, the proposed project will have a significant impact on a roadway segment if:

- The addition of traffic from the proposed project degrades operations under 2030 General Plan Buildout Conditions from an acceptable level to an unacceptable level.

- The proposed project adds trips that are more than one percent of the segment's capacity when the segment is operating at unacceptable levels under General Plan Buildout Conditions.

Acceptable operations are defined as LOS D or better for City roadway segments (e.g. McCarthy Boulevard, Milpitas Boulevard, Tasman Drive, Great Mall Parkway, and Abel Street) and LOS E or better for CMP roadway segments (e.g. I-880, SR 237, Calaveras Boulevard, Montague Expressway). Unacceptable operations are defined as LOS E or F for City roadway segments and LOS F for CMP roadway segments.

Based on the criteria above, the project would result in a cumulatively considerable contribution to impacts on the following seven (7) roadway segments during the AM peak hour:

- SR 237 Westbound between McCarthy Boulevard to Zanker Road
- Montague Expressway Westbound between McCarthy Boulevard and Trimble Road
- McCarthy Boulevard Southbound between SR 237 WB Ramps and Technology Drive-Bellew Drive
- McCarthy Boulevard Northbound between SR 237 WB Ramps and Ranch Dr (S)
- Trimble Road Westbound between Montague Expressway and North First Street (3 Segments)

The project would result in a cumulatively considerable contribution to impacts on the following 19 roadway segments during the PM peak hour:

- Interstate 880 Northbound between Montague Expressway and Great Mall Parkway
- SR 237 Eastbound between Zanker Road and Milpitas Boulevard (5 Segments)
- SR 237 Westbound between Abel Street and I-880 (2 segments)
- Montague Expressway Eastbound between Trimble Road and McCarthy Boulevard
- Montague Expressway Westbound between McCarthy Boulevard and Trimble Road
- McCarthy Boulevard Southbound between Ranch Dr (S) and Technology Drive (2 Segments)
- McCarthy Boulevard Northbound between Tasman Drive and SR 237 WB Ramps (2 Segments)
- Great Mall Parkway Eastbound between I-880 and S. Main Street
- Milpitas Boulevard Southbound between Scott Creek Road and Dixon Landing Road

- Trimble Road Eastbound between North First Street and Montague Expressway (3 Segments)

Impact C-TRANS-1: The proposed project would result in a cumulatively considerable contribution to impacts on seven roadway segments during the AM peak hour and 19 roadway segments during the PM peak hour. **(Significant Cumulative Impact)**

6.2.2 Mitigation for Year 2030 Cumulative Transportation Impacts

MM C-TRANS-1.1: Under Year 2030 Cumulative Conditions, the proposed project would impact seven roadway segments during the AM peak hour and 19 roadway segments during the PM peak hour. As described in *Section 4.2 Transportation*, the project proposes to contribute its fair share towards the following traffic fees:

- Milpitas Business Park traffic fee
- Calaveras Boulevard traffic fee

Fair share contributions to the above traffic fees will help improve overall traffic circulation in the project area; however, the fees will not fund those specific improvements necessary to mitigate the project's contribution to cumulative traffic impacts to a less than significant level.

6.2.3 Cumulative Transportation Conclusions

Impact C-TRANS-1: The project's fair share contribution toward the City's established transportation improvement fees will help improve overall traffic circulation in the project area; however, it will not fund specific improvements necessary to reduce the project's cumulative traffic impacts to a less than significant level. Thus, the project's Year 2030 cumulative traffic impacts are significant and unavoidable. **(Significant Unavoidable Cumulative Impact)**

6.3 CUMULATIVE AIR QUALITY IMPACTS

BAAQMD guidance for CEQA documents provides that a project's cumulative impact is based on its consistency with the local general plan and the local general plan with the regional air quality plan. This proposed project does not conform to the current general plan and, as a result, does not conform to the CAP. Although the proposed project is not consistent with the City of Milpitas General Plan, the overall development proposed by the project is consistent with the goals of the Clean Air Plan (CAP). The proposed project would create additional residential development at an infill location, which would incrementally improve the jobs/housing balance in the City of Milpitas. Providing housing for more of the City's workers is expected to help reduce regional air pollution levels by reducing traffic congestion and commute times.

The *2005 Bay Area Ozone Strategy* (Ozone Strategy) includes 20 transportation control measures, of which seven require participation at the local level. Seven of the adopted TCMs (Nos. 1, 9, 12, 15, 17, 19 and 21) identify local governments as implementing agencies. Although most TCMs are implemented through the City's General Plan policies, mitigation measures would be needed for future development at the project site to ensure appropriate TCM implementation. As discussed in *Section 4.3 Air Quality*, the project will be required to reduce regional air quality impacts through the implementation of feasible mitigation measures. The mitigation measures proposed by the project

would not reduce the regional criteria pollutant emissions resulting from the project to a less than significant level.

Impact C-AQ-1: Based on the project's inconsistency with the population assumptions in the Ozone Strategy, which is the current CAP for the Bay Area, and the significant increase in regional criteria pollutants resulting from the project, the proposed project would result in a considerable contribution to a cumulative regional air quality impact. **(Significant Cumulative Impact)**

6.3.1 Mitigation Measures for Cumulative Air Quality Impacts

As conditions of approval, the following mitigation and avoidance measures shall be implemented by the applicant to reduce the project's contribution to regional air quality impacts to the extent feasible:

MM C-AQ-1.1: To ensure incorporation of appropriate Clean Air Plan TCMs, the features listed below shall be included in the project. Implementation of the measures listed below along with the City's General Plan requirements would reduce vehicle-related emissions in a manner consistent with the Clean Air Plan.

- Bicycle amenities should be provided which include secure residential bicycle parking, bicycle racks for commercial and residential visitors, and bike lane connections.
- Pedestrian facilities should include easy access to bus stops and roadways that serve the site.
- Implement a landscape plan that provides shade trees along adjacent sidewalks, where feasible.
- Unbundle a portion of the residential parking spaces.[63]

MM C-AQ-1.2: The measures listed below represent reasonable and feasible measures that would reduce air pollutant emissions from the project.

- Provide exterior electrical outlets to encourage use of electrical landscape equipment.
- Prohibit idling of trucks at loading docks for more than three minutes and include signage indicating such a prohibition.
- If necessary, provide 110- and 220-volt electrical outlets at loading docks to eliminate any idling of trucks to operate auxiliary equipment.
- Implement a landscape plan that provides shade trees along pedestrian pathways.
- Implement "Green Building" designs, such as Leadership in Energy and Environmental Design (LEED) or GreenPoint Rated for new buildings to increase energy efficiency, which would reduce the future energy demand caused by the project, thus reducing air pollutant emissions indirectly.

[63] Unbundled residential parking would allow residents to rent or purchase parking spaces separately in their rental lease or lease spaces as needed from an HOA. Unbundled parking requires that a parking space is not automatically connected to the lease or purchase of a residential unit and promotes the use of alternatives to automobile transportation because a cost is associated with the use of a parking space.

- Explore options to provide or share shuttle service to the Tasman Light Rail Station.
- Provide Eco-passes to all new residents.

6.3.2 Cumulative Air Quality Impact Conclusion

Impact C-AQ-1: Although the proposed project is consistent with the goals of the Clean Air Plan, the project would result in an increase in population that is inconsistent with the population projections contained in the CAP and the project would also significantly contribute to regional criteria pollutant emissions, and therefore, the proposed project would result in a considerable contribution to a cumulatively significant regional air quality impact. **(Significant Unavoidable Cumulative Impact)**

6.4 CUMULATIVE NOISE IMPACTS

For humans, an audible increase in noise is three decibels, which is equivalent to traffic volumes doubling along a roadway segment. The proposed project would not audibly increase noise levels in the project area. Traffic generated by the cumulative projects would increase noise along many roadways throughout the City of Milpitas. Given the high existing traffic volumes on most of these roadways, traffic volumes would not double and the noise increase resulting from these trips would not be audible. For these reasons, the proposed project will have a less than significant cumulative noise impact.

Impact C-NV-1: Due to high existing traffic volumes and noise levels in the project area, the proposed project would not contribute to an audible cumulative increase in noise levels in the project area. **(Less Than Significant Cumulative Impact)**

6.5 CUMULATIVE VISUAL AND AESTHETIC IMPACTS

The cumulative projects would result in increased building heights in the project area. Both the proposed Milpitas Square Mixed-Use Development and Landmark Tower propose high-rise development along Barber Lane. There are no scenic corridors that would be blocked by high-rise development at the Landmark Tower and Milpitas Square project sites. Views from scenic connectors, SR 237 and I-880, would not be blocked by the cumulative projects. The cumulative projects would not be out of character with the existing urban development in the area of the project site, which includes a 12-story hotel. Although the cumulative projects are taller than many existing developments in the City of Milpitas, they would not cumulatively obstruct any designated scenic views in the City and therefore would not impact visual and aesthetic resources.

Impact C-VIS-1: Cumulative projects in the vicinity of the site would not result in a significant impact on views in the project area. **(Less Than Significant Cumulative Impact)**

6.6 CUMULATIVE UTILITIES AND SERVICES IMPACTS

6.6.1 Water Use

The cumulative projects would result in a substantial net increase in water demand. To the extent feasible, the cumulative projects would reduce potable water demand by incorporating water conservation practices such as water efficient landscaping in accordance with City policies and utilizing recycled water at a minimum for irrigation uses (refer to *Section 4.11 Utilities and Service Systems*). City development policies require developers to design and install all water mains in accordance with the City's Water Master Plan. In addition, the developer is required to pay all water related fees including connection fees and water treatment plant fees.

The cumulative projects would be supplied with water purchased from the SCVWD and SFPUC. The SCVWD serves the project area and receives its water supply primarily from imported surface water. A Water Supply Assessment was prepared for the project which analyzed the project's water needs to 2030. The City, in coordination with the SCVWD, found that adequate water would be available to serve the project site in 2030 in combination with other assumed growth in the City of Milpitas 2005 Urban Water Management Plan. The City is also updating the 2002 Water Master Plan to include several higher density land use changes. No new or extended entitlements will be required to supply water to the cumulative projects.

Impact C-UTIL-1: The cumulative projects would substantially increase water demand; however, each project would incorporate water conserving measures to reduce the increase in demand and would not exceed existing supplies. **(Less Than Significant Cumulative Impact)**

6.6.2 San José/Santa Clara Water Pollution Control Plant

The San José/Santa Clara Water Pollution Control Plant (WPCP), which is located at the northerly end of San José, cleans the wastewater of over 1,500,000 people that live and work in the 300-square mile area encompassing San José, Santa Clara, Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno. The WPCP has existing capacity to treat 167 million gallons of effluent per day (mgd). Of this total amount, the capacity allocated to the City of Milpitas is roughly 13.5 mgd. While the capacity of the WPCP is 167 mgd, the amount of treated wastewater that can be discharged to San Francisco Bay by the WPCP is limited to 120 mgd (dry weather peak). This limitation is based upon the concerns of the State Water Resources Control Board and the Regional Water Quality Control Board over the effects of additional freshwater discharges from the WPCP on saltwater marsh habitat, as well as pollutant loading to the Bay from the WPCP. This limitation has led to the development of programs to reduce the volume of wastewater generated at the source, as well as a system that recycles some of the wastewater for non-potable uses, as described above.

The City of Milpitas estimates that at buildout the City's wastewater treatment demand will reach 14.2 mgd. The City is in the process of purchasing additional allocated capacity of 750,000 gallons per day from the Cupertino Sanitary District to meet the projected increase in demand. As of December 2007, the City's sanitary sewer discharge was 10.2 mgd which indicates the City currently has remaining capacity of 3.3 mgd. The City's WPCP allocation is available upon a first-come, first-served basis, based on the project application date. For this reason, it is possible for the cumulative projects to result in a determination that the City's existing WPCP allocation is not adequate to serve any one of the individual cumulative projects projected demand in addition to the City's existing commitments. Based on the current sanitary sewer discharge, the City has adequate sewer capacity

to serve the project. The City's ability to serve the project through its existing treatment allocation at the WPCP is dependent on an agreement to purchase additional capacity from another agency such as the Cupertino Sanitary District.

Impact C-UTIL-2: The proposed project would contribute to cumulative impacts from the reduction of available limited treatment capacity at the WPCP. **(Significant Cumulative Impact)**

6.6.3 Main Pump Station

The City of Milpitas' Main Sewer Pump Station lifts flows from local sewer mains to the WPCP. Construction on a replacement pump station is nearing completion. The existing station is being replaced in kind because the existing station is very old, has outlived its useful life, has seismic deficiencies, and is relatively expensive to operate and maintain. The existing pump station has a wet weather pumping capacity of 42 to 45 mgd. The new pump station can pump between 39 to 44 mgd. The additional flows attributable to the proposed cumulative projects would not cause the City's overall wet weather flow to exceed this capacity. The project would be required to pay proportional replacement costs for the pump station.

Impact C-UTIL-3: The proposed cumulative projects would not exceed the capacity of the City's new sewer pump station. **(Less Than Significant Cumulative Impact)**

6.6.4 Solid Waste

The proposed project in combination with past, present, and reasonably foreseeable project would result in a substantial net increase in solid waste disposed per year. The City of Milpitas administers a commercial and residential recycling program that complies with state-mandated waste reduction goals specified in the Public Resources Code Section 40500. The cumulative projects will participate in the commercial and/or residential recycling program and the City's solid waste program, which would reduce the total amount of garbage taken to the landfill. The Newby Island landfill has capacity to handle the additional solid waste that would be disposed by the cumulative projects. The City has a solid waste disposal agreement with Newby Island Landfill that expires in 2017. The landfill is currently estimated to close in 2025. Prior to the expiration of its current waste disposal contract, the City intends to negotiate new agreements to handle the long-term disposal of its solid waste past the closure of the Newby Island landfill.

Impact C-UTIL-4: The cumulative projects would not exceed either the capacity of the collection systems or secured landfill capacity. **(Less Than Significant Cumulative Impact)**

6.6.5 Mitigation Measures for Utilities and Service Systems

As conditions of approval, the following mitigation measure shall be implemented by the applicant to reduce the project's contribution to cumulative utilities and services impacts:

MM C-UTIL-2.1: The developer shall purchase adequate public sewage system capacities for the respective development. Fees shall consist of connection fees, treatment plant fees up to the buildout master plan levels, plus additional fees for costs of sewage collection and regional plant capacity needs above the build-out master plan capacities, and proportional replacement costs for a new Main

sewage pump station above the existing 2004 Master Plan capacities, as determined by the City.

6.6.6 Cumulative Utilities and Service Systems Conclusion

Impact C-UTIL-1: The cumulative projects would substantially increase water demand; however, each project would incorporate water conserving measures to reduce the increase in demand and would not exceed existing supplies. **(Less Than Significant Cumulative Impact)**

Impact C-UTIL-2: Implementation of the identified mitigation measure would reduce the project's contribution to cumulative impacts to the City's allotted water treatment capacity to a less than significant level. **(Less Than Significant Impact with Mitigation)**

Impact C-UTIL-3: The proposed cumulative projects would not exceed the capacity of the City's new sewer pump station. **(Less Than Significant Cumulative Impact)**

Impact C-UTIL-4: The cumulative projects would not exceed either the capacity of the collection systems or secured landfill capacity. **(Less Than Significant Cumulative Impact)**

6.7 CUMULATIVE ENERGY IMPACTS

Operation of the projects listed on Table 6.1-1 are roughly estimated to consume 85.7 million kilowatt hours of electricity and 300.1 million cubic feet of natural gas, of which the project's share is roughly 6.0 million kilowatt hours of electricity and 41 million cubic feet of natural gas. The project proposes to be GreenPoint Rated through the incorporation of green building practices which include energy efficiency, resource conservation, and water conservation to reduce the energy use of the proposed development.

As discussed in *Section 4.12 Energy*, projected energy supplies are limited. The amount of energy consumed by the cumulative projects is substantial in comparison to projected supplies. The design of the project will incorporate green building practices and reduce the project's contribution to cumulative energy use increases in Milpitas to a less than significant level.

Impact C-ENER-1: The proposed cumulative projects would result in a substantial increase in energy use relative to projected supplies; however, the proposed project incorporates green building practices to reduce its incremental energy use increase. **(Less Than Significant Cumulative Impact)**

6.8 CUMULATIVE PUBLIC FACILITIES AND SERVICES IMPACTS

6.8.1 Cumulative Fire Protection

Fire Station No. 4 is less than one mile from the project site. The proposed project will be reviewed by the Fire Department to ensure it is built to current Fire Code standards, which include features to reduce fire hazards (e.g., sprinklers and smoke detectors). Compared to existing conditions, the proposed project would incrementally increase demand for fire protection as a result of increased density of development on the site. This incremental increase in demand for fire protection in

combination with the incremental increase from other reasonably foreseeable projects is not anticipated to result in the need to construct a new fire station.

Impact C-PF-1: The incremental increase in demand for fire protection resulting from the proposed project in combination with the incremental increase from other reasonably foreseeable projects is not expected to result in the need to construct a new fire station. For this reason, the proposed project would not contribute to the cumulatively significant fire protection impact. **(Less Than Significant Cumulative Impact)**

6.8.2 Cumulative Police Protection

The proposed project would be constructed in conformance with current codes and reviewed by the Police Department to ensure appropriate safety features that minimize criminal activity are included in the site design.

Police protection services are provided to the project site by the City of Milpitas Police Department (MPD). Services are provided from one central station, located at 1275 North Milpitas Boulevard. Compared to existing conditions, the proposed project would incrementally increase demand upon police protection services. This incremental increase in demand for police protection in combination with the incremental increase from the other cumulative projects is not expected to result in the need to construct new police facilities.

Impact C-PF-2: The incremental increase in demand for police protection resulting from the proposed project in combination with the incremental increase from other reasonably foreseeable projects is not expected to result in the need to construct new police facilities. For this reason, the proposed project would not contribute to the cumulatively significant police protection impact. **(Less Than Significant Cumulative Impact)**

6.8.3 Cumulative School Impacts

The project site is within the Milpitas Unified School District (MUSD). Public schools that students from the proposed project would attend include Anthony Spangler Elementary School, Thomas Russell Middle School, and Milpitas High School. Using the District's student generation rate of 0.134 students per multi-family dwelling unit and 0.472 students per single-family dwelling unit, the cumulative projects could generate a total of approximately 865 students that would attend MUSD schools.[64] Based on MUSD's capacity and current enrollment at the schools students from the project would attend, the schools are nearing capacity (see Table 6.8-1).[65]

[64] Karl Black, Superintendent, Milpitas Unified School District. Email Communication. October 9, 2006.
[65] Capacity assumes that every seat in every classroom is full at all times. Allowance has been made for a dedicated science lab and computer lab at each elementary school and a dedicated computer lab at each middle school. This loading does not allow for additional designated classrooms for special uses, nor does it allow for assignment of classrooms to a teacher or subject such that the classroom would only be used for certain periods of the day. Thus some of the capacity which appears to be available, particularly at Milpitas High School is not true. Because MHS is so large, academies have been established to maintain a high quality of educational experience.

Table 6.8-1 Local School Capacity		
School	**Capacity**	**2006-2007 Enrollment**
Anthony Spangler Elementary School	716	548
Thomas Russell Middle School	807	786
Milpitas High School	3,265	2,945

In accordance with state law (Government Code Section 65996), the developer of the proposed project and the developers of the residential projects listed in Table 6.1-1 shall provide payment of a school impact fee prior to issuance of a building permit. The school impact fees and the school districts' methods of implementing measures specified by Government Code 65996 would offset project-related increases in student enrollment.

Impact C-PF-3: Although the proposed project in combination with other reasonably foreseeable projects may result in the need to construct new schools or the expansion of one or more existing schools, the construction of schools or addition to existing schools within the City's Urban Service Area is not anticipated to result in significant environmental impacts. **(Less Than Significant Cumulative Impact)**

6.9 CUMULATIVE GLOBAL CLIMATE CHANGE IMPACTS

6.9.1 Introduction

This section provides a general discussion of global climate change and focuses on emissions from human activities that alter the chemical composition of the atmosphere. The discussion on global climate change and greenhouse gas emissions is based upon the California Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32), the 2006 Climate Action Team (CAT) Report to Governor Schwarzenegger and the Legislature, and research, information and analysis completed by the Intergovernmental Panel on Climate Change (IPCC), the United States Environmental Protection Agency, California Air Resources Board and the CAT. Estimates of greenhouse gas emissions for several components of the project are provided in Appendix B of this EIR.

Global climate change refers to changes in the Earth's weather including temperature, precipitation, and wind patterns. Global temperatures are affected by naturally occurring and anthropogenic-generated (generated by mankind) atmospheric gases, such as carbon dioxide, methane, and nitrous oxide.[66] These gases allow sunlight into the Earth's atmosphere, but prevent heat from radiating back out into outer space and escaping from the earth's atmosphere, thus altering the Earth's energy balance. This phenomenon is known as the "greenhouse effect".

The world's leading climate scientists have reached consensus that global climate change is underway, is "very likely" caused by humans, and hotter temperatures and rises in sea level "would continue for centuries," no matter how much humans control future emissions. A report of the Intergovernmental Panel on Climate Change (IPCC) - an international group of scientists and

[66] IPCC, 2007: Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Available at: http://www.ipcc.ch/.

representatives concludes "The widespread warming of the atmosphere and ocean, together with ice-mass loss, support the conclusion that it is extremely unlikely that global climate change of the past 50 years can be explained without external forcing, and very likely that it is not due to known natural causes alone."[67]

Human activities have exerted a growing influence on some of the key factors that govern climate by changing the composition of the atmosphere and by modifying vegetation. The concentration of carbon dioxide in the atmosphere has increased from the burning of coal, oil, and natural gas for energy production and transportation and the removal of forests and woodlands around the world to provide space for agriculture and other human activities. Emissions of other greenhouse gases, such as methane and nitrous oxide, have also increased due to human activities. Carbon dioxide accounts for approximately 85 percent of total emissions from human sources, and methane and nitrous oxide account for almost 14 percent. Each of these gases, however, contributes to global warming at a different relative rate. Methane has a global warming potential 23 times that of carbon dioxide, while nitrous oxide is 296 times that of the same amount of carbon dioxide. To account for these differences, estimates of greenhouse gas emissions are often described in terms of carbon dioxide equivalents.

The IPCC predicts a temperature increase of between two and 11.5 degrees Fahrenheit (F) (1.1 and 6.4 degrees Celsius) by the end of the 21st century under six different scenarios of emissions and carbon dioxide equivalent concentrations.[68] Sea levels are predicted to rise by 0.18 to 0.59 meters (seven to 23 inches) during this time, with an additional 3.9 to 7.8 inches possible depending upon the rate of polar ice sheets melting from increased warming. The IPCC report states that the increase in hurricane and tropical cyclone strength since 1970 can likely be attributed to human-generated greenhouse cases.

On a per-person basis, greenhouse gas emissions are lower in California than most other states; however, California is a populous state and the second largest emitter of greenhouse gases in the United States and one of the largest emitters in the world.[69] Transportation is the largest source of greenhouse gas emissions in California, followed by industrial sources and electric power generation.[70]

According to the 2006 Climate Action Team Report[71] the following climate change effects and conditions can be expected in California over the course of the next century:

- A diminishing Sierra snowpack declining by 70 percent to 90 percent, threatening the state's water supply;
- Increasing temperatures from eight to 10.4 degrees Fahrenheit (F) under the higher emission

[67] *Climate Change 2007 - The Physical Science Basis Contribution of Working Group I to the Fourth Assessment Report of the IPCC*. February 2, 2007. (http://ipcc-wg1.ucar.edu/wg1/wg1-report.html]

[68] IPCC. 2007: Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. (http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf]

[69] California Legislative Analyst's Office. 2006. *Analysis of the 2006-07 Budget Bill (Governor's Climate Change Initiative).* (http://www.lao.ca.gov/analysis_2006/resources/res_04_anl06.html]

[70] California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature.* (http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT.PDF]

[71] California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature.* (http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT.PDF]

scenarios, leading to a 25 to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas;

- Coastal erosion along the length of California and sea water intrusion into the Sacramento River Delta from a four-to 33-inch rise in sea level. This would exacerbate flooding in already vulnerable regions;
- Increased vulnerability of forests due to pest infestation and increased temperatures;
- Increased challenges for the state's important agricultural industry from water shortages, increasing temperatures, and saltwater intrusion into the Delta; and
- Increased electricity demand, particularly in the hot summer months.

6.9.2 Regulatory Context for Global Climate Change

Global climate change resulting from greenhouse gas emissions is an emerging environmental concern being raised and discussed at the international, national, and statewide level. At each level, agencies are considering strategies to control emissions of gases that contribute to global warming.[72] Regulatory efforts in California that apply to the project are summarized below.

6.9.2.1 *State of California Executive Order S-3-05*

In June 2005, the Governor of California signed Executive Order S-3-05 which identified Cal/EPA as the lead coordinating State agency for establishing climate change emission reduction targets in California. A "Climate Action Team", a multi-agency group of state agencies, was set up to implement Executive Order S-3-05. Under this order, the state plans to reduce greenhouse gas emissions to 80 percent below 1990 levels by 2050. Greenhouse gas emission reduction strategies and measures to reduce global warming were identified by the California Climate Action Team in 2006.[73]

6.9.2.2 *Assembly Bill (AB) 32 – The California Global Warming Solutions Act of 2006*

Subsequently, in the fall of 2006, California AB 32, the global warming bill, was signed into law. AB 32 required the state Air Resources Board (ARB) to adopt regulations by January 1, 2008 to require reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with that program. The bill requires achievement by 2020 of a statewide greenhouse gas emissions limit equivalent to 1990 emissions, and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions.

Strategies include, but are not limited to, new vehicle emission standards, enforcement of diesel truck anti-idling requirements, capture of more methane from landfills, hydrofluorocarbon (HCF) reduction strategies for the use and disposal of refrigerants, manure management in agricultural operations, and increased use of alternative fuels. In December 2007, the ARB outlined a reporting

[72] On April 2, 2007, the United States Supreme Court issued a 5-4 decision in *Massachusetts v. EPA*, which holds that the U.S. Environmental Protection Agency has authority under the Clean Air Act to regulate greenhouse gas emissions from new vehicles. The U.S. EPA had previously argued it lacked legal authority under the Clean Air Act to regulate greenhouse gases. The majority opinion of the Supreme Court decision noted that greenhouse gases meet the Clean Air Act's definition of an "air pollutant," and the EPA has the statutory authority to regulate the emission of such gases from new motor vehicles.

[73] California Environmental Protection Agency. 2006. *Climate Action Team Executive Summary Climate Action Team Report to Governor Schwarzenegger and the California Legislature.* (http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT_EXECSUMMARY.PDF]

and monitoring program for greenhouse gases. Modifications to regulatory programs of various state agencies are on-going. An inventory of 1990 emissions has not been completed to date.

AB32 required ARB to adopt mandatory reporting rules for sources of substantial greenhouse gases by January 1, 2009, adopt a plan for reducing greenhouse gas emission by January 1, 2009 that outlines how emission reductions will be achieved, and adopt regulations by January 1, 2011 to obtain the maximum technologically feasible and cost-effective reductions in greenhouse gases.

The CARB prepared and released a *Climate Change Proposed Scoping Plan* in October 2008.[74] The Proposed Scoping Plan, developed by CARB with input from the Climate Action Team, proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, and enhance public health while creating new jobs and enhancing the growth in California's economy. CARB adopted the Scoping Plan on December 11, 2008.

6.9.2.3 *Senate Bill 97 – Modification to the Public Resources Code*

On August 24, 2007, Governor Schwarzenegger signed SB 97 which requires the Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions, including, but not limited to effects associated with transportation or energy consumption. The Resources Agency is required to certify and adopt these guidelines by January 1, 2010.

Currently there is no established guidance, from the state or in published CEQA case law, for the determination of what constitutes a significant global climate change impact or what measures are necessary to off-set new greenhouse gas emissions.

At the direction of the Governor's Office of Planning and Research, ARB is currently developing statewide interim thresholds of significance for greenhouse gas emissions. ARB is focusing on common project types that, collectively, are responsible for substantial green house gas emissions – specifically industrial, residential, and commercial projects. Ongoing workshops are planned to discuss further development of concepts introduced in its *Preliminary Draft Staff Proposal on Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act (CEQA)*.

Preliminary Draft CEQA Guideline Amendments for Greenhouse Gas Emissions[75]

OPR has drafted amendments to the CEQA Guidelines for greenhouse gas emissions as required by Senate Bill 97 (SB 97). On January 8, 2009, OPR released its Preliminary Draft CEQA Guideline Amendments for Greenhouse Gas Emissions. OPR held two workshops in January 2009 to present the amendments and obtain input from the public. Comments received on the amendments are currently being considered by OPR as part of the process for adopting the regulations by 2010.

Generally, the proposed Guidelines seek to apply CEQA's existing basic rules for impact analysis to the topic of greenhouse gas emissions, specifying in several instances, for example, that determinations on greenhouse gas emissions must be supported by substantial evidence, as with other

[74] http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm
[75] OPR website, CEQA Guidelines and Greenhouse Gases, http://opr.ca.gov/index.php?a=ceqa/index.html, accessed February 18, 2009.

CEQA determinations. Under the *Preliminary Draft CEQA Guideline* amendments, changes to the CEQA Guidelines address determination of a project's incremental contribution to a cumulative effect, determining the significance of impacts from Greenhouse Gas Emissions (proposed Guideline 15064.4), consistency with plans, mitigation measures related to greenhouse gas emissions (proposed Guideline 15126.4), and tiering from an environmental impact report (EIR). The *Preliminary Draft CEQA Guideline* amendments for greenhouse gas emissions do not propose a particular threshold of significance to be applied in determining whether a project's contribution to global climate change is significant. Lead Agencies would retain discretion to establish thresholds of significance based on individual circumstances.

6.9.2.4 *Senate Bill 375 - Redesigning Communities to Reduce Greenhouse Gases*

SB 375 encourages housing and transportation planning on a regional scale, in a manner designed to reduce vehicle use and associated greenhouse gas emissions. It requires the California Air Resources Board (ARB) to set regional targets for the purpose of reducing greenhouse gas emissions from passenger vehicles for 2020 and 2035. Once plans and strategies are in place to meet the SB 375 targets, certain projects in these regions can be relieved of specific review requirements of the California Environmental Quality Act. The targets apply to the regions in the State covered by the 18 metropolitan planning organizations (MPOs), including the Metropolitan Transportation Commission (MTC) in the San Francisco Bay Area. The MTC has developed the currently proposed *Transportation 2035 Plan* (January 2009) with the AB 32 GHG reduction targets in mind; however MTC's RTP update for 2013 would be the first MTC plan subject to SB 375.[76]

SB 375 requires MPOs to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan that sets forth a vision for growth for the region while taking into account transportation, housing, environmental, and economic needs. The SCS will be the blueprint by which the region will meet its GHG emissions reductions target if there is a feasible way to do so. The MPOs also will be required to prepare an alternative planning strategy with alternative development patterns, infrastructure, or additional transportation measures or policies to meet identified targets.

Per SB 375, the ARB appointed a Regional Targets Advisory Committee (RTAC) on January 23, 2009, to provide recommendations on factors to be considered and methodologies to be used in ARB's target setting process. The RTAC may consider any relevant issues, including, but not limited to, data needs, modeling techniques, growth forecasts, the impacts of regional jobs-housing balance on interregional travel and greenhouse gas emissions, economic and demographic trends, the magnitude of greenhouse gas reduction benefits from a variety of land use and transportation strategies, and appropriate methods to describe regional targets and to monitor performance in attaining those targets. The RTAC is required to provide its recommendations in a report to ARB by September 30, 2009. ARB must propose draft targets by June 10, 2010, and adopt final targets by September 30, 2010.[77]

[76] MTC. 2009. *Draft EIR for the Transportation 2035 Plan (Transportation in Motion 2035). January 2009.* http://www.mtc.ca.gov/planning/2035_plan/EIR.htm, accessed February 18, 2009.
[77] http://www.arb.ca.gov/cc/sb375/rtac/rtac.htm, and http://www.leginfo.ca.gov/pub/07-08/bill/sen/sb_0351-0400/sb_375_bill_20080930_chaptered.pdf, accessed February 18, 2009

6.9.2.5 *California's Energy Efficiency Standards for Residential Buildings, Title 24, Part 6, of the California Code of Regulations*

The Energy Efficiency Standards for Residential Buildings were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2005 Standards went into effect October 1, 2005. Projects that apply for a building permit on or after this date must comply with the 2005 Standards. The 2008 Standards are currently being developed and will go into effect in 2009. California's building efficiency standards (along with those for energy efficient appliances) have saved more than $56 billion in electricity and natural gas costs since 1978. It is estimated the 2008 standards will save an additional $23 billion by 2013.

6.9.3 Existing Baseline Emissions

Under existing conditions, greenhouse gas emissions from human activities at the project site are based on operational energy use for the commercial businesses on the site and vehicle trips for patrons of the existing shopping center.

6.9.4 Global Climate Change Impacts

Given the global scope of global climate change and the large quantity of greenhouse gas emissions, the challenge under CEQA is for a Lead Agency to present information on the possible impacts of a project on global warming in a way that is meaningful to the decision making process. Under CEQA, there are two essential questions: would a project increase or substantially contribute to an environmental impact *or* would the project be subject to impacts from the environment associated with global climate change.

Accordingly, projects can both contribute to global climate change and be exposed to impacts from global climate change, and mitigation measures can be identified to minimize project impacts to and from global climate change.

6.9.4.1 *Thresholds of Significance*

Under State Senate Bill (SB) 97 (August 2007), the State Office of Planning and Research (OPR) is to certify and adopt guidelines for evaluation of the effects of greenhouse gas emissions and mitigation of those effects by January 1, 2010. Neither CEQA nor the CEQA Guidelines currently provide any methodology for analysis of greenhouse gases. The City of Milpitas has not adopted its own standards of significance for global climate change impacts. Therefore, in lieu of OPR guidance or locally adopted thresholds, a primarily qualitative approach will be used to evaluate possible impacts for this project.

For the purposes of this EIR, a global climate change impact would be significant if the project would:

- Result in substantial new greenhouse gas emissions; or
- Be adversely impacted by sea level rise of two to three feet; or
- Be adversely impacted by increasing temperatures from eight to 10.4 degrees Fahrenheit (F) under the higher emission scenarios, leading to a 25 to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas; or

- Be adversely impacted by increased electricity demand or water supply, particularly in the hot summer months

At this time, for a project to be a substantial source of new greenhouse gas emissions it would have to meet the following criteria:

- Result in a net increase in greenhouse gas emissions, in terms of carbon dioxide equivalents, that could substantially impede local, regional or statewide efforts to reduce overall greenhouse gas emissions to 1990 levels.

6.9.4.2 *Impacts from the Projects (Changes in Emissions of Greenhouse Gases)*

The proposed project would allow redevelopment of an existing shopping center with a mixed-use development including a minor increase in commercial square footage and 900 residential units. The primary sources of greenhouse gas emissions for the proposed projects are anticipated to be combustion of fossil fuels for vehicle trips to and from the site, from grid-delivered electricity for lighting, appliances, and building cooling, and from building heating with natural gas.

Currently, there is not one model capable of estimating all of a project's direct and indirect greenhouse gas emissions.[78] One model, the URBEMIS 2007 model (Version 9.2) can estimate vehicle miles traveled for a particular project and the carbon dioxide emissions from transportation and other land use factors (e.g.., combustion products for on-site heating); however, it does not estimate other energy use or greenhouse emissions from the generation of electricity for lighting, cooling, pumping water or other uses. Electricity use is calculated separately.

For the purpose of this EIR, the significance of emissions of greenhouse gases will be evaluated based on a qualitative discussion of estimated net new greenhouse gas emissions, and measures included in the project to reduce greenhouse gas emissions. For transportation and construction, an estimate of net emissions under the proposed project was made using the URBEMIS 2007 model. An estimate of possible greenhouse gas emissions from electricity use was also made based upon factors from the California Air Pollution Control Officers Association (CAPCOA) document on CEQA and Climate Change[79] and protocol guidance from the California Climate Action Registry (CCAR)[80]. The following discussion is a good faith effort at estimating possible greenhouse gas emissions from transportation and electricity use.

Direct Source Emissions

Emissions of air pollutants associated with the project were predicted using the URBEMIS2007 model (Version 9.2), distributed by the California Air Resources Board. This model predicts daily operational emissions associated with various land use developments. Area source emissions for the combined projects which result primarily from heating and cooling with natural gas would be 1,774 metric tons per year of greenhouse gas emissions.

[78] Source: California Air Pollution Control Officers Association. 2008. *CEQA & Climate Change, Evaluating and addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act.*
[79] www.capcoa.org page 61
[80] http://www.climateregistry.org/resources/docs/protocols/grp/GRP_V3_April2008_FINAL.pdf

Vehicle Emissions

Daily traffic activity associated with the proposed land use types was modeled with emission factors from the State's mobile emission factor model (i.e., EMFAC2007), to calculate indirect source, or vehicle travel greenhouse gas emissions. Vehicle travel caused by the project would result in 13,185 metric tons per year of greenhouse gas emissions. The proposed General Plan land use amendment would allow housing at this infill site in a City with a jobs/housing imbalance. This land use change should result in an incremental reduction in Vehicle Miles Traveled (VMT) in the region compared to "no project."

Electricity Use

The generation of electricity through the combustion of fossil fuels (such as natural gas) yields carbon dioxide, as well as smaller amounts nitrous oxide and methane. The estimated electricity use for buildout of the project is estimated to emit approximately 1,666 metric tons of greenhouse gas emissions per year.

Energy Efficiency and Use

The proposed project would exceed the requirements of Title 24 of the California Administrative Code, as it pertains to energy efficiency. The project is proposing to be GreenPoint Rated under the Build It Green program's GreenPoint rating system which is a third party rating system that scores a project based on its use of green building elements. The system uses a checklist the minimum point requirement to be met through incorporation of green building practices such as the use of infill sites, recycling of demolition waste, and the incorporation of energy and water saving systems. The GreenPoint rating system takes into account the overall energy efficiency, resource conservation, indoor air quality, water conservation, and community amenities of the project.

Through the features listed above, the proposed project will implement several of the greenhouse gas (GHG) reduction measures identified in the California Governor's Office of Planning and Research (OPR) *CEQA and Climate Change Technical Advisory* (Attachment 3, June 19, 2008). These include the following Land Use and Transportation measures:

- Implement land use strategies to encourage jobs/housing proximity; promote transit-oriented development, and encourage high density development along transit corridors. Encourage compact, mixed use projects, forming urban villages designed to maximize affordable housing and encourage walking, bicycling, and the use of public transit systems.
- Encourage infill, redevelopment, and higher density development whether in incorporated or unincorporated settings.

The proposed project will include a landscaping plan and the project will be subject to the City's tree planting requirements, which will be consistent with the following urban forestry measures:

- Plant trees and vegetation near structures to shade buildings and reduce energy requirements for heating/cooling.

Impact C-GCC-1: To the extent that the project complies with OPR's technical advisory document, the proposed project's net increase in greenhouse gas emissions, in terms of carbon dioxide equivalents, would not substantially impede local, regional, or statewide efforts to reduce overall greenhouse gas emissions to

1990 levels. For the reasons described above, the projects would not make a cumulatively significant contribution to global climate changes impacts. **(Less Than Significant Cumulative Impact)**

6.9.4.3 *Impacts to the Proposed Projects from Global Climate Change*

As noted previously, climate change effects expected in California over the next century could include reduced water supply, impacts from sea level rise, an increase in the number of days per year ozone pollution levels are exceeded, and increased electricity demand, particularly in the hot summer months. Wildfires are also expected to increase.

Impacts to the project from global climate change could include reduced water availability due to droughts. Water would be used on the site for drinking, cleaning and sanitary purposes, and landscaping. At this time, based on recent case law, neither the State Department of Water Resources nor the Santa Clara Valley Water District has established the effects of global climate change on water supplies in California or locally. The project site is not located within possible inundation areas from the possible up to 39-inch (one meter) sea level rise identified by the Climate Action Team.[81] The project is located at approximately 20 feet above mean sea level which is substantially higher than current estimates of sea level rise. The project, therefore, would not be directly impacted by sea level rise.

An increase in summer temperatures and the number of days ozone pollution levels are exceeded can contribute to adverse health effects ranging from minor restricted activity days and work loss days, to hospitalizations due to asthma-related, bronchitis, and other respiratory or cardiovascular symptoms, to premature deaths. The location of the proposed project near existing jobs and commercial services in a developed area should serve to reduce the per capita contribution of residents of the site to ozone precursor emissions from vehicle use. The proposed level of development on the site would not contribute substantially to these effects.

Energy use on the site could rise during the hot summer months because energy use for building cooling could increase. Attached residential units are more efficient than detached housing and the project also incorporates energy conservation measures to reduce the amount of energy use by the proposed development. In the event regional demand exceeded supply, this could result in temporary interruptions in power supply. For the proposed uses, this would be primarily an economic, rather than an environmental impact and is not discussed further.

Impact C-GCC-2: The proposed project would not be significantly impacted by global climate change due to the location or types of uses proposed. **(Less Than Significant Cumulative Impact)**

6.9.5 <u>Avoidance Measures</u>

The project proposes implementation of the following avoidance measure to ensure that the contribution of the project to global climate change through energy use is reduced:

AM C-GCC-1.1: The project proposes to be GreenPoint Rated and incorporate sufficient green building and site design elements to meet the energy efficiency, resource

[81] San Francisco Bay Conservation and Development Commission. <u>San Francisco Bay Scenarios for Sea Level Rise South Bay.</u> 2007. Available at: http://www.bcdc.ca.gov/media/planning/CCP_Central_SBay.jpg

conservation, indoor air quality, water conservation, and community benefit requirements of the GreenPoint rating system.

6.9.6 Cumulative Global Climate Change Conclusion

Impact C-GCC-1: To the extent that the project complies with OPR's technical advisory document, the proposed project's net increase in greenhouse gas emissions, in terms of carbon dioxide equivalents, would not substantially impede local, regional, or statewide efforts to reduce overall greenhouse gas emissions to 1990 levels. For the reasons described above, the projects would not make a cumulatively significant contribution to global climate changes impacts. **(Less Than Significant Cumulative Impact)**

Impact C-GCC-2: The proposed project would not be significantly impacted by global climate change due to the location or types of uses proposed. **(Less Than Significant Cumulative Impact)**

SECTION 7.0 ALTERNATIVES TO THE PROPOSED PROJECT

7.1 INTRODUCTION

CEQA requires that an EIR identify alternatives to a project as it is proposed. The CEQA Guidelines specify that the EIR should identify alternatives which "will feasibly attain most of the basic objectives of the project but will avoid or substantially lessen any of the significant effects of the project". The purpose of this section is to determine whether there are alternatives of design, scope or location which will substantially lessen the significant impacts, even if those alternatives "impede to some degree the attainment of the project objectives", or are more expensive. [§15126.6]

In order to comply with the purposes of CEQA, it is important to identify alternatives that reduce the significant impacts which are anticipated to occur if the project is implemented, but to try to meet as many of the project's objectives as possible. The Guidelines emphasize a common sense approach- the alternatives should be reasonable, should "foster informed decision making and public participation", and should focus on alternatives that avoid or substantially lessen the significant impacts.

7.1.1 Significant Unavoidable Impacts

The significant unavoidable impacts identified in this EIR that would result from approval of the proposed project include the following:

- Traffic exacerbates LOS E operations during the PM peak hour at the intersection of Tasman Drive/I-880 SB Ramps and LOS F operations during the AM peak hour at the intersection of Great Mall Parkway/I-880 NB Ramps.
- Traffic exacerbates LOS F operations at the intersection of Alder Drive/Tasman Drive during the PM peak hour.
- Traffic would cause eastbound SR 237 between McCarthy Boulevard and I-880 to degrade from LOS E to LOS F during the PM peak hour.
- Project regional air pollutant emissions would result in significant increases in reactive organic gases (ROG) and respirable particulates (PM_{10}) emissions.

All other impacts will be reduced to a less than significant level through the incorporation of the mitigation and avoidance measures identified in this EIR.

7.1.2 Objectives of the Project

While CEQA does not require that alternatives must be capable of meeting all the project objectives, their ability to meet most of the objectives is relevant to their consideration. The following represent the project applicant's objectives for the proposed project:

- Construct an economically feasible mixed use project in the City of Milpitas that attracts buyers, renters, and retail shoppers to a true mixed use infill site.
- Provide housing opportunities in the City of Milpitas to assist the City in meeting its regional fair-share housing obligation and long-term growth needs.
- Locate housing, in support of smart growth principles, in close proximity to employment areas which are served by existing City services and facilities.
- Assist the City of Milpitas in supplying housing in close proximity to mass transit service and facilities to encourage the use of mass transit and reduce commuting by automobile.

- Redevelop a successful destination commercial center with complementary residential uses on an infill site to reduce the employment and housing imbalance in the vicinity of the site.
- Create a neighborhood environment where residents can live, work, and shop in the project area.
- Phase the redevelopment to retain as many shops and restaurants as possible by retaining a constant level of commercial space.

7.1.3 Feasibility of Alternatives

CEQA, the CEQA Guidelines, and the case law on the subject have found that feasibility can be based on a wide range of factors and influences. The Guidelines advise that such factors can include (but are not necessarily limited to) the suitability of an alternate site, economic viability, availability of infrastructure, consistency with a general plan or with other plans or regulatory limitations, jurisdictional boundaries, and whether the project proponent can "reasonably acquire, control, or otherwise have access to the alternative site [§ 15126.6(f)(1)]."

7.1.4 Selection of Alternatives

An EIR is required to include a "No Project" alternative that "compares the impacts of approving the proposed project with the impacts of not approving the proposed project." In addition to the "No Project" alternative, the Guidelines advise that the range of alternatives discussed in the EIR should be limited to those that "would avoid or substantially lessen any of the significant effects of the project [§ 15126.6(f)]." The alternative discussion in this section of the EIR will analyze the *No Project Alternative* and *Reduced Density Alternative*.

The significant impacts identified in this EIR as resulting from the proposed project include traffic and air quality. Since the traffic impacts are a result of the amount of traffic generated by the proposed level of development on the project site, the logical way to reduce those impacts would be to reduce the amount of development, which would also reduce the air quality impacts of the project.

CEQA encourages consideration of an alternative site when the significant effects of the project might be avoided or substantially lessened. Most of the significant impacts that would result from the project could not be avoided by proposing the project at another location. Due to the density of development proposed by the project, the project would likely result in significant unavoidable traffic impacts regardless of where it is located in the City of Milpitas. For these reasons, an alternative site is not evaluated any further in this EIR.

7.2 NO PROJECT ALTERNATIVE

The CEQA Guidelines [§15126(d)4] require that an EIR specifically discuss a "No Project" alternative, which should address both "the existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the project is not approved, based on current plans and consistent with available infrastructure and community services." Since the project site is currently developed with a shopping center, the alternative to the City approving the currently proposed project would be to maintain the existing shopping center on the site. Maintaining the existing shopping center on the site would not result in any new significant environmental impacts.

The No Project alternative would not meet any of the project objectives. The existing shopping center would not be redeveloped into a mixed use development providing housing for Milpitas residents with housing close to existing employment centers. The No Project alternative would not assist the City of Milpitas in achieving its fair share housing obligation. This alternative would not

improve the jobs/housing balance in the City and would not contribute to a reduction in automobile commuting or VMT.

7.2.1 Conclusion

The No Project alternative would not meet any of the project objectives, but it would avoid all of the impacts of the proposed project. For this reason, the No Project Alternative is an environmentally superior alternative to the proposed project.

7.3 REDUCED DENSITY ALTERNATIVE

Implementation of the proposed project would result in significant LOS impacts to the intersections of Tasman Drive and I-880 SB ramps, Great Mall Parkway and I-880 NB ramps, and the segment of SR 237 between McCarthy Boulevard and I-880. All of the traffic impacts of the project could be eliminated if the project size were reduced to include the 12,800 square foot increase in commercial space on the site and 20 residential units. The Reduced Density Alternative would require a substantial reduction in the amount of development proposed on the site.

In addition to avoiding the significant LOS impacts of the project, reducing the total number of residential units would avoid the regional air quality emissions impacts of the project. The Reduced Density Alternative may not be economically viable due to the relatively small amount of development that would be allowed on the site under this alternative. The project site would not be redeveloped with a true mixed use development on an infill site that assists the City in meeting its fair share housing obligation. The Reduced Density Alternative would not create a neighborhood environment or substantially reduce commute distances in the City due to the limited number of residential units that would be allowed on the site.

Similar to the proposed project, residential development on the site, depending on the location of the development, would be subject to elevated noise levels due to the proximity of the adjacent freeways, but without the shielding from proposed parking structures. The Reduced Density Alternative would also be subject to the same hazardous materials, construction water quality, and cultural resource impacts which would be reduced to a less than significant level with mitigation measures. The impacts to mature trees would likely be reduced since the amount of area required for bioswales would be reduced such that less mature trees on the site would require removal. The visual and aesthetic impacts of the project may increase because the proposed shopping center identification signs with electronic displays would not be shielded by the substantially taller buildings proposed on the site, but the very much smaller buildings would have less impact.

7.3.1 Conclusion

The Reduced Density Alternative would meet any of the project objectives. The allowance of 20 residential units on the site would allow for some mixed-use development, however, it would not be to the extent that it substantially assists the City in providing housing to meet its fair share needs, reducing commute distances, or decreasing the jobs/housing imbalance. The Reduced Density Alternative, however, would reduce the traffic and air quality impacts of the project to a less than significant level. The Reduced Density alternative, therefore, is environmentally superior to the proposed project.

7.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. Based on the above discussion, the environmentally superior alternative is the Reduced Density Alternative since it would reduce the environmental impacts of the project to a less than significant level. The Reduced Density Alternative would not, however, meet any of the project objectives.

The construction of low density residential development on the site in addition to the existing commercial development may not be economically feasible due to the space requirements of such a development and the need to maintain adequate parking on the site for both uses, which may subsequently require construction of a parking structure. It is also unlikely that a desirable residential environment could be created within a shopping center for such a small number of residences.

SECTION 8.0 SIGNIFICANT UNAVOIDABLE IMPACTS

A significant unavoidable impact is an impact that cannot be mitigated to a less than significant level if the project is implemented, because no feasible mitigation has been identified. If the project is approved, it would result in the following significant unavoidable impacts:

- Transportation – As discussed in *Section 4.2 Transportation*, project traffic exacerbates LOS E operations during the PM peak hour at the intersection of McCarthy Boulevard/Alder Drive. The City recently approved an office development directly west of this intersection which precludes the acquisition of the necessary right-of-way to construct improvements that would mitigate the project's LOS impact. The project's impact to this intersection, therefore, is significant and unavoidable.

- Transportation – As discussed in *Section 4.2 Transportation*, project-generated traffic exacerbates LOS E operations during the PM peak hour at the intersection of Tasman Drive/I-880 SB Ramps and LOS F operations during the AM peak hour at the intersection of Great Mall Parkway/I-880 NB Ramps. Signal coordination between these intersections and Tasman Drive/Alder Drive will improve operations at these intersections, but will not reduce these impacts to a less than significant level. Thus, the project impact at these intersections is significant and unavoidable.

- Transportation – As discussed in *Section 4.2 Transportation*, project-generated traffic exacerbates LOS F operations at the intersection of Alder Drive/Tasman Drive during the PM peak hour. Conversion of one southbound (Alder Drive) through lane to a left turn lane to provide a total of three southbound left turn lanes improves intersection operations; however, this improvement would impact pedestrian and bicycle activity, which would increase substantially with this and other recently approved residential projects and would also degrade vehicle progression and VTA light rail transit operations along Tasman Drive. The project shall provide all funding necessary for the design and implementation of traffic operation improvements to help in signal coordination with adjacent intersections and improved operations; however, it will not fund specific improvements necessary to mitigate the project's impact. Thus, the project impact at this intersection is significant and unavoidable.

- Transportation – As discussed in *Section 4.2 Transportation*, project-generated traffic would cause eastbound SR 237 between McCarthy Boulevard and I-880 to degrade from LOS E to LOS F during the PM peak hour. Mitigation of the project's impacts to SR 237 would require roadway widening that is infeasible for an individual development project to implement due to the extensive nature of the improvements required. The project's impacts would be incrementally reduced with implementation of the "Immediate Actions" list in the CMP's Transportation Impact Analysis Guidelines (May 1998); however, they would not reduce the project's freeway impacts to a less than significant level and, therefore, the project's freeway impacts are significant and unavoidable.

- Air Quality – As discussed in *Section 4.3 Air Quality*, the project would result in significant increases in regional air pollutant emissions including reactive organic gases (ROG) and respirable particulates (PM_{10}) emissions. The project incorporates feasible mitigation measures to reduce air pollutant emissions, however, these measures would not reduce the project's emissions to a less than significant level and the impact would remain significant and unavoidable.

All other significant impacts of the project would be mitigated to a less than significant level through the implementation of the mitigation identified in this EIR.

SECTION 9.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA and the CEQA Guidelines require that an EIR address "significant irreversible environmental changes which would be involved in the proposed project, should it be implemented." [§15126.2(c)] Significant irreversible changes include the use of nonrenewable resources, the commitment of future generations to similar use, and irreversible damage resulting from environmental accidents associated with the project.

9.1 USE OF NONRENEWABLE RESOURCES

If the proposed project is implemented, development of this site would involve the use of non-renewable resources both during the construction phase and future operations/use of the site. Construction would include the use of building materials, including materials such as petroleum-based products and metals that cannot be regenerated over time.

Construction also involves significant consumption of energy, usually petroleum-based fuels that deplete supplies of non-renewable resources. The operational phase of the project will consume energy for multiple purposes including, building heating and cooling, lighting, appliances, electronics, and commercial machinery. The project includes energy conservation measures which will reduce the energy consumption of project residents. Energy in the form of fossil fuels will be used to fuel vehicles traveling to and from the site. The proposed project would allow high density residential and commercial mixed-use development in an area with existing transit service near employment centers which could reduce vehicle dependence and reduce the vehicle miles traveled by the residents of the project.

9.2 COMMITMENT OF FUTURE GENERATIONS TO SIMILAR USE

The site is an infill location and is currently served by public transportation. The site provides residential opportunities that are in greater proximity to existing employment centers in Milpitas than alternative housing in the south county and other counties to the north. The project also will construct residential development in conjunction with substantial commercial development with the potential to serve many of the project residents' service needs without the consumption of fossil fuels due to vehicle use. The proposed project will, therefore, facilitate a more efficient use of resources over the long term.

9.3 IRREVERSIBLE DAMAGE RESULTING FROM ENVIRONMENTAL ACCIDENTS ASSOCIATED WITH THE PROJECT

The project does not propose any new or uniquely hazardous uses and its operation would not be expected to cause environmental accidents that would impact other development in the vicinity of the site. The project site is located within a seismically active region and would be exposed to ground shaking during a seismic event. Conformance with the standard engineering practices in the Uniform Building Code for Seismic Zone 4 construction standards and implementation of the recommendations in the design-level geotechnical report for the project would not result in significant geology and soils impacts (refer to *Section 4.6 Geology and Soils*).

SECTION 10.0 GROWTH-INDUCING IMPACTS

10.1 INTRODUCTION

The purpose of this section of an EIR is to disclose whether or not the construction of a project is likely to foster additional growth, either directly or indirectly. This information can be an important factor in a decision to approve a project, if the approval will foster additional growth that may have environmental consequences.

The fact that a project is likely to foster additional growth does not imply that such growth is either detrimental or beneficial. For example, a project that fosters growth consistent with the adopted goals and policies of a City's General Plan would likely be considered beneficial. Conversely, a project that fosters growth that would conflict with such goals and policies would likely be considered detrimental.

Projects can induce growth directly or indirectly or both. A direct growth-inducing impact occurs when the construction of one or more projects is dependent on the construction of another project.[82] An indirect growth-inducing impact occurs when a project fosters such growth but there is not direct linkage to future projects.

10.2 GROWTH-INDUCING IMPACTS

The project proposes amendments to the City of Milpitas General Plan and Zoning Code that would allow for the development of additional retail commercial and residential uses on the project site. This growth, however, would not be induced by the proposed project - it is the proposed project. The proposed project is an infill redevelopment that is well within the City's existing urban boundaries and is served by existing infrastructure.

The proposed project will not allow new development where development is not already allowed and will not substantially increase the need for urban infrastructure beyond levels necessary to serve existing and planned development on the project site. The project does allow for more dwelling units within Milpitas than are currently planned for in the existing General Plan. The proposed project will not construct development where development does not already exist nor will it create a precedent for growth outside the existing urban envelope. For these reasons and those described above, the proposed project will not result in adverse growth-inducing impacts.

[82] Cities and counties frequently place conditions on a project at the time it is approved. These conditions can take the form of restrictions, project modifications, and/or prerequisites to construction. An example of a prerequisite condition would be that construction of a project could not proceed until the local wastewater treatment plant is expanded to accommodate the wastewater to be generated by the project. Therefore, expansion of the wastewater treatment plant would directly foster growth by allowing an approved project that was conditioned to not proceed until the wastewater treatment plant is expanded.

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SECTION 12.0 LEAD AGENCY AND CONSULTANTS

Lead Agency

City of Milpitas Planning Division
James Lindsay, Director of Planning and Neighborhood Services
Sheldon AhSing, Senior Planner

Consultants

David J. Powers & Associates, Inc.
Environmental Consultants and Planners
Michelle Yesney, Principal
Will Burns, Project Manager
Michael Lisenbee, Assistant Project Manager
Stephanie Francis, Graphic Artist

Belinda P. Blackie, P.E., R.E.A.
Hazardous Materials Consultant

Concentric Ecologies
Arborists
John Steinbach, Certified Arborist

Cornerstone Earth Group
Geotechnical Consultants
Barry Butler, P.E., G.E., Principal Engineer

Fehr & Peers
Transportation Consultants
Norman Wong, Senior Engineer
Todd Henry, Transportation Planner

Hexagon Transportation Consultants, Inc.
Transportation Consultants
Gary Black, President
Ryan Sebastian, Planner II

Holman & Associates
Archaeological Consultants
Miley Holman, Principal

Illingworth & Rodkin
Air Quality & Acoustical Consultants
James Reyff, Project Scientist
Fred Svinth, Senior Consultant

Risicare LLC
Hazardous Materials Consultant
Dan Hernandez, M.P.H., C.I.H., R.E.A., Principal Risk Assessor

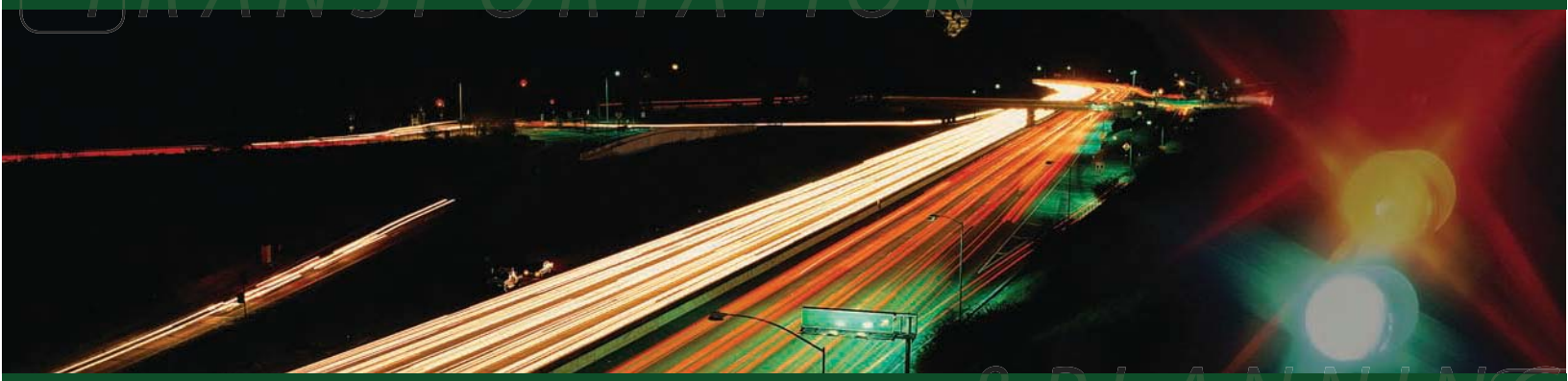
APPENDIX A
TRANSPORTATION IMPACT ANALYSES

APPENDIX A-1
TRANSPORTATION IMPACT ANALYSIS

FINAL REPORT

Milpitas Square

TRANSPORTATION



&PLANNING

Prepared for
David J. Powers & Associates

FEHR & PEERS
TRANSPORTATION CONSULTANTS

160 W. Santa Clara St., Ste. 675
San Jose, CA 95113

December 22, 2008

Final Report

Milpitas Square

Prepared for:

David J. Powers & Associates

Prepared by:

Fehr & Peers

DECEMBER 22, 2008

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EXECUTIVE SUMMARY

This report presents the results of the transportation impact analysis (TIA) for a proposal to expand an existing 162,200 square feet (s.f.) retail center by 12,800 s.f. and add up to 900 dwelling units to the site. The project location is the Ranch 99 retail center located on the east side of Barber Lane, at its intersection with Bellew Drive. The purpose of this analysis is to identify potential impacts of the proposed project on the surrounding roadway system and to recommend appropriate improvements to mitigate any significant impacts.

The roadway system was evaluated under Existing, Background, Project, Interim Cumulative, and Year 2030 Conditions. Site access, on-site circulation, and bicycle, pedestrian and transit facilities were also analyzed.

PROJECT TRAFFIC ESTIMATES

The amount of traffic added to the surrounding roadway system by the proposed project was estimated by applying the AM and PM peak-hour trip generation rates for Condominium and High-Turnover Restaurant land uses identified in *San Diego Traffic Generators* (San Diego Association of Governments, April 2002). Mid-day trip estimates were prepared using existing retail driveway counts and surveys of other residential developments in California. The proposed project is estimated to generate 8,204 net new daily trips, 576 net new AM peak-hour trips, 459 net new midday peak-hour trips, and 801 net new PM peak-hour trips.

INTERSECTIONS

Project Impacts

The proposed project will have a significant impact to one CMP, one San Jose (also classified as a CMP location), and five (5) City of Milpitas intersections.

Significant and unavoidable impacts are expected at four (4) study intersections:

- McCarthy Boulevard / Alder Drive
- Alder Drive / Tasman Drive
- Tasman Drive / I-880 SB Ramps
- Great Mall Parkway / I-880 NB Ramps

Project Mitigation Measures

The following mitigation measures were identified at the other locations:

McCarthy Boulevard / Bellew Drive – Reconfigure the eastbound approach (one left-turn, one through, and one right-turn lane) to provide two left-turn lanes and one shared through/right-turn lane.

McCarthy Boulevard-O'Toole Avenue / Montague Expressway – Widening of the northbound approach to provide a dedicated right-turn lane from northbound O'Toole Avenue to eastbound Montague Expressway (via right-of-way acquisition) or contribution of fair share monies towards the construction of the square-loop interchange identified in the NSJADP.

Interim Cumulative Impacts

The addition of traffic from three other nearby pending developments will result in Interim Cumulative impacts at twelve (12) intersections. Significant and unavoidable impacts are expected at nine (9) of these 12 study intersections:

- Calaveras Boulevard / Abel Street
- McCarthy Boulevard / Bellew Drive
- McCarthy Boulevard / Alder Drive
- McCarthy Boulevard / Tasman Drive
- Alder Drive / Tasman Drive
- Tasman Drive / I-880 SB Ramps
- Great Mall Parkway / I-880 NB Ramps
- Great Mall Parkway-Capitol Avenue / Montague Expressway
- Dixon Landing Road / N. Milpitas Boulevard

Interim Cumulative Mitigation Measures

In addition to the mitigation measures identified under Project Conditions, the following mitigation measures under Interim Cumulative Conditions were identified:

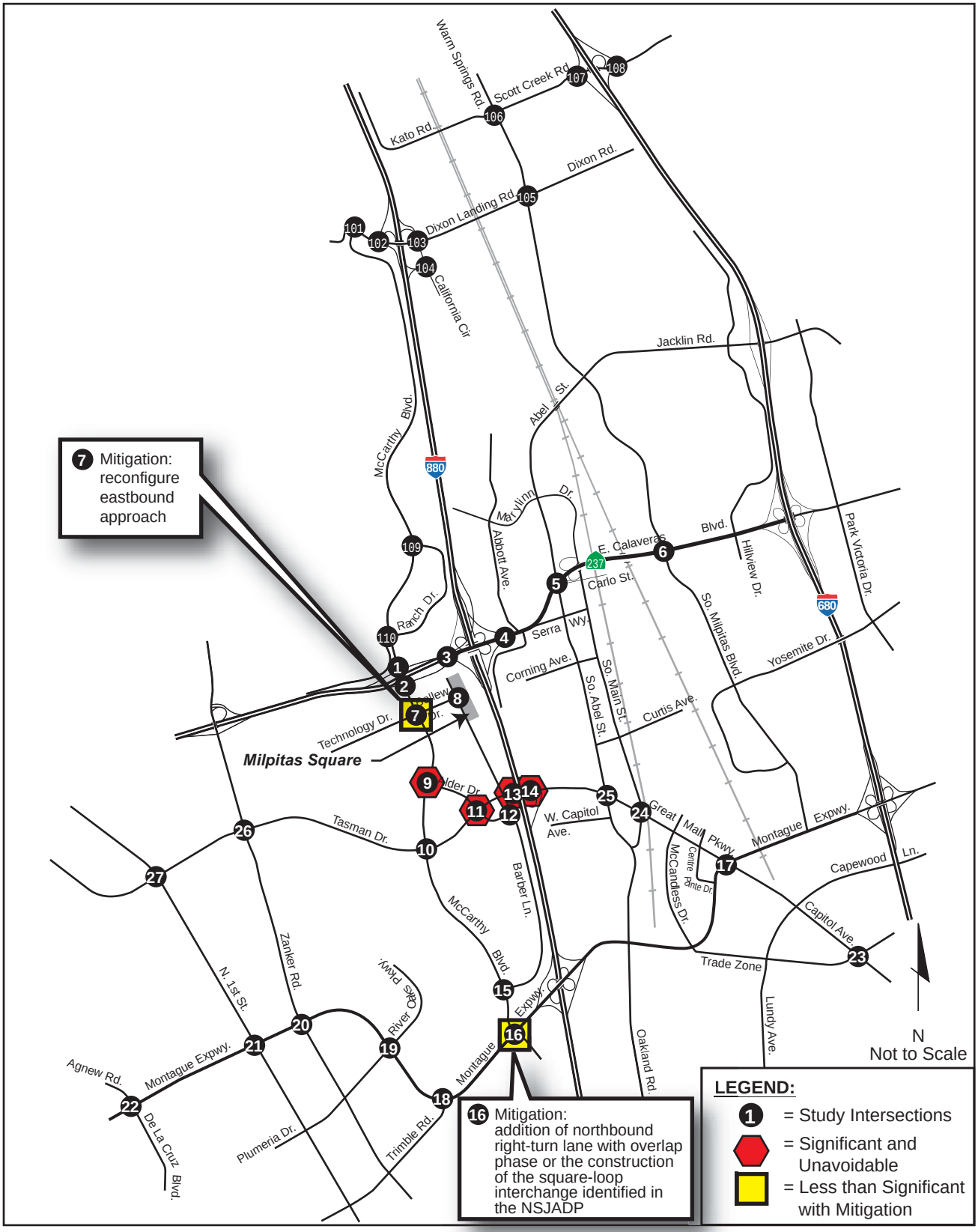
SR 237 / I-880 NB Ramps – Conversion of the northbound center left-turn lane to a shared left- and right-turn lane.

E. Calaveras Boulevard / S. Milpitas Boulevard – Addition of a third westbound through lane (requires conversion of the separate right-turn lane to a shared through/right-turn lane and a third receiving lane past the intersection), which is consistent with improvements identified in the *Valley Transportation Plan 2030.*

Mid-day Project Impacts & Mitigation Measures (With Landmark Towers and With Milpitas Square)

An analysis of mid-day operations was conducted for three nearby intersections: McCarthy Boulevard/Bellew Drive, Bellew Drive/Barber Lane, and Barber Lane/Alder Drive. The analysis was conducted with traffic from Landmark Tower and with traffic from future redevelopment of the adjacent Milpitas Square project. The following mitigation measures would provide acceptable mid-day operations and reduce the impact to less-than-significant:

McCarthy Boulevard / Bellew Drive - Reconfiguring the eastbound approach (recommended under Project Conditions) and increasing the mid-day cycle length to 80 seconds.



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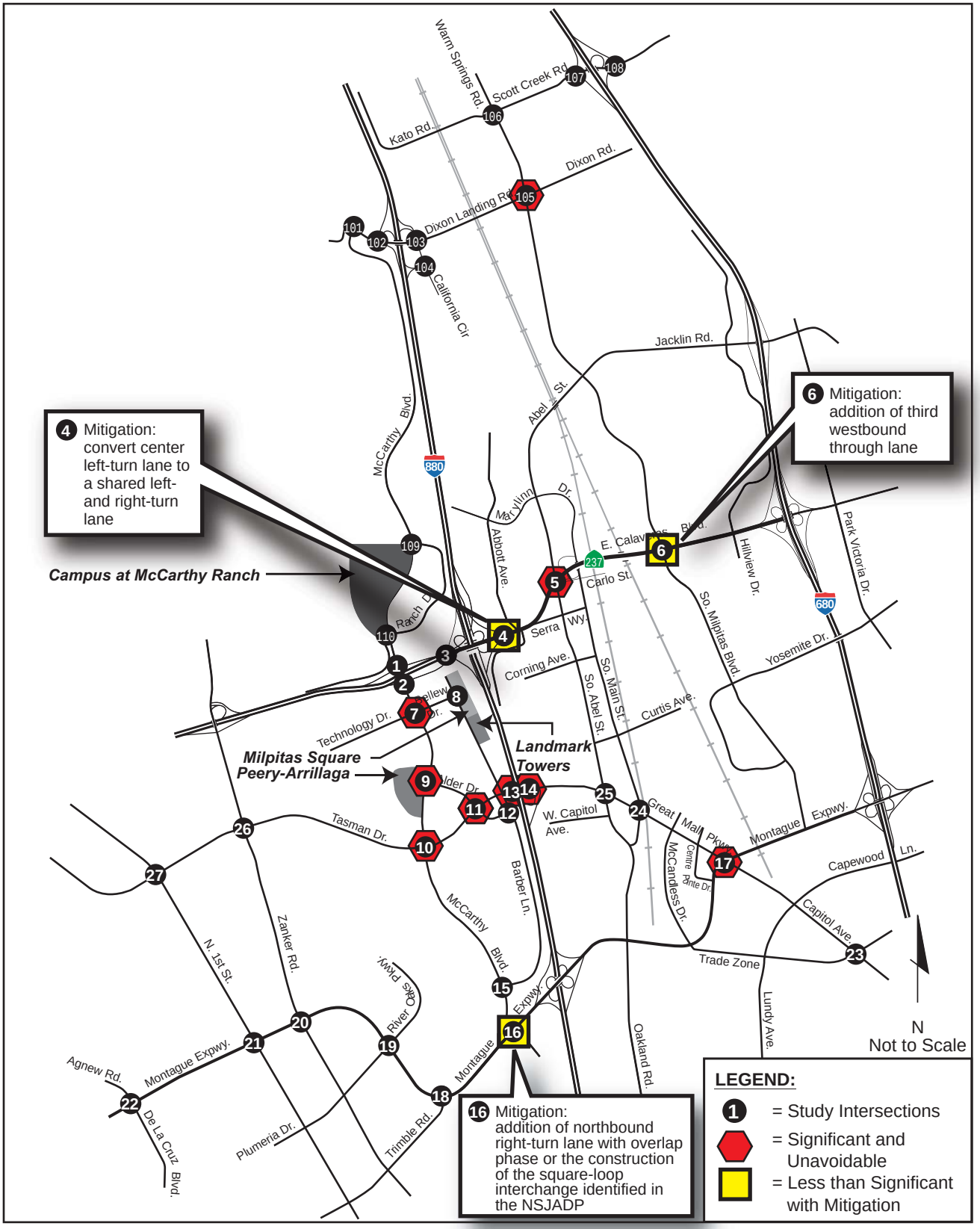
Milpitas Square

PROJECT-LEVEL INTERSECTION IMPACTS AND MITIGATION

FIGURE ES-1



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INTERIM CUMULATIVE INTERSECTION IMPACTS AND MITIGATION

FIGURE ES-2

ROADWAY SEGMENTS

Year 2030 Impacts

The addition of project traffic is estimated to have an impact on seven (7) roadway segments during the AM peak hour and nineteen (19) roadway segments during the PM peak hour.

Mitigation Measures

The City of Milpitas requires projects to pay their fair share of the improvement costs to mitigate the anticipated cumulative impacts of traffic from new developments on future deficient intersections. The proposed project will add traffic to deficient intersections on Calaveras Boulevard and will be required to make a fair share contribution towards the East/West Corridor Study, Calaveras Boulevard (SR 237) Overpass Widening, and Montague Expressway improvement projects.

The project is located within the Milpitas Business Park area and will be required to pay the Milpitas Business Park Traffic Mitigation Fee which is based on the number of trips generated by the project. The impact fees are used to contribute funding towards regional improvements such as the Calaveras and Montague projects mentioned above.

FREEWAY SEGMENTS

Based on the impact criteria listed above, the proposed project will have a significant impact to the following study freeway segments: Eastbound SR 237, McCarthy Boulevard to I-880 (PM peak hour).

Mitigation Measures

The Lead Agency for a development project must include programs or facilities delineated in the "Immediate Implementation Action List" (Appendix D) as part of the project's approval if the freeway impact cannot be reduced to a less-than-significant level. While implementation of these measures would incrementally reduce traffic, they would not reduce the identified impact to a less-than-significant level. Widening of the freeway to mitigate impacts is considered beyond the scope of any one project. Thus the addition of project traffic results in a significant and unavoidable impact to the two (2) freeway segments identified above. The City of Milpitas is currently preparing a deficiency plan to identify local and regional improvements.

PEDESTRIAN, BICYCLE, AND TRANSIT FACILITIES

The proposed project will not significantly affect bicycle, pedestrian or transit facilities in the project area; however, plans for intersection improvements at Barber Lane/Bellew Drive should include the existing bicycle lane. VTA also recommends that two new bus stops be established with duck-outs on Barber Lane as shown on the project's plans.

SITE ACCESS AND ON-SITE CIRCULATION

Site Access

Milpitas Square proposes to provide five driveways on Barber Lane – one located north of Bellew Drive, one forming the east leg of the Barber Lane/Bellew Drive intersection, and three located south of Bellew Drive. This development also reconfigures the intersection geometry at Barber Lane/Bellew Drive to accommodate a

dedicated northbound left-turn lane in addition to improvements on the southbound and westbound approaches.

The number of driveways is sufficient to accommodate project traffic. However, substantial queuing is anticipated. The addition of a second northbound left-turn lane at Barber Lane/Bellew Drive is recommended.

Also recommended to improve site access:

- Restrict movements at the Barber Lane driveway to Building A to right-turns in and out only if northbound Barber Lane vehicles consistently queue past the driveway. Alternatively, provide a "Keep Clear" legend on the two northbound lanes (a left-turn lane and a through lane) on Barber Lane.
- Restrict movements at the Barber Lane driveway to Building B to right-turns in and out only when the adjacent Landmark Tower develops.

On Site Circulation

The project will include a central internal roadway on which approximately 95 angled parking spaces will be located. At the southern end of the roadway, an offset intersection provides access to the parking garages to Buildings B and C. Some congestion and queuing is expected along this roadway due to the site's design.

The following are recommended to improve on-site access:

- Monitor turn-over at the angled parking spaces along the internal roadway and provide traffic control officers to direct vehicles to garages should vehicles stop in the roadway to access the parking.
- Provide a stop sign for the north and south legs at the internal off-set intersection to clearly define the right of way. This provides inbound traffic with uncontrolled access will minimize the potential for vehicles to queue back to the Barber Lane driveway.
- Implement some or all of the following measures to improve truck loading access:
    - Restrict delivery hours to off-peak periods and/or periods when fewer vehicles and pedestrians are present;
    - Ensure clear sight lines exist so that garbage trucks exiting the Building A, B, and F driveways do not block the sidewalk while waiting to exit;
    - Ensure that the driveway curbs do not create cross-slope problems for pedestrians (i.e. ensure that the grade of the curb cut meets ADA guidelines for sidewalk design);
    - Require trucks entering the loading dock to back-into the dock when possible;
    - Provide a painted or textured pavement area through the driveway to extend the sidewalk through the loading area and delineating the pedestrian space;
    - When a final site plan is provided, turning templates should be applied to ensure that trucks using the loading dock will have sufficient space to exit the docks without affecting surrounding curbs; and
    - Designate loading spaces on-site for residents to park moving vans/trucks.

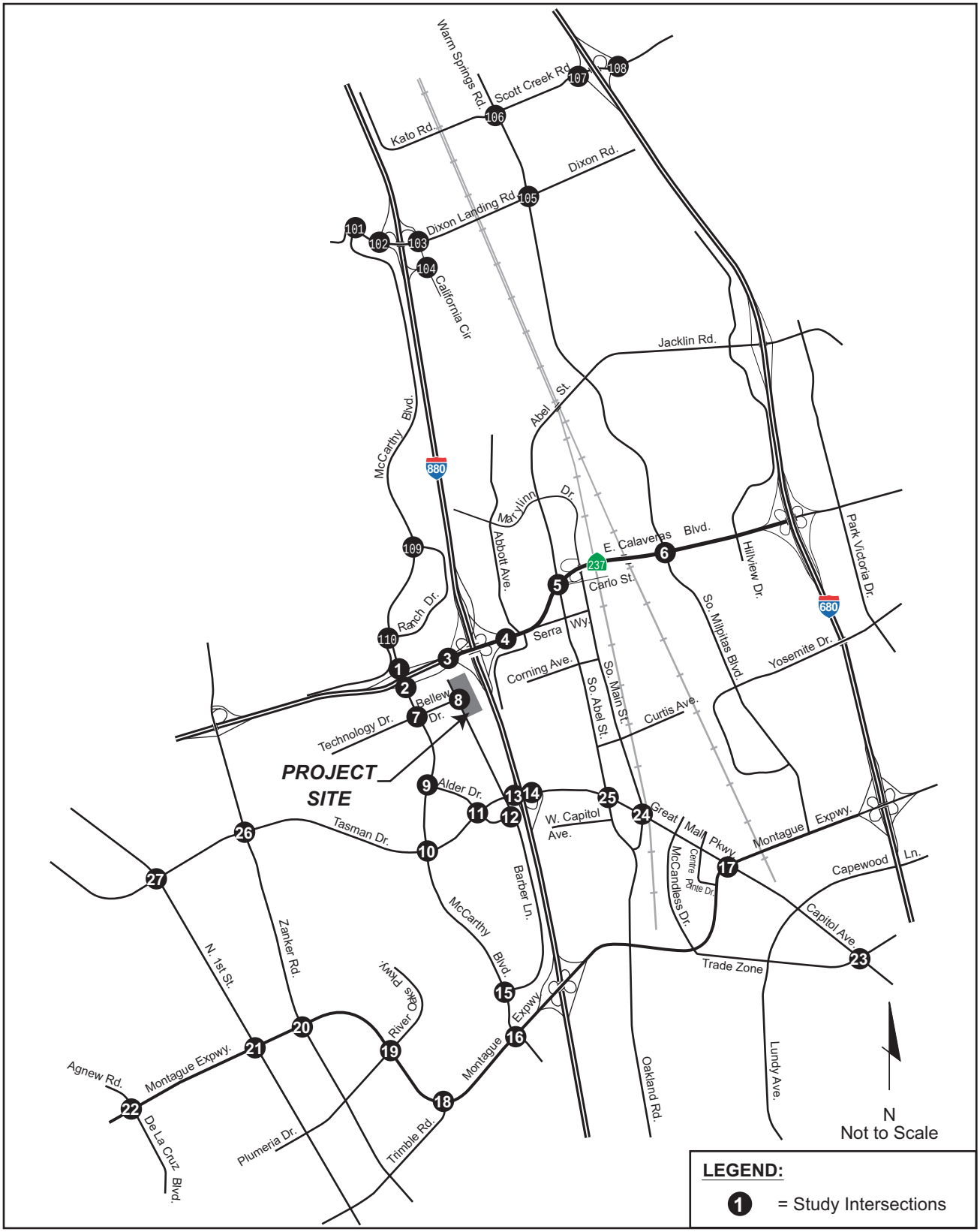
1. INTRODUCTION

This report presents the results of the transportation impact analysis (TIA) for the proposed redevelopment of the Ranch 99 retail center to a mixed-use housing & retail development. The proposed project increases the existing retail space from 162,200 square feet (s.f.) by 12,800 s.f. and adds up to 900 dwelling units. The project is located on the east side of Barber Lane, at its intersection with Bellew Drive.

The analysis was conducted to identify potential transportation impacts of the proposed project on the surrounding roadway system and to recommend appropriate improvements to mitigate any significant impacts. Figure 1 presents the project location, surrounding roadway system, and study intersections. The site plan is shown on Figure 2.

Project impacts were estimated following the guidelines of the City of Milpitas, City of San Jose, City of Santa Clara, City of Fremont, and the Santa Clara Valley Transportation Authority (VTA), which is the congestion management agency for Santa Clara County. The analysis evaluated the operations of the following key intersections:

1. McCarthy Boulevard / SR 237 Westbound Ramps (M)
2. McCarthy Boulevard / SR 237 Eastbound Ramps (M)
3. SR 237 Ramps/ I-880 Southbound Ramps (M)
4. SR 237 Ramps/ I-880 Northbound Ramps (M)
5. W. Calaveras Boulevard / S Abel Street (CMP/M)
6. E. Calaveras Boulevard / S. Milpitas Boulevard (CMP/M)
7. Bellew Drive / McCarthy Boulevard (M)
8. Bellew Drive / Barber Lane (M)
9. McCarthy Boulevard / Alder Drive (M)
10. McCarthy Boulevard / Tasman Drive (M)
11. Tasman Drive / Alder Drive (M)
12. Barber Lane / Alder Drive (M)
13. Tasman Drive / I-880 SB Ramps (M)
14. Great Mall Parkway / I-880 Northbound Ramps (M)
15. McCarthy Boulevard / Barber Lane (M)
16. McCarthy Boulevard-O'Toole Avenue / Montague Expressway (CMP/SJ/M)
17. Great Mall Parkway-E. Capitol Avenue / Montague Expressway (CMP/M)
18. Montague Expressway/ Trimble Road (CMP/SJ)
19. Montague Expressway/ River Oaks Parkway – E. Plumeria Road (SJ)
20. Montague Expressway/ Zanker Road (CMP/SJ)
21. Montague Expressway/ North First Street (CMP/SJ)
22. Montague Expressway/ De La Cruz Boulevard (CMP/SC)



Milpitas Square

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PROJECT LOCATION

May 2008
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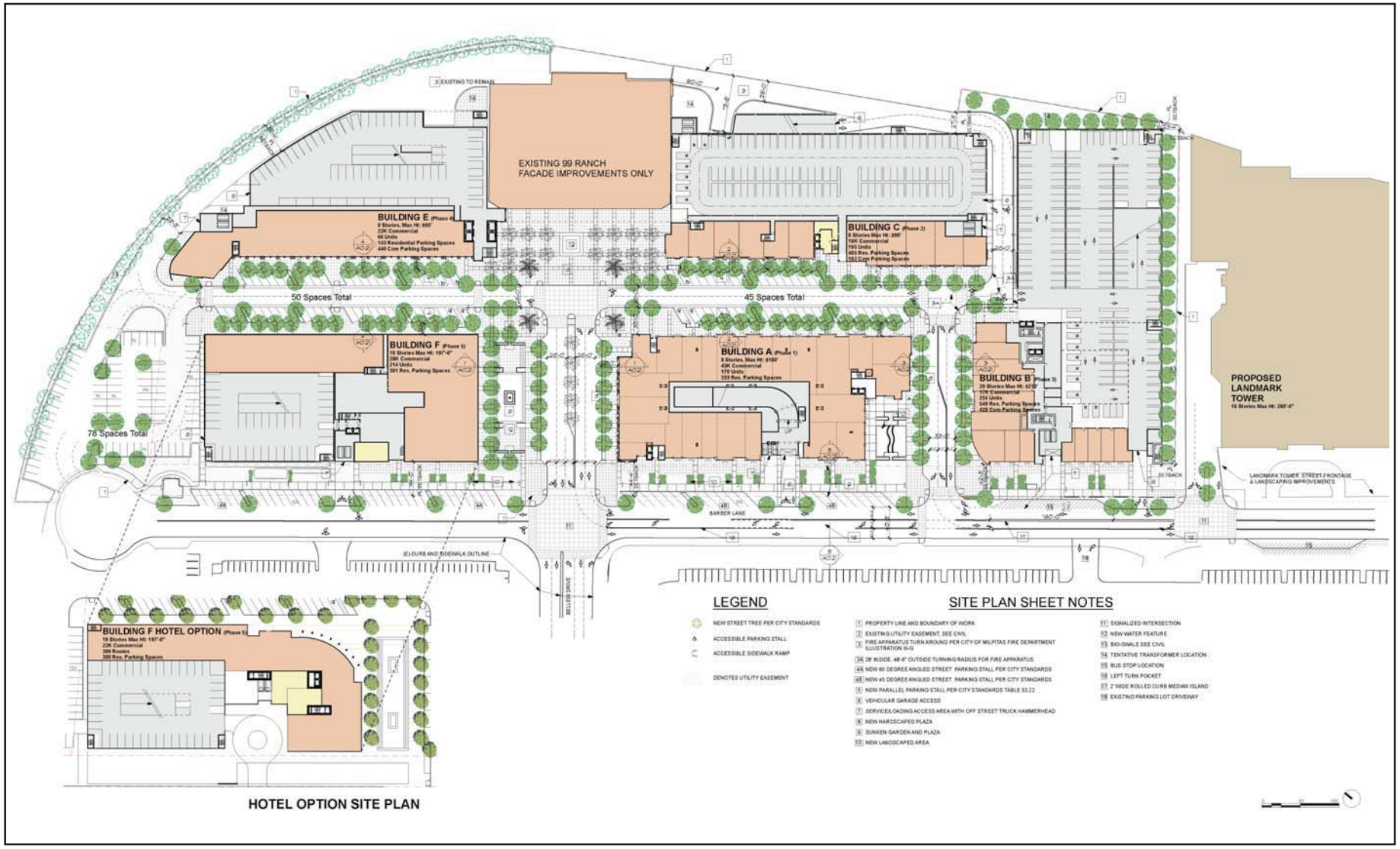
FIGURE 1



HOTEL OPTION SITE PLAN

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May 2008
SJ07-997

Milpitas Square

SITE PLAN

FIGURE 2

23. Capitol Avenue/ Cropley Drive – Trade Zone Boulevard (SJ)
24. Great Mall Parkway/ Main Street (M)
25. Great Mall Parkway/ Abel Street (M)
26. Tasman Drive/ Zanker Road (SJ)
27. Tasman Drive/ North First Street (SJ)

101. Dixon Landing Road/ McCarthy Boulevard (F)
102. Dixon Landing Road/ I-880 Southbound Ramps (M)
103. Dixon Landing Road/ I-880 Northbound Ramps/California Circle (M)
104. California Circle/ I-880 Northbound Ramps (M)
105. Dixon Landing Road/ N. Milpitas Boulevard (M)
106. Scott Creek Road/ Warm Springs Boulevard (F)
107. Scott Creek Road/ I-680 Southbound Ramps (F)
108. Scott Creek Road/ I-680 Nouthbound Ramps (F)
109. McCarthy Boulevard/ North Ranch Drive (M)
110. McCarthy Boulevard/ South Ranch Drive (M)

(CMP) Congestion Management Program intersection
(F) City of Fremont intersection
(M) City of Milpitas intersection
(SC) City of Santa Clara intersection
(SJ) City of San Jose intersection

The analysis also evaluated the operations of the following key freeway segments:

1. I-880, between Mission Boulevard and Brokaw Road
2. I-680, between Mission Boulevard and Capitol Avenue
3. SR 237, between Zanker Road and I-880

The operations of the key intersections were evaluated during the weekday morning (AM) and afternoon (PM) peak hours for the following four scenarios:

Scenario 1: *Existing Conditions* – Existing volumes obtained from counts.

Scenario 2: *Background Conditions* – Existing volumes plus traffic from approved but not yet constructed developments in the area.

Scenario 3: *Project Conditions* – Background volumes plus the net new traffic generated by the proposed project.

Scenario 4: *Interim Cumulative Conditions* – Project volumes plus traffic generated by other nearby pending developments in the area.

Freeway segments were evaluated under existing and project conditions following VTA guidelines.

Year 2030 cumulative traffic operations were evaluated using a peak-hour roadway segment analysis per City of Milpitas Guidelines. Year 2030 Cumulative Conditions were evaluated using volumes from the City's travel demand model and the project trip assignment.

The remainder of this report is divided into six chapters. The existing transportation system serving the property and the current operating conditions of the key intersections and freeway segments are described in Chapter 2. Chapter 3 discusses operations with traffic from approved but not yet constructed developments under Background Conditions. Chapter 4 describes Project Conditions, including the method used to estimate the amount of traffic added to the surrounding roadways by the proposed project and its impacts on the transportation system. This chapter also includes a discussion of site access and on-site circulation. The Interim Cumulative scenario is included in Chapter 5, and Cumulative Year 2030 Conditions are described in Chapter 6.

2. EXISTING CONDITIONS

This chapter describes the existing conditions of the roadway facilities, pedestrian and bicycle facilities, transit service, traffic volumes, and intersection operations. This chapter also includes a discussion of the methods used to calculate intersection levels of service and the corresponding results.

EXISTING ROADWAY NETWORK

Regional access to the project site is provided by I-880, I-680, SR 237, Montague Expressway, and Tasman Drive/Great Mall Parkway. Local access to the site is provided by McCarthy Boulevard, Bellew Drive, and Barber Lane. This section describes the existing roadway network, which is illustrated on Figure 1.

I-880 is a north-south freeway east of the project site extending south to the City of San Jose and north to the City of Oakland. In the vicinity of the project site, the freeway includes eight lanes north of State Route (SR) 237/Calaveras Boulevard and six lanes to the south. The I-880/SR 237 interchange includes direct ramp connections for High Occupancy Vehicle (HOV) lanes between the west and north legs of the interchange. Regional access to the project site is provided via the interchange at Tasman Drive/Great Mall Parkway. The peak direction of travel is southbound during the AM peak hour and northbound during the PM peak hour; though both travel directions are congested during the PM peak hour.

I-680 is a north-south freeway east of the project site extending south to the City of San Jose and north to Solano County. In the vicinity of the project site, the freeway includes six mixed-flow lanes plus a southbound HOV lane north of Calaveras Boulevard (SR 237) and eight mixed-flow lanes to the south. Access to the site is provided via an interchange at Calaveras Boulevard. Southbound I-680 is the commute direction during the AM peak hour, and northbound I-680 is the commute direction during the PM peak hour.

SR 237 is an east-west roadway that includes two distinct facilities: a six-lane freeway extending from I-880 west to US 101, and a four- to six-lane arterial roadway between I-880 and I-680 with an elevated section over the Union Pacific Railroad tracks. The arterial section is locally designated as *Calaveras Boulevard*, which is six lanes except on the bridge over the Union Pacific railroad tracks and Main Street, where it is four lanes. Calaveras Boulevard serves as a major commute route with heavy directional travel during the peak hours (westbound in the morning and eastbound in the afternoon). Regional access to the project site is provided via the interchange at McCarthy Boulevard.

Montague Expressway is an east-west, six- to eight-lane divided arterial roadway extending from US 101 east to I-680. This facility is designated San Tomas Expressway west of US 101 and Landess Avenue east of I-680. Montague Expressway includes directional HOV lanes during peak periods (westbound during the morning and eastbound during the afternoon commute hours). Montague Expressway connects with I-880 via a full cloverleaf interchange.

Tasman Drive is an east-west, six-lane divided arterial roadway extending from I-880 west into the Cities of San Jose, Santa Clara, and Sunnyvale. Tasman Drive is designated *Great Mall Parkway* east of I-880 and extends to Montague Expressway. *Great Mall Parkway* is an east-west, six-lane divided arterial roadway extending from I-880 east to Montague Expressway. Great Mall Parkway becomes *Capitol Avenue* east of Montague Expressway and continues south through the City of San Jose. VTA operates light-rail transit (LRT) service along the median of Tasman Drive/Great Mall Parkway/Capitol Avenue.

McCarthy Boulevard is a north-south, four- to six-lane arterial roadway extending from Dixon Landing Road (north of Ranch Drive) south to Montague Expressway. McCarthy Boulevard is designated as O'Toole Avenue south of Montague Expressway.

Bellew Drive is an east-west, four-lane roadway extending from McCarthy Boulevard east to Barber Lane. This roadway is designated Technology Drive west of McCarthy Boulevard. At its intersection with Barber Lane, Bellew Drive is the main driveway to the project site.

Barber Lane is a north-south, two-lane collector roadway extending from Bellew Drive south to McCarthy Boulevard (near Montague Expressway). Barber Lane runs parallel to and between McCarthy Boulevard and I-880. Barber Lane crosses under Tasman Drive, which is accessed via Alder Drive. Driveways on Barber Lane provide access to the project site.

Alder Drive is an east-west, four-lane collector roadway extending from McCarthy Boulevard east to Barber Lane. Alder Drive serves as the connection between Barber Lane and Tasman Drive.

EXISTING PEDESTRIAN AND BICYCLE FACILITIES

Pedestrian Facilities

Pedestrian facilities are comprised of sidewalks, crosswalks, and off-street paths. Sidewalks are provided on both sides of Bellew Drive and on Barber Lane from Bellew Drive to north of Tasman Drive. As shown on Figure 3, a pedestrian path, parallel to Tasman Drive, provides a connection from Alder Drive to the sidewalk on the west side of Barber Lane. There are no sidewalks on Barber Lane south of the Tasman Drive overpass. Sidewalks are also provided on one or both sides of Alder Drive and McCarthy Boulevard near the site. Crosswalks are located at all signalized intersections in the study area.

Bicycle Facilities

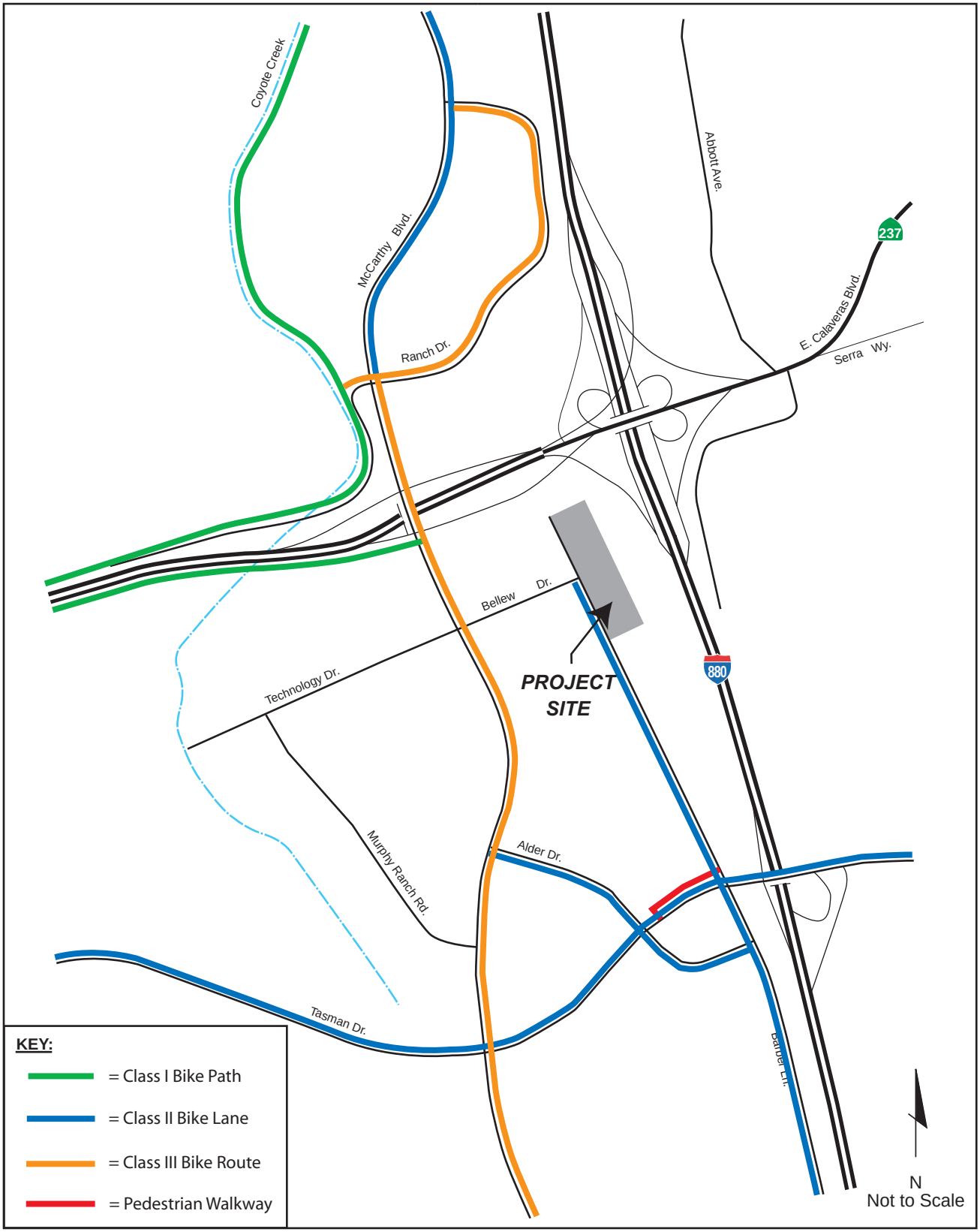
Bicycle facilities are comprised of paths (Class I), lanes (Class II), and routes (Class III). Bicycle paths are paved trails that are separate from roadways. Bicycle lanes are lanes on roadways designated for bicycle use by striping, pavement legends, and signs. Bicycle routes are roadways designated for bicycle use by signs only. Figure 3 presents existing bicycle facilities in the study area.

Class I bicycle paths are located on the north and south sides of SR 237 west of McCarthy Boulevard and the east side of Coyote Creek north of SR 237. Class II bicycle lanes are located on Barber Lane, Bellew Drive, McCarthy Boulevard (from Dixon Landing Road to Ranch Drive), and Tasman Drive/Great Mall Parkway. Class III bicycle routes are located on McCarthy Boulevard (from Ranch Road south to Montague Expressway) and Ranch Drive.

EXISTING TRANSIT SERVICE

The Santa Clara Valley Transportation Authority (VTA) operates bus and light rail service in Santa Clara County. Figure 4 shows the existing transit facilities in the study area.

Route 33 operates on Barber Lane adjacent to the project site. The Altamont Commuter Express (ACE) Purple Shuttle (route 825) and ACE Violet Shuttle (route 831) operate along portions of McCarthy Ranch Boulevard with stops located at Bellew Drive for both routes. Routes 140 and 330 and the Santa Teresa-Alum Rock light rail line operate along Tasman Drive with stops located at Alder Drive. Bus routes 180 and 181 pass through the I-880/Tasman Drive interchange without making stops in the project area. Bus routes 104 and 120 operate along SR 237 without making stops in the project area. Table 1 summarizes the destinations, hours and days of operation, and service frequencies for the bus routes and light-rail line.



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EXISTING PEDESTRIAN AND BICYCLE FACILITIES

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FIGURE 3

TABLE 1
EXISTING TRANSIT SERVICE

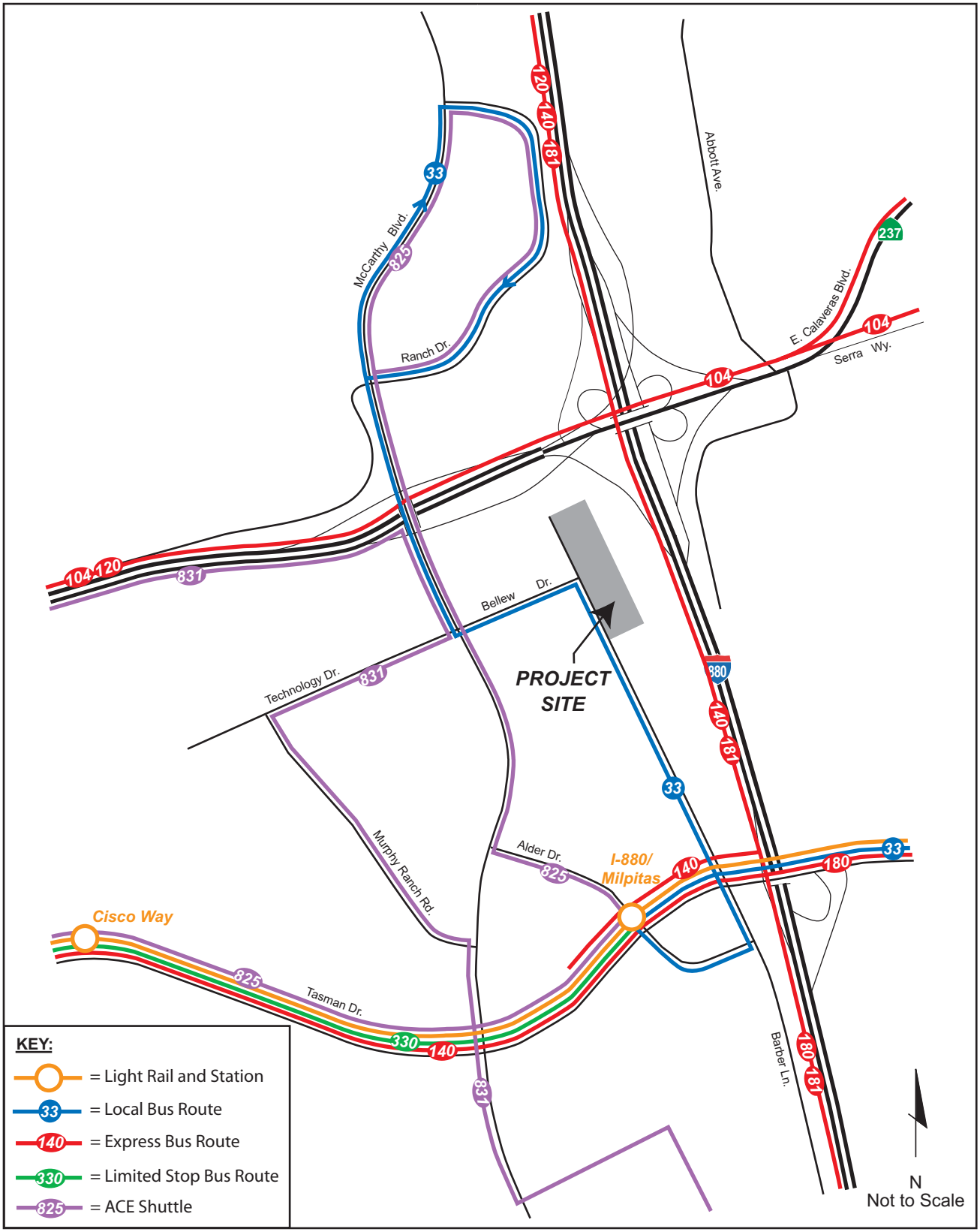
Route	From	To	Weekdays			Weekends	
			Operating Hours	Peak	Midday	Operating Hours	Midday
LRT	Santa Teresa	Alum Rock	4:20a – 2:15a	15	15	4:20a – 2:15a	15
33	Baypointe Station	Great Mall/Main Station	6:10a – 9:20p	30	30	8:10a – 8:25p	30-45
104	Penetencia Creek Station	Palo Alto	5:20a – 7:45a 3:15p – 5:50p	35-45	–	No Service	–
120	Fremont BART Station	Lockheed Martin	6:15a – 9:00a 4:00p – 7:00p	60-75	–	No Service	–
140	Fremont BART Station	Sunnyvale Caltrain Station	6:00a – 9:25a 4:00p – 7:20p	30-60	–	No Service	–
180	Fremont BART Station	San Jose Diridon Station	5:10a – 12:30a	15-20	15	7:10a – 12:30a	30
181	Fremont BART Station	San Jose Diridon Station	6:00a – 6:45p	15-20	–	No Service	–
330	Almaden/Camden	I-880/Milpitas Station (Tasman/Alder)	6:25a –9:05a 4:20p – 7:10p	40-55	–	No Service	–
825	Great America ACE/Amtrak Station	McCarthy Ranch (Tasman/Alder)	6:35a – 9:00a 3:20p – 5:30p	60-75	–	No Service	–
831	Great America ACE/Amtrak Station	McCarthy Ranch (McCarthy/Barber)	6:40a – 9:00a 3:10p – 5:15p	60-75	–	No Service	–

Source: VTA, January 2008.

EXISTING VOLUMES AND LANE CONFIGURATIONS

The operations of the key intersections were evaluated during the weekday AM and PM peak hours. Intersection operations were evaluated for the highest one-hour volume counted between 7:00 and 9:00 AM and between 4:00 and 6:00 PM. Available intersection turning movement count data from 2007 and 2008 was used in this analysis. Cities of Milpitas and San Jose staff provided count data where available. For intersections where recent count data was not available, new turning movement counts were conducted in 2008. Traffic counts are included in Appendix A.

Figure 5 presents the existing AM and PM peak-hour turning movement volumes at the study intersections. Figure 6 presents the existing intersection lane configurations and traffic control devices.



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EXISTING TRANSIT SERVICE

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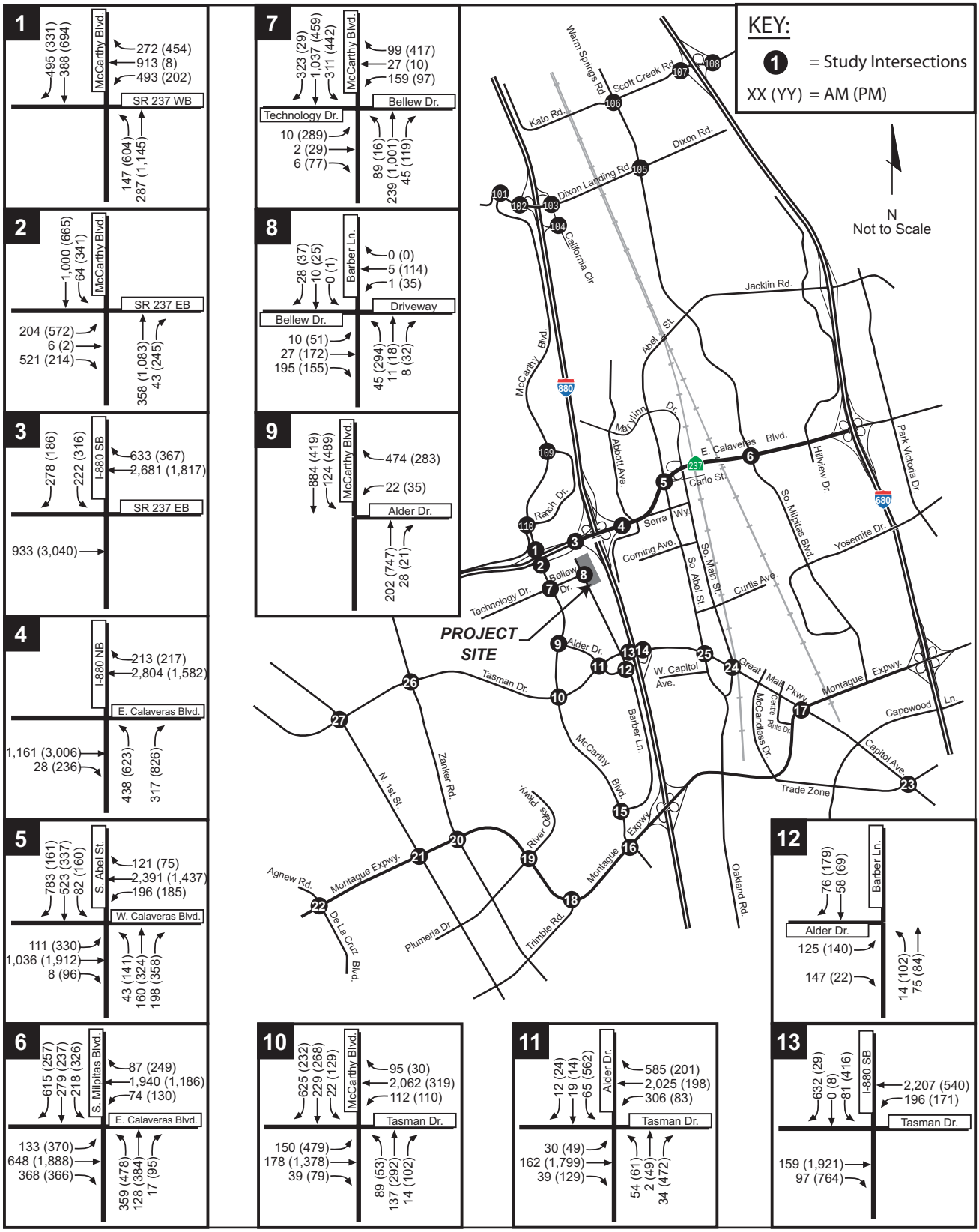
FIGURE 4



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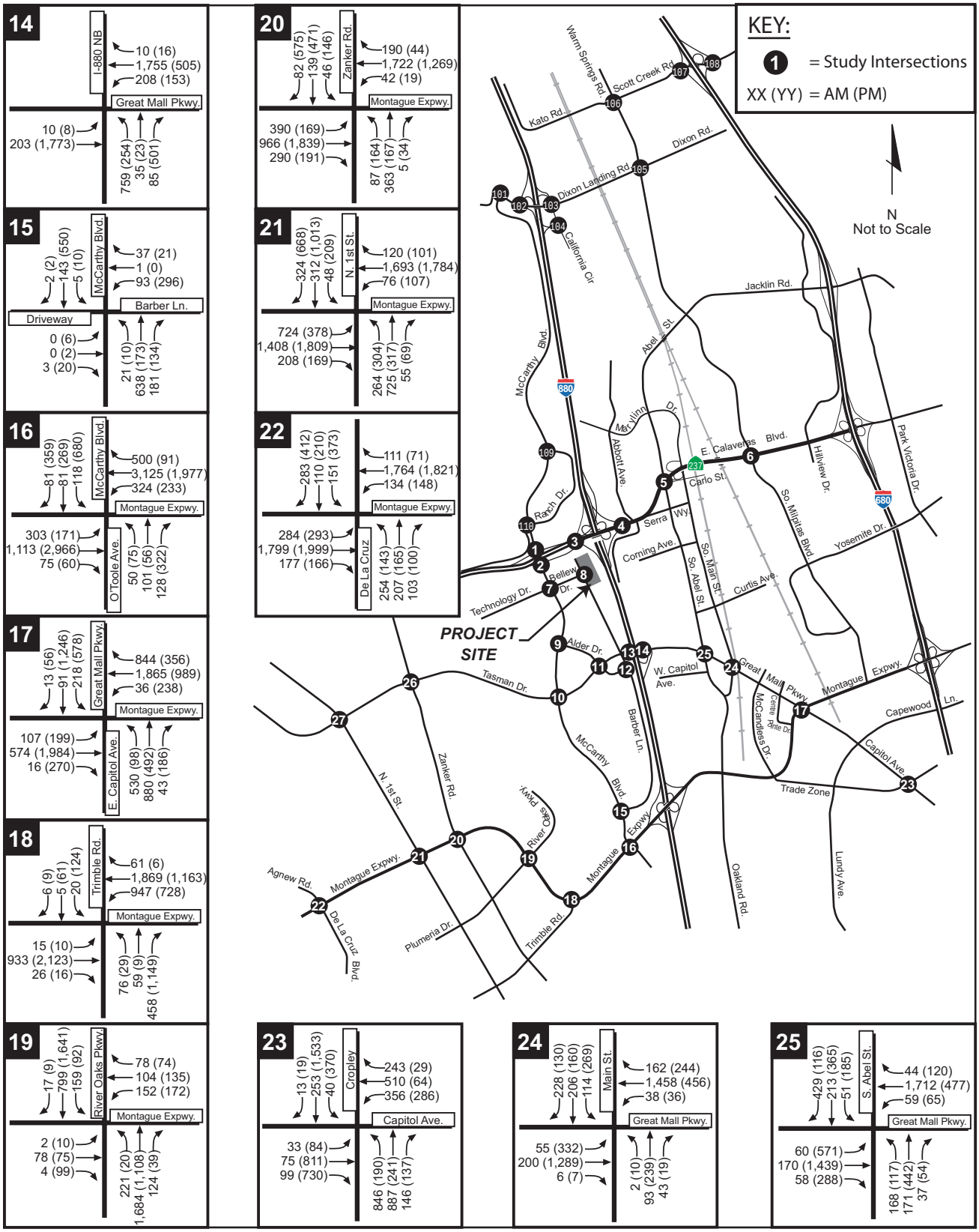
EXISTING PEAK-HOUR INTERSECTION VOLUMES

FIGURE 5A



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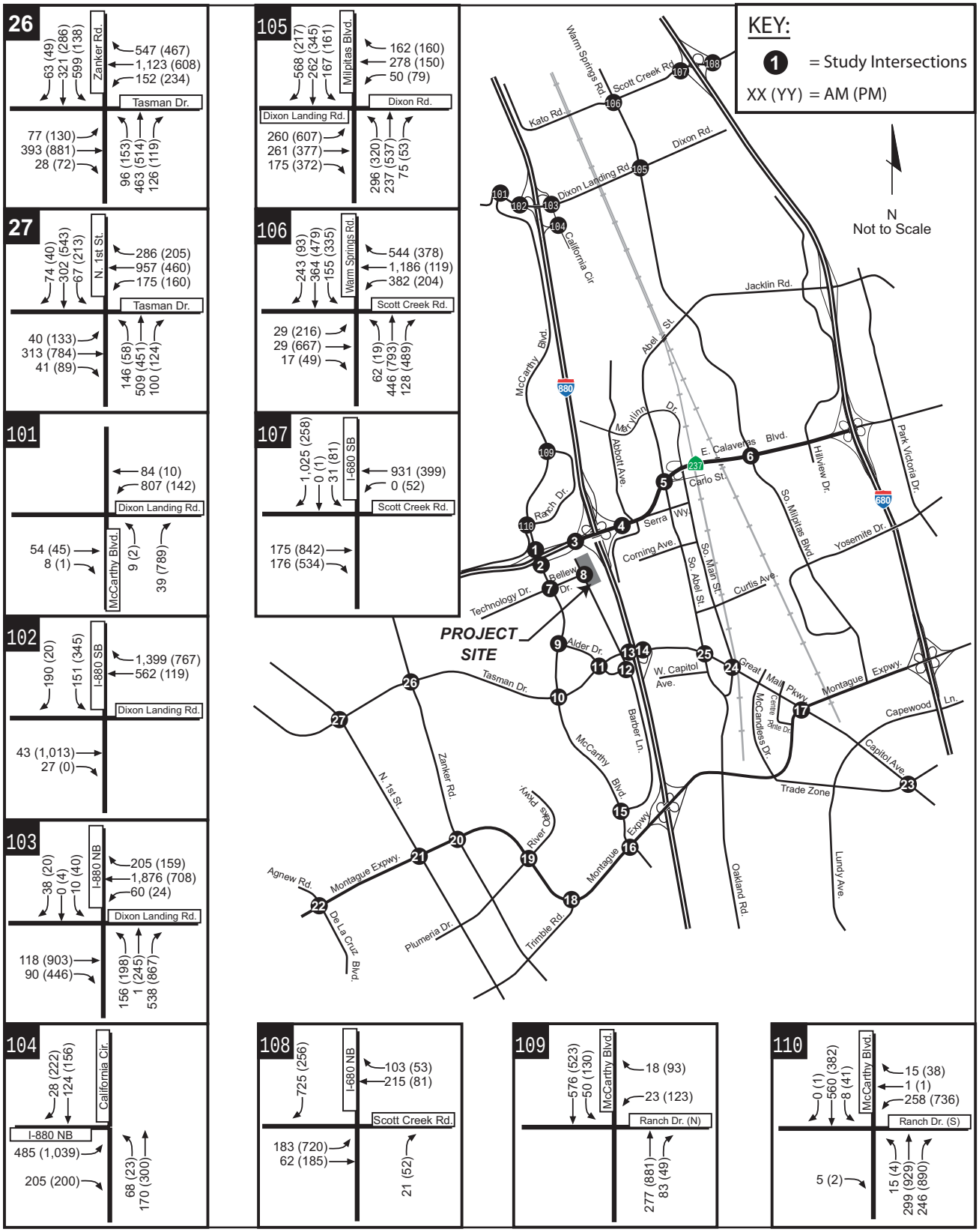
EXISTING PEAK-HOUR INTERSECTION VOLUMES

FIGURE 5B



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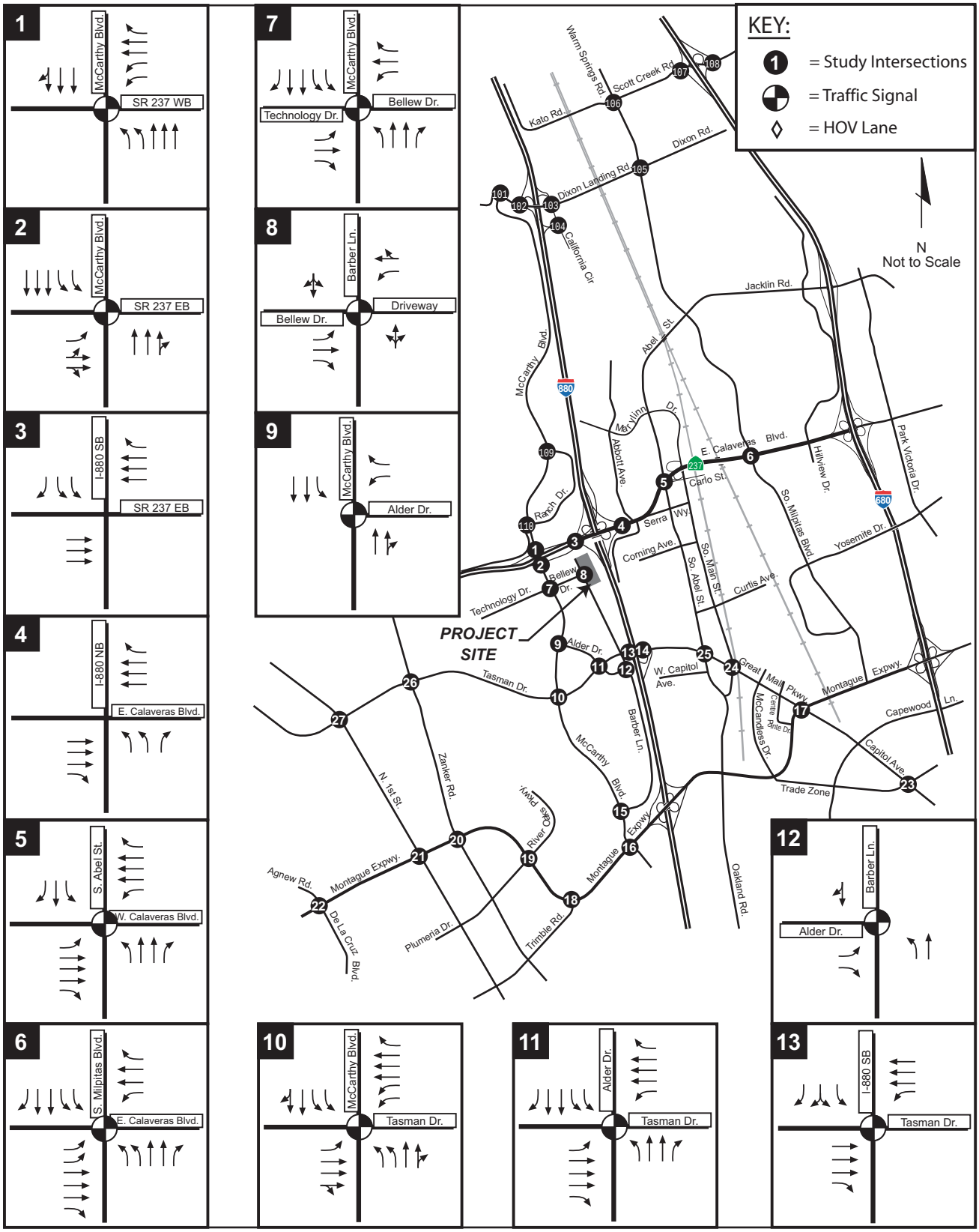
EXISTING PEAK-HOUR INTERSECTION VOLUMES

FIGURE 5C



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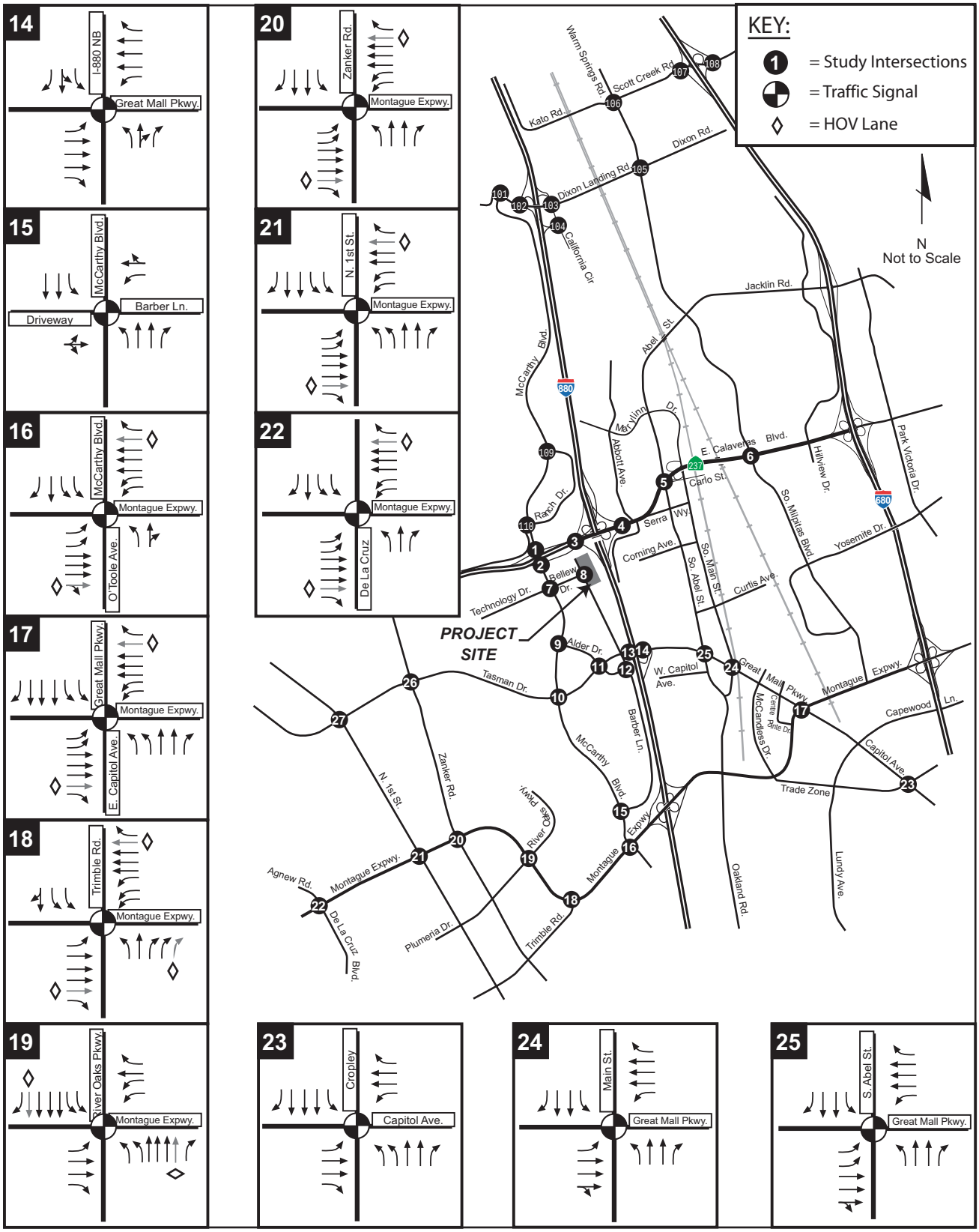
EXISTING INTERSECTION LANE GEOMETRIES

FIGURE 6A



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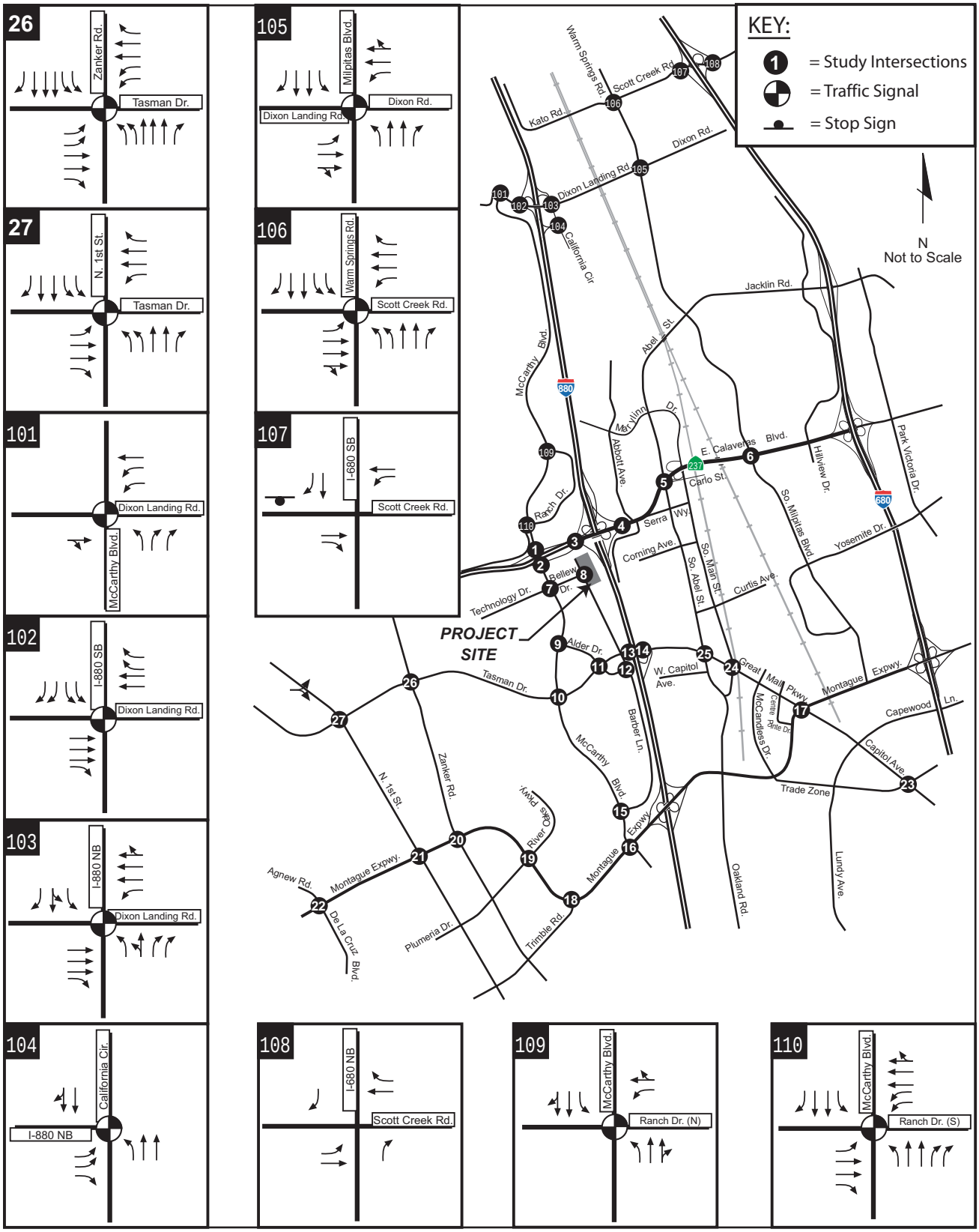
EXISTING INTERSECTION LANE GEOMETRIES

FIGURE 6B



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EXISTING INTERSECTION LANE GEOMETRIES

FIGURE 6C

LEVEL OF SERVICE METHODS

The operations of roadway facilities are described with the term level of service (LOS). LOS is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, with the best operating conditions, to LOS F, with the worst operating conditions. LOS E represents "at-capacity" operations. Operations are designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions.

The Cities of Milpitas and Santa Clara have established a minimum acceptable operating level of LOS D for intersections excluded from the Congestion Management Program (CMP). The minimum acceptable standard for San Jose and Fremont intersections is LOS D. The minimum acceptable level for CMP-monitored intersections is LOS E.

Signalized Intersections

The level of service method approved by the Cities of Milpitas, Santa Clara, San Jose, and VTA analyzes a signalized intersection's operation based on average control vehicular delay, as calculated using the method described in Chapter 16 of the *2000 Highway Capacity Manual* (*HCM*) by the Transportation Research Board, with adjusted saturation flow rates to reflect conditions in Santa Clara County. The City of Fremont intersections were also evaluated using these adjusted saturation flow rates. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for signalized intersections is calculated using TRAFFIX analysis software and is correlated to a LOS designation as shown in Table 2.

Unsignalized Intersections

Operations of the unsignalized study intersections are evaluated using the method contained in Chapter 17 of the *2000 HCM* and calculated using TRAFFIX analysis software. LOS ratings for stop-sign controlled intersections are based on the average control delay expressed in seconds per vehicle. At two-way or side-street-stop controlled intersections, control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, control delay is computed as the average of all movements in that lane. For all-way stop-controlled locations, a weighted average delay for the entire intersection is presented. Table 3 summarizes the relationship between delay and LOS for unsignalized intersections.

Freeway Segments

Freeway segments are evaluated using VTA's analysis procedure, which is based on the density of the traffic flow using methods described in the *2000 HCM*. Density is expressed in passenger cars per mile per lane. The Congestion Management Program range of densities for freeway segment level of service is shown in Table 4. The LOS standard for the freeway segments is LOS E.

TABLE 2
SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS USING AVERAGE CONTROL VEHICULAR DELAY

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B+ B B-	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 12.0 12.1 to 18.0 18.1 to 20.0
C+ C C-	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 23.0 23.1 to 32.0 32.1 to 35.0
D+ D D-	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0 39.1 to 51.0 51.1 to 55.0
E+ E E-	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.1 to 60.0 60.1 to 75.0 75.1 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0

Source: *Traffic Level of Service Analysis Guidelines*, VTA Congestion Management Program, June 2003; *Highway Capacity Manual*, Transportation Research Board, 2000.

TABLE 3
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Little or no delay.	≤ 10.0
B	Short traffic delays.	10.1 to 15.0
C	Average traffic delays.	15.1 to 25.0
D	Long traffic delays.	25.1 to 35.0
E	Very long traffic delays.	35.1 to 50.0
F	Extreme traffic delays with intersection capacity exceeded.	> 50.0

Source: *Highway Capacity Manual*, Transportation Research Board, 2000.

TABLE 4
FREEWAY SEGMENT LEVEL OF SERVICE DEFINITIONS

Level of Service	Density (passenger cars per mile per lane)
A	≤ 11
B	11.1 to 18.0
C	18.1 to 26.0
D	26.1 to 46.0
E	46.1 to 58.0
F	> 58.0

Sources: *Traffic Level of Service Analysis Guidelines*, VTA Congestion Management Program, June 2003; *Highway Capacity Manual*, Transportation Research Board, 2000.

EXISTING INTERSECTION LEVELS OF SERVICE

Existing intersection lane configurations, signal timings, and peak-hour turning movement volumes were used as inputs for the levels of service calculations. The results of the LOS analysis for Existing Conditions are presented in Table 5. Appendix B contains the corresponding calculation sheets.

The majority of the study intersections operate at acceptable levels of service according to their designated level of service standard. The intersection of SR 237/I-880 Northbound Ramps is operating at LOS E (LOS D standard) during the PM peak hour. Three intersections on Montague Expressway operate below City of San Jose's LOS D standard but are considered acceptable based on the CMP LOS E standard.

TABLE 5
EXISTING INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Count Date	Delay[1]	LOS[2]
1. McCarthy Blvd / SR 237 WB Ramps [M]	AM	07/2007	16.4	B
	PM	06/2007	18.1	B-
2. McCarthy Blvd / SR 237 EB Ramps [M]	AM	07/2007	16.3	B
	PM	06/2007	15.1	B
3. SR 237 / I-880 SB Ramps [M]	AM	08/2007	11.3	B+
	PM	08/2007	8.4	A
4. Calaveras Blvd (SR237) / I-880 NB Ramps [M]	AM	08/2007	22.9	C+
	PM	08/2007	69.4	E
5. Calaveras Blvd / Abel Street [CMP/M]	AM	11/2006	55.4	E+
	PM	11/2006	43.5	D
6. Calaveras Blvd / Milpitas Blvd [CMP/M]	AM	11/2006	70.2	E
	PM	11/2006	41.6	D
7. McCarthy Blvd / Bellew Dr [M]	AM	06/2007	20.3	C+
	PM	06/2007	32.2	C-
8. Bellew Dr / Barber Ln [M]	AM	10/2007	11.8	B+
	PM	10/2007	17.2	B
9. McCarthy Blvd / Alder Dr [M]	AM	06/2007	20.5	C+

TABLE 5
EXISTING INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Count Date	Delay[1]	LOS[2]
	PM	06/2007	16.4	B
10. McCarthy Blvd / Tasman Dr [M]	AM	06/2007	51.3	D-
	PM	06/2007	37.5	D+
11. Tasman Dr / Alder Dr [M]	AM	07/2007	14.5	B
	PM	06/2007	46.6	D
12. Barber Ln / Alder Dr [M]	AM	09/2006	13.1	B
	PM	09/2006	15.9	B
13. Tasman Dr / I-880 SB Ramps [M]	AM	08/2007	20.4	C+
	PM	08/2007	19.7	B-
14. Great Mall Parkway / I-880 NB Ramps [M]	AM	08/2007	23.0	C
	PM	08/2007	27.4	C
15. McCarthy Blvd / Barber Ln [M]	AM	10/2007	15.3	B
	PM	10/2007	21.6	C
16. McCarthy Blvd-O'Toole / Montague Expy [CMP/SJ/M]	AM	10/2007	40.8	D
	PM	10/2006	65.1	E
17. Montague Expy / Great Mall Parkway-Capitol Ave [CMP/M]	AM	09/2005	46.6	D
	PM	10/2006	53.6	D-
18. Montague Expy / Trimble Rd [CMP/SJ]	AM	10/2006	27.2	C
	PM	09/2006	38.9	D+
19. Montague Expy / River Oaks Parkway-E. Plumeria Rd [SJ]	AM	03/2008	33.0	C-
	PM	03/2008	28.1	C
20. Montague Expy / Zanker Rd [CMP/SJ]	AM	10/2006	39.9	D-
	PM	09/2006	56.5	E
21. Montague Expy / N. 1st St. [CMP/SJ]	AM	10/2006	54.6	D
	PM	09/2006	72.5	E+
22. Montague Expy / De la Cruz Blvd – Agnew Rd [CMP/SC]	AM	09/2007	40.1	D
	PM	09/2007	41.0	D
23. Capitol Ave / Cropley Dr-Trade Zone Blvd [SJ]	AM	04/2007	35.8	D+
	PM	032007	56.1	E+
24. Great Mall Parkway / Main Street [M]	AM	09/2007	27.9	C
	PM	09/2007	40.7	D
25. Great Mall Parkway / Abel St [M]	AM	09/2007	40.6	D
	PM	09/2007	39.3	D
26. Tasman Dr. / Zanker Rd [SJ]	AM	04/2007	33.5	C-
	PM	04/2007	31.3	C
27. Tasman Dr. / N. 1st St. [SJ]	AM	03/2007	31.2	C
	PM	03/2007	37.0	D+
101. Dixon Landing Rd / McCarthy Blvd [F]	AM	06/2007	9.7	A
	PM	06/2007	7.9	A
102. Dixon Landing Rd / I-880 SB Ramps [M]	AM	05/2007	9.5	A
	PM	04/2007	9.2	A
103. Dixon Landing Rd / I-880 NB Ramps – California Circle [M]	AM	04/2007	16.6	B
	PM	04/2007	20.8	C+
104. California Circle / I-880 NB Ramps [M]	AM	06/2007	12.2	B
	PM	06/2007	14.6	B
105. Dixon Landing Rd / N. Milpitas Blvd [M]	AM	03/2007	52.3	D-
	PM	03/2007	50.1	D

TABLE 5
EXISTING INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Count Date	Delay[1]	LOS[2]
106. Scott Creek Rd. / Warm Springs Blvd. [F]	AM PM	06/2007 06/2007	27.5 36.0	C D+
107. Scott Creek Rd. / I-680 SB Ramps [Unsignalized] [F]	AM PM	03/2007 03/2007	18.4 13.5	C B
108. Scott Creek Rd. / I-680 NB Ramps [Unsignalized] [F]	AM PM	03/2007 03/2007	8.0 9.4	A A
109. McCarthy Blvd / Ranch Dr North [M]	AM PM	06/2007 06/2007	6.8 11.3	A B+
110. McCarthy Blvd / Ranch Dr South [M]	AM PM	06/2007 06/2007	12.8 15.6	B B

Notes:

1 Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the *2000 HCM*, with adjusted saturation flow rates to reflect Santa Clara County Conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.

2 LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.

(CMP) Congestion Management Program intersection, (F) City of Fremont intersection, (M) City of Milpitas intersection,

(SC) City of Santa Clara intersection, (SJ) City of San Jose intersection

Source: Fehr & Peers, 2008.

EXISTING FREEWAY SEGMENT LEVELS OF SERVICE

Freeway segment densities reported in VTA's *2006 Monitoring and Conformance Report* were used to calculate the levels of service for the key freeway segments during the AM and PM peak hours. The results of the LOS analysis for Existing Conditions are presented in Table 6.

The following eleven (11) segments are operating at unacceptable levels (LOS F):

- I-880 Northbound, Dixon Landing Road to Mission Boulevard (PM peak hour)
- I-880 Northbound, SR 237 to Dixon Landing Road (PM peak hour)
- I-880 Southbound, Great Mall Parkway to Montague Expressway (PM peak hour)
- I-880 Southbound, Montague Expressway to Brokaw Road (PM peak hour)
- SR 237 Westbound, I-880 to Zanker Road (AM peak hour)
- SR 237 Westbound, McCarthy Boulevard to Zanker Road (AM and PM peak hours)
- I-680 Northbound, Calaveras Boulevard to Jacklin Road (PM peak hour)
- I-680 Northbound, Jacklin Road to Scott Creek Road (PM peak hour)
- I-680 Northbound, Scott Creek Road to Mission Boulevard (PM peak hour)

- I-680 Southbound, Yosemite Drive to Montague Expressway (PM peak hour)
- I-680 Southbound, Montague Expressway to Capitol Avenue (PM peak hour)

TABLE 6
EXISTING FREEWAY SEGMENT LEVELS OF SERVICE

Freeway	Direction	From	To	Peak Hour	Lanes	Density[1]	LOS[2]
I-880	Northbound	Brokaw Road	Montague Expressway	AM	3	31	D
				PM	3	26	C
		Montague Expressway	Great Mall Parkway	AM	3	26	C
				PM	3	26	C
		Great Mall Parkway	SR 237	AM	3	31	D
				PM	3	46	D
		SR 237	Dixon Landing Road	AM	4	35	D
				PM	4	112	F
		Dixon Landing Road	Mission Blvd. (SR 262)[3]	AM	3	38	D
				PM	3	107	F
	Southbound	Mission Blvd. (SR 262)	Dixon Landing Road[3]	AM	3	43	D
				PM	3	24	C
		Dixon Landing Road	SR 237	AM	4	45	D
				PM	4	23	C
		SR 237	Great Mall Parkway	AM	3	22	C
				PM	3	21	C
		Great Mall Parkway	Montague Expressway	AM	3	29	D
				PM	3	85	F
		Montague Expressway	Brokaw Road	AM	3	26	C
				PM	3	80	F
SR 237[4]	Eastbound	Zanker Road	McCarthy Boulevard	AM	2	26	C
				PM	2	42	D
		McCarthy Boulevard	I-880	AM	2	15	B
				PM	2	54	E
	Westbound	I-880	McCarthy Boulevard	AM	2	164	F
				PM	2	29	D
		McCarthy Boulevard	Zanker Road	AM	2	147	F
				PM	2	94	F
I-680[4]	Northbound	Capitol Avenue	Montague Expressway	AM	4	39	D
				PM	4	22	C
		Montague Expressway	Yosemite Drive	AM	4	30	D
				PM	4	28	D

TABLE 6
EXISTING FREEWAY SEGMENT LEVELS OF SERVICE

Freeway	Direction	From	To	Peak Hour	Lanes	Density[1]	LOS[2]
		Yosemite Drive	Calaveras Blvd. (SR 237)	AM	4	48	E
				PM	4	44	D
		Calaveras Blvd. (SR 237)	Jacklin Road	AM	3	41	D
				PM	3	95	F
		Jacklin Road	Scott Creek Road	AM	3	35	D
				PM	3	80	F
		Scott Creek Road	Mission Blvd. (SR 262)[3]	AM	3	33	D
				PM	3	73	F
	Southbound	Mission Blvd. (SR 262)	Scott Creek Road[3]	AM	3	38	D
				PM	3	28	D
		Scott Creek Road	Jacklin Road	AM	3	33	D
				PM	3	29	D
		Jacklin Road	Calaveras Blvd. (SR 237)	AM	3	36	D
				PM	3	28	D
		Calaveras Blvd. (SR 237)	Yosemite Drive	AM	4	25	C
				PM	4	53	E
		Yosemite Drive	Montague Expressway	AM	4	31	D
				PM	4	92	F
		Montague Expressway	Capitol Avenue	AM	4	23	C
				PM	4	98	F

Notes:
1 Measured in passenger cars per mile per lane.
2 LOS = level of service.
3 Density is calculated by using the travel speed from the adjacent segment, as well as the volume (flow) from the adjacent segment adjusted by the volume entering/exiting the freeway at the interchange.
4 The high-occupancy vehicle (HOV) lanes were not analyzed because project traffic is expected to utilize the mixed-flow lanes while entering and exiting the freeway.
Source: VTA, December 2006. Fehr & Peers, 2008.

FIELD OBSERVATIONS

Field observations of the key intersections were conducted in August, September, and December 2007 to verify the calculated operations. In general, the observations indicated that most of the study intersections are operating at or near the calculated levels of service.

During the AM peak period, westbound traffic on Calaveras Boulevard queued back from the I-880 northbound and southbound interchange intersections to the upstream intersections. The high traffic volume limited the ability of vehicles on the I-880 southbound off-ramp to turn right on red. Queues at the other study intersections were less substantial.

During the PM peak period, eastbound traffic on Calaveras Boulevard queued back from the I-880 northbound interchange intersection over the freeway towards the preceding intersection. The high traffic volume limited the ability of vehicles on the I-880 northbound off-ramp to turn right on red. In addition, eastbound traffic on Tasman Drive queued out of the left-turn pocket at McCarthy Boulevard and blocked through traffic. Queues at the other study intersections did not have a substantial effect on traffic flow.

During the PM peak period, eastbound vehicles turning left from Great Mall Parkway to Montague Expressway queued to the upstream intersection at Great Mall Parkway/Centre Pointe Drive. Congestion in the eastbound direction was observed throughout the Montague Expressway corridor.

Barber Lane had low traffic volumes, no noticeable congestion, and few turning movement conflicts. On-street parking, which is restricted to the east side of the street, was heavily utilized during the lunch hour. However, few cars were parked on the street during the PM peak hour.

3. BACKGROUND CONDITIONS

This chapter discusses the operations of the key intersections with existing traffic volumes plus traffic generated from surrounding projects that have been approved but not yet constructed or occupied. Background Conditions serve as the basis for identifying project impacts.

BACKGROUND TRAFFIC ESTIMATES

Traffic volumes for Background Conditions were estimated by adding traffic generated by approved but not yet constructed or occupied developments to existing traffic volumes. A list of approved projects and their available traffic projections was provided by Milpitas and San Jose City staff. Traffic associated with Phase 1 of the North San Jose development plan was included in this scenario. This scenario also includes traffic associated with the approved build-out and re-occupancy of the Veritas Office Campus (991,000 s.f.) located on McCarthy Boulevard north of SR 237. Figure 7 illustrates the traffic volumes at the key intersections under Background Conditions.

BACKGROUND ROADWAY IMPROVEMENTS

Montague Expressway will be widened from six to eight lanes between Lick Mill Boulevard and I-680 to provide three mixed-flow lanes and one HOV lane in each direction. Several of the study intersection along Montague Expressway have already been widened to accommodate the additional lanes, and these improvements have already been accounted for under existing conditions and included in background conditions. The HOV lanes are expected to operate in both directions during AM and PM commute periods on Montague Expressway at Great Mall Parkway.

The County of Santa Clara is planning to construct a flyover to serve westbound Montague Expressway to southbound Trimble Road. No other background improvements were identified at the other study intersections.

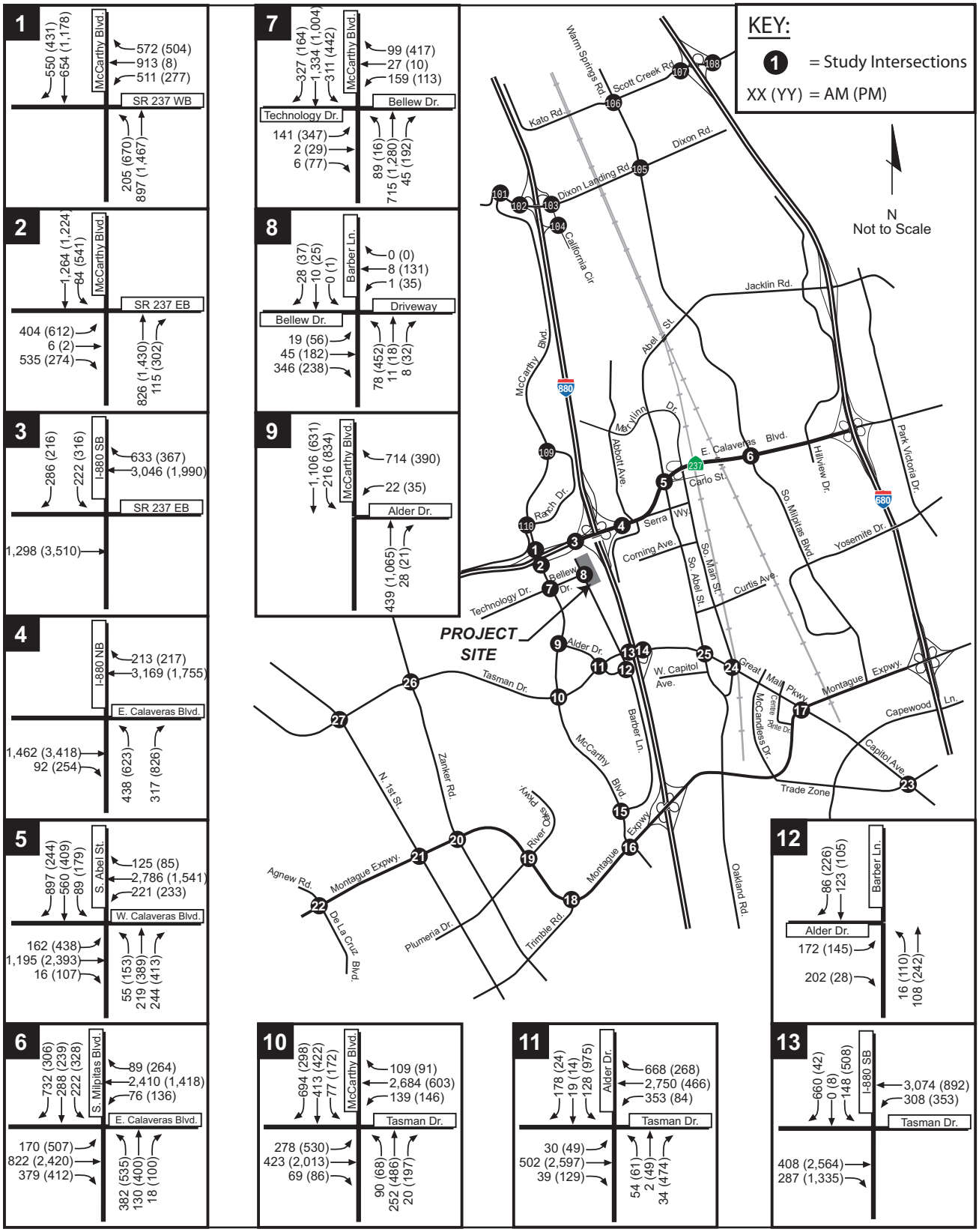
The southbound approach at the intersection of McCarthy Boulevard and Tasman Drive will be restriped from its current geometry (two left-turn lanes, one through lane, and one shared-through-right turn lane) to a geometry that includes two left-turn lanes, one through lane, and one right turn lane with a corresponding overlap phase.

BACKGROUND INTERSECTION LEVELS OF SERVICE

Level-of-service calculations were conducted for the key intersections to evaluate their operations under Background Conditions. The results of the LOS analysis are presented in Table 7. Appendix B contains the corresponding calculation sheets.

The following 13 intersections are projected to exceed their LOS standards and operate at unacceptable levels:

- Calaveras Boulevard / I-880 NB Ramps (LOS F, PM peak)
- W. Calaveras Boulevard / Abel Street (LOS F, AM peak)
- E. Calaveras Boulevard / S. Milpitas Boulevard (LOS F, AM peak)
- Alder Drive / McCarthy Boulevard (LOS E, PM peak)



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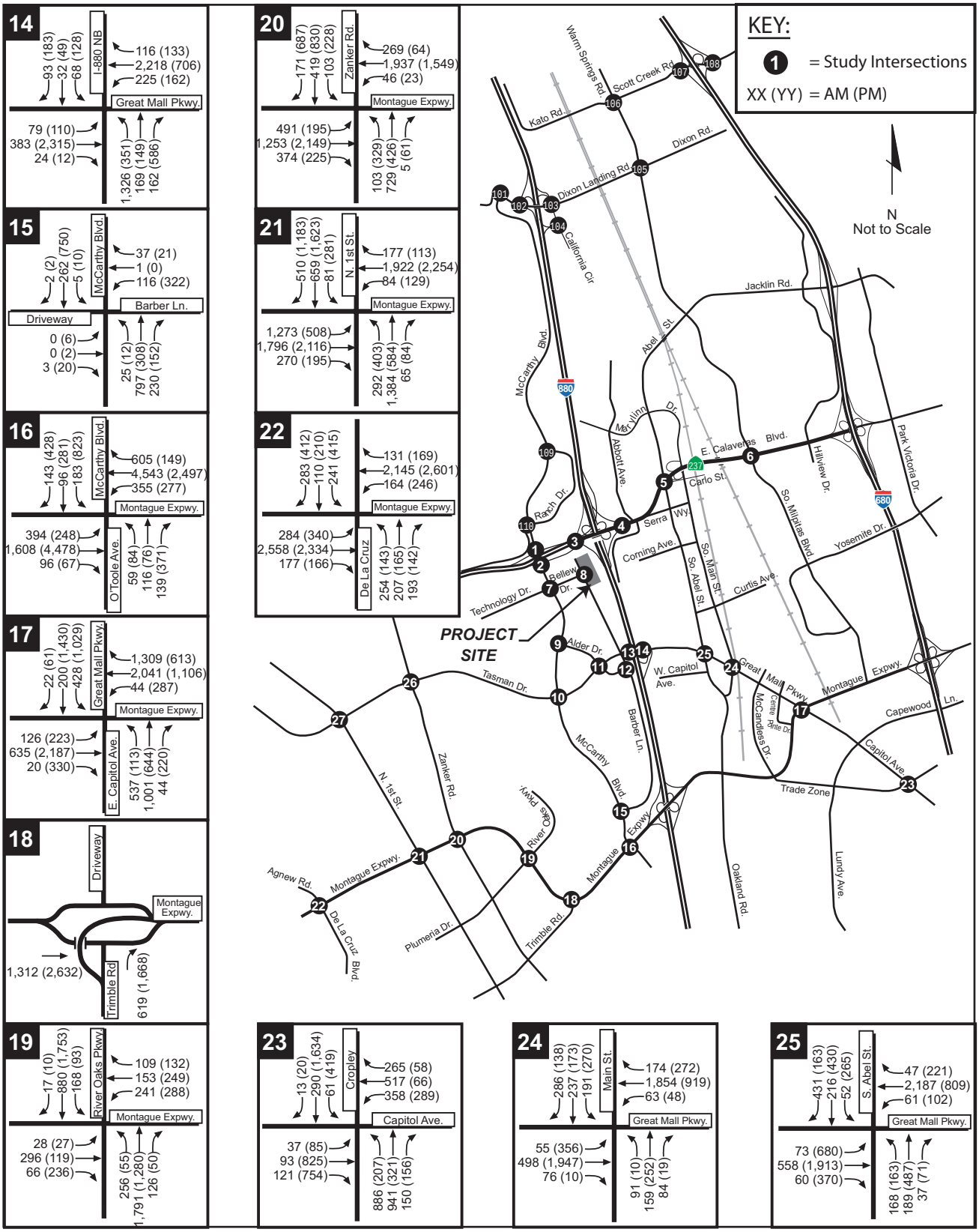
BACKGROUND PEAK-HOUR INTERSECTION VOLUMES

FIGURE 7A



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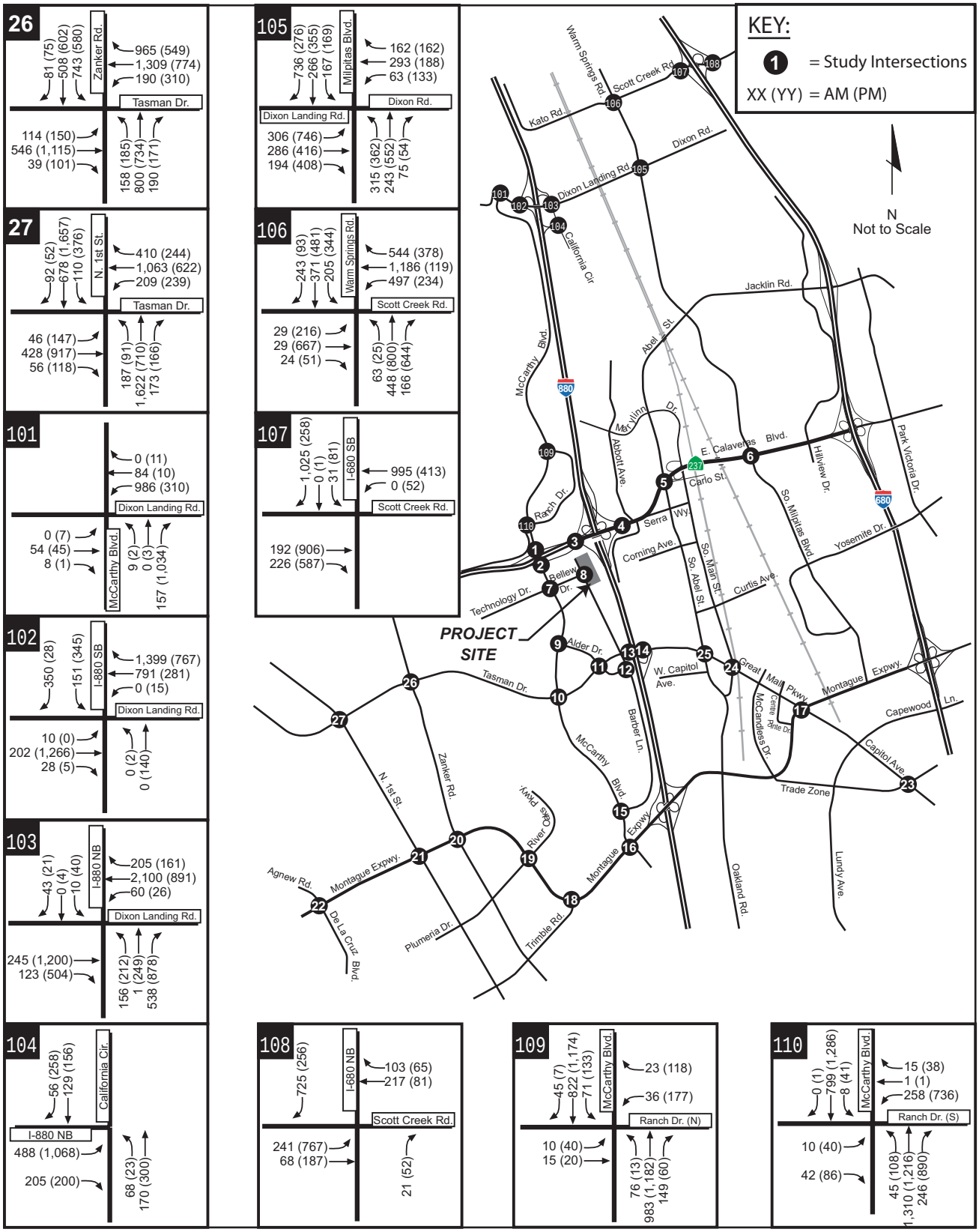
BACKGROUND PEAK-HOUR INTERSECTION VOLUMES

FIGURE 7B



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BACKGROUND PEAK-HOUR INTERSECTION VOLUMES

FIGURE 7C

- Alder Drive / Tasman Drive (LOS F, PM peak)
- Tasman Drive / I-880 SB Ramps (LOS E, PM peak)
- Great Mall Parkway / I-880 NB Ramps (LOS E, AM peak; LOS E+, PM peak)
- McCarthy Boulevard-O'Toole Avenue / Montague Expressway (LOS F, PM peak)
- Montague Expressway / Great Mall Parkway-Capitol Avenue (LOS F, PM peak)
- Montague Expressway/ Zanker Road (LOS E, PM peak)
- Montague Expressway / First Street (LOS F, AM and PM peak)
- Capitol Avenue / Cropley Drive – Trade Zone Boulevard (LOS E, PM peak)
- Dixon Landing Road / N. Milpitas Boulevard (LOS E, AM and PM peak)

TABLE 7
BACKGROUND INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Delay[1]	LOS[2]
1. McCarthy Blvd / SR 237 WB Ramps [M]	AM PM	17.9 24.9	B C
2. McCarthy Blvd / SR 237 EB Ramps [M]	AM PM	15.9 16.6	B B
3. SR 237 / I-880 SB Ramps [M]	AM PM	11.2 9.5	B+ A
4. Calaveras Blvd (SR237) / I-880 NB Ramps [M]	AM PM	22.6 89.3	C+ F
5. Calaveras Blvd / Abel Street [CMP/M]	AM PM	89.2 53.0	F D-
6. Calaveras Blvd / Milpitas Blvd [CMP/M]	AM PM	127.0 45.7	F D
7. McCarthy Blvd / Bellew Dr [M]	AM PM	24.0 51.1	C D-
8. Bellew Dr / Barber Ln [M]	AM PM	10.9 18.5	B+ B-
9. McCarthy Blvd / Alder Dr [M]	AM PM	17.2 61.5	B E
10. McCarthy Blvd / Tasman Dr [M]	AM PM	59.8 41.9	E+ D
11. Tasman Dr / Alder Dr [M]	AM PM	21.4 137.0	C+ F
12. Barber Ln / Alder Dr [M]	AM PM	14.0 13.7	B C+
13. Tasman Dr / I-880 SB Ramps [M]	AM PM	23.0 61.7	C+ E
14. Great Mall Parkway / I-880 NB Ramps [M]	AM PM	61.0 58.7	E E+

TABLE 7
BACKGROUND INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Delay[1]	LOS[2]
15. McCarthy Blvd / Barber Ln [M]	AM PM	16.2 24.0	B C
16. McCarthy Blvd-O'Toole / Montague Expy [CMP/SJ/M]	AM PM	53.4 116.3	D- F
17. Montague Expy / Great Mall Parkway-Capitol Ave [CMP/M]	AM PM	79.8 94.6	E- F
18. Montague Expy / Trimble Rd [CMP/SJ]	AM PM	23.7 35.7	C D+
19. Montague Expy / River Oaks Parkway-E. Plumeria Rd [SJ]	AM PM	43.9 43.7	D D
20. Montague Expy / Zanker Rd [CMP/SJ]	AM PM	50.8 71.8	D E
21. Montague Expy / N. 1st St. [CMP/SJ]	AM PM	106.4 107.4	F F
22. Montague Expy / De la Cruz Blvd – Agnew Rd [CMP/SC]	AM PM	40.1 47.6	D D
23. Capitol Ave / Cropley Dr-Trade Zone Blvd [SJ]	AM PM	36.4 62.1	D+ E
24. Great Mall Parkway / Main Street [M]	AM PM	25.8 39.6	C D
25. Great Mall Parkway / Abel St [M]	AM PM	49.5 44.8	D D
26. Tasman Dr. / Zanker Rd [SJ]	AM PM	39.7 39.1	D D
27. Tasman Dr. / N. 1st St. [SJ]	AM PM	40.1 49.0	D D
101. Dixon Landing Rd / McCarthy Blvd [F]	AM PM	10.0 9.4	B+ A
102. Dixon Landing Rd / I-880 SB Ramps [M]	AM PM	9.8 7.8	A A
103. Dixon Landing Rd / I-880 NB Ramps – California Circle [M]	AM PM	16.9 21.5	B C+
104. California Circle / I-880 NB Ramps [M]	AM PM	12.6 15.3	B B
105. Dixon Landing Rd / N. Milpitas Blvd [M]	AM PM	67.0 62.2	E E
106. Scott Creek Rd. / Warm Springs Blvd. [F]	AM PM	28.1 36.3	C D+
107. Scott Creek Rd. / I-680 SB Ramps [Unsignalized] [F]	AM PM	19.8 13.6	C B
108. Scott Creek Rd. / I-680 NB Ramps [Unsignalized] [F]	AM PM	8.2 9.5	A A
109. McCarthy Blvd / Ranch Dr North [M]	AM PM	11.7 14.0	B+ B
110. McCarthy Blvd / Ranch Dr South [M]	AM PM	14.7 20.9	B C+

TABLE 7
BACKGROUND INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Delay[1]	LOS[2]

Notes:

1 Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the *2000 HCM*, with adjusted saturation flow rates to reflect Santa Clara County Conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.

2 LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.

(CMP) Congestion Management Program intersection, (F) City of Fremont intersection, (M) City of Milpitas intersection,

(SC) City of Santa Clara intersection, (SJ) City of San Jose intersection

Source: Fehr & Peers, 2008.

4. PROJECT CONDITIONS

The impacts of the proposed project on the surrounding roadway system are discussed in this chapter. First, the methodology used to estimate the amount of traffic generated by the project is described. Then, the results of the level of service calculations for Project Conditions are presented. Project Conditions are defined as Background Conditions plus traffic generated by the proposed project. A comparison of intersection operations under Background and Project Conditions are presented and the impacts of the project on the study intersections are discussed. Site access and on-site circulation as well as impacts to non-vehicular transportation facilities, are addressed in this chapter.

PROJECT TRAFFIC ESTIMATES

The amount of traffic added to the roadway system by the proposed development is estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. The first step estimates the amount of added traffic to the roadway network. The second step estimates the direction of travel to and from the project site. The trips are assigned to specific street segments and intersection turning movements during the third step. The results of this process for the proposed project are described in the following sections.

Trip Generation

AM & PM Peak Hour

The amount of traffic added to the surrounding roadway system by the proposed project was estimated by applying the appropriate trip generation rates to the development proposal. AM and PM peak-hour trip generation rates for Condominium and High-Turnover Restaurant land uses identified in *San Diego Traffic Generators* (San Diego Association of Governments, April 2002) were used to estimate project trip generation. The general retail trip rates were not applied to the future retail space as the project applicant is proposing to provide additional restaurant space in the shopping center. The rates are presented in Table 8.

Mid-day Peak Hour

The amount of traffic generated by the proposed project was also estimated for a weekday mid-day peak hour. The mid-day rates were based on driveway counts conducted at the project driveways and were applied to the future retail space. The residential mid-day rates are based upon survey rates of other residential developments in the Bay Area.

Trip Reductions

According to VTA guidelines (*Transportation Impact Analysis Guidelines*, May 1998), reductions may be applied to the trip estimates for mixed-use projects. Thus, a thirteen (13) percent reduction was applied to the smaller generator of the two uses (retail). The resulting reduction was also deducted from the residential trips.

In addition, a 25-percent reduction for diverted-link trips was applied to the retail use to account for vehicles that are already traveling on the roadways adjacent to the project site. These trips are included in the analysis of traffic that enters and exits the project site but are not considered “new” trips that are added to the street system by the project.

TABLE 8
PROJECT TRIP GENERATION RATES AND ESTIMATES

Land Use	Size	Daily	AM Peak Hour			Midday Peak Hour[1]			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Trip Rates											
Community Shopping Center/ High Turnover Restaurant	1 ksf	160	0.0	0.0	0.0	6.02	4.06	10.08	7.68	5.12	12.80
Condominium	1 unit	8	0.13	0.51	0.64	0.22	0.20	0.42	0.55	0.23	0.78
Trip Estimates											
Retail	12.8 ksf	2,048	0	0	0	77	52	129	98	66	164
Housing-Retail Reduction (13% off housing)[2]		(266)	-	-	-	(10)	(7)	(17)	(13)	(8)	(21)
Diverted Link Trips (25% off retail)		(512)	-	-	-	(19)	(13)	(32)	(25)	(16)	(41)
Net Retail Trips		*1,270*	*0*	*0*	*0*	*48*	*32*	*80*	*60*	*42*	*102*
Condominiums	900 units	7,200	115	461	576	202	194	296	504	216	720
Housing-Retail Reduction (13% off housing)[1]		(266)	-	-	-	(7)	(10)	(17)	(8)	(13)	(21)
Net Residential Trips		*6,934*	*115*	*461*	*576*	*195*	*184*	*379*	*496*	*203*	*699*
Net Total Trips		**8,204**	**115**	**461**	**576**	**243**	**216**	**459**	**556**	**245**	**801**

Note:

1 Mid-day retail rates obtained from driveway counts at the project site. Mid-day residential rates obtained from surveys of other residential developments.

2 Housing-retail reduction taken off the smaller trip generator. Housing is the smaller generator for daily and PM peak hour trips; Retail is the smaller generator during the AM peak hour.

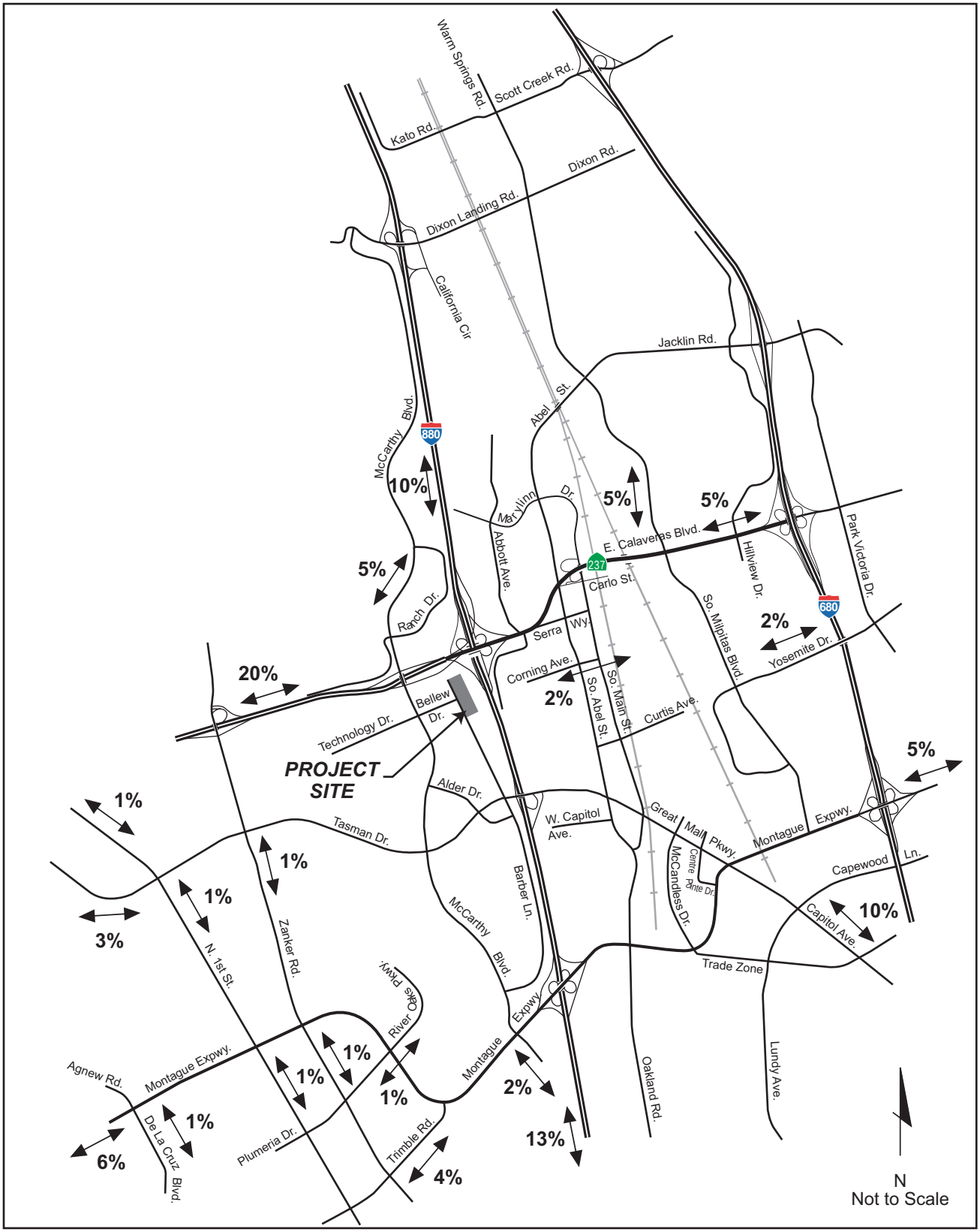
Source: *San Diego Traffic Generators*, SANDAG, April 2002. Fehr & Peers, 2008.

Total Trip Estimates

The project trip generation estimates are presented in Table 8. The proposed project is estimated to generate 8,204 net new daily trips, 576 net new AM peak-hour trips (115 inbound and 461 outbound), 459 net new midday peak-hour trips (243 inbound and 216 outbound), and 801 net new PM peak-hour trips (556 inbound and 245 outbound).

Trip Distribution

The directions of approach and departure for the proposed project were estimated using VTA's travel demand forecasting model, existing travel patterns, and the relative locations of complementary land uses. The major directions of approach and departure form the trip distribution pattern for the project's residential and commercial components, as illustrated in Figures 8 and 9, respectively.



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RESIDENTIAL TRIP DISTRIBUTION

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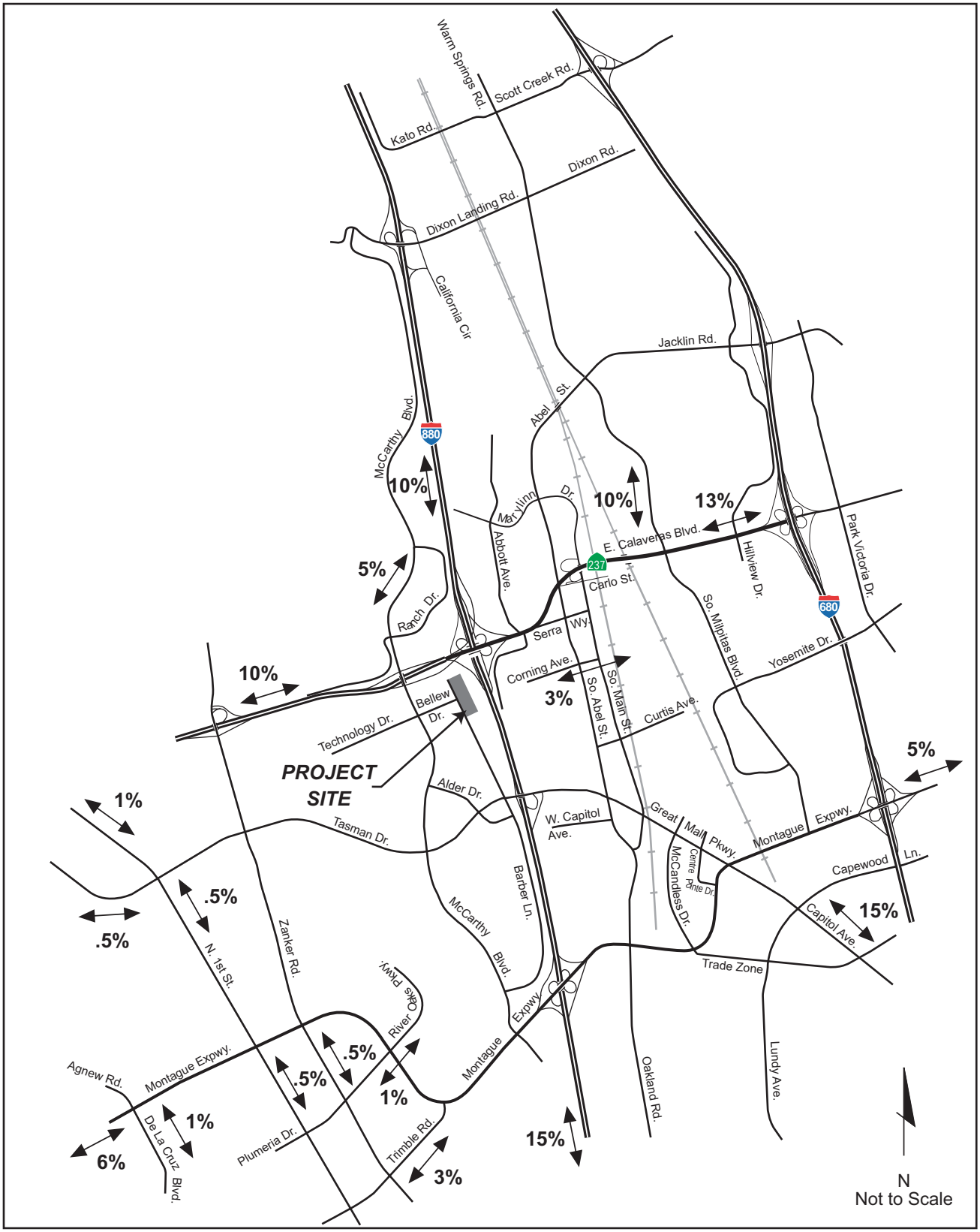
FIGURE 8



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COMMERCIAL TRIP DISTRIBUTION

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FIGURE 9

Trip Assignment

The trips generated by the project were assigned to the roadway system based on the directions of approach and departure discussed above. Figure 10 shows the AM and PM peak-hour project trips assigned to each turning movement at the study intersections. Project trips were added to background traffic volumes to establish intersection volumes for Project Conditions, as shown in Figure 11.

PROJECT ROADWAY IMPROVEMENTS

The project applicant is proposing to modify the Barber Lane/Bellew Drive intersection. The intersection currently has one lane (shared left-turn/through/right-turn) on the northbound and southbound approaches, two lanes on the westbound approach (one left-turn and shared through/right-turn lane), and three eastbound lanes (one left-turn, one through lane, and one right-turn lane). The proposed lane configuration is:

- Northbound approach – one left-turn lane, one shared through/left-turn lane, and one right-turn lane
- Southbound and Eastbound approaches – same as Existing Conditions
- Westbound approach – one left-turn lane, one through lane, one shared through/right-turn lane

PROJECT INTERSECTION LEVELS OF SERVICE

The results of the intersection level of service calculations for Project Conditions are presented in Table 8. Appendix B contains the corresponding calculation sheets. The results for Background Conditions are included for comparison purposes, along with the projected increases in critical delay and critical volume-to-capacity (V/C) ratios. Critical delay represents the delay associated with the critical movements of the intersection, or the movements that require the most “green time” and have the greatest effect on overall intersection operations. The changes in critical delay and critical V/C ratio between Background and Project Conditions are used to identify significant impacts.

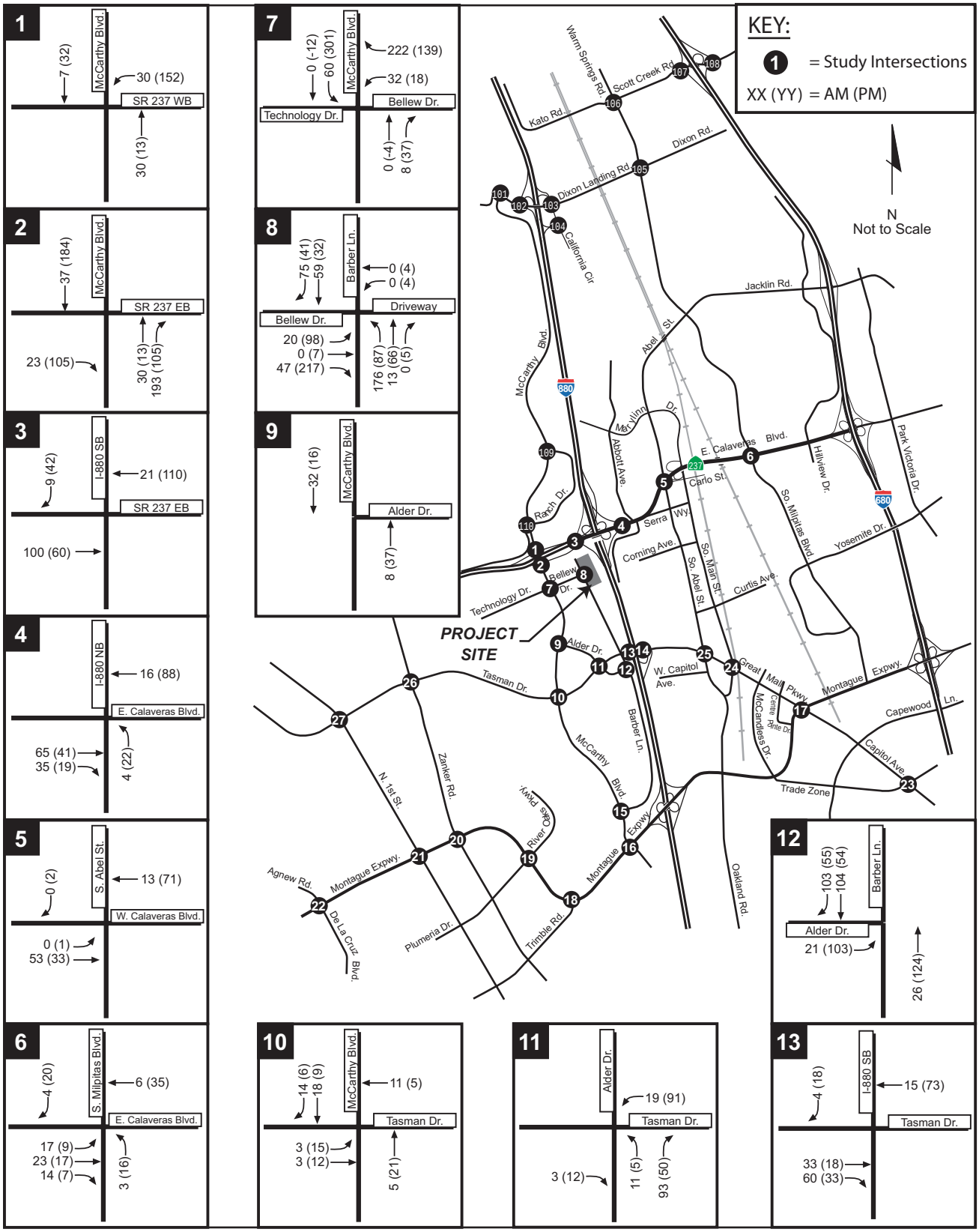
AM & PM Peak Hour

The addition of project traffic will degrade the level of service rating at McCarthy Boulevard/Bellew Drive to an unacceptable level and exacerbate unacceptable operations at six (6) intersections identified as operating as such under Background Conditions.

Midday Peak Hour

A midday analysis was conducted for three intersections in the immediate vicinity of the site. The following three intersections were evaluated: McCarthy Boulevard/Bellew Drive, Bellew Drive/Barber Lane, and Barber Lane/Alder Drive. Table 10 presents the results of the midday analysis.

The addition of traffic from Milpitas Square is not projected to degrade operations to unacceptable levels; however, this analysis assumes that the Barber Lane/Bellew Drive intersection improvements proposed by the applicant are in place at the time the project is occupied.



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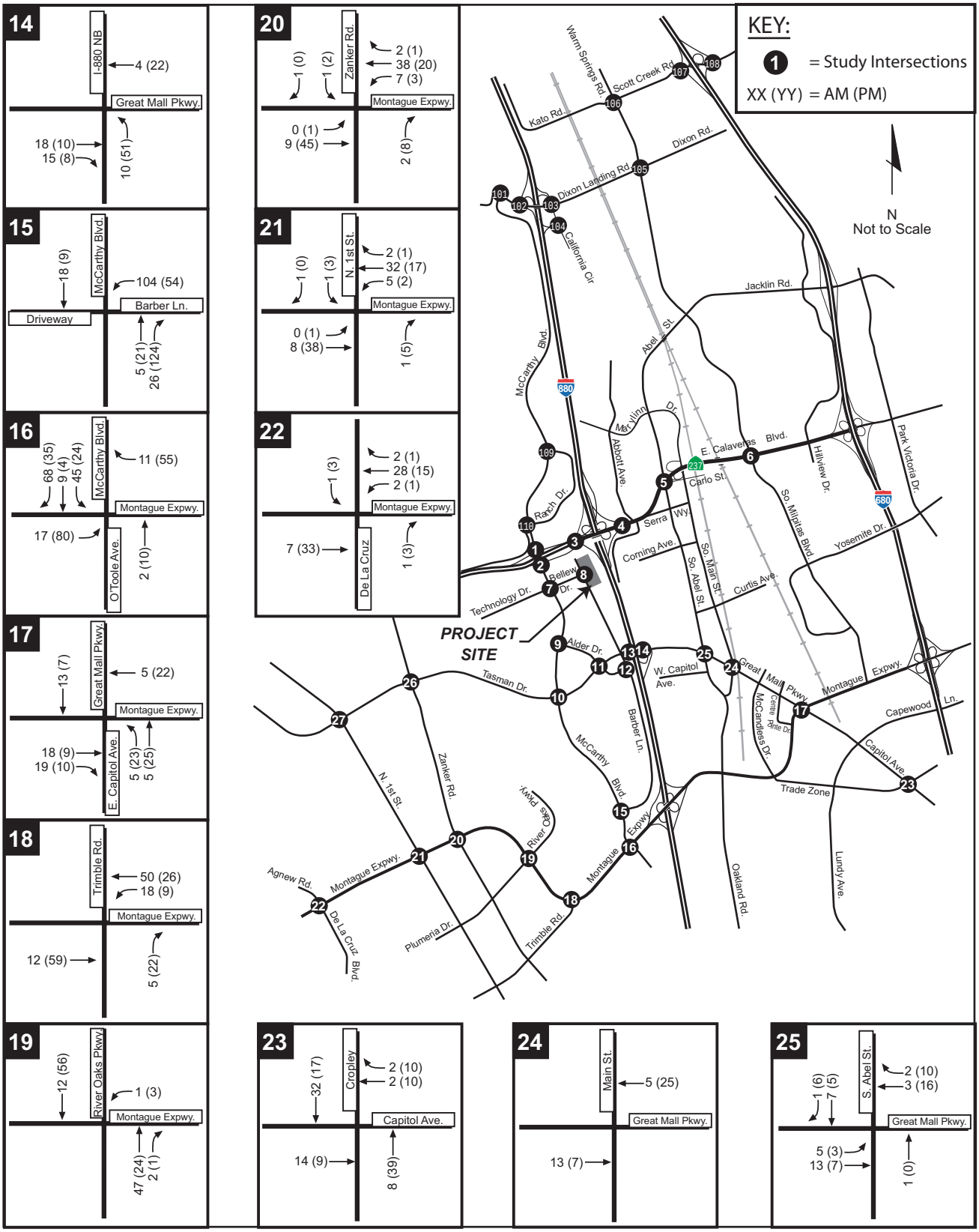
PROJECT TRIP ASSIGNMENT

FIGURE 10A



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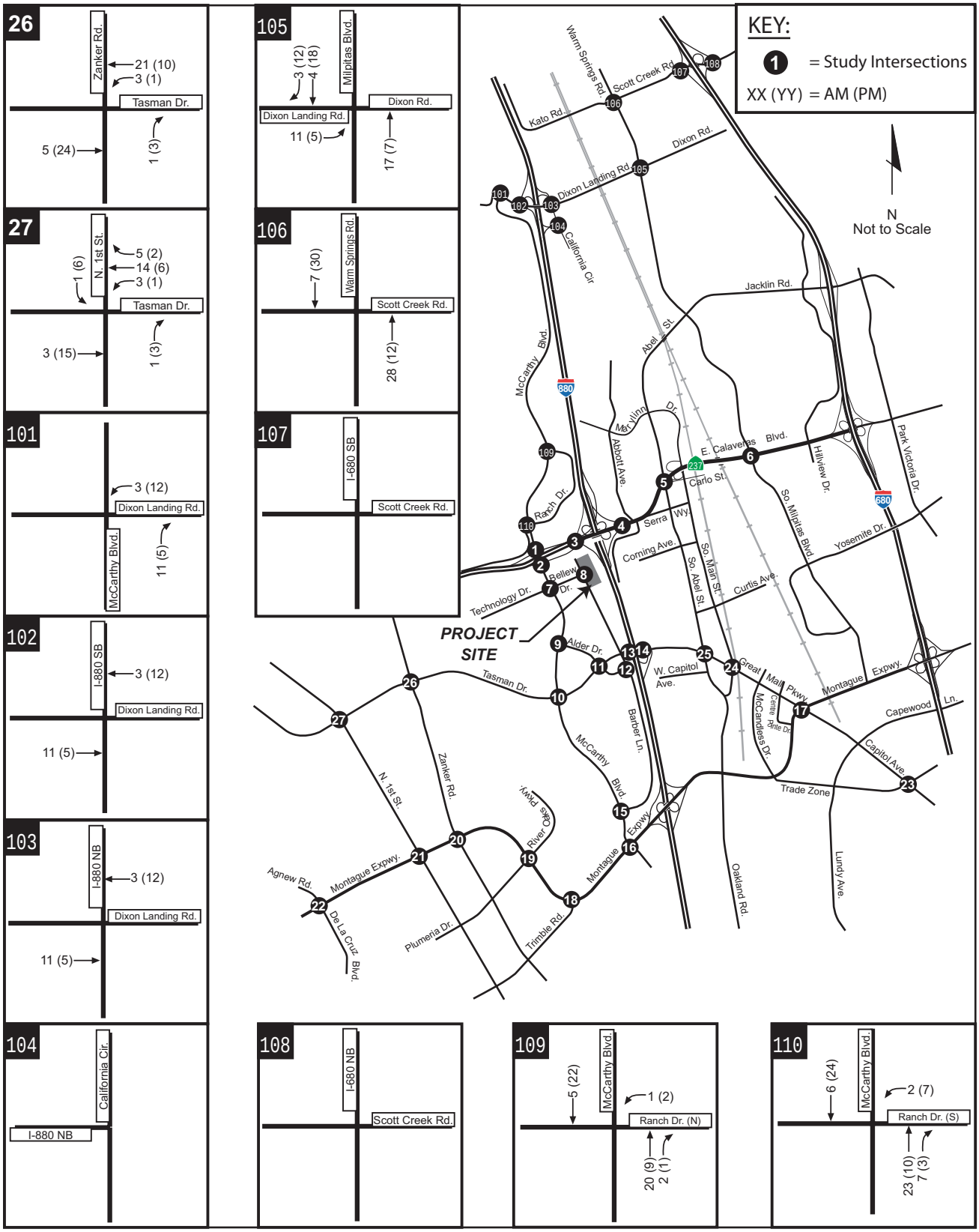
PROJECT TRIP DISTRIBUTION

FIGURE 10B



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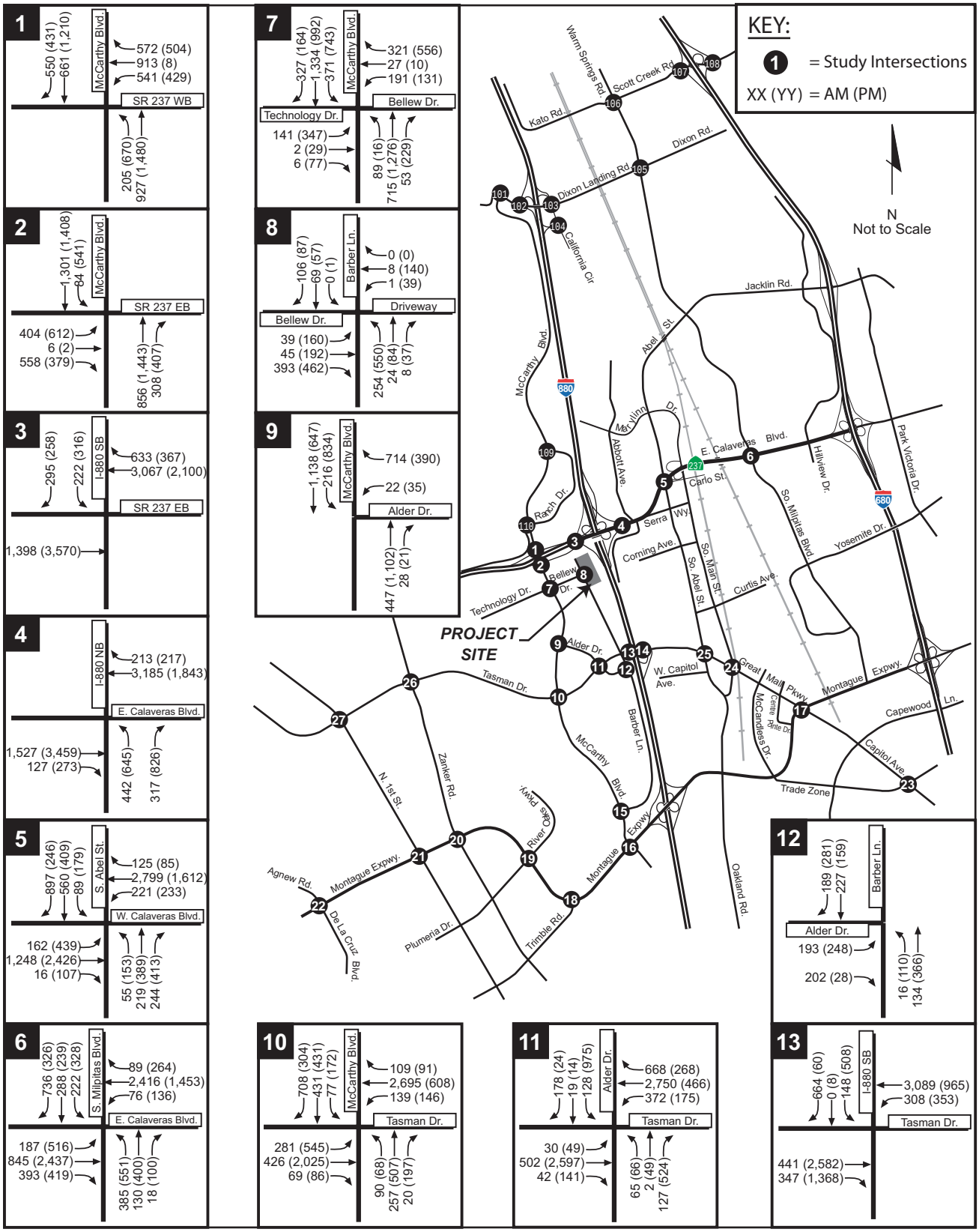
PROJECT TRIP DISTRIBUTION

FIGURE 10C



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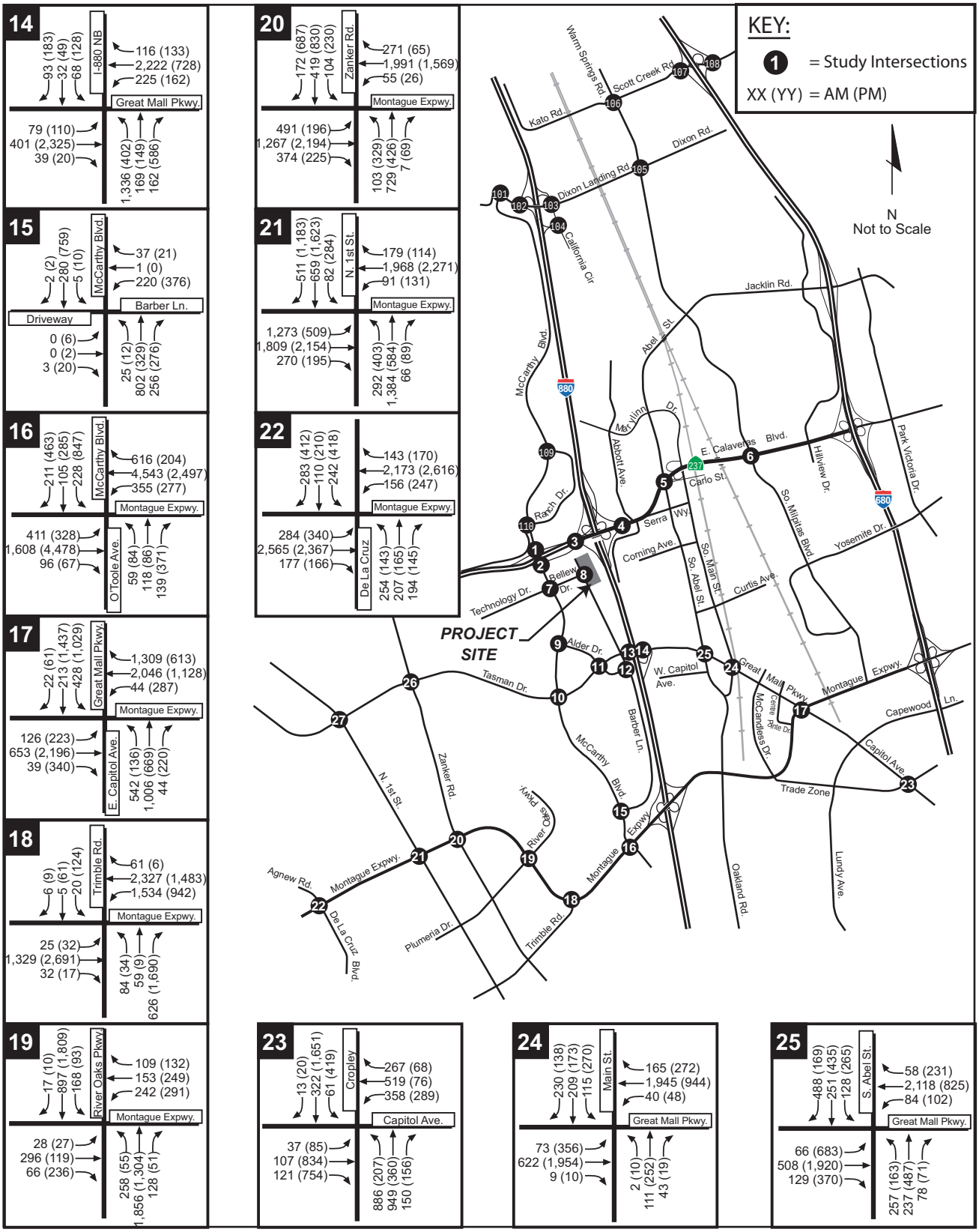
PROJECT PEAK-HOUR INTERSECTION VOLUMES

FIGURE 11A



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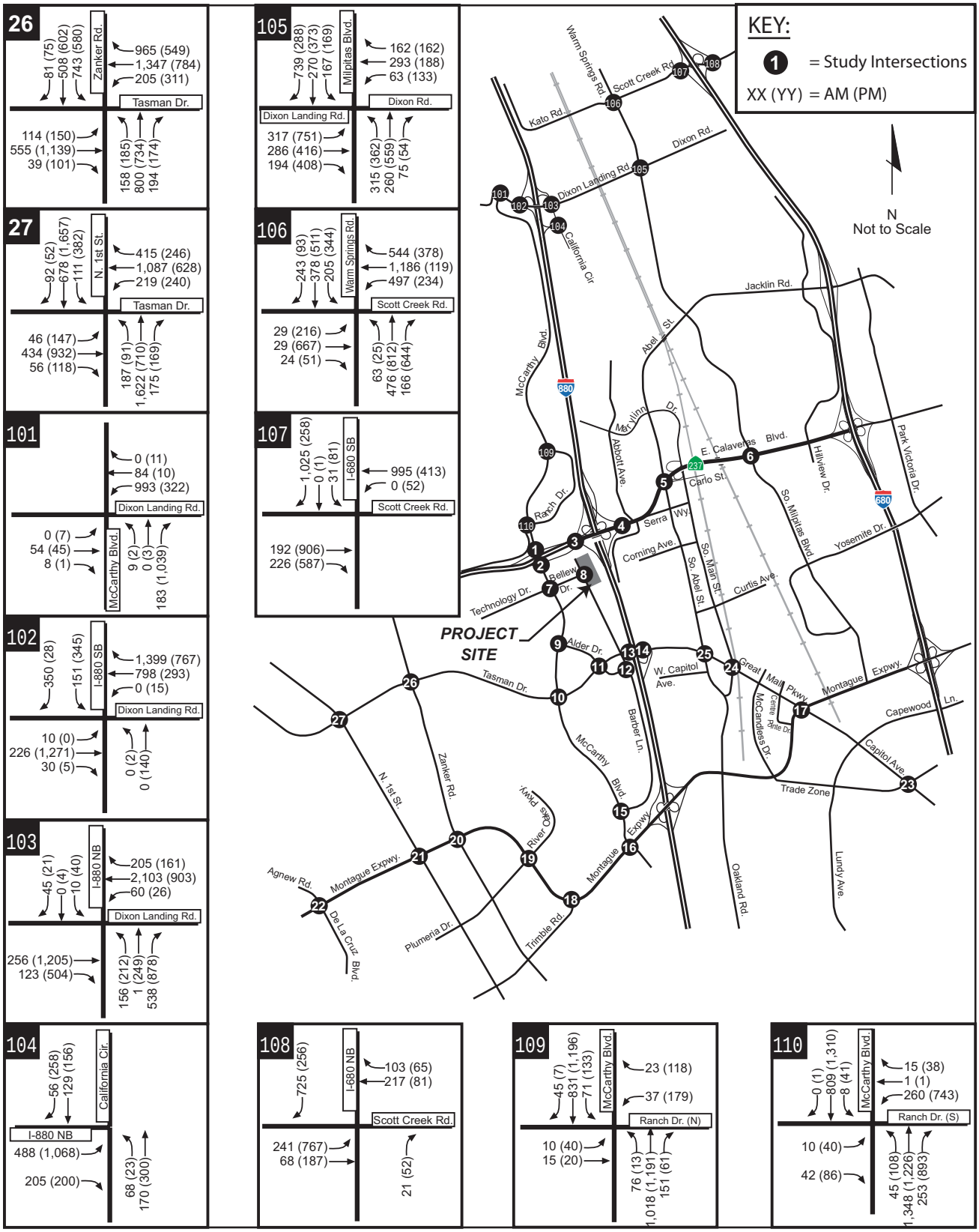
PROJECT PEAK-HOUR INTERSECTION VOLUMES

FIGURE 11B



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PROJECT PEAK-HOUR INTERSECTION VOLUMES

FIGURE 11C

TABLE 9
PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Background		Project				Mitigated Project	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]	Delay[1]	LOS[2]
1. McCarthy Blvd / SR 237 WB Ramps [M]	AM	17.9	B	17.9	B	0.000	0.0		
	PM	24.9	C	25.2	C	0.007	0.8		
2. McCarthy Blvd / SR 237 EB Ramps [M]	AM	15.9	B	16.1	B	0.062	1.3		
	PM	16.6	B	18.0	B	0.07	2.6		
3. SR 237 / I-880 SB Ramps [M]	AM	11.2	B+	11.5	B+	0.009	0.4		
	PM	9.5	A	11.0	B+	0.037	2.3		
4. Calaveras Blvd (SR237) / I-880 NB Ramps [M]	AM	22.6	C+	22.6	C+	0.003	0.1		
	PM	89.3	F	90.7	F	0.007	3.2		
5. Calaveras Blvd / Abel Street [CMP/M]	AM	89.2	F	89.5	F	0.002	1.0		
	PM	53.0	D-	53.8	D-	0.006	0.7		
6. Calaveras Blvd / Milpitas Blvd [CMP/M]	AM	127.0	F	128.5	F	0.005	2.8		
	PM	45.7	D	46.6	D	0.019	2.0		
7. McCarthy Blvd / Bellew Dr [M]	AM	24.0	C	25.2	C	0.017	3.8	24.6	C
	PM	51.1	D-	**81.7**	**F**	**0.118**	**57.6**	53.5	D-
8. Bellew Dr / Barber Ln [M]	AM	10.9	B+	17.6	B	0.131	3.0		
	PM	18.5	B-	18.9	B-	-0.037	0.5		
9. McCarthy Blvd / Alder Dr [M]	AM	17.2	B	17.1	B	0.010	0.1	Significant and Unavoidable	
	PM	61.5	E	**65.2**	**E**	**0.012**	**5.5**		
10. McCarthy Blvd / Tasman Dr [M]	AM	59.8	E+	62.5	E	0.011	3.1		
	PM	41.9	D	42.4	D	0.008	0.4		
11. Tasman Dr / Alder Dr [M]	AM	21.4	C+	22.4	C+	0.007	0.2	Significant and Unavoidable	
	PM	137.0	F	**156.4**	**F**	**0.092**	**23.8**		
12. Barber Ln / Alder Dr [M]	AM	14.0	B	15.7	B	0.135	0.6		
	PM	13.7	C+	18.5	B-	0.071	-0.1		
13. Tasman Dr / I-880 SB Ramps [M]	AM	23.0	C+	23.2	C	0.004	0.2	Significant and Unavoidable	
	PM	61.7	E	**64.5**	**E**	**0.026**	**10.8**		
14. Great Mall Parkway / I-880 NB Ramps [M]	AM	61.0	E	**85.0**	**F**	**0.004**	**32.7**	Significant and Unavoidable	
	PM	58.7	E+	60.1	E	-0.005	3.2		
15. McCarthy Blvd / Barber Ln [M]	AM	16.2	B	19.7	B-	0.076	4.9		
	PM	24.0	C	25.7	C	0.042	3.5		

TABLE 9
PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Background		Project				Mitigated Project	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]	Delay[1]	LOS[2]
16. McCarthy Blvd-O'Toole / Montague Expy [CMP/SJ/M]	AM	53.4	D-	**58.7**	**E+**	**0.022**	**7.7**	42.5	D
	PM	116.3	F	**120.9**	**F**	**0.014**	**6.5**	65.5	E
17. Montague Expy / Great Mall Parkway-Capitol Ave [CMP/M]	AM	79.8	E-	79.8	E-	0.001	0.6		
	PM	94.6	F	96.6	F	0.008	3.7		
18. Montague Expy / Trimble Rd [CMP/SJ]	AM	23.7	C	25.2	C	0.039	1.4		
	PM	35.7	D+	37.8	D+	0.111	4.5		
19. Montague Expy / River Oaks Parkway-E. Plumeria Rd [SJ]	AM	43.9	D	42.2	D	0.008	- 0.3		
	PM	43.7	D	44.8	D	0.024	1.9		
20. Montague Expy / Zanker Rd [CMP/SJ]	AM	50.8	D	50.8	D	0.007	0.1		
	PM	71.8	E	72.3	E	0.004	0.9		
21. Montague Expy / N. 1st St. [CMP/SJ]	AM	106.4	F	107.8	F	0.006	2.4		
	PM	107.4	F	108.7	F	0.002	1.0		
22. Montague Expy / De la Cruz Blvd – Agnew Rd [CMP/SC]	AM	40.1	D	40.1	D	0.005	0.1		
	PM	47.6	D	47.8	D	0.003	0.5		
23. Capitol Ave / Cropley Dr-Trade Zone Blvd [SJ]	AM	36.4	D+	39.4	D	0.055	3.4		
	PM	62.1	E	63.1	E	0.003	0.6		
24. Great Mall Parkway / Main Street [M]	AM	25.8	C	25.8	C	0.001	0.0		
	PM	39.6	D	39.6	D	0.001	0.0		
25. Great Mall Parkway / Abel St [M]	AM	49.5	D	49.5	D	0.003	0.2		
	PM	44.8	D	44.9	D	0.001	0.0		
26. Tasman Dr. / Zanker Rd [SJ]	AM	39.7	D	39.9	D	0.006	0.4		
	PM	39.1	D	39.2	D	0.007	0.2		
27. Tasman Dr. / N. 1st St. [SJ]	AM	40.1	D	40.4	D	0.004	0.5		
	PM	49.0	D	49.6	D	0.005	1.1		
101. Dixon Landing Rd / McCarthy Blvd [F]	AM	10.0	B+	9.9	A	0.001	0.0		
	PM	9.4	A	9.5	A	0.006	-4.5		
102. Dixon Landing Rd / I-880 SB Ramps [M]	AM	9.8	A	9.8	A	0.001	0.0		
	PM	7.8	A	13.4	B	0.089	5.3		
103. Dixon Landing Rd / I-880 NB Ramps – California Circle [M]	AM	16.9	B	16.9	B	0.001	0.0		
	PM	21.5	C+	21.5	C+	0.001	0.0		
104. California Circle / I-880 NB Ramps [M]	AM	12.6	B	12.6	B	0.000	0.0		
	PM	15.3	B	15.3	B	0.000	0.0		

TABLE 9
PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Background		Project				Mitigated Project	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]	Delay[1]	LOS[2]
105. Dixon Landing Rd / N. Milpitas Blvd [M]	AM	67.0	E	68.3	E	0.009	2.4		
	PM	62.2	E	63.4	E	0.011	2.7		
106. Scott Creek Rd. / Warm Springs Blvd. [F]	AM	28.1	C	28.5	C	0.008	0.5		
	PM	36.3	D+	36.3	D+	0.000	0.0		
107. Scott Creek Rd. / I-680 SB Ramps [Unsignalized] [F]	AM	19.8	C	19.8	C				
	PM	13.6	B	13.6	B				
108. Scott Creek Rd. / I-680 NB Ramps [Unsignalized] [F]	AM	8.2	A	8.2	A				
	PM	9.5	A	9.7	A				
109. McCarthy Blvd / Ranch Dr North [M]	AM	11.7	B+	13.3	B	0.008	0.1		
	PM	14.0	B	16.9	B	0.005	0.1		
110. McCarthy Blvd / Ranch Dr South [M]	AM	14.7	B	20.3	C+	0.008	10.3		
	PM	20.9	C+	20.9	C+	-0.229	-1.1		

Notes:

1 Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the *2000 HCM*, with adjusted saturation flow rates to reflect Santa Clara County Conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.

2 LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.

3 Change in the critical volume-to-capacity ratio (V/C) between Background and Project Conditions.

4 Change in critical movement delay between Background and Project Conditions.

(CMP) Congestion Management Program intersection, (F) City of Fremont intersection, (M) City of Milpitas intersection, (SC) City of Santa Clara intersection, (SJ) City of San Jose intersection

Bold text denotes intersections with significant impacts.

TABLE 10
PROJECT MIDDAY INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Existing		Project				Mitigated Project	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]	Delay[1]	LOS[2]
Milpitas Square Only									
7. McCarthy Blvd / Bellew Dr [M]	Mid	24.8	C	43.3	D	+0.350	+24.8		
8. Bellew Dr / Barber Ln [M]	Mid	43.5	D	21.0[5]	C+	-0.248	-27.3		
12. Barber Ln / Alder Dr [M]	Mid	15.9	B	18.9	B-	+0.060	+0.4		

Notes:

1 Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the *2000 HCM*, with adjusted saturation flow rates to reflect Santa Clara County Conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.

2 LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.

3 Change in the critical volume-to-capacity ratio (V/C) between Existing and Project Conditions.

4 Change in critical movement delay between Existing and Project Conditions.

5 Includes improvements proposed by applicant (widen northbound and westbound approaches)

(CMP) Congestion Management Program intersection, (F) City of Fremont intersection, (M) City of Milpitas intersection,

(SC) City of Santa Clara intersection, (SJ) City of San Jose intersection

Bold text denotes intersections with significant impacts.

INTERSECTION IMPACT CRITERIA

The impacts of the project were evaluated by comparing the results of the level of service calculations under Project Conditions to the results under Background Conditions.

City of Milpitas, City of Santa Clara, and City of San Jose

Significant impacts at signalized City of Milpitas (non CMP intersections), Santa Clara (non CMP intersections), and San Jose intersections are defined to occur when the addition of project traffic causes one of the following:

1. Intersection operations to degrade from an acceptable level (LOS D or better) under Background Conditions to an unacceptable level (LOS E or F) under Project Conditions.
2. Exacerbation of unacceptable operations (LOS E or F) by increasing the critical delay by more than 4 seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more.
3. An increase in the V/C ratio of 0.01 or more at an intersection with unacceptable operations (LOS E or F) when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

Valley Transportation Authority

Significant impacts at CMP intersections are defined to occur when the addition of project traffic causes one of the following:

1. Intersection operations to degrade from an acceptable level (LOS E or better for CMP intersections) under Background Conditions to an unacceptable level (LOS F) under Project Conditions.
2. Exacerbation of unacceptable LOS F operations by increasing the critical delay by more than 4 seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more.
3. An increase in the V/C ratio of 0.01 or more at an intersection with unacceptable LOS F operations when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

City of Fremont

Significant impacts at signalized City of Fremont intersections are defined to occur when the addition of project traffic causes one of the following:

1. Intersection operations to degrade from an acceptable level (LOS D or better) under Background Conditions to an unacceptable level (LOS E or F) under Project Conditions.
2. Exacerbation of unacceptable operations (LOS E or F) by increasing the average delay by more than 4 seconds.

INTERSECTION IMPACTS AND MITIGATION MEASURES

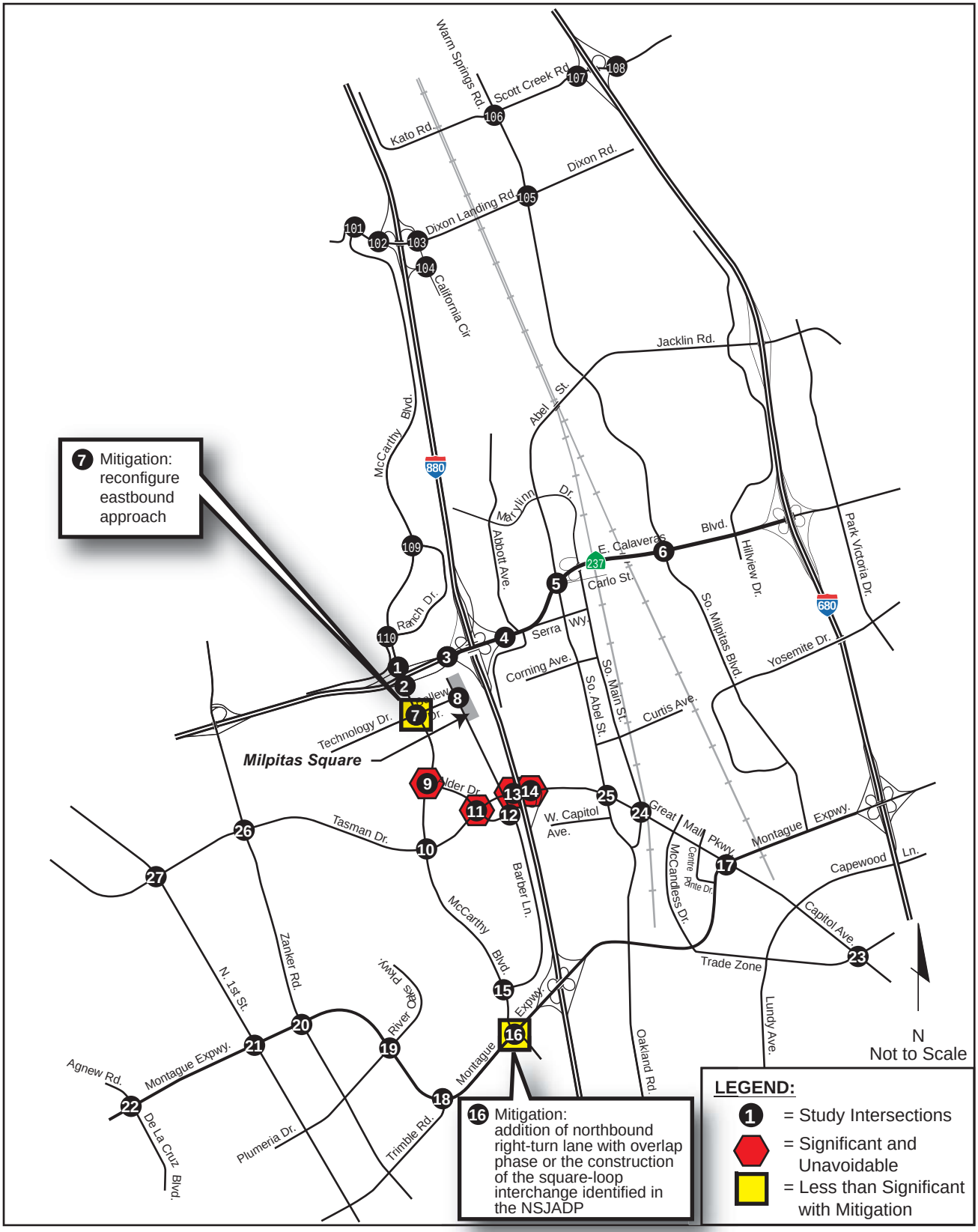
Based on the impact criteria listed above, the proposed project will have a significant impact at six study intersections. The following measures are recommended to mitigate the significant impacts. Figure 12 shows graphically the impacts and proposed mitigation measures. Appendix C contains the corresponding mitigation calculation sheets.

City of Milpitas Intersections (non-CMP intersections)

McCarthy Boulevard / Bellew Drive – The addition of project traffic degrades intersection operations to an unacceptable level during the PM peak hour. Re-striping of the eastbound approach (one left-turn, one through, and one right-turn lane) to provide two left-turn lanes and one shared through/right-turn lane would provide LOS D- operations and mitigate the project's impact to a ***less-than-significant*** level.

McCarthy Boulevard / Alder Drive – Project traffic exacerbates unacceptable intersection operations (LOS E) during the PM peak hour. The addition of a second southbound left-turn lane from McCarthy Boulevard to Alder Drive improves intersection operations. The southbound approach and southbound receiving lanes on McCarthy Boulevard would need to be shifted westwards to accommodate a 2nd southbound left-turn lane. This improvement requires right-of-way on the west side of McCarthy Boulevard that cannot be acquired. Therefore, the project's impact to at this location is considered ***significant and unavoidable*** level.

Alder Drive / Tasman Drive – Traffic from the proposed project exacerbates LOS F operations during the PM peak hour. Conversion of one southbound (Alder Drive) through lane to a left-turn lane to provide a total of three southbound left-turn lanes improves intersection operations; however, this improvement would impact pedestrian and bicycle activity and degrade signal progression along Tasman Drive. Thus, the project impact is ***significant and unavoidable***.



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December 2008
SJ07-997

Milpitas Square

PROJECT-LEVEL INTERSECTION IMPACTS AND MITIGATION

FIGURE 12

Tasman Drive / I-880 SB Ramps – Traffic from the proposed project exacerbates LOS E operations during the PM peak hour. The addition of a free right-turn movement from eastbound Tasman Drive to the southbound I-880 on-ramp would mitigate the impact. However, this improvement is considered infeasible due to right-of-way constraints. The overpass would require widening to accommodate the channelized eastbound right-turn movement and the elevated on-ramp would require widening to accommodate the receiving vehicles from the eastbound approach. These improvements are beyond the scope of an individual development and the improvement is not identified in a Capital Improvement Programs or other funding mechanism that would allow for a fair-share contribution to this mitigation. Signal coordination with adjacent intersections (i.e., Tasman Drive/Alder Drive and Great Mall Parkway/I-880 NB Ramps) will be the primary method of improving operations. However, the project impact would still be ***significant and unavoidable***.

Great Mall Parkway / I-880 NB Ramps – Traffic from the proposed project exacerbates operations during the AM peak hour. Widening of the northbound I-880 Ramp approach to provide a third dedicated left-turn lane would improve operations of this intersection in both peak hours; however, this mitigation is not considered feasible because right-of-acquisition, relocation of the soundwall and fence, and elimination of neighborhood open space is required to implement the improvement. The proposed mitigation measure would also impact the existing light-rail tracks in the center of Tasman Drive-Great Mall Parkway as modifications may be required to accommodate the receiving traffic from the three left-turning lanes. Signal coordination with adjacent intersections (i.e., Tasman Drive/I-880 SB Ramps) will be the primary method of improving operations. However, the project's impact at this intersection would still be considered ***significant and unavoidable***.

CMP/City of San Jose Intersection

McCarthy Boulevard-O'Toole Avenue / Montague Expressway –There are two options that would mitigate the project impact at the intersection of McCarthy Boulevard-O'Toole Avenue /Montague Expressway to a less than significant level.

- Option 1 – Widen the northbound approach approximately three feet to provide a dedicated right turn lane from northbound O'Toole Avenue to eastbound Montague Expressway. With this improvement, the intersection would operate at LOS D during the AM peak hour and LOS E during the PM peak hour. The dedicated right turn lane would extend from Rincon Avenue to Montague Expressway, approximately 250 feet. Right-of-way acquisition along the east side of the north approach would be necessary. The south half of the intersection is within the jurisdiction of the City of San Jose and, therefore, the above-described mitigation is outside the control of the City of Milpitas to implement. Mitigation that reduces sidewalk widths below the City standard is not allowed under City of San Jose Transportation Impact Policy 5-3. The standard sidewalk width in North San Jose is five feet. The existing sidewalk is five and one-half feet wide. Therefore, in order to implement this mitigation consistent with adopted policy, approximately two and one-half feet of right-of-way behind the sidewalk would need to be acquired from the adjacent private property for the length of the dedicated right turn lane. This equates to the acquisition of approximately 513 square feet of right-of-way (i.e., 2.5 square feet x 250 feet = 625 square feet). The mitigation would also require relocating existing utilities (e.g., a light pole). The landscape reduction and utility relocation would not result in a significant impact.

- Option 2 – A square-loop interchange is planned to be constructed at the intersection of McCarthy Boulevard-O'Toole Avenue/Montague Expressway under Phase 3 of the North San Jose Area Development Policy (NSJADP). With the square loop interchange, a level of service is not reported at this location because the intersection is eliminated (Montague Expressway will be elevated over McCarthy Boulevard with on and off-ramps located to the west). The project's impact at this location will be less than significant. The City of San Jose has stated that payment of an in-lieu fee towards

the planned square-loop interchange is acceptable and is the preferred mitigation for the project impact at this intersection. The dollar amount of the in-lieu fee would be equal to the cost to implement the lane shift (Option 1) or the appraised value of the right-of-way needed to construct the dedicated right turn lane (625 square feet, described in Option 2, above). The NSJADP is the adopted program that would allow for a fair-share contribution to this mitigation. The NSJADP does not establish a timeline for the development phases. The amount of development and its timing will be determined by the economy, markets, and the decisions made by private sector property owners and developers. Therefore, if the City of Milpitas accepts the City of San Jose's timeline for implementation of the mitigation (i.e., unknown), then payment of the in-lieu fee would mitigate the project's traffic impact at the intersection of McCarthy Boulevard-O'Toole Avenue /Montague Expressway.

PROJECT FREEWAY SEGMENT LEVELS OF SERVICE

Project-generated traffic volumes were added to existing traffic volumes for each freeway mainline segment. These volumes were then used to re-calculate density for each segment under Project Conditions. The resultant freeway segment operations are presented in Table 11.

TABLE 11
PROJECT FREEWAY SEGMENT LEVELS OF SERVICE

Freeway Direction	From	To	Peak Hour	Existing Conditions		Project Conditions			
				Density[1]	LOS[2]	Trips	Density[1]	LOS[2]	% Impact[3]
I-880 Northbound	Brokaw Road	Montague Expressway	AM	31	D	8	31	D	0.12%
			PM	26	C	73	26	D	1.06%
	Montague Expressway	Great Mall Parkway	AM	26	C	4	26	D	0.06%
			PM	26	C	43	26	D	1.06%
	Great Mall Parkway	SR 237	AM	31	D	9	31	D	0.13%
			PM	46	D	30	46	E	0.43%
	SR 237	Dixon Landing Road	AM	35	D	31	33	D	0.37%
			PM	112	F	27	106	F	0.33%
	Dixon Landing Road	Mission Blvd. (SR 262)	AM	38	D	31	39	D	0.45%
			PM	107	F	27	108	F	0.39%
I-880 Southbound	Mission Blvd. (SR 262)	Dixon Landing Road	AM	43	D	8	43	D	0.12%
			PM	24	C	61	24	C	0.88%
	Dixon Landing Road	SR 237	AM	45	D	8	38	D	0.09%
			PM	23	C	61	20	C	0.66%
	SR 237	Great Mall Parkway	AM	22	C	2	22	C	0.03%
			PM	21	C	18	21	C	0.26%
	Great Mall Parkway	Montague Expressway	AM	29	D	17	29	D	0.25%
			PM	85	F	33	86	F	0.48%
	Montague Expressway	Brokaw Road	AM	26	C	34	26	D	0.49%
			PM	80	F	33	81	F	0.48%

TABLE 11
PROJECT FREEWAY SEGMENT LEVELS OF SERVICE

Freeway Direction	From	To	Peak Hour	Existing Conditions		Project Conditions			
				Density[1]	LOS[2]	Trips	Density[1]	LOS[2]	% Impact[3]
SR 237 Eastbound	Zanker Road	McCarthy Boulevard	AM	26	C	5	26	D	0.11%
			PM	42	D	105	43	D	2.28%
	McCarthy Boulevard	I-880	AM	15	B	55	23	C	1.20%
			PM	54	E	**60**	**82**	**F**	**1.30%**
SR 237 Westbound	I-880	McCarthy Boulevard	AM	164	F	14	165	F	0.20%
			PM	29	D	152	30	D	2.20%
	McCarthy Boulevard	Zanker Road	AM	147	F	21	149	F	0.38%
			PM	94	F	45	95	F	0.82%
I-680 Northbound	Capitol Avenue	Montague Expressway	AM	39	D	0	39	D	0.0%
			PM	22	C	0	22	C	0.0%
	Montague Expressway	Yosemite Drive	AM	30	D	0	30	D	0.0%
			PM	28	D	0	28	D	0.0%
	Yosemite Drive	Calaveras Blvd. (SR 237)	AM	48	E	0	48	E	0.0%
			PM	44	D	0	44	D	0.0%
	Calaveras Blvd. (SR 237)	Jacklin Road	AM	41	D	0	41	D	0.0%
			PM	95	F	0	95	F	0.0%
	Jacklin Road	Scott Creek Road	AM	35	D	0	35	D	0.0%
			PM	80	F	0	80	F	0.0%
	Scott Creek Road	Mission Blvd. (SR 262)	AM	33	D	0	33	D	0.0%
			PM	73	F	0	73	F	0.0%
I-680 Southbound	Mission Blvd. (SR 262)	Scott Creek Road	AM	38	D	0	38	D	0.0%
			PM	28	D	0	28	D	0.0%
	Scott Creek Road	Jacklin Road	AM	33	D	0	33	D	0.0%
			PM	29	D	0	29	D	0.0%
	Jacklin Road	Calaveras Blvd. (SR 237)	AM	36	D	0	36	D	0.0%
			PM	28	D	0	28	D	0.0%
	Calaveras Blvd. (SR 237)	Yosemite Drive	AM	25	C	0	25	C	0.0%
			PM	53	E	0	53	E	0.0%
	Yosemite Drive	Montague Expressway	AM	31	D	0	31	D	0.0%
			PM	92	F	0	92	F	0.0%
	Montague Expressway	Capitol Avenue	AM	23	C	0	23	C	0.0%
			PM	98	F	0	98	F	0.0%

TABLE 11
PROJECT FREEWAY SEGMENT LEVELS OF SERVICE

Freeway Direction	From	To	Peak Hour	Existing Conditions		Project Conditions			
				Density[1]	LOS[2]	Trips	Density[1]	LOS[2]	% Impact[3]

Notes:
1 Measured in passenger cars per mile per lane.
2 LOS = level of service.
3 Percent impact on mixed flow lanes determined by dividing the number of project trips by the freeway segment's capacity.
Bold text denotes freeway segments with significant impacts.
Source: VTA, December 2006.

FREEWAY IMPACTS AND MITIGATION MEASURES

The impacts of the project were evaluated by comparing the results of the level of service calculations under Project Conditions to the results under Existing Conditions. Significant impacts to freeway segments are defined to occur when the addition of project traffic causes one of the following:

1. The addition of project traffic causes a segment to drop below its acceptable CMP operating standard (LOS E).
2. The amount of project traffic added to a segment already operating at LOS F is more than one percent of its capacity.

Based on the impact criteria listed above, the proposed project will have a significant impact to the following study freeway segments: Eastbound SR 237, McCarthy Boulevard to I-880 (PM peak hour).

The Lead Agency for the development project must include programs or facilities delineated in the "Immediate Implementation Action List" (Appendix D) as part of the project's approval if the freeway impact cannot be reduced to a less-than-significant level. Measures from the list (Appendix F contains the full list) that are appropriate for this project include:

- Improve Pedestrian Facilities (A-4)
- Shuttle (B-3)
- Bus Stop Improvements (B-8)
- Traffic signal timing and synchronization program (F-3)
- HOV parking preference program (G-1)
- Bike facilities (G-2)
- Pedestrian circulation system (G-4)

While implementation of these measures would incrementally reduce traffic, they would not reduce the identified impact to a less-than-significant level. Widening of the freeway to mitigate impacts is considered beyond the scope of any one project. Thus, the addition of project traffic results in a ***significant and unavoidable impact*** to the freeway segment. It should be noted that the City of Milpitas is currently preparing a deficiency plan to identify local and regional improvements.

According to the *Valley Transportation Plan 2030*, improvements to I-680, I-880, and SR 237 are planned; however, these improvements are not yet funded.

PEDESTRIAN, BICYCLE, AND TRANSIT FACILITIES

The project causes a significant impact to pedestrian, bicycle, and transit facilities and services if an element of the proposed project conflicts with existing or planned pedestrian, bicycle, and transit services, or the proposed project creates hazardous conditions for pedestrians or bicyclists that currently do not exist.

The project would generate pedestrian, bicycle, and transit demand. Existing sidewalks are provided adjacent to and in the vicinity of the site. Crosswalks are provided at all study intersections in the study area. Sidewalks and paths provide direct links to adjacent land uses and to the VTA light rail station on Tasman Drive. Bicycle lanes are provided on Barber Lane and bicycle facilities are provided on other roadways near the site. Thus, the proposed project has a ***less-than-significant*** impact to the existing bicycle facilities.

The project site is served by fixed-route bus service with stops located just south of the project site. According to the VTA, the average load factor for Route 33 is 0.11 in the Barber Lane area (this information is based upon surveys conducted prior to the new January 2008 schedules). This results in average load of approximately four passengers on a 38-seat bus. The project includes bus duck-outs on Barber Lane adjacent to the project site. The existing and planned pedestrian facilities and transit service would be able to accommodate the increased demand; therefore, the project would create ***less-than-significant*** impacts to these facilities.

SITE ACCESS AND ON-SITE CIRCULATION

Site Access

Figure 2 presents the proposed site plan. The site plan includes roadway improvements on Barber Lane to support future development at the adjacent Landmark Towers site by providing a center left turn lane along the Milpitas Square frontage.

Milpitas Square proposes to provide five driveways on Barber Lane – one located north of Bellew Drive, one forming the east leg of the Barber Lane/Bellew Drive intersection, and three located south of Bellew Drive. Of the driveways south of Bellew Drive, one provides full access (left-turn in and right-turns in and out) to Building A's parking structure, one provides access to the internal on-site circulation roadway, and the third provides access (left-turn in and right-turns in and out) to the Building B parking structure. This development also reconfigures the intersection geometry at Barber Lane/Bellew Drive to accommodate a dedicated northbound left-turn lane in addition to improvements on the southbound and westbound approaches.

The number of driveways is sufficient to accommodate project traffic. However, the following operations are anticipated:

- Northbound left-turn vehicles queued at the Barber Lane/Bellew Drive intersection will extend south past the Building A driveway during the peak hours. When this occurs, the queue will prevent southbound Barber Lane vehicles from turning left into the Building A driveway. The proposed

mitigation to add a second northbound left-turn lane would help to reduce queuing on this approach; however, queues may still extend to Building A occasionally.

- Outbound left-turn vehicles at the driveway located between Buildings A and B will operate at unacceptable levels. To avoid delays at this location, vehicles desiring to travel south may choose to exit at the signalized Barber Lane/Bellew Drive intersection.

The following are recommended to improve site access:

- Restrict movements at the Barber Lane driveway to Building A to right-turns in and out only if northbound Barber Lane vehicles consistently queue past the driveway. Alternatively, provide a "Keep Clear" legend on the two northbound lanes (a left-turn lane and a through lane) on Barber Lane.

- Restrict movements at the Barber Lane driveway to Building B to right-turns in and out only when the adjacent Landmark Towers develops.

On Site Circulation

The project will include a central internal roadway on which approximately 95 angled parking spaces will be located. At the southern end of the roadway, an offset intersection provides access to the parking garages to Buildings B and C.

The site's specific design elements create potential conflict points on the site that may result in queuing or cause excessive circulation by vehicles looking for parking. The following operations are anticipated:

- The angled parking on the main internal aisle provides central and direct access to the retail uses. Thus, these parking spaces will be in high demand, which may cause vehicles to wait in the travel lanes for spaces to turn over.

- The offset intersection at the northeast corner of Building B will require one or more turn maneuvers for vehicles to access Buildings B and C garages. Since these garages provide approximately 50 percent of the project's proposed parking supply, substantial queuing and congestion is anticipated at this location.

- Service driveways for Buildings A, B, and F are provided on Barber Lane could create conflicts between trucks that are loading or unloading and pedestrians, bicyclists, and other vehicles. Additionally, loading docks will have to maneuver between the substantial queuing and congestion anticipated along Barber Lane during the peak hours.

The following are recommended to improve on-site access:

- Monitor turn-over at the angled parking spaces along the internal roadway and provide traffic control officers to direct vehicles to garages should vehicles stop in the roadway to access the parking.

- Provide a stop sign for the north and south legs at the internal off-set intersection to clearly define the right of way. This provides inbound traffic with uncontrolled access will minimize the potential for vehicles to queue back to the Barber Lane driveway.

- Implement some or all of the following measures to improve truck loading access:

    - Restrict delivery hours to off-peak periods and/or periods when fewer vehicles and pedestrians are present;

- Ensure clear sight lines exist so that garbage trucks exiting the Building A, B, and F driveways do not block the sidewalk while waiting to exit;
- Ensure that the driveway curbs do not create cross-slope problems for pedestrians (i.e. ensure that the grade of the curb cut meets ADA guidelines for sidewalk design);
- Require trucks entering the loading dock to back-into the dock when possible;
- Provide a painted or textured pavement area through the driveway to extend the sidewalk through the loading area and delineating the pedestrian space;
- When a final site plan is provided, turning templates should be applied to ensure that trucks using the loading dock will have sufficient space to exit the docks without affecting surrounding curbs; and
- Designate loading spaces on-site for residents to park moving vans/trucks.

5. INTERIM CUMULATIVE CONDITIONS

This chapter discusses the operations of key intersections under interim cumulative conditions. Interim cumulative conditions include traffic from the Milpitas Square project plus three other pending developments near the project site.

PENDING PROJECTS

A brief description of each of the interim cumulative projects is listed below:

The Campus at McCarthy Ranch – This project is located on west side of McCarthy Boulevard, between the south and north legs of Ranch Drive. The applicant proposes to increase the site's approved FAR from 0.35 to 0.50, resulting in 1,416,000 square feet (s.f.) of total office space. The site currently contains 416,000 s.f. of vacant office space with approval for up to 991,000 s.f. The net increase in square footage, or 425,000 s.f., was included in this scenario.

Landmark Tower – This project is a proposed mixed-use development located on the east side of Barber Lane, south the Milpitas Squares parcel on Bellew Drive and adjacent to I-880. The project proposal includes 375 condominium units, 148,805 s.f. retail space, and 48,960 s.f. of office space.

Peery-Arrillaga – This project is located west of McCarthy Boulevard at Alder Drive. The project applicant proposes to construct 238,400 s.f. of new office space on a vacant parcel.

INTERIM CUMULATIVE ROADWAY NETWORK

The roadway network under project conditions, including the intersection improvements associated with the project (Milpitas Square), was assumed for this scenario.

INTERIM CUMULATIVE TRAFFIC VOLUMES

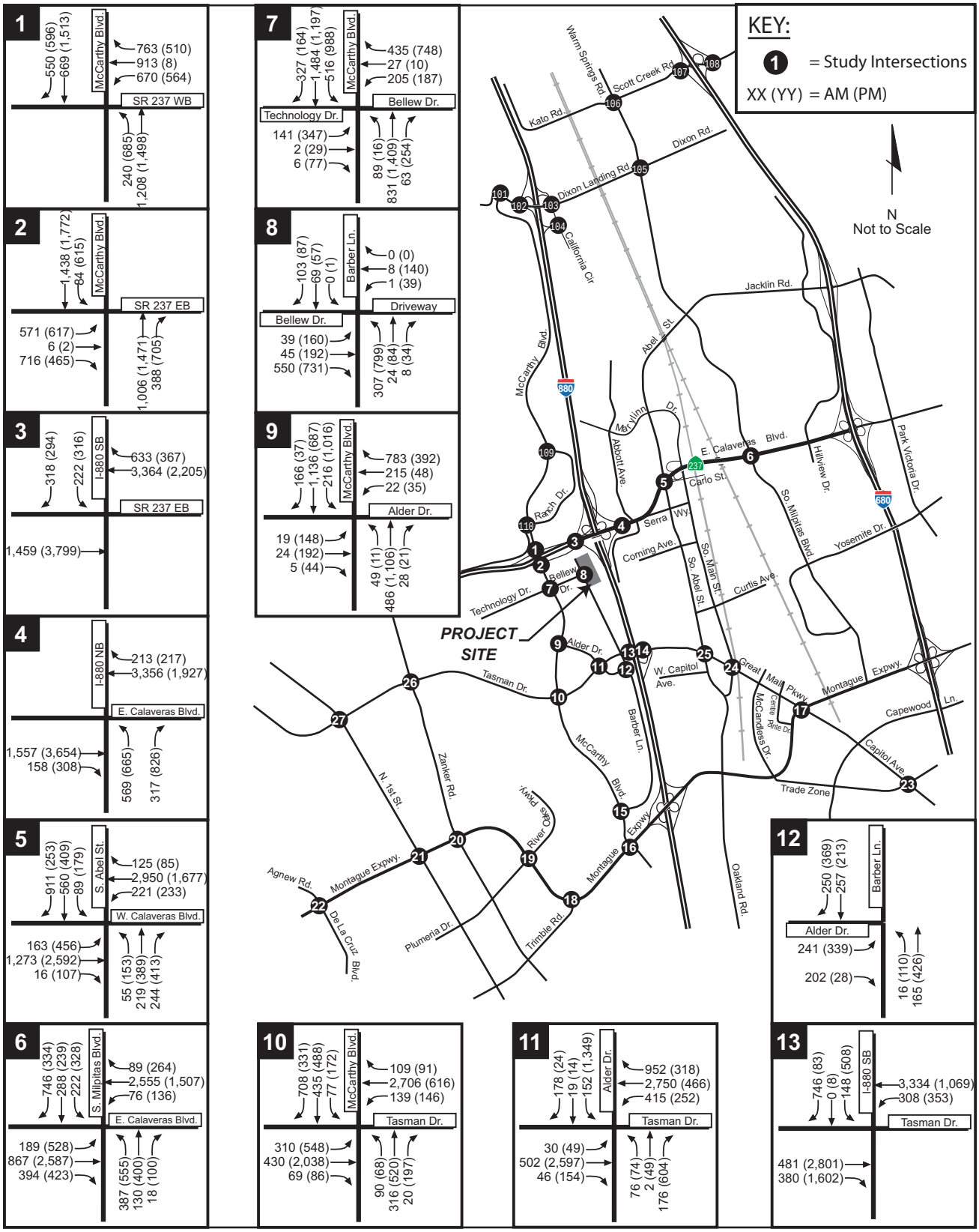
Appendix F contains the trip generation estimates for the pending projects and traffic from these projects were assigned to the roadway system using the process described in Chapter 4. The pending trips were then added to the Project traffic volumes to represent Interim Cumulative Conditions volumes as shown on Figure 13.

INTERIM CUMULATIVE INTERSECTION LEVELS OF SERVICE

Level of service calculations were conducted for the key intersections to evaluate their operations under Interim Cumulative Conditions. The results of the LOS analysis are presented in Table 12. The interim cumulative conditions of the intersections of Barber Lane/Bellew Drive and McCarthy Boulevard/Bellew Drive during the mid-day peak hour are presented in Table 13. Appendix B contains the corresponding calculation sheets.

INTERSECTION IMPACT CRITERIA

The level of service calculations under Interim Cumulative Conditions were compared to Background Conditions and the significance criteria presented in Chapter 4 were used to identify interim cumulative impacts.



Milpitas Square

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INTERIM CUMULATIVE PEAK-HOUR INTERSECTION VOLUMES

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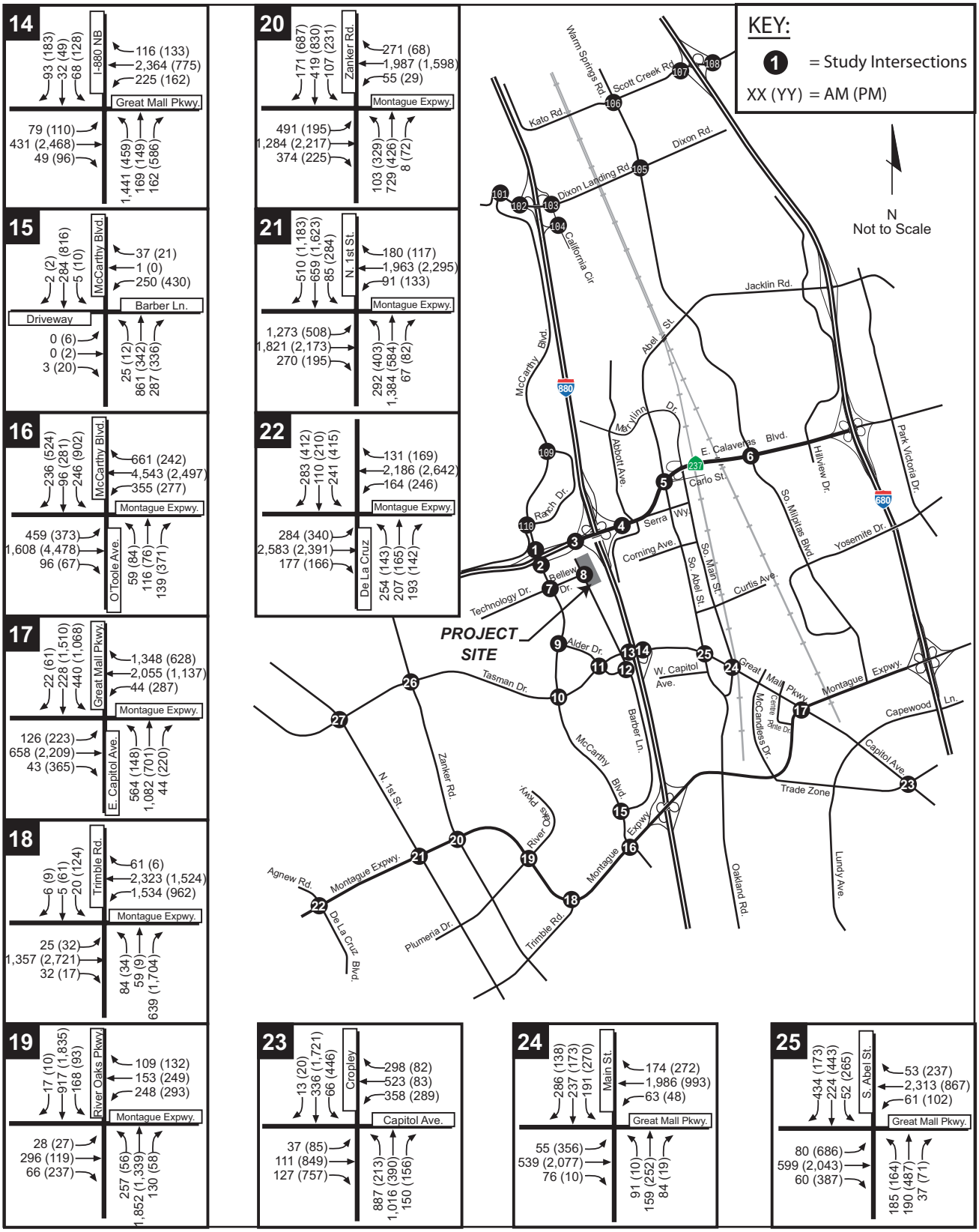
FIGURE 12A



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INTERIM CUMULATIVE PEAK-HOUR INTERSECTION VOLUMES

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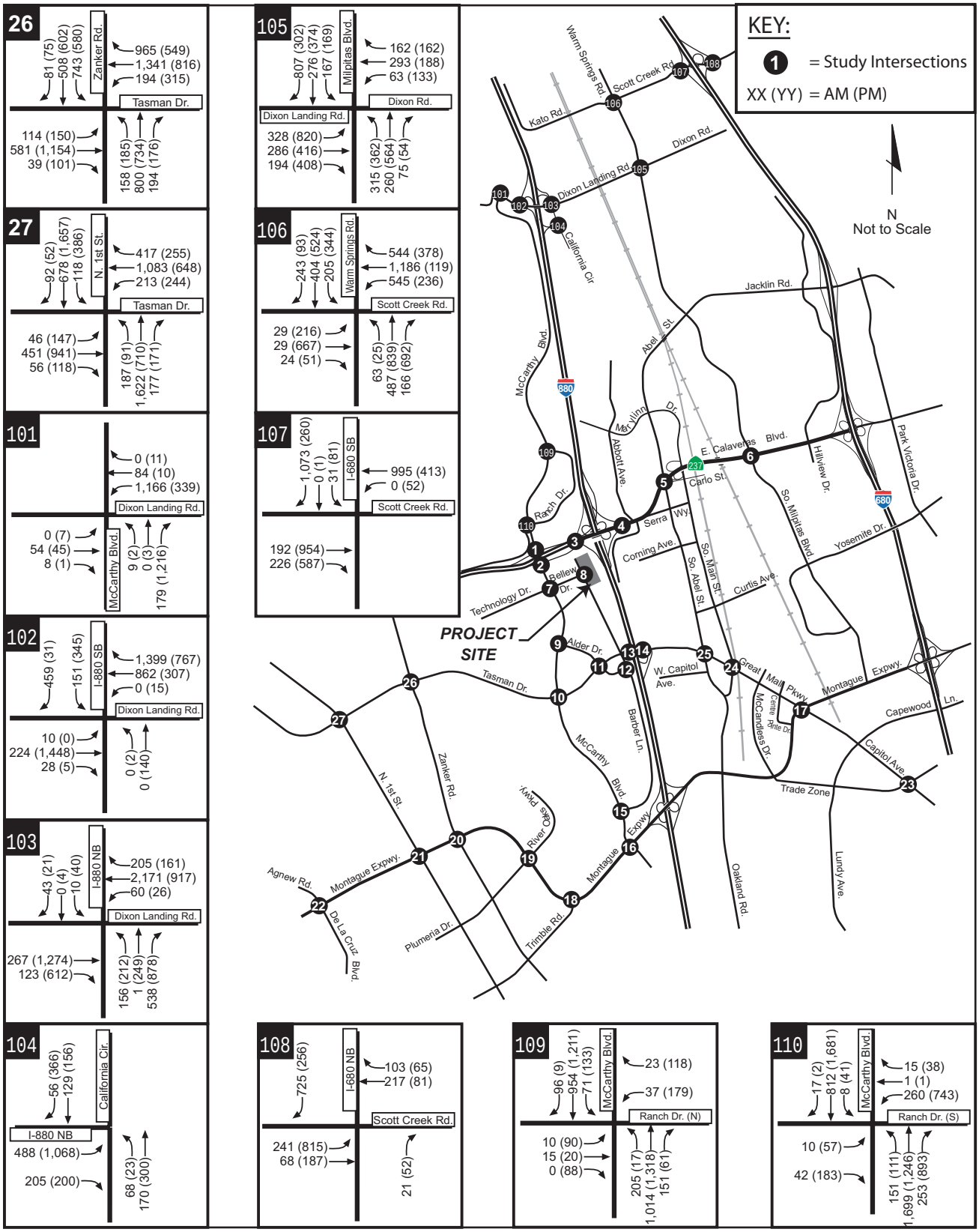
FIGURE 12B



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INTERIM CUMULATIVE PEAK-HOUR INTERSECTION VOLUMES

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FIGURE 12C

TABLE 12
INTERIM CUMULATIVE INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Background		Interim Cumulative				Mitigated Interim Cumulative	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]	Delay[1]	LOS[2]
1. McCarthy Blvd / SR 237 WB Ramps [M]	AM	17.9	B	25.4	C	0.141	25.2		
	PM	24.9	C	40.7	D	0.117	24.9		
2. McCarthy Blvd / SR 237 EB Ramps [M]	AM	15.9	B	19.7	B-	0.216	7.5		
	PM	16.6	B	28.5	C	0.222	20.8		
3. SR 237 / I-880 SB Ramps [M]	AM	11.2	B+	12.7	B	0.079	2.3		
	PM	9.5	A	13.2	B	0.101	5.8		
4. Calaveras Blvd (SR237) / I-880 NB Ramps [M]	AM	22.6	C+	24.7	C	0.034	0.9	24.8	C
	PM	89.3	F	**100.5**	**F**	**0.043**	**18.6**	48.5	D
5. Calaveras Blvd / Abel Street [CMP/M]	AM	89.2	F	**99.9**	**F**	**0.040**	**17.3**	Significant and Unavoidable	
	PM	53.0	D-	57.0	E+	0.038	5.4		
6. Calaveras Blvd / Milpitas Blvd [CMP/M]	AM	127.0	F	**142.0**	**F**	**0.052**	**22.2**	85.5	F
	PM	45.7	D	48.0	D	0.040	4.4	45.4	D
7. McCarthy Blvd / Bellew Dr [M]	AM	24.0	C	31.8	C	0.079	16.2	Significant and Unavoidable	
	PM	51.1	D-	**126.7**	**F**	**0.259**	**133.2**		
8. Bellew Dr / Barber Ln [M]	AM	10.9	B+	19.0	B-	0.250	3.6		
	PM	18.5	B-	21.4	C+	0.069	1.9		
9. McCarthy Blvd / Alder Dr [M]	AM	17.2	B	23.3	C	0.162	8.8	Significant and Unavoidable	
	PM	61.5	E	**> 150**	**F**	**0.255**	**137.6**		
10. McCarthy Blvd / Tasman Dr [M]	AM	59.8	E+	**65.1**	**E**	**0.016**	**6.6**	Significant and Unavoidable	
	PM	41.9	D	44.1	D	0.049	3.7		
11. Tasman Dr / Alder Dr [M]	AM	21.4	C+	24.7	C	0.018	1.3	Significant and Unavoidable	
	PM	137.0	F	**> 150**	**F**	**0.328**	**129.7**		
12. Barber Ln / Alder Dr [M]	AM	14.0	B	17.6	B	0.206	1.1		
	PM	13.7	C+	18.7	B-	0.380	9.1		
13. Tasman Dr / I-880 SB Ramps [M]	AM	23.0	C+	26.0	C	0.076	3.8	Significant and Unavoidable	
	PM	61.7	E	**87.8**	**F**	**0.179**	**74.8**		
14. Great Mall Parkway / I-880 NB Ramps [M]	AM	61.0	E	**111.6**	**F**	**0.069**	**66.0**	Significant and Unavoidable	
	PM	58.7	E+	**66.8**	**E**	**0.111**	**13.5**		
15. McCarthy Blvd / Barber Ln [M]	AM	16.2	B	21.7	C+	0.132	7.9		
	PM	24.0	C	32.1	C	0.111	13.5		

TABLE 12
INTERIM CUMULATIVE INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Background		Interim Cumulative				Mitigated Interim Cumulative	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]	Delay[1]	LOS[2]
16. McCarthy Blvd-O'Toole /	AM	53.4	D-	**65.8**	**E**	**0.051**	**18.5**	45.2	D
Montague Expy [CMP/SJ/M]	PM	116.3	F	**127.7**	**F**	**0.036**	**16.4**	69.7	E
17. Montague Expy / Great Mall	AM	79.8	E-	**89.1**	**F**	**0.047**	**18.5**	Significant and Unavoidable	
Parkway-Capitol Ave [CMP/M]	PM	94.6	F	**102.8**	**F**	**0.032**	**15.6**		
18. Montague Expy / Trimble Rd	AM	23.7	C	23.8	C	0.011	0.1		
[CMP/SJ]	PM	35.7	D+	36.4	D+	0.023	0.6		
19. Montague Expy / River Oaks	AM	43.9	D	42.1	D	0.014	-0.2		
Parkway-E. Plumeria Rd [SJ]	PM	43.7	D	44.4	D	0.034	1.6		
20. Montague Expy / Zanker Rd	AM	50.8	D	50.8	D	0.012	0.3		
[CMP/SJ]	PM	71.8	E	73.1	E	0.012	2.6		
21. Montague Expy / N. 1st St.	AM	106.4	F	108.3	F	0.009	3.5		
[CMP/SJ]	PM	107.4	F	110.4	F	0.008	3.1		
22. Montague Expy / De la Cruz	AM	40.1	D	40.1	D	0.007	0.1		
Blvd – Agnew Rd [CMP/SC]	PM	47.6	D	48.3	D	0.008	1.3		
23. Capitol Ave / Cropley Dr-Trade	AM	36.4	D+	39.8	D	0.062	4.0		
Zone Blvd [SJ]	PM	62.1	E	66.5	E	0.019	3.9		
24. Great Mall Parkway / Main	AM	25.8	C	25.3	C	0.025	-0.5		
Street [M]	PM	39.6	D	39.1	D	0.025	-0.4		
25. Great Mall Parkway / Abel St [M]	AM	49.5	D	53.2	D	0.039	5.6		
	PM	44.8	D	45.3	D	0.029	0.7		
26. Tasman Dr. / Zanker Rd [SJ]	AM	39.7	D	40.0	D	0.009	0.6		
	PM	39.1	D	39.3	D	0.013	0.5		
27. Tasman Dr. / N. 1st St. [SJ]	AM	40.1	D	40.7	D	0.009	0.9		
	PM	49.0	D	50.3	D	0.011	2.5		
101. Dixon Landing Rd / McCarthy	AM	10.0	B+	11.4	B+	0.067	1.6		
Blvd [F]	PM	9.4	A	9.9	A	0.070	-4.1		
102. Dixon Landing Rd / I-880 SB	AM	9.8	A	12.1	B	0.021	5.1		
Ramps [M]	PM	7.8	A	12.9	B	0.123	4.8		
103. Dixon Landing Rd / I-880 NB	AM	16.9	B	16.9	B	0.015	0.1		
Ramps – California Circle [M]	PM	21.5	C+	21.4	C+	0.021	-5.8		
104. California Circle / I-880 NB	AM	12.6	B	12.6	B	0.000	0.0		

TABLE 12
INTERIM CUMULATIVE INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Background		Interim Cumulative				Mitigated Interim Cumulative	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]	Delay[1]	LOS[2]
Ramps [M]	PM	15.3	B	17.6	B	0.073	3.4		
105. Dixon Landing Rd / N. Milpitas	AM	67.0	E	**76.4**	**E-**	**0.059**	**15.4**	64.8	E
Blvd [M]	PM	62.2	E	**70.0**	**E**	**0.063**	**15.9**	47.9	D
106. Scott Creek Rd. / Warm	AM	28.1	C	29.1	C	0.001	7.4		
Springs Blvd. [F]	PM	36.3	D+	36.3	D+	0.030	0.7		
107. Scott Creek Rd. / I-680 SB	AM	19.8	C	19.8	C				
Ramps [Unsignalized] [F]	PM	13.6	B	13.6	B				
108. Scott Creek Rd. / I-680 NB	AM	8.2	A	8.2	A				
Ramps [Unsignalized] [F]	PM	9.5	A	10.0	B				
109. McCarthy Blvd / Ranch Dr	AM	11.7	B+	14.4	B	0.013	0.2		
North [M]	PM	14.0	B	20.8	C+	0.091	4.1		
110. McCarthy Blvd / Ranch Dr	AM	14.7	B	53.4	D-	0.131	70.9		
South [M]	PM	20.9	C+	43.4	D	-0.089	47.9		

Notes:

1 Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the *2000 HCM*, with adjusted saturation flow rates to reflect Santa Clara County Conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.

2 LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.

3 Change in the critical volume-to-capacity ratio (V/C) between Background and Interim Cumulative Conditions.

4 Change in critical movement delay between Background and Interim Cumulative Conditions.

(CMP) Congestion Management Program intersection, (F) City of Fremont intersection, (M) City of Milpitas intersection, (SC) City of Santa Clara intersection, (SJ) City of San Jose intersection

Bold text denotes intersections with significant impacts.

Midday Peak Hour (With Landmark Towers & Milpitas Square)

A supplemental midday analysis was conducted with traffic from both Landmark Towers and Milpitas Square. Intersection operations during the midday peak hour at McCarthy Boulevard and Bellew Drive would degrade to unacceptable levels with the addition of traffic from Landmark Tower and redevelopment of Milpitas Square.

TABLE 13
INTERIM CUMULATIVE MIDDAY INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour	Existing		Interim Cumulative				Mitigated Interim Cumulative	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Δ in Crit. V/C[3]	Δ in Crit. Delay[4]	Delay[1]	LOS[2]
Landmark Towers & Milpitas Square									
7. McCarthy Blvd / Bellew Dr [M]	Mid	24.8	C	**99.5**	**F**	**+0.432**	**+86.9**	54.1	D-
8. Bellew Dr / Barber Ln [M]	Mid	43.5	D	39.5	D[5]	+0.078	-4.4		
12. Barber Ln / Alder Dr [M]	Mid	15.9	B	24.8	C	+0.357	+11.1		

Notes:

1 Whole intersection weighted average control delay expressed in seconds per vehicle calculated using methods described in the *2000 HCM*, with adjusted saturation flow rates to reflect Santa Clara County Conditions for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.

2 LOS = Level of service. LOS calculations conducted using the TRAFFIX level of service analysis software package.

3 Change in the critical volume-to-capacity ratio (V/C) between Existing and Interim Cumulative Conditions.

4 Change in critical movement delay between Existing and Interim Cumulative Conditions.

5 Includes proposed improvements (additional lanes on westbound and northbound approaches). Critical movements change between background and interim cumulative conditions, resulting in an increase in critical v/c but a decrease in critical delay.

(CMP) Congestion Management Program intersection, (F) City of Fremont intersection, (M) City of Milpitas intersection,

(SC) City of Santa Clara intersection, (SJ) City of San Jose intersection.

Bold text denotes intersections with significant impacts.

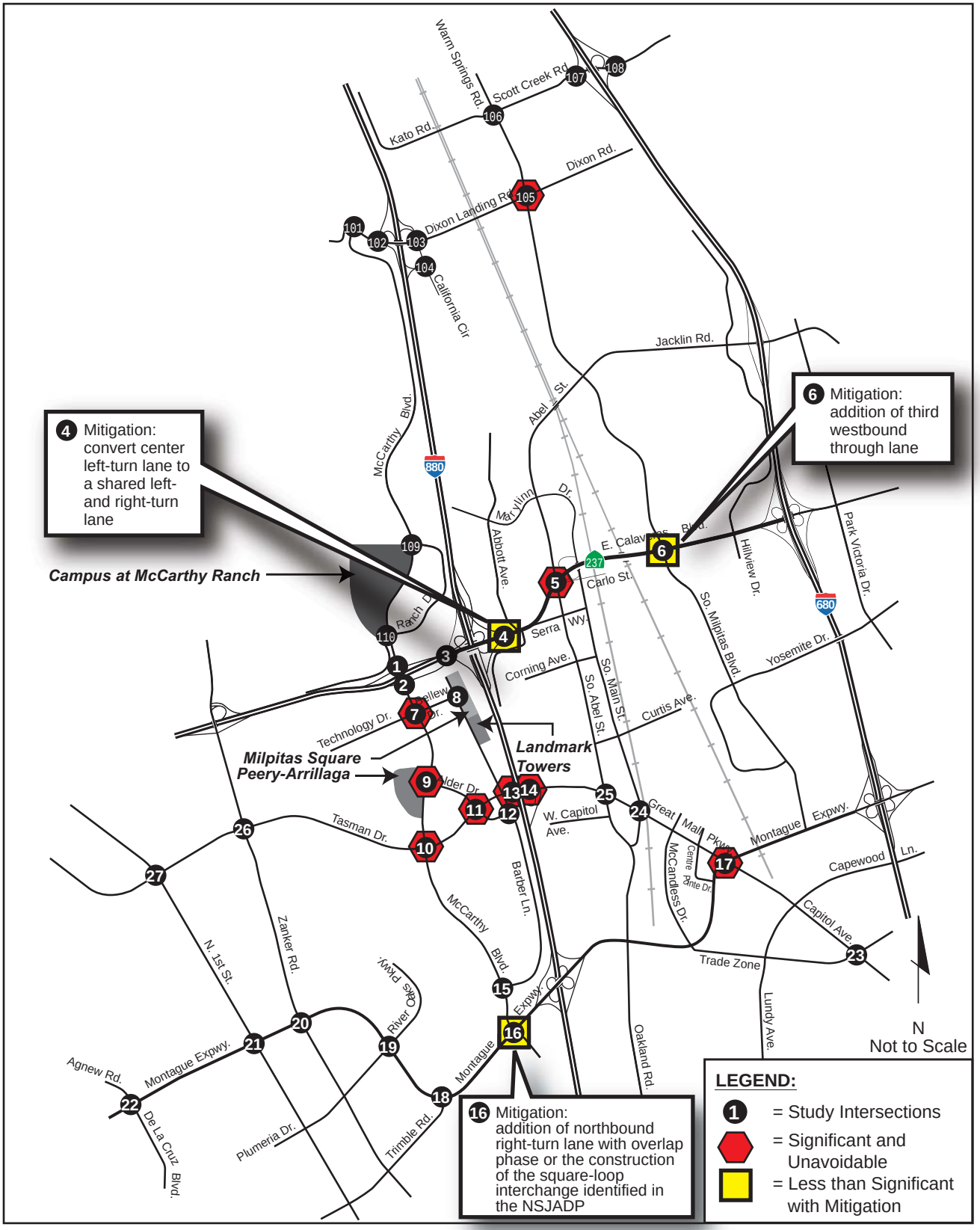
INTERSECTION IMPACTS AND MITIGATION MEASURES

Based on the impact criteria listed above, the addition of all four projects will have a significant impact at the following 12 intersections (6 of these locations were identified as significant impacts under Project Conditions): (These impacts and proposed mitigation measures are identified on Figure 14.)

City of Milpitas Intersections

Calaveras Boulevard (SR 237) / I-880 NB Ramps – The addition of traffic from the four interim cumulative projects exacerbates LOS operations during the PM peak hour. The conversion of the northbound center left-turn lane to a shared left- and right-turn lane, would provide acceptable LOS D operations. Thus, Interim Cumulative impacts would be mitigated to a ***less-than-significant*** level.

McCarthy Boulevard / Bellew Drive – The recommended mitigation measure under Project Conditions, reconfiguring the eastbound approach (one left-turn, one through, and one right-turn lane) to provide two left-turn lanes and one shared through/right-turn lane would improve operations, but the LOS would still be considered unacceptable based on the City's standard during the PM peak hour. The widening of McCarthy Boulevard to three lanes in the northbound direction, in conjunction with the reconfiguration of the eastbound approach, would improve intersection operations to acceptable levels of service during the PM peak hour and mitigate the impact to less-than-significant levels; however, this improvement would require



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Milpitas Square

INTERIM CUMULATIVE INTERSECTION IMPACTS AND MITIGATION

FIGURE 14

right-of-way acquisition on the east side of McCarthy Boulevard (south of Bellew), relocation of existing utility poles, and removal of existing landscaping if the northbound right-turn pocket is maintained. If right-of-way at this intersection cannot be acquired, Interim Cumulative impacts at this location peak hour would be considered ***significant and unavoidable***. The proposed reconfiguration, in addition to increasing the cycle length to 80 seconds, would provide acceptable midday operations and mitigate the Interim Cumulative impact during the midday peak hour to ***less-than significant*** levels.

McCarthy Boulevard / Alder Drive – The addition of traffic from all four projects degrades the LOS E rating under Background Conditions to LOS F under Interim Cumulative Conditions during the PM peak hour. As indicated in the previous chapter, the addition of a second southbound left-turn lane (from McCarthy Boulevard to Alder Drive) would improve intersection operations. As stated in the previous chapter, this improvement requires right-of-way that cannot be acquired. Thus, the interim cumulative impact at this location is considered ***significant and unavoidable***.

McCarthy Boulevard / Tasman Drive – The addition of traffic from all four projects exacerbates operations during the AM peak hour and meets the significant impact thresholds. The addition of a second southbound right turn lane with an overlap phase would mitigate the interim cumulative impact; however, intersection operations would still be unacceptable (LOS E) according the City's level of service standard. The addition of the second right would require right-of-way acquisition, the relocation of existing utilities and the removal of existing landscaping. The additional lane would also impact the existing crosswalk by increasing the overall width of the intersection leg. This longer crossing distance would require adjustments to existing signal timings. No other feasible mitigation measures were identified at this intersection. Thus, Interim Cumulative impacts at this location are ***significant and unavoidable***.

Alder Drive / Tasman Drive – As indicated in the previous chapter, no feasible mitigation measures were identified. Thus, Interim Cumulative impacts at this location are ***significant and unavoidable***.

Tasman Drive / I-880 SB Ramps – As indicated in the previous chapter, no feasible mitigation measures were identified. Thus, Interim Cumulative impacts at this location are ***significant and unavoidable***. Signal coordination with adjacent intersections (i.e., Tasman Drive/Alder Drive and Great Mall Parkway/I-880 NB Ramps) will be the primary method of improving operations.

Great Mall Parkway / I-880 NB Ramps – Traffic from the proposed projects exacerbate unacceptable intersection operations during both peak hours. Widening of the northbound I-880 Ramp approach to provide a third dedicated left-turn lane would improve operations of this intersection in both peak hours; however, this mitigation is not considered feasible because right-of-acquisition, relocation of the sound wall and fence, and elimination of neighborhood open space is required to implement the improvement. The proposed mitigation measure would also affect the existing light-rail tracks in the center of Tasman Drive-Great Mall Parkway as modifications may be required to accommodate the receiving traffic from the three left-turning lanes. Signal coordination with adjacent intersections (i.e., Tasman Drive/I-880 SB Ramps) will be the primary method of improving operations. However, the interim cumulative impact at this intersection would still be considered ***significant and unavoidable***.

Dixon Landing Road / N. Milpitas Boulevard – The addition of traffic from all four projects exacerbates LOS E operations during both peak hours and meets the significant impact thresholds. The widening of the eastbound approach to accommodate a second left-turn lane and the widening of the southbound approach to accommodate a channelized, southbound right-turn lane and overlap phase would provide acceptable intersection operations. The widening would require right-of-way acquisition on the northwest and southwest corners of the intersection, relocation of existing sidewalks and existing signal equipment, removal of existing landscaping, and the relocation of a bicycle lane on N. Milpitas Road. The City will collect fees for this future

improvement through the McCarthy Business Park traffic impact fee program; thus, the Interim Cumulative impact at this location is ***less-than-significant***.

CMP Intersections

Calaveras Boulevard / Abel Street – The addition of traffic from all four projects exacerbates LOS F operations during the AM peak hour and meets the significant impact thresholds. The addition of a second southbound right turn lane would improve operations to acceptable levels; however, this mitigation is not considered feasible due to existing right-of-way constraints. This improvement would require widening to the west and is limited by the existing culvert. Therefore, the project's impact at this location is considered ***significant and unavoidable***.

E. Calaveras Boulevard / S. Milpitas Boulevard – Adding a third westbound through lane, which is consistent with improvements identified in the *Valley Transportation Plan 2030*, provides acceptable LOS E- operations during the AM peak hour which is an improvement over Background Conditions. This improvement requires conversion of the separate right-turn lane to a shared through/right-turn lane and a third receiving lane past the intersection. The third receiving lane would be implemented as part of the bridge reconstruction and Calaveras widening project. The mitigation measure has a negligible effect on operations during the PM peak hour. The project's Interim Cumulative impact will be mitigated to a ***less-than-significant*** level.

McCarthy Boulevard-O'Toole Avenue / Montague Expressway – As indicated under project-conditions, two options (widen northbound approach via right-of-way acquisition or contribution of fair share towards grade separation) are presented that would mitigate the project impact at the intersection of McCarthy Boulevard-O'Toole Avenue /Montague Expressway to a ***less-than-significant*** level.

Great Mall Parkway-Capitol Ave / Montague Expressway – Regional planning documents have identified an urban interchange with Great Mall Parkway/Capitol Avenue elevated over Montague Expressway (identified in *Montague Expressway Improvement Project Final Technical Report:* and the *VTP 2030 Plan*). The urban interchange would improve peak hour intersection operations. At this time, complete funding for this improvement has not been secured, and the urban interchange cannot be assumed to be completed. Thus, the project's impact at this location is considered significant and unavoidable. Payment of the traffic impact fees would contribute funding towards improvements at this intersection. No feasible mitigation measures were identified for this intersection. Thus, the project's Interim Cumulative impact is ***significant and unavoidable***.

San Jose Intersections

McCarthy Boulevard-O'Toole Avenue / Montague Expressway – See discussion above regarding the proposed mitigation measure. Interim Cumulative impacts at this location will be mitigated to ***less-than-significant*** levels.

6. YEAR 2030 CONDITIONS

This chapter discusses the analysis of the two Year 2030 scenarios (Year 2030 General Plan and Year 2030 General Plan Plus Project), which was conducted using projected roadway link volumes per City of Milpitas guidelines. Peak-hour roadway segment volumes are used for this long-term analysis since estimating intersection turning movement volumes in 2030 is considered speculative.

YEAR 2030 TRAFFIC VOLUMES

Year 2030 General Plan Volumes

Year 2030 AM and PM peak-hour roadway segment traffic volumes were obtained from the Valley Transportation Authority's regional travel demand model. This regional model is used by the VTA to produce traffic projections for use in transportation and air quality planning and includes build-out of the City of Milpitas according to its General Plan. The Year 2030 General Plan volumes assume that the project site is occupied by its current retail uses.

Year 2030 General Plan Plus Project Volumes

The General Plan assumes no change in the existing land uses. Thus, the net difference in new trips between the proposed project and the current site use was added to the Year 2030 General Plan volumes to establish Year 2030 Plus Project volumes. Tables 14 and 15 present the Year 2030 General Plan AM and PM peak-hour roadway segment volumes, respectively.

YEAR 2030 NETWORK ASSUMPTIONS

The Year 2030 roadway network includes any planned transportation improvements that have a high probability of receiving funding in the future. Within the study area, the following improvements were identified:

- *I-880 Widening Projects* – I-880 will be widened to include a high-occupancy vehicle lane and auxiliary lane in each direction from Montague Expressway in the south into Alameda County in the north.

- *Fremont Boulevard Extension to Dixon Landing Road* – Fremont Boulevard will be extended southward from its current terminus near Lakeview Drive to Dixon Landing Road. The extension will include two lanes of travel in each direction and will form the forth leg of the McCarthy Boulevard/Dixon Landing Road intersection (1). This extension is located within the City of Fremont and will be funded by the developer of the King-Lyon Property.

- *Calaveras Boulevard* – Calaveras Boulevard will be widened to six lanes between Milpitas Boulevard and Abel Street. Operation improvements are also planned for intersections along Calaveras Boulevard between I-680 and I-880.

- *Montague Expressway* – Montague Expressway will be configured to provide eight mixed-flow lanes between I-680 and I-880.

TABLE 14
YEAR 2030 AM PEAK-HOUR ROADWAY SEGMENT ANALYSIS

From	To	Direction	2030 No Project			Project Trips	2030 Plus Project			% Change	Impact?
			Vol	V/C	LOS		Vol	V/C	LOS		
Interstate 880											
Mission Boulevard	Dixon Landing Rd	SB	10,902	1.09	F	13	10,915	1.09	F	0.13%	No
Dixon Landing Rd	Calaveras Blvd	SB	11,068	1.38	F	13	11,081	1.39	F	0.16%	No
Calaveras Blvd	Great Mall Pkwy	SB	4,687	0.78	C	4	4,691	0.78	C	0.07%	No
Great Mall Pkwy	Montague Expy	SB	6,265	1.04	F	60	6,325	1.05	F	1.00%	No
Montague Expy	Great Mall Pkwy	NB	6,888	1.15	F	15	6,903	1.15	F	0.25%	No
Great Mall Pkwy	Calaveras Blvd	NB	5,829	0.97	E	20	5,849	0.97	E	0.33%	No
Calaveras Blvd	Dixon Landing Rd	NB	8,541	1.07	F	51	8,592	1.07	F	0.64%	No
Dixon Landing Rd	Mission Boulevard	NB	7,834	0.78	C	51	7,885	0.79	C	0.51%	No
Interstate 680											
Scott Creek Road	Jacklin Road	SB	7,542	1.26	F	0	7,542	1.26	F	0.00%	No
Jacklin Road	Calaveras Blvd	SB	5,701	0.95	E	0	5,701	0.95	E	0.00%	No
Calaveras Blvd	Montague Expy	SB	8,220	1.03	F	0	8,220	1.03	F	0.00%	No
Montague Expy	Calaveras Blvd	NB	8,683	1.09	F	0	8,683	1.09	F	0.00%	No
Calaveras Blvd	Jacklin Road	NB	5,703	0.95	E	0	5,703	0.95	E	0.00%	No
Jacklin Road	Scott Creek Road	NB	7,678	1.28	F	0	7,678	1.28	F	0.00%	No
State Route 237, Calaveras Boulevard											
Zanker Road	McCarthy Blvd	EB	3,846	0.64	B	23	3,869	0.64	B	0.38%	No
McCarthy Bolvd	I-880	EB	2,171	0.54	A	100	2,271	0.57	A	2.50%	No
I-880	Abbott Avenue	EB	1,794	0.50	A	65	1,859	0.52	A	1.81%	No
Abbott Avenue	Abel Avenue	EB	1,840	0.51	A	65	1,905	0.53	A	1.81%	No
Abel Avenue	Milpitas Boulevard	EB	1,023	0.38	A	53	1,076	0.40	A	1.96%	No
Milpitas Boulevard	Hillview Drive	EB	746	0.28	A	23	769	0.28	A	0.85%	No
Hillview Drive	I-680	EB	706	0.26	A	23	729	0.27	A	0.85%	No
I-680	Hillview Drive	WB	2,653	0.98	E	6	2,659	0.98	E	0.22%	No
Hillview Drive	Milpitas Boulevard	WB	2,448	0.91	E	13	2,461	0.91	E	0.48%	No
Milpitas Boulevard	Abel Street	WB	3,152	1.58	F	13	3,165	1.58	F	0.65%	No
Abel Street	Abbott Avenue	WB	2,958	1.10	F	15	2,973	1.10	F	0.56%	No
Abbott Avenue	I-880	WB	3,084	1.14	F	16	3,100	1.15	F	0.59%	No
I-880	McCarthy Blvd	WB	5,478	1.37	F	30	5,508	1.38	F	0.75%	No
McCarthy Blvd	Zanker Road	WB	8,096	1.01	F	92	8,188	1.02	F	1.15%	**Yes**
Montague Expressway											
De la Cruz Blvd	Lick Mill Boulevard	EB	3,771	1.14	F	7	3,776	1.15	F	0.15%	No
Lick Mill Boulevard	North First Street	EB	3,967	1.20	F	8	3,971	1.20	F	0.12%	No

North First Street	Zanker Road	EB	3,301	1.00	F	10	3,307	1.00	F	0.18%	No
Zanker Road	River Oaks Prkway	EB	2,049	0.62	B	12	2,050	0.62	B	0.03%	No
River Oaks Prkway	Trimble Road	EB	2,159	0.65	B	12	2,160	0.65	B	0.03%	No
Trimble Road	McCarthy Blvd	EB	2,891	0.88	D	17	2,908	0.88	D	0.52%	No
McCarthy Blvd	I-880	EB	2,296	0.70	B	45	2,341	0.71	C	1.36%	No
I-880	S. Main Street	EB	2,688	0.61	B	45	2,733	0.62	B	1.02%	No
S. Main Street	McCandless Drive	EB	2,273	0.52	A	52	2,325	0.53	A	1.18%	No
McCandless Drive	Great Mall Pkwy	EB	2,050	0.47	A	38	2,088	0.47	A	0.86%	No
Great Mall Pkwy	S. Milpitas Blvd	EB	1,964	0.45	A	12	1,976	0.45	A	0.27%	No
S. Milpitas Blvd	I-680	EB	2,174	0.49	A	23	2,197	0.50	A	0.52%	No
I-680	S. Milpitas Blvd	WB	4,423	1.01	F	6	4,429	1.01	F	0.14%	No
S. Milpitas Blvd	Great Mall Pkwy	WB	5,195	1.18	F	5	5,200	1.18	F	0.11%	No
Great Mall Pkwy	McCandless Drive	WB	5,190	1.18	F	9	5,199	1.18	F	0.20%	No
McCandless Drive	S. Main Street	WB	5,845	1.33	F	11	5,856	1.33	F	0.25%	No
S. Main Street	I-880	WB	5,904	1.34	F	11	5,915	1.34	F	0.25%	No
I-880	McCarthy Blvd	WB	4,572	1.39	F	11	4,583	1.39	F	0.33%	No
McCarthy Blvd	Trimble Road	WB	4,359	1.32	F	68	4,427	1.34	F	2.06%	**Yes**
Trimble Road	River Oaks Pkwy	WB	2,817	0.85	D	50	2,818	0.85	D	0.03%	No
River Oaks Prkway	Zanker Road	WB	3,026	0.92	E	47	3,027	0.92	E	0.03%	No
Zanker Road	North First Street	WB	4,030	1.22	F	39	4,032	1.22	F	0.06%	No
North First Street	Lick Mill Boulevard	WB	4,115	1.25	F	32	4,116	1.25	F	0.03%	No
Lick Mill Boulevard	De la Cruz Blvd	WB	3,516	1.06	F	28	3,518	1.06	F	0.06%	No
McCarthy Boulevard											
Dixon Landing Rd	McCarthy Project	SB	2,052	1.14	F	3	2,055	1.14	F	0.17%	No
McCarthy Project	Ranch Dr (N)	SB	1,865	1.04	F	5	1,870	1.04	F	0.28%	No
Ranch Dr (N)	Ranch Dr (S)	SB	1,769	0.98	E	6	1,775	0.99	E	0.33%	No
Ranch Dr (S)	SR237 WB Ramps	SB	1,918	1.07	F	7	1,925	1.07	F	0.39%	No
S 237 WB Ramps	Technology Dr	SB	2,009	1.12	F	60	2,069	1.15	F	3.33%	**Yes**
Technology Dr	Tasman Dr	SB	1,553	0.86	D	32	1,585	0.88	D	1.78%	No
Tasman Dr	Montague Expy	SB	1,311	0.73	C	122	1,433	0.80	C	6.78%	No
Montague Expy	Tasman Dr	NB	1,251	0.70	B	30	1,281	0.71	C	1.67%	No
Tasman Dr	Technology Dr	NB	1,040	0.58	A	8	1,048	0.58	A	0.44%	No
Technology Dr	SR237 WB Ramps	NB	1,026	0.57	A	222	1,248	0.69	B	12.33%	No
SR237 WB Ramps	Ranch Dr (S)	NB	1,682	0.93	E	30	1,712	0.95	E	1.67%	**Yes**
Ranch Dr (S)	Ranch Dr (N)	NB	1,209	0.67	B	23	1,232	0.68	B	1.28%	No
Ranch Dr (N)	McCarthy Project	NB	958	0.53	A	20	978	0.54	A	1.11%	No
Ranch Dr (N)	Dixon Landing Rd	NB	517	0.29	A	11	528	0.29	A	0.61%	No
Tasman Drive / Great Mall Parkway / Capitol Avenue											
North First Street	Baypointe Parkway	EB	1,253	0.46	A	3	1,258	0.47	A	0.19%	No
Baypointe Parkway	Zanker Road	EB	1,345	0.50	A	5	1,352	0.50	A	0.26%	No
Zanker Road	McCarthy Blvd	EB	1,621	0.60	B	6	1,627	0.60	B	0.22%	No
McCarthy Blvd	I-880	EB	855	0.32	A	93	948	0.35	A	3.44%	No

I-880	S. Main Street	EB	870	0.32	A	18	888	0.33	A	0.67%	No
S. Main Street	Montague Expy	EB	1,517	0.51	A	13	1,530	0.51	A	0.43%	No
Montague Expy	Capewood Lane	EB	1,528	0.51	A	32	1,529	0.51	A	0.03%	No
Capewood Lane	Trade Zone Blvd	EB	1,847	0.62	B	32	1,848	0.62	B	0.03%	No
Trade Zone Blvd	Capewood Lane	WB	1,776	0.59	A	8	1,779	0.59	A	0.10%	No
Capewood Lane	Montague Expy	WB	1,841	0.61	B	10	1,844	0.61	B	0.10%	No
Montague Expy	S. Main Street	WB	2,360	0.79	C	5	2,365	0.79	C	0.17%	No
S. Main Street	I-880	WB	3,644	1.35	F	5	3,649	1.35	F	0.19%	No
I-880	McCarthy Blvd	WB	2,533	0.94	E	19	2,552	0.95	E	0.70%	No
McCarthy Blvd	Zanker Road	WB	3,305	1.22	F	24	3,329	1.23	F	0.89%	No
Zanker Road	Baypointe Parkway	WB	1,860	0.69	B	21	1,861	0.69	B	0.04%	No
Baypointe Parkway	North First Street	WB	1,853	0.69	B	21	1,853	0.69	B	0.00%	No
Milpitas Boulevard											
Scott Creek Road	Dixon Landing Rd	SB	1,970	1.09	F	7	1,977	1.10	F	0.39%	No
Dixon Landing Rd	Jacklin Road	SB	1,732	0.96	E	4	1,736	0.96	E	0.22%	No
Jacklin Road	Calaveras Blvd	SB	1,104	0.61	B	4	1,108	0.62	B	0.22%	No
Calaveras Blvd	Yosemite Drive	SB	1,412	0.78	C	14	1,426	0.79	C	0.78%	No
Yosemite Drive	Montague Expy	SB	1,661	0.92	E	10	1,671	0.93	E	0.56%	No
Montague Expy	Yosemite Drive	NB	1,773	0.99	E	7	1,780	0.99	E	0.39%	No
Yosemite Drive	Calaveras Blvd	NB	1,795	1.00	E	3	1,798	1.00	E	0.17%	No
Calaveras Blvd	Jacklin Road	NB	859	0.48	A	17	876	0.49	A	0.94%	No
Jacklin Road	Dixon Landing Rd	NB	1,871	1.04	F	17	1,888	1.05	F	0.94%	No
Dixon Landing Rd	Scott Creek Road	NB	1,496	0.83	D	28	1,524	0.85	D	1.56%	No
Scott Creek Road											
Warm Springs Rd	I-680	EB	888	0.74	C	0	888	0.74	C	0.00%	No
I-680	Warm Springs Rd	WB	1,939	1.62	F	0	1,939	1.62	F	0.00%	No
Alder Drive											
McCarthy Drive	Tasman Dr	SB	238	0.13	A	0	238	0.13	A	0.00%	No
Tasman Drive	McCarthy Drive	NB	1,020	0.57	A	0	1,020	0.57	A	0.00%	No
Abel Street											
N. Milpitas Blvd	Calaveras Blvd	SB	1,934	1.07	F	0	1,934	1.07	F	0.00%	No
Calaveras Blvd	Great Mall Prkway	SB	1,564	0.87	D	8	1,572	0.87	D	0.44%	No
Great Mall Prkway	S. Main Street	SB	750	0.42	A	7	757	0.42	A	0.39%	No
S. Main Street	Great Mall Prkway	NB	867	0.48	A	0	867	0.48	A	0.00%	No
Great Mall Prkway	Calaveras Blvrd	NB	1,139	0.63	B	9	1,148	0.64	B	0.50%	No
Calaveras Blvd	N. Milpitas Blvd	NB	1,005	0.56	A	0	1,005	0.56	A	0.00%	No
Dixon Landing Road											
N. Milpitas Blvd	Milmont Drive	EB	1,252	0.70	B	3	1,255	0.70	B	0.17%	No
Milmont Drive	I-880	EB	1,236	0.69	B	3	1,239	0.69	B	0.17%	No
I-880	McCarthy Blvd	EB	1,034	0.38	A	3	1,037	0.38	A	0.11%	No
McCarthy Blvd	I-880	WB	2,100	0.78	C	11	2,111	0.78	C	0.41%	No
I-880	Milmont Drive	WB	2,105	1.17	F	11	2,116	1.18	F	0.61%	No

Milmont Drive	N. Milpitas Blvd	WB	2,244	1.25	F	11	2,255	1.25	F	0.61%	No
Jacklin Road											
I-680	N. Milpitas Blvd	SB	1,555	0.86	D	0	1,555	0.86	D	0.00%	No
N. Milpitas Blvd	I-680	NB	677	0.38	A	0	677	0.38	A	0.00%	No
Fremont Boulevard											
Lakeview Blvd	Dixon Landing Rd	SB	1,294	0.72	C	0	1,294	0.72	C	0.00%	No
Dixon Landing Rd	Lakeview Blvd	NB	968	0.54	A	0	968	0.54	A	0.00%	No
Trimble Road											
North First Street	Zanker Road	EB	2,546	2.12	F	5	2,551	2.13	F	0.42%	No
Zanker Road	Junction Avenue	EB	2,320	1.93	F	5	2,325	1.94	F	0.42%	No
Junction Avenue	Montague Expy	EB	2,246	1.87	F	5	2,251	1.87	F	0.42%	No
Montague Expy	Junction Avenue	WB	2,137	1.78	F	18	2,155	1.80	F	1.50%	**Yes**
Junction Avenue	Zanker Road	WB	2,008	1.67	F	18	2,026	1.69	F	1.50%	**Yes**
Zanker Road	North First Street	WB	2,351	1.96	F	18	2,369	1.97	F	1.50%	**Yes**
Zanker Road											
SR 237	Tasman Dr	SB	2,364	1.32	F	3	2,367	1.32	F	0.17%	No
Tasman Drive	Montague Expy	SB	1,702	0.95	E	1	1,703	0.95	E	0.06%	No
Montague Expy	Plumeria Drive	SB	1,752	0.97	E	7	1,759	0.98	E	0.39%	No
Plumeria Drive	Trimble Road	SB	1,445	0.80	D	0	1,445	0.80	D	0.00%	No
Trimble Road	Plumeria Drive	NB	1,783	0.99	E	0	1,783	0.99	E	0.00%	No
Plumeria Drive	Montague Expy	NB	1,437	0.80	C	2	1,439	0.80	D	0.11%	No
Montague Expy	Tasman Dr	NB	1,973	1.10	F	2	1,975	1.10	F	0.11%	No
Tasman Drive	SR 237	NB	2,304	1.28	F	0	2,304	1.28	F	0.00%	No
North First Street											
SR 237	Tasman Dr	SB	2,322	1.29	F	1	2,323	1.29	F	0.06%	No
Tasman Drive	Montague Expy	SB	1,646	0.91	E	3	1,649	0.92	E	0.17%	No
Montague Expy	Plumeria Drive	SB	1,800	1.00	E	5	1,805	1.00	F	0.28%	No
Plumeria Drive	Trimble Road	SB	1,146	0.64	B	0	1,146	0.64	B	0.00%	No
Trimble Road	Plumeria Drive	NB	1,849	1.03	F	0	1,849	1.03	F	0.00%	No
Plumeria Drive	Montague Expy	NB	1,527	0.85	D	1	1,528	0.85	D	0.06%	No
Montague Expy	Tasman Dr	NB	2,082	1.16	F	2	2,084	1.16	F	0.11%	No
Tasman Drive	SR 237	NB	1,269	0.71	C	5	1,274	0.71	C	0.28%	No

Note: Volumes, V/C ratios, and model plots provided by Hexagon Transportation Consultants (May 2008).

TABLE 15
YEAR 2030 PM PEAK-HOUR ROADWAY SEGMENT ANALYSIS

From	To	Direction	2030 No Project			Project Trips	2030 Plus Project			% Change	Impact?
			Vol	V/C	LOS		Vol	V/C	LOS		
Interstate 880											
Mission Boulevard	Dixon Landing Rd	SB	9,650	0.97	E	61	9,711	0.97	E	0.61%	No
Dixon Landing Rd	Calaveras Blvd	SB	9,807	0.89	D	61	9,868	0.90	D	0.55%	No
Calaveras Blvd	Great Mall Pkwy	SB	5,700	0.63	B	18	5,718	0.64	B	0.20%	No
Great Mall Pkwy	Montague Expy	SB	7,786	1.11	F	33	7,819	1.12	F	0.47%	No
Montague Expy	Great Mall Pkwy	NB	7,673	1.28	F	73	7,746	1.29	F	1.22%	**Yes**
Great Mall Pkwy	Calaveras Blvd	NB	5,895	0.98	E	30	5,925	0.99	E	0.50%	No
Calaveras Blvd	Dixon Landing Rd	NB	11,213	1.40	F	27	11,240	1.41	F	0.34%	No
Dixon Landing Rd	Mission Boulevard	NB	11,179	1.12	F	27	11,206	1.12	F	0.27%	No
Interstate 680											
Scott Creek Road	Jacklin Road	SB	8,341	1.39	F	0	8,341	1.39	F	0.00%	No
Jacklin Road	Calaveras Blvd	SB	6,483	1.08	F	0	6,483	1.08	F	0.00%	No
Calaveras Blvd	Montague Expy	SB	9,815	1.23	F	0	9,815	1.23	F	0.00%	No
Montague Expy	Calaveras Blvd	NB	8,898	1.11	F	0	8,898	1.11	F	0.00%	No
Calaveras Blvd	Jacklin Road	NB	6,288	1.05	F	0	6,288	1.05	F	0.00%	No
Jacklin Road	Scott Creek Road	NB	8,523	1.42	F	0	8,523	1.42	F	0.00%	No
State Route 237, Calaveras Boulevard											
Zanker Road	McCarthy Blvd	EB	8,039	1.34	F	105	8,144	1.36	F	1.75%	**Yes**
McCarthy Bolvd	I-880	EB	4,871	1.22	F	60	4,931	1.23	F	1.50%	**Yes**
I-880	Abbott Avenue	EB	4,239	1.18	F	41	4,280	1.19	F	1.14%	**Yes**
Abbott Avenue	Abel Avenue	EB	4,006	1.11	F	41	4,047	1.12	F	1.14%	**Yes**
Abel Avenue	Milpitas Boulevard	EB	3,359	1.24	F	33	3,392	1.26	F	1.22%	**Yes**
Milpitas Boulevard	Hillview Drive	EB	2,747	1.02	F	17	2,764	1.02	F	0.63%	No
Hillview Drive	I-680	EB	2,862	1.06	F	17	2,879	1.07	F	0.63%	No
I-680	Hillview Drive	WB	1,165	0.43	A	35	1,200	0.44	A	1.30%	No
Hillview Drive	Milpitas Boulevard	WB	1,328	0.49	A	35	1,363	0.50	A	1.30%	No
Milpitas Boulevard	Abel Street	WB	1,821	0.67	B	71	1,892	0.70	C	2.63%	No
Abel Street	Abbott Avenue	WB	2,560	0.95	E	73	2,633	0.98	E	2.70%	**Yes**
Abbott Avenue	I-880	WB	2,575	0.95	E	88	2,663	0.99	E	3.26%	**Yes**
I-880	McCarthy Blvd	WB	3,291	0.82	D	152	3,443	0.86	D	3.80%	No
McCarthy Blvd	Zanker Road	WB	5,483	0.69	B	45	5,528	0.69	B	0.56%	No
Montague Expressway											
De la Cruz Blvd	Lick Mill Boulevard	EB	3,505	1.06	F	33	3,507	1.06	F	0.06%	No
Lick Mill Boulevard	North First Street	EB	4,195	1.27	F	39	4,197	1.27	F	0.06%	No

North First Street	Zanker Road	EB	4,086	1.24	F	46	4,089	1.24	F	0.09%	No
Zanker Road	River Oaks Prkway	EB	3,036	0.92	E	56	3,037	0.92	E	0.03%	No
River Oaks Prkway	Trimble Road	EB	3,184	0.97	E	59	3,185	0.97	E	0.03%	No
Trimble Road	McCarthy Blvd	EB	4,505	1.37	F	80	4,585	1.39	F	2.42%	**Yes**
McCarthy Blvd	I-880	EB	4,489	1.36	F	24	4,513	1.37	F	0.73%	No
I-880	S. Main Street	EB	5,856	1.33	F	24	5,880	1.34	F	0.55%	No
S. Main Street	McCandless Drive	EB	5,688	1.29	F	29	5,717	1.30	F	0.66%	No
McCandless Drive	Great Mall Pkwy	EB	5,493	1.25	F	20	5,513	1.25	F	0.45%	No
Great Mall Pkwy	S. Milpitas Blvd	EB	5,387	1.22	F	9	5,396	1.23	F	0.20%	No
S. Milpitas Blvd	I-680	EB	5,157	1.17	F	12	5,169	1.17	F	0.27%	No
I-680	S. Milpitas Blvd	WB	2,732	0.62	B	28	2,760	0.63	B	0.64%	No
S. Milpitas Blvd	Great Mall Pkwy	WB	2,762	0.63	B	22	2,784	0.63	B	0.50%	No
Great Mall Pkwy	McCandless Drive	WB	2,856	0.65	B	45	2,901	0.66	B	1.02%	No
McCandless Drive	S. Main Street	WB	2,787	0.63	B	55	2,842	0.65	B	1.25%	No
S. Main Street	I-880	WB	3,109	0.71	C	55	3,164	0.72	C	1.25%	No
I-880	McCarthy Blvd	WB	2,281	0.69	B	55	2,336	0.71	C	1.67%	No
McCarthy Blvd	Trimble Road	WB	3,188	0.97	E	35	3,223	0.98	E	1.06%	**Yes**
Trimble Road	River Oaks Pkwy	WB	2,266	0.69	B	26	2,269	0.69	B	0.09%	No
River Oaks Prkway	Zanker Road	WB	2,259	0.68	B	24	2,262	0.69	B	0.09%	No
Zanker Road	North First Street	WB	3,604	1.09	F	20	3,608	1.09	F	0.12%	No
North First Street	Lick Mill Boulevard	WB	4,176	1.26	F	17	4,180	1.27	F	0.12%	No
Lick Mill Boulevard	De la Cruz Blvd	WB	3,795	1.15	F	15	3,799	1.15	F	0.12%	No
McCarthy Boulevard											
Dixon Landing Rd	McCarthy Project	SB	855	0.48	A	12	867	0.48	A	0.67%	No
McCarthy Project	Ranch Dr (N)	SB	1,283	0.71	C	22	1,305	0.72	C	1.22%	No
Ranch Dr (N)	Ranch Dr (S)	SB	1,483	0.82	D	24	1,507	0.84	D	1.33%	No
Ranch Dr (S)	SR237 WB Ramps	SB	1,963	1.09	F	32	1,995	1.11	F	1.78%	**Yes**
S 237 WB Ramps	Technology Dr	SB	1,786	0.99	E	289	2,075	1.15	F	16.06%	**Yes**
Technology Dr	Tasman Dr	SB	1,259	0.70	B	16	1,275	0.71	C	0.89%	No
Tasman Dr	Montague Expy	SB	1,340	0.74	C	63	1,403	0.78	C	3.50%	No
Montague Expy	Tasman Dr	NB	1,543	0.86	D	10	1,553	0.86	D	0.56%	No
Tasman Dr	Technology Dr	NB	1,707	0.95	E	21	1,728	0.96	E	1.17%	**Yes**
Technology Dr	SR237 WB Ramps	NB	2,300	1.28	F	118	2,418	1.34	F	6.56%	**Yes**
SR237 WB Ramps	Ranch Dr (S)	NB	2,127	1.18	F	13	2,140	1.19	F	0.72%	No
Ranch Dr (S)	Ranch Dr (N)	NB	1,718	0.95	E	10	1,728	0.96	E	0.56%	No
Ranch Dr (N)	McCarthy Project	NB	1,883	1.05	F	6	1,889	1.05	F	0.33%	No
Ranch Dr (N)	Dixon Landing Rd	NB	2,006	1.11	F	5	2,011	1.12	F	0.28%	No
Tasman Drive / Great Mall Parkway / Capitol Aveune											
North First Street	Baypointe Parkway	EB	2132	0.79	C	15	2,134	0.79	C	0.07%	No
Baypointe Parkway	Zanker Road	EB	2025	0.75	C	24	2,028	0.75	C	0.11%	No
Zanker Road	McCarthy Blvd	EB	3,312	1.23	F	27	3,339	1.24	F	1.00%	No
McCarthy Blvd	I-880	EB	2,556	0.95	E	12	2,568	0.95	E	0.44%	No

I-880	S. Main Street	EB	3,620	1.34	F	50	3,670	1.36	F	1.85%	**Yes**
S. Main Street	Montague Expy	EB	2,685	0.99	E	10	2,695	1.00	E	0.37%	No
Montague Expy	Capewood Lane	EB	2,813	0.94	E	7	2,819	0.94	E	0.20%	No
Capewood Lane	Trade Zone Blvd	EB	2,830	0.94	E	17	2,838	0.95	E	0.27%	No
Trade Zone Blvd	Capewood Lane	WB	1,350	0.45	A	48	1,352	0.45	A	0.07%	No
Capewood Lane	Montague Expy	WB	1,418	0.47	A	25	1,420	0.47	A	0.07%	No
Montague Expy	S. Main Street	WB	1,590	0.59	A	25	1,615	0.60	A	0.93%	No
S. Main Street	I-880	WB	1,340	0.50	A	22	1,362	0.50	A	0.81%	No
I-880	McCarthy Blvd	WB	1,505	0.56	A	91	1,596	0.59	A	3.37%	No
McCarthy Blvd	Zanker Road	WB	2,395	0.89	D	11	2,406	0.89	D	0.41%	No
Zanker Road	Baypointe Parkway	WB	1,445	0.53	A	10	1,451	0.54	A	0.22%	No
Baypointe Parkway	North First Street	WB	1,251	0.46	A	10	1,254	0.46	A	0.11%	No
Milpitas Boulevard											
Scott Creek Road	Dixon Landing Rd	SB	1,690	0.94	E	30	1,720	0.96	E	1.67%	**Yes**
Dixon Landing Rd	Jacklin Road	SB	2,123	1.18	F	18	2,141	1.19	F	1.00%	No
Jacklin Road	Calaveras Blvd	SB	1,260	0.70	B	20	1,280	0.71	C	1.11%	No
Calaveras Blvd	Yosemite Drive	SB	1,869	1.04	F	7	1,876	1.04	F	0.39%	No
Yosemite Drive	Montague Expy	SB	1,852	1.03	F	10	1,862	1.03	F	0.56%	No
Montague Expy	Yosemite Drive	NB	1,689	0.94	E	13	1,702	0.95	E	0.72%	No
Yosemite Drive	Calaveras Blvd	NB	1,544	0.86	D	16	1,560	0.87	D	0.89%	No
Calaveras Blvd	Jacklin Road	NB	1,271	0.71	C	9	1,280	0.71	C	0.50%	No
Jacklin Road	Dixon Landing Rd	NB	2,000	1.11	F	7	2,007	1.12	F	0.39%	No
Dixon Landing Rd	Scott Creek Road	NB	2,064	1.15	F	12	2,076	1.15	F	0.67%	No
Scott Creek Road											
Warm Springs Rd	I-680	EB	2,338	1.30	F	0	2,338	1.30	F	0.00%	No
I-680	Warm Springs Rd	WB	1,252	0.70	B	0	1,252	0.70	B	0.00%	No
Alder Drive											
McCarthy Drive	Tasman Dr	SB	1,386	0.77	C	0	1,386	0.77	C	0.00%	No
Tasman Drive	McCarthy Drive	NB	483	0.27	A	0	483	0.27	A	0.00%	No
Abel Street											
N. Milpitas Blvd	Calaveras Blvd	SB	1,205	0.67	B	2	1,207	0.67	B	0.11%	No
Calaveras Blvd	Great Mall Prkway	SB	1,517	0.84	D	10	1,527	0.85	D	0.56%	No
Great Mall Prkway	S. Main Street	SB	1,106	0.61	B	5	1,111	0.62	B	0.28%	No
S. Main Street	Great Mall Prkway	NB	506	0.28	A	0	506	0.28	A	0.00%	No
Great Mall Prkway	Calaveras Blvrd	NB	1,780	0.99	E	12	1,792	1.00	E	0.67%	No
Calaveras Blvd	N. Milpitas Blvd	NB	1,983	1.10	F	1	1,984	1.10	F	0.06%	No
Dixon Landing Road											
N. Milpitas Blvd	Milmont Drive	EB	2,145	1.19	F	12	2,157	1.20	F	0.67%	No
Milmont Drive	I-880	EB	2,307	1.28	F	12	2,319	1.29	F	0.67%	No
I-880	McCarthy Blvd	EB	1,490	0.55	A	12	1,502	0.56	A	0.44%	No
McCarthy Blvd	I-880	WB	877	0.32	A	5	882	0.33	A	0.19%	No
I-880	Milmont Drive	WB	1,591	0.88	D	5	1,596	0.89	D	0.28%	No

Milmont Drive	N. Milpitas Blvd	WB	1,430	0.79	C	5	1,435	0.80	C	0.28%	No
Jacklin Road											
I-680	N. Milpitas Blvd	SB	988	0.55	A	4	992	0.55	A	0.22%	No
N. Milpitas Blvd	I-680	NB	1,805	1.00	F	3	1,808	1.00	F	0.17%	No
Fremont Boulevard											
Lakeview Blvd	Dixon Landing Rd	SB	1,016	0.56	A	0	1,016	0.56	A	0.00%	No
Dixon Landing Rd	Lakeview Blvd	NB	1,553	0.86	D	0	1,553	0.86	D	0.00%	No
Trimble Road											
North First Street	Zanker Road	EB	2,446	2.04	F	22	2,468	2.06	F	1.83%	**Yes**
Zanker Road	Junction Avenue	EB	1,790	1.49	F	22	1,812	1.51	F	1.83%	**Yes**
Junction Avenue	Montague Expy	EB	1,992	1.66	F	22	2,014	1.68	F	1.83%	**Yes**
Montague Expy	Junction Avenue	WB	2,452	2.04	F	9	2,461	2.05	F	0.75%	No
Junction Avenue	Zanker Road	WB	2,392	1.99	F	9	2,401	2.00	F	0.75%	No
Zanker Road	North First Street	WB	2,608	2.17	F	9	2,617	2.18	F	0.75%	No
Zanker Road											
SR 237	Tasman Dr	SB	1,438	0.80	D	0	1,438	0.80	D	0.00%	No
Tasman Drive	Montague Expy	SB	1,581	0.88	D	3	1,584	0.88	D	0.17%	No
Montague Expy	Plumeria Drive	SB	1,426	0.79	C	3	1,429	0.80	C	0.17%	No
Plumeria Drive	Trimble Road	SB	1,564	0.87	D	0	1,564	0.87	D	0.00%	No
Trimble Road	Plumeria Drive	NB	1,622	0.90	E	0	1,622	0.90	E	0.00%	No
Plumeria Drive	Montague Expy	NB	1,807	1.01	F	8	1,815	1.01	F	0.44%	No
Montague Expy	Tasman Dr	NB	1,930	1.07	F	3	1,933	1.07	F	0.17%	No
Tasman Drive	SR 237	NB	2,519	1.40	F	0	2,519	1.40	F	0.00%	No
North First Street											
SR 237	Tasman Dr	SB	1,956	1.09	F	6	1,962	1.09	F	0.33%	No
Tasman Drive	Montague Expy	SB	2,239	1.24	F	3	2,242	1.25	F	0.17%	No
Montague Expy	Plumeria Drive	SB	1,584	0.88	D	2	1,586	0.88	D	0.11%	No
Plumeria Drive	Trimble Road	SB	1,859	1.03	F	0	1,859	1.03	F	0.00%	No
Trimble Road	Plumeria Drive	NB	1,191	0.66	B	0	1,191	0.66	B	0.00%	No
Plumeria Drive	Montague Expy	NB	1,818	1.01	F	5	1,823	1.01	F	0.28%	No
Montague Expy	Tasman Dr	NB	1,939	1.08	F	2	1,941	1.08	F	0.11%	No
Tasman Drive	SR 237	NB	2,591	1.44	F	2	2,593	1.44	F	0.11%	No

Note: Volumes, V/C ratios, and model plots provided by Hexagon Transportation Consultants (May 2008).

YEAR 2030 ROADWAY SEGMENT LEVELS OF SERVICE

As shown in Tables 14 and 15, the addition of project traffic is estimated to cause the level of service rating for one segment during the PM peak hour to degrade by one level. Unacceptable levels of service on twenty-five segments will be exacerbated by project traffic.

YEAR 2030 ROADWAY SEGMENT IMPACTS AND MITIGATION MEASURES

The cumulative impacts of the project were evaluated by comparing the results of the level of service calculations under Year 2030 Plus Project Conditions to the results under Year 2030 No Project Conditions. Significant impacts to roadway segments occur if one of the following occurs:

- The addition of traffic from the proposed project degrades operations under Year 2030 No Project Conditions from an acceptable level to an unacceptable level.
- The proposed project adds trips that are more than one percent of the segment's capacity when the segment is operating unacceptably under Year 2030 No Project Conditions.

Acceptable operations are defined as LOS D or better for City roadway segments (e.g. McCarthy Boulevard, Milpitas Boulevard, Tasman Drive, Great Mall Parkway, and Abel Street) and LOS E or better for CMP roadway segments (e.g. I-880, SR 237, Calaveras Boulevard, Montague Expressway). Unacceptable operations are defined as LOS E or F for City roadway segments and LOS F for CMP roadway segments.

Based on the criteria above, the project is estimated to have an impact on the following seven (7) segments during the AM peak hour:

- SR 237 Westbound between McCarthy Boulevard to Zanker Road
- Montague Expressway Westbound between McCarthy Boulevard and Trimble Road
- McCarthy Boulevard Southbound between SR 237 WB Ramps and Technology Drive-Bellew Drive
- McCarthy Boulevard Northbound between SR 237 WB Ramps and Ranch Dr (S)
- Trimble Road Westbound between Montague Expressway and North First Street (3 Segments)

The project is estimated to have an impact on the following nineteen (19) segments during the PM peak hour:

- Interstate 880 Northbound between Montague Expressway and Great Mall Parkway
- SR 237 Eastbound between Zanker Road and Milpitas Boulevard (5 Segments)
- SR 237 Westbound between Abel Street and I-880 (2 segments)
- Montague Expressway Eastbound between Trimble Road and McCarthy Boulevard
- Montague Expressway Westbound between McCarthy Boulevard and Trimble Road
- McCarthy Boulevard Southbound between Ranch Dr (S) and Technology Drive (2 Segments)
- McCarthy Boulevard Northbound between Tasman Drive and SR 237 WB Ramps (2 Segments)

- Great Mall Parkway Eastbound between I-880 and S. Main Street
- Milpitas Boulevard Southbound between Scott Creek Road and Dixon Landing Road
- Trimble Road Eastbound between North First Street and Montague Expressway (3 Segments)

The impacted segments are highlighted in bold text in Tables 14 and 15.

The City of Milpitas requires projects to pay their "fair share" of the improvement costs to mitigate the anticipated cumulative impacts of traffic from new developments on future deficient intersections. The developer will be required to pay an impact fee to provide mitigation for future deficiencies in traffic operations. The project proponent will be required to make a "fair share" contribution towards the Calaveras Boulevard (SR 237) Widening, Montague Expressway, and Milpitas Business Park improvement projects since the project adds traffic to these corridors.

APPENDIX A:
EXISTING TRAFFIC COUNTS

AM Peak-Hour Volume Count Worksheet

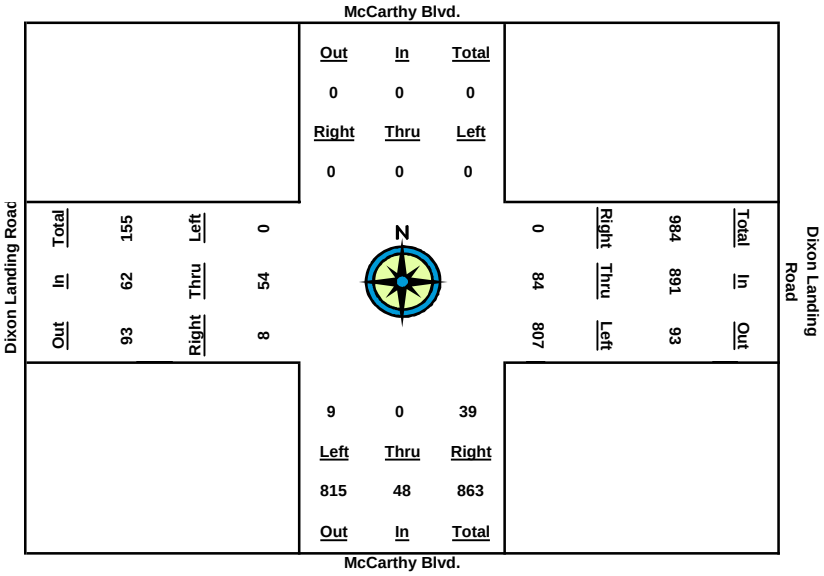
Date: 6/26/07
Counter: Alvan and Ngoc
Intersection Name: McCarthy Blvd. and Dixon Landing Road
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd.				Dixon Landing Road				McCarthy Blvd.				Dixon Landing Road			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	8	109	117	8	0	2	10	1	11	0	12
7:30	0	0	0	0	0	29	263	292	16	0	2	18	2	23	0	25
7:45	0	0	0	0	0	41	452	493	31	0	3	34	4	32	0	36
8:00	0	0	0	0	0	70	667	737	47	0	5	52	5	41	0	46
8:15	0	0	0	0	0	93	850	943	52	0	7	59	7	51	0	58
8:30	0	0	0	0	0	110	1,065	1,175	60	0	9	69	9	68	0	77
8:45	0	0	0	0	0	125	1,259	1,384	70	0	12	82	12	86	0	98
9:00	0	0	0	0	0	138	1,435	1,573	79	0	14	93	14	102	0	116

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	0	0	0	0	0	70	667	737	47	0	5	52	5	41	0	46	835
7:15 - 8:15	0	0	0	0	0	85	741	826	44	0	5	49	6	40	0	46	921
7:30 - 8:30	0	0	0	0	0	81	802	883	44	0	7	51	7	45	0	52	986
7:45 - 8:45	0	0	0	0	0	84	807	891	39	0	9	48	8	54	0	62	1,001
8:00 - 9:00	0	0	0	0	0	68	768	836	32	0	9	41	9	61	0	70	947
Peak Volumes:	**0**	**0**	**0**	**0**	**0**	**84**	**807**	**891**	**39**	**0**	**9**	**48**	**8**	**54**	**0**	**62**	**1,001**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	9	0	39	0	0	0	0	54	8	807	84	0



AM Peak-Hour Volume Count Worksheet

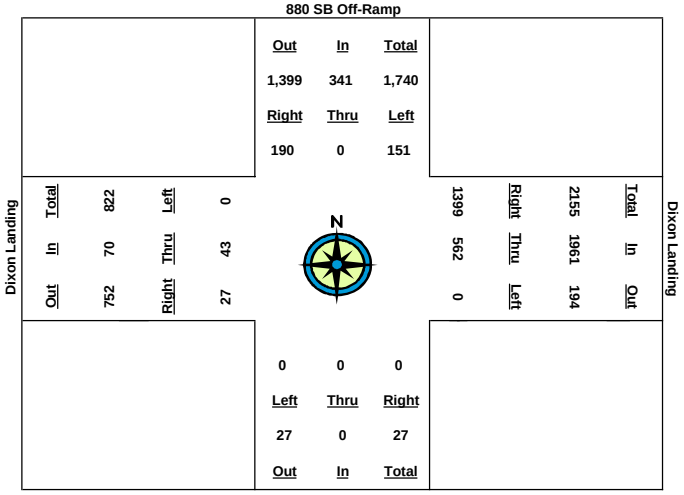
Date: 5/3/07
Counter: Alvan and Shaun
Intersection Name: 880 SB Ramps and Dixon Landing Rd.
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	880 SB Off-Ramp				Dixon Landing				880 SB Off-Ramp				Dixon Landing			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	34	0	17	51	290	96	0	386	0	0	0	0	5	13	0	18
7:30	76	0	60	136	646	211	0	857	0	0	0	0	15	32	0	47
7:45	111	0	108	219	1,033	343	0	1,376	0	0	0	0	24	42	0	66
8:00	152	0	149	301	1,409	521	0	1,930	0	0	0	0	33	60	0	93
8:15	187	0	175	362	1,696	638	0	2,334	0	0	0	0	35	66	0	101
8:30	243	0	216	459	2,026	813	0	2,839	0	0	0	0	39	72	0	111
8:45	301	0	259	560	2,432	905	0	3,337	0	0	0	0	51	85	0	136
9:00	351	0	298	649	2,701	1,106	0	3,807	0	0	0	0	66	94	0	160

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
7:00 - 8:00	152	0	149	301	1,409	521	0	1,930	0	0	0	0	33	60	0	93	2,324
7:15 - 8:15	153	0	158	311	1,406	542	0	1,948	0	0	0	0	30	53	0	83	2,342
7:30 - 8:30	167	0	156	323	1,380	602	0	1,982	0	0	0	0	24	40	0	64	2,369
7:45 - 8:45	190	0	151	341	1,399	562	0	1,961	0	0	0	0	27	43	0	70	2,372
8:00 - 9:00	199	0	149	348	1,292	585	0	1,877	0	0	0	0	33	34	0	67	2,292
Peak Volumes:	**190**	**0**	**151**	**341**	**1,399**	**562**	**0**	**1,961**	**0**	**0**	**0**	**0**	**27**	**43**	**0**	**70**	**2,372**

Cut and Paste	**NR**	**NT**	**NL**		**ER**	**ET**	**EL**		**SR**	**ST**	**SL**		**WR**	**WT**	**WL**
	190	0	151		1,399	562	0		0	0	0		27	43	0



AM Peak-Hour Volume Count Worksheet

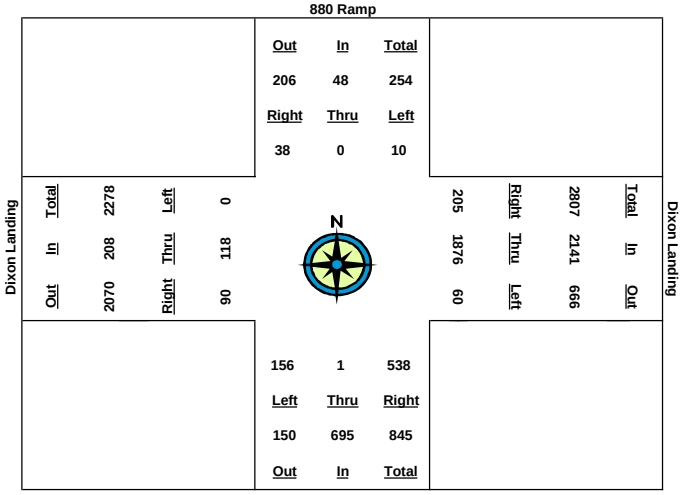
HEXAGON TRANSPORTATION CONSULTANTS
40 S. Market Street, Suite 600
San Jose, CA 95113
Phone 408-971-6100 Fax 408-971-6102

Date: 4/24/07
Counter: Rholan and JR
Intersection Name: California Cir-880 ramp and Dixon Landing Rd
Weather: Clear
City/Project: Milpitas - 07GB14

	880 Ramp				Dixon Landing				California Cir				Dixon Landing			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	10	0	1	11	46	416	15	477	106	3	35	144	17	42	0	59
7:30	18	0	3	21	99	911	33	1,043	260	3	65	328	33	73	0	106
7:45	27	0	6	33	159	1,396	45	1,600	391	4	100	495	57	104	0	161
8:00	36	0	9	45	216	1,830	54	2,100	545	4	127	676	83	141	0	224
8:15	45	0	11	56	261	2,234	77	2,572	670	4	168	842	101	164	0	265
8:30	56	0	13	69	304	2,787	93	3,184	798	4	221	1,023	123	191	0	314
8:45	62	0	17	79	342	3,147	100	3,589	901	4	260	1,165	151	216	0	367
9:00	78	0	19	97	380	3,635	121	4,136	1,028	4	312	1,344	178	239	0	417

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
7:00 - 8:00	36	0	9	45	216	1,830	54	2,100	545	4	127	676	83	141	0	224	3,045
7:15 - 8:15	35	0	10	45	215	1,818	62	2,095	564	1	133	698	84	122	0	206	3,044
7:30 - 8:30	38	0	10	48	205	1,876	60	2,141	538	1	156	695	90	118	0	208	3,092
7:45 - 8:45	35	0	11	46	183	1,751	55	1,989	510	0	160	670	94	112	0	206	2,911
8:00 - 9:00	42	0	10	52	164	1,805	67	2,036	483	0	185	668	95	98	0	193	2,949
Peak Volumes:	**38**	**0**	**10**	**48**	**205**	**1,876**	**60**	**2,141**	**538**	**1**	**156**	**695**	**90**	**118**	**0**	**208**	**3,092**

Cut and Paste	**NR**	**NT**	**NL**		**ER**	**ET**	**EL**		**SR**	**ST**	**SL**		**WR**	**WT**	**WL**
	38	0	10		205	1,876	60		538	1	156		90	118	0



AM Peak-Hour Volume Count Worksheet

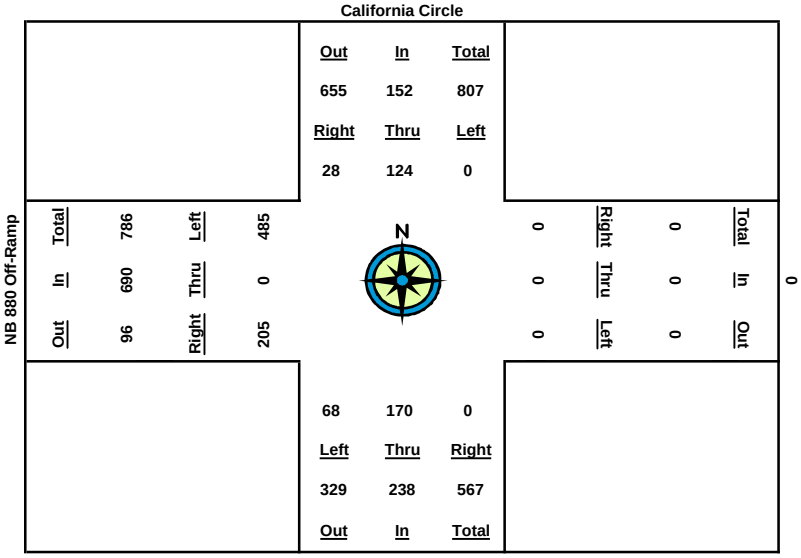
Date: 6/20/07
Counter: Kevin and Dianne
Intersection Name: NB 880 Ramps and California Circle
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	California Circle								California Circle				NB 880 Off-Ramp			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	9	33	0	42	0	0	0	0	0	23	11	34	30	0	61	91
7:30	15	59	0	74	0	0	0	0	0	50	19	69	84	0	174	258
7:45	21	89	0	110	0	0	0	0	0	81	25	106	116	0	294	410
8:00	28	122	0	150	0	0	0	0	0	119	43	162	151	0	417	568
8:15	32	153	0	185	0	0	0	0	0	147	63	210	214	0	514	728
8:30	42	188	0	230	0	0	0	0	0	194	83	277	264	0	655	919
8:45	49	213	0	262	0	0	0	0	0	251	93	344	321	0	779	1,100
9:00	57	236	0	293	0	0	0	0	0	301	104	405	373	0	860	1,233

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
7:00 - 8:00	28	122	0	150	0	0	0	0	0	119	43	162	151	0	417	568	880
7:15 - 8:15	23	120	0	143	0	0	0	0	0	124	52	176	184	0	453	637	956
7:30 - 8:30	27	129	0	156	0	0	0	0	0	144	64	208	180	0	481	661	1,025
7:45 - 8:45	28	124	0	152	0	0	0	0	0	170	68	238	205	0	485	690	1,080
8:00 - 9:00	29	114	0	143	0	0	0	0	0	182	61	243	222	0	443	665	1,051
Peak Volumes:	**28**	**124**	**0**	**152**	**0**	**0**	**0**	**0**	**0**	**170**	**68**	**238**	**205**	**0**	**485**	**690**	**1,080**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	68	170	0	0	124	28	485	0	205	0	0	0



AM Peak-Hour Volume Count Worksheet

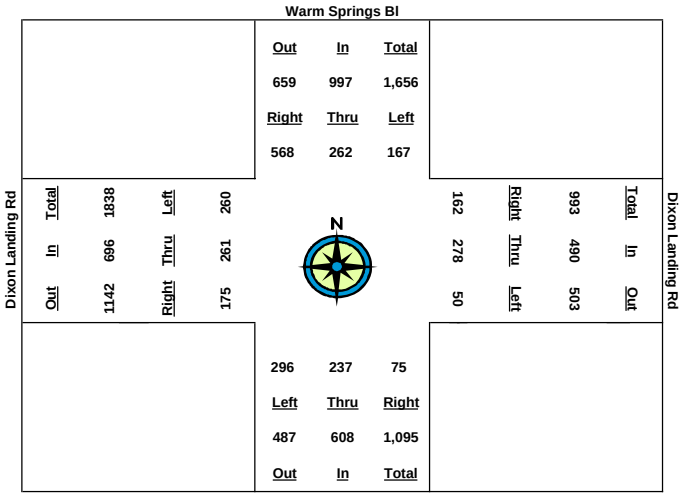
HEXAGON TRANSPORTATION CONSULTANTS
40 S. Market Street, Suite 600
San Jose, CA 95113
Phone 408-971-6100 Fax 408-971-6102

Date: 3/21/07
Counter: Ronald & Shaun
Intersection Name: Warm Springs Bl and Dixon Landing Rd
Weather: Cloudy, then clean
City/Project: Milpitas - Fremont Milmont - 07GB14

	Warm Springs Bl				Dixon Landing Rc				Warm Springs Bl				Dixon Landing Rd			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	136	47	21	204	9	57	4	70	1	40	40	81	28	24	49	101
7:30	277	99	38	414	31	132	7	170	4	72	98	174	56	60	115	231
7:45	405	163	86	654	63	195	14	272	17	118	166	301	95	109	183	387
8:00	538	237	146	921	111	255	33	399	47	189	221	457	154	201	279	634
8:15	685	291	176	1,152	165	340	40	545	67	254	318	639	199	285	323	807
8:30	845	361	205	1,411	193	410	57	660	79	309	394	782	231	321	375	927
8:45	996	446	222	1,664	215	457	64	736	84	361	477	922	263	336	436	1,035
9:00	1,124	493	241	1,858	242	502	76	820	89	421	551	1,061	288	361	496	1,145

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
7:00 - 8:00	538	237	146	921	111	255	33	399	47	189	221	457	154	201	279	634	2,411
7:15 - 8:15	549	244	155	948	156	283	36	475	66	214	278	558	171	261	274	706	2,687
7:30 - 8:30	568	262	167	997	162	278	50	490	75	237	296	608	175	261	260	696	2,791
7:45 - 8:45	591	283	136	1,010	152	262	50	464	67	243	311	621	168	227	253	648	2,743
8:00 - 9:00	586	256	95	937	131	247	43	421	42	232	330	604	134	160	217	511	2,473
Peak Volumes:	**568**	**262**	**167**	**997**	**162**	**278**	**50**	**490**	**75**	**237**	**296**	**608**	**175**	**261**	**260**	**696**	**2,791**

Cut and Paste	**NR**	**NT**	**NL**		**ER**	**ET**	**EL**		**SR**	**ST**	**SL**		**WR**	**WT**	**WL**
	568	262	167		162	278	50		75	237	296		175	261	260



AM Peak-Hour Volume Count Worksheet

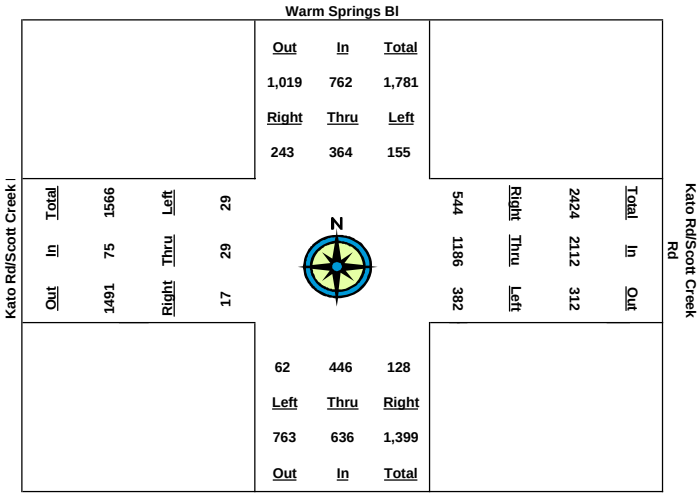
HEXAGON TRANSPORTATION CONSULTANTS
40 S. Market Street, Suite 600
San Jose, CA 95113
Phone 408-971-6100 Fax 408-971-6102

Date: 3/21/07
Counter: Michelle & Nathan
Intersection Name: Warm Springs Bl and Kato Rd/Scot Creek Rd
Weather: Cloudy, then clear
City/Project: Fremont - Fremont Milmont - 07GB14

	Warm Springs Bl				Kato Rd/Scott Creek Rd				Warm Springs Bl				Kato Rd/Scott Creek Rd			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	29	67	19	115	65	178	90	333	33	36	11	80	3	2	3	8
7:30	66	149	38	253	131	375	189	695	73	95	21	189	3	9	11	23
7:45	102	237	66	405	241	617	324	1,182	123	165	36	324	4	18	21	43
8:00	168	318	86	572	381	971	432	1,784	164	293	54	511	10	24	26	60
8:15	236	406	127	769	552	1,198	509	2,259	187	418	74	679	13	30	33	76
8:30	299	491	173	963	686	1,504	611	2,801	205	507	83	795	17	40	36	93
8:45	345	601	221	1,167	785	1,803	706	3,294	251	611	98	960	21	47	50	118
9:00	387	676	234	1,297	863	2,003	789	3,655	280	678	113	1,071	24	59	57	140

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	168	318	86	572	381	971	432	1,784	164	293	54	511	10	24	26	60	2,927
7:15 - 8:15	207	339	108	654	487	1,020	419	1,926	154	382	63	599	10	28	30	68	3,247
7:30 - 8:30	233	342	135	710	555	1,129	422	2,106	132	412	62	606	14	31	25	70	3,492
7:45 - 8:45	243	364	155	762	544	1,186	382	2,112	128	446	62	636	17	29	29	75	3,585
8:00 - 9:00	219	358	148	725	482	1,032	357	1,871	116	385	59	560	14	35	31	80	3,236
Peak Volumes:	**243**	**364**	**155**	**762**	**544**	**1,186**	**382**	**2,112**	**128**	**446**	**62**	**636**	**17**	**29**	**29**	**75**	**3,585**

Cut and Paste	NR	NT	NL		ER	ET	EL		SR	ST	SL		WR	WT	WL
	243	364	155		544	1,186	382		128	446	62		17	29	29



AM Peak-Hour Volume Count Worksheet

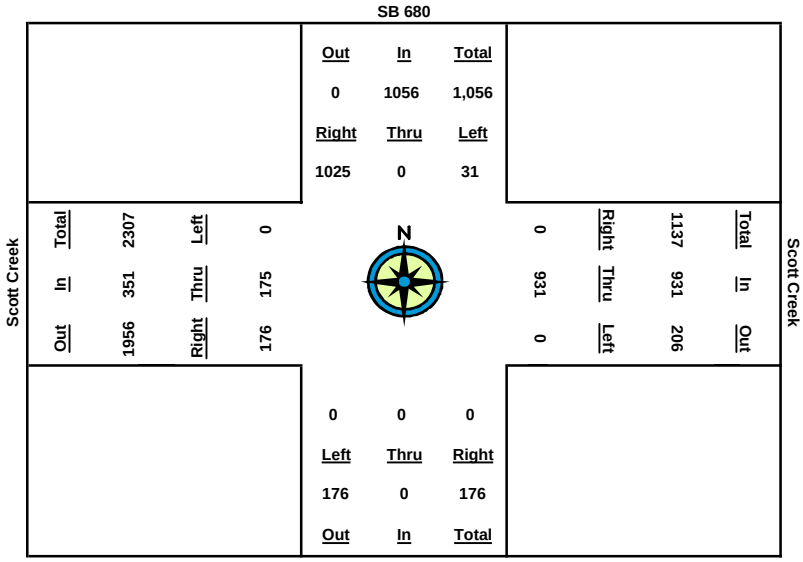
Date: 6/19/07
Counter: Patti & Shaun Alvarez
Intersection Name: SB 680 & Scott Creek
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	SB 680				Scott Creek				SB 680				Scott Creek			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	270	0	7	277	0	162	0	162	0	0	0	0	34	36	0	70
7:30	470	0	12	482	0	332	0	332	0	0	0	0	81	69	0	150
7:45	682	0	19	701	0	561	0	561	0	0	0	0	135	127	0	262
8:00	941	0	24	965	0	857	0	857	0	0	0	0	187	181	0	368
8:15	1,205	0	31	1,236	0	1,059	0	1,059	0	0	0	0	209	198	0	407
8:30	1,466	0	43	1,509	0	1,254	0	1,254	0	0	0	0	146	233	0	379
8:45	1,707	0	50	1,757	0	1,492	0	1,492	0	0	0	0	311	302	0	613
9:00	1,948	0	60	2,008	0	1,675	0	1,675	0	0	0	0	376	335	0	711

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	941	0	24	965	0	857	0	857	0	0	0	0	187	181	0	368	2,190
7:15 - 8:15	935	0	24	959	0	897	0	897	0	0	0	0	175	162	0	337	2,193
7:30 - 8:30	996	0	31	1,027	0	922	0	922	0	0	0	0	65	164	0	229	2,178
7:45 - 8:45	1,025	0	31	1,056	0	931	0	931	0	0	0	0	176	175	0	351	2,338
8:00 - 9:00	1,007	0	36	1,043	0	818	0	818	0	0	0	0	189	154	0	343	2,204
Peak Volumes:	**1,025**	**0**	**31**	**1,056**	**0**	**931**	**0**	**931**	**0**	**0**	**0**	**0**	**176**	**175**	**0**	**351**	**2,338**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	0	0	0	31	0	1,025	0	175	176	0	931	0



AM Peak-Hour Volume Count Worksheet

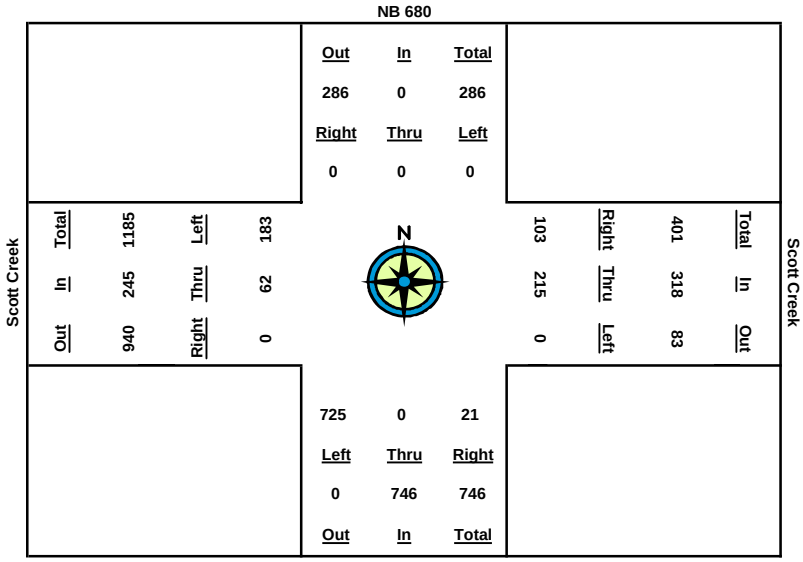
Date: 6/19/07
Counter: Alvan & Ngoc
Intersection Name: NB 680 & (Scott Creek) Kato Rd.
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	NB 680				Scott Creek				NB 680				Scott Creek			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	9	22	0	31	5	0	126	131	0	8	31	39
7:30	0	0	0	0	118	63	0	181	13	0	278	291	0	17	63	80
7:45	0	0	0	0	38	110	0	148	18	0	484	502	0	24	118	142
8:00	0	0	0	0	53	161	0	214	21	0	709	730	0	37	142	179
8:15	0	0	0	0	76	207	0	283	28	0	861	889	0	49	190	239
8:30	0	0	0	0	108	252	0	360	34	0	1,005	1,039	0	67	234	301
8:45	0	0	0	0	141	325	0	466	39	0	1,209	1,248	0	86	301	387
9:00	0	0	0	0	160	368	0	528	45	0	1,329	1,374	0	99	338	437

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	0	0	0	0	53	161	0	214	21	0	709	730	0	37	142	179	1,123
7:15 - 8:15	0	0	0	0	67	185	0	252	23	0	735	758	0	41	159	200	1,210
7:30 - 8:30	0	0	0	0	-10	189	0	179	21	0	727	748	0	50	171	221	1,148
7:45 - 8:45	0	0	0	0	103	215	0	318	21	0	725	746	0	62	183	245	1,309
8:00 - 9:00	0	0	0	0	107	207	0	314	24	0	620	644	0	62	196	258	1,216
Peak Volumes:	**0**	**0**	**0**	**0**	**103**	**215**	**0**	**318**	**21**	**0**	**725**	**746**	**0**	**62**	**183**	**245**	**1,309**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	725	0	21	0	0	0	183	62	0	0	215	103



AM Peak-Hour Volume Count Worksheet

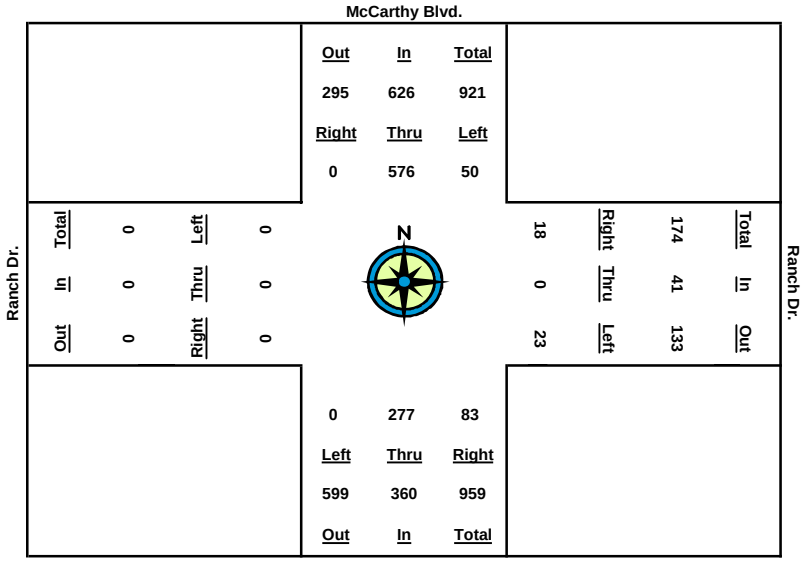
Date: 6/20/07
Counter: Alvan & Ngoc
Intersection Name: McCarthy Blvd. & Ranch Dr. North
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd.				Ranch Dr.				McCarthy Blvd.				Ranch Dr.			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	83	7	90	5	0	1	6	13	19	0	32	0	0	0	0
7:30	0	188	19	207	6	0	5	11	29	49	0	78	0	0	0	0
7:45	0	331	36	367	7	0	6	13	43	90	0	133	0	0	0	0
8:00	0	479	44	523	7	0	9	16	68	143	0	211	0	0	0	0
8:15	0	594	53	647	14	0	17	31	91	217	0	308	0	0	0	0
8:30	0	746	69	815	22	0	22	44	107	278	0	385	0	0	0	0
8:45	0	919	86	1,005	24	0	31	55	129	347	0	476	0	0	0	0
9:00	0	1,055	94	1,149	25	0	32	57	151	420	0	571	0	0	0	0

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	0	479	44	523	7	0	9	16	68	143	0	211	0	0	0	0	750
7:15 - 8:15	0	511	46	557	9	0	16	25	78	198	0	276	0	0	0	0	858
7:30 - 8:30	0	558	50	608	16	0	17	33	78	229	0	307	0	0	0	0	948
7:45 - 8:45	0	588	50	638	17	0	25	42	86	257	0	343	0	0	0	0	1,023
8:00 - 9:00	0	576	50	626	18	0	23	41	83	277	0	360	0	0	0	0	1,027
Peak Volumes:	**0**	**576**	**50**	**626**	**18**	**0**	**23**	**41**	**83**	**277**	**0**	**360**	**0**	**0**	**0**	**0**	**1,027**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	0	277	83	50	576	0	0	0	0	23	0	18



AM Peak-Hour Volume Count Worksheet

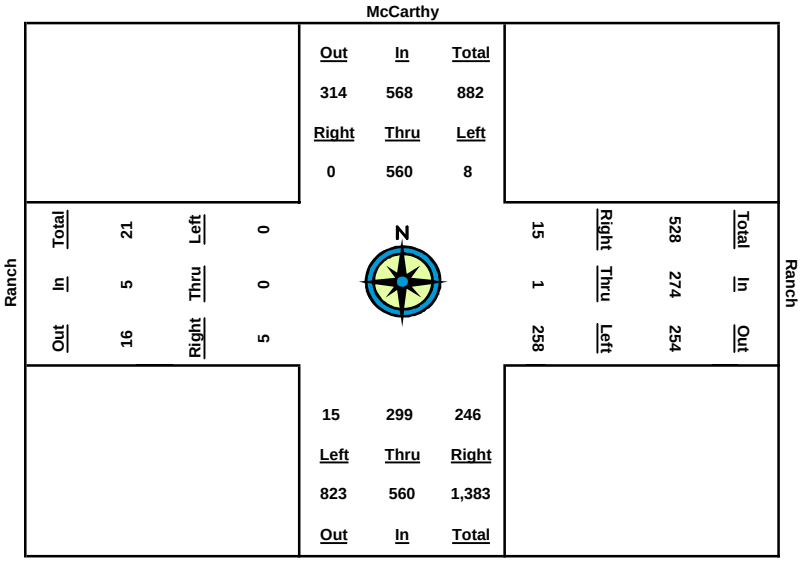
Date: 6/20/07
Counter: Jamie& Huy
Intersection Name: McCarthy Blvd. & Ranch Dr. South
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy				Ranch				McCarthy				Ranch			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	92	2	94	3	0	54	57	66	37	3	106	1	0	0	1
7:30	0	207	2	209	7	0	121	128	104	86	6	196	2	0	0	2
7:45	0	357	3	360	10	0	179	189	145	128	11	284	3	0	0	3
8:00	0	531	4	535	12	1	252	265	198	204	19	421	6	0	0	6
8:15	0	663	5	668	18	1	301	320	257	281	21	559	7	0	0	7
8:30	0	790	9	799	22	1	368	391	321	350	26	697	8	0	0	8
8:45	0	917	11	928	25	1	437	463	391	427	26	844	8	0	0	8
9:00	0	948	18	966	27	1	503	531	467	502	26	995	8	0	0	8

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	0	531	4	535	12	1	252	265	198	204	19	421	6	0	0	6	1,227
7:15 - 8:15	0	571	3	574	15	1	247	263	191	244	18	453	6	0	0	6	1,296
7:30 - 8:30	0	583	7	590	15	1	247	263	217	264	20	501	6	0	0	6	1,360
7:45 - 8:45	0	560	8	568	15	1	258	274	246	299	15	560	5	0	0	5	1,407
8:00 - 9:00	0	417	14	431	15	0	251	266	269	298	7	574	2	0	0	2	1,273
Peak Volumes:	**0**	**560**	**8**	**568**	**15**	**1**	**258**	**274**	**246**	**299**	**15**	**560**	**5**	**0**	**0**	**5**	**1,407**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	15	299	246	8	560	0	0	0	5	258	1	15



AM Peak-Hour Volume Count Worksheet

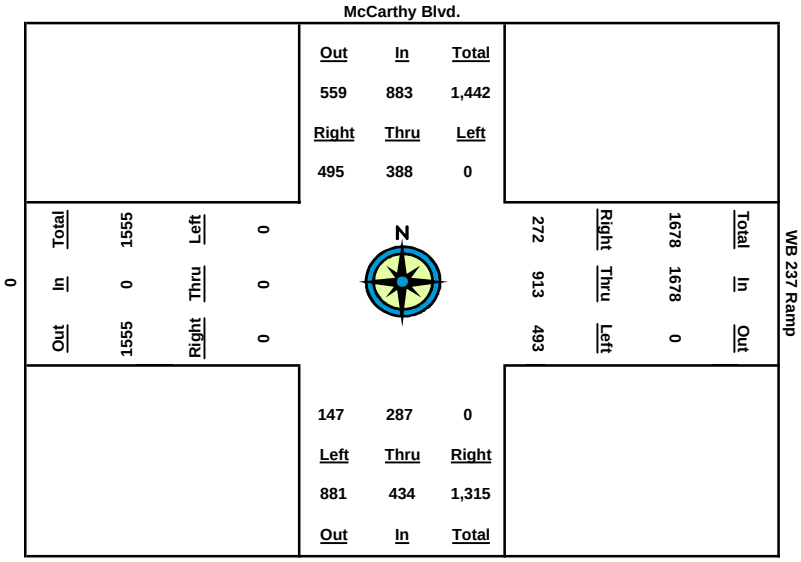
Date: 7/11/07
Counter: Logan & Jane
Intersection Name: WB 237 & McCarthy Blvd.
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd.				WB 237 Ramp				McCarthy Blvd.							
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	74	68	0	142	42	205	96	343	0	46	26	72	0	0	0	0
7:30	174	123	0	297	82	428	181	691	0	86	54	140	0	0	0	0
7:45	283	202	0	485	159	714	309	1,182	0	149	98	247	0	0	0	0
8:00	397	296	0	693	213	910	429	1,552	0	221	117	338	0	0	0	0
8:15	569	456	0	1,025	314	1,118	589	2,021	0	333	173	506	0	0	0	0
8:30	663	554	0	1,217	399	1,222	673	2,294	0	389	199	588	0	0	0	0
8:45	798	703	0	1,501	490	1,401	804	2,695	0	469	236	705	0	0	0	0
9:00	908	788	0	1,696	586	1,551	917	3,054	0	553	258	811	0	0	0	0

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
7:00 - 8:00	397	296	0	693	213	910	429	1,552	0	221	117	338	0	0	0	0	2,583
7:15 - 8:15	495	388	0	883	272	913	493	1,678	0	287	147	434	0	0	0	0	2,995
7:30 - 8:30	489	431	0	920	317	794	492	1,603	0	303	145	448	0	0	0	0	2,971
7:45 - 8:45	515	501	0	1,016	331	687	495	1,513	0	320	138	458	0	0	0	0	2,987
8:00 - 9:00	511	492	0	1,003	373	641	488	1,502	0	332	141	473	0	0	0	0	2,978
Peak Volumes:	**495**	**388**	**0**	**883**	**272**	**913**	**493**	**1,678**	**0**	**287**	**147**	**434**	**0**	**0**	**0**	**0**	**2,995**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	147	287	0	0	388	495	0	0	0	493	913	272



AM Peak-Hour Volume Count Worksheet

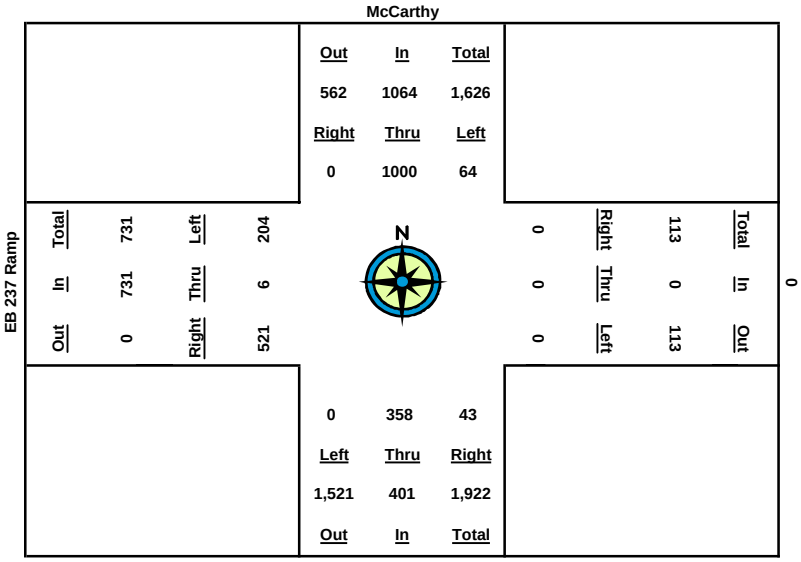
Date: 7/11/07
Counter: Alvan and Ngoc
Intersection Name: EB 237 & McCarthy Blvd.
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy								McCarthy				EB 237 Ramp			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	143	12	155	0	0	0	0	11	53	0	64	68	2	28	98
7:30	0	285	19	304	0	0	0	0	20	100	0	120	139	3	61	203
7:45	0	519	28	547	0	0	0	0	31	172	0	203	228	3	91	322
8:00	0	773	35	808	0	0	0	0	43	236	0	279	354	4	142	500
8:15	0	968	57	1,025	0	0	0	0	56	399	0	455	473	7	188	668
8:30	0	1,232	72	1,304	0	0	0	0	69	462	0	531	586	8	235	829
8:45	0	1,519	92	1,611	0	0	0	0	74	530	0	604	749	9	295	1,053
9:00	0	1,786	116	1,902	0	0	0	0	91	437	0	528	904	9	338	1,251

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	0	773	35	808	0	0	0	0	43	236	0	279	354	4	142	500	1,587
7:15 - 8:15	0	825	45	870	0	0	0	0	45	346	0	391	405	5	160	570	1,831
7:30 - 8:30	0	947	53	1,000	0	0	0	0	49	362	0	411	447	5	174	626	2,037
7:45 - 8:45	0	1,000	64	1,064	0	0	0	0	43	358	0	401	521	6	204	731	2,196
8:00 - 9:00	0	1,013	81	1,094	0	0	0	0	48	201	0	249	550	5	196	751	2,094
Peak Volumes:	**0**	**1,000**	**64**	**1,064**	**0**	**0**	**0**	**0**	**43**	**358**	**0**	**401**	**521**	**6**	**204**	**731**	**2,196**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	0	358	43	64	1,000	0	204	6	521	0	0	0



Traffic Data Service

Campbell, CA

(408) 377-2988
tdsbay@cs.com

File Name : 1AM FINAL
Site Code : 00000001
Start Date : 8/14/2007
Page No : 1

Groups Printed- Vehicles

	I-880 SB RAMPS Southbound					SR-237 Westbound					Northbound					SR-237 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	58	0	51	0	109	93	599	0	0	692	0	0	0	0	0	0	126	0	0	126	927
07:15 AM	62	2	49	0	113	156	551	0	0	707	0	0	0	0	0	0	130	0	0	130	950
07:30 AM	56	3	68	0	127	161	651	0	0	812	0	0	0	0	0	0	142	0	0	142	1081
07:45 AM	53	1	49	3	106	139	673	0	0	812	0	0	0	0	0	0	219	0	0	219	1137
Total	229	6	217	3	455	549	2474	0	0	3023	0	0	0	0	0	0	617	0	0	617	4095
08:00 AM	48	0	50	0	98	120	630	0	0	750	0	0	0	0	0	0	287	0	0	287	1135
08:15 AM	62	1	55	0	118	190	664	0	0	854	0	0	0	0	0	0	231	0	0	231	1203
08:30 AM	115	0	66	0	181	184	714	0	0	898	0	0	0	0	0	0	196	0	0	196	1275
08:45 AM	164	0	42	0	206	125	581	0	0	706	0	0	0	0	0	0	216	0	0	216	1128
Total	389	1	213	0	603	619	2589	0	0	3208	0	0	0	0	0	0	930	0	0	930	4741
Grand Total	618	7	430	3	1058	1168	5063	0	0	6231	0	0	0	0	0	0	1547	0	0	1547	8836
Apprch %	58.4	0.7	40.6	0.3		18.7	81.3	0	0		0	0	0	0		0	100	0	0		
Total %	7	0.1	4.9	0	12	13.2	57.3	0	0	70.5	0	0	0	0	0	0	17.5	0	0	17.5	

	I-880 SB RAMPS Southbound					SR-237 Westbound					Northbound					SR-237 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	53	**1**	49	**3**	106	139	673	0	0	812	0	0	0	0	0	0	219	0	0	219	1137
08:00 AM	48	0	50	0	98	120	630	0	0	750	0	0	0	0	0	0	**287**	0	0	**287**	1135
08:15 AM	62	1	55	0	118	**190**	664	0	0	854	0	0	0	0	0	0	231	0	0	231	1203
08:30 AM	**115**	0	**66**	0	**181**	184	**714**	0	0	**898**	0	0	0	0	0	0	196	0	0	196	**1275**
Total Volume	278	2	220	3	503	633	2681	0	0	3314	0	0	0	0	0	0	933	0	0	933	4750
% App. Total	55.3	0.4	43.7	0.6		19.1	80.9	0	0		0	0	0	0		0	100	0	0		
PHF	.604	.500	.833	.250	.695	.833	.939	.000	.000	.923	.000	.000	.000	.000	.000	.000	.813	.000	.000	.813	.931

Traffic Data Service

Campbell, CA

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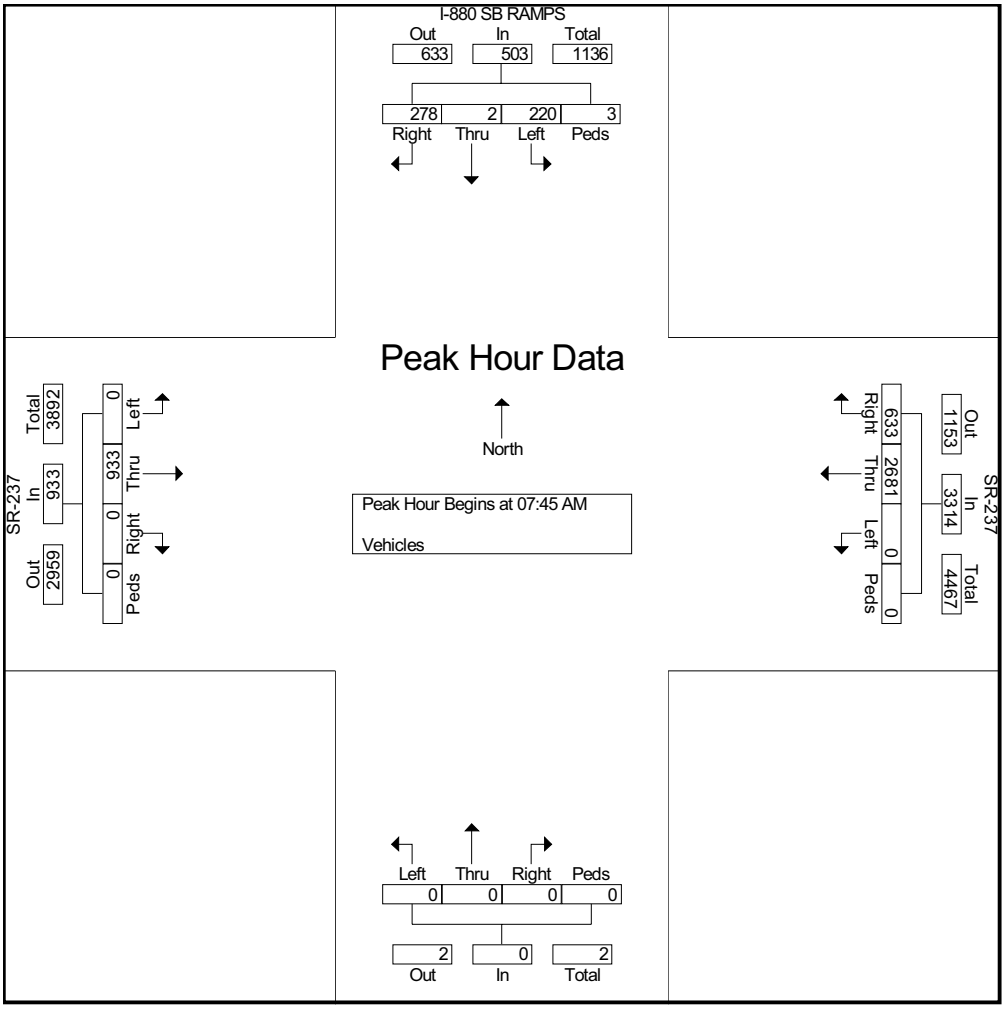
File Name : 1AM FINAL
Site Code : 00000001
Start Date : 8/14/2007
Page No : 2



Traffic Data Service

Campbell, CA

(408) 377-2988
tdsbay@cs.com

File Name : 2AM FINAL
Site Code : 00000002
Start Date : 8/14/2007
Page No : 1

Groups Printed- Vehicles

	Southbound					CALAVERAS BLVD Westbound					I-880 NB RAMPS Northbound					CALAVERAS BLVD Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	0	0	0	0	0	57	585	0	0	642	73	0	81	0	154	6	210	0	0	216	1012
07:15 AM	0	0	0	0	0	52	602	0	0	654	88	0	107	0	195	5	184	0	0	189	1038
07:30 AM	0	0	0	0	0	60	713	0	0	773	61	0	107	0	168	9	200	0	0	209	1150
07:45 AM	0	0	0	0	0	65	702	0	0	767	80	0	95	0	175	4	269	0	0	273	1215
Total	0	0	0	0	0	234	2602	0	0	2836	302	0	390	0	692	24	863	0	0	887	4415
08:00 AM	0	0	0	0	0	44	665	0	0	709	84	0	112	0	196	8	342	0	0	350	1255
08:15 AM	0	0	0	0	0	42	730	0	0	772	76	0	115	0	191	8	288	0	0	296	1259
08:30 AM	0	0	0	0	0	62	707	0	0	769	77	0	116	0	193	8	262	0	0	270	1232
08:45 AM	0	0	0	0	0	57	587	0	0	644	86	0	98	0	184	12	261	0	0	273	1101
Total	0	0	0	0	0	205	2689	0	0	2894	323	0	441	0	764	36	1153	0	0	1189	4847
Grand Total	0	0	0	0	0	439	5291	0	0	5730	625	0	831	0	1456	60	2016	0	0	2076	9262
Apprch %	0	0	0	0		7.7	92.3	0	0		42.9	0	57.1	0		2.9	97.1	0	0		
Total %	0	0	0	0	0	4.7	57.1	0	0	61.9	6.7	0	9	0	15.7	0.6	21.8	0	0	22.4	

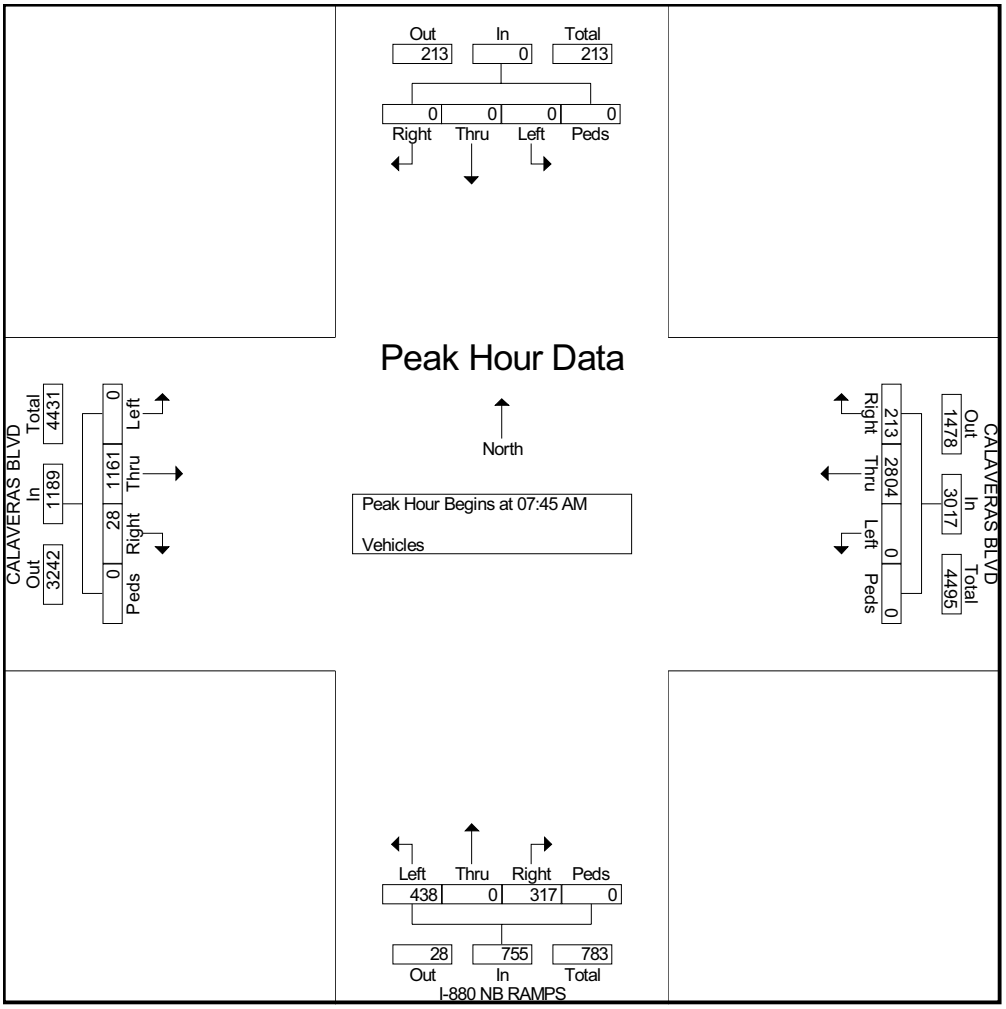
	Southbound					CALAVERAS BLVD Westbound					I-880 NB RAMPS Northbound					CALAVERAS BLVD Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	**65**	702	0	0	767	80	0	95	0	175	4	269	0	0	273	1215
08:00 AM	0	0	0	0	0	44	665	0	0	709	**84**	0	112	0	**196**	**8**	**342**	0	0	**350**	1255
08:15 AM	0	0	0	0	0	42	**730**	0	0	**772**	76	0	115	0	191	8	288	0	0	296	**1259**
08:30 AM	0	0	0	0	0	62	707	0	0	769	77	0	**116**	0	193	8	262	0	0	270	1232
Total Volume	0	0	0	0	0	213	2804	0	0	3017	317	0	438	0	755	28	1161	0	0	1189	4961
% App. Total	0	0	0	0		7.1	92.9	0	0		42	0	58	0		2.4	97.6	0	0		
PHF	.000	.000	.000	.000	.000	.819	.960	.000	.000	.977	.943	.000	.944	.000	.963	.875	.849	.000	.000	.849	.985

Traffic Data Service

Campbell, CA

(408) 377-2988
tdsbay@cs.com

File Name : 2AM FINAL
Site Code : 00000002
Start Date : 8/14/2007
Page No : 2



AM Peak-Hour Volume Count Worksheet

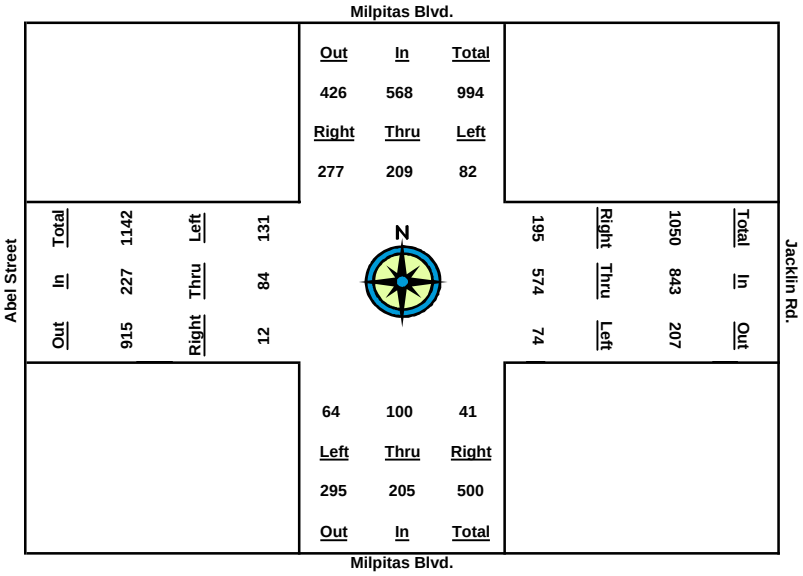
Date: 6/19/07
Counter: J amie and Huy
Intersection Name: Milp itas Blv d. and Abel Street
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Milpitas Blvd.				Jacklin Rd.				Milpitas Blvd.				Abel Street			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	33	24	10	67	17	69	11	97	13	29	11	53	1	6	19	26
7:30	91	48	30	169	61	158	19	238	16	49	28	93	3	22	36	61
7:45	161	92	64	317	94	280	35	409	22	82	40	144	8	41	65	114
8:00	230	136	82	448	127	426	65	618	28	114	50	192	11	61	99	171
8:15	304	190	110	604	198	579	78	855	40	136	64	240	14	84	135	233
8:30	379	239	129	747	236	709	98	1, 043	55	157	80	292	16	103	161	280
8:45	438	301	146	885	289	854	109	1, 252	63	182	104	349	20	125	196	341
9:00	502	354	152	1, 008	314	995	124	1, 433	72	212	125	409	25	141	221	387

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
7:00 - 8:00	230	136	82	448	127	426	65	618	28	114	50	192	11	61	99	171	1, 429
7:15 - 8:15	271	166	100	537	181	510	67	758	27	107	53	187	13	78	116	207	1, 689
7:30 - 8:30	288	191	99	578	175	551	79	805	39	108	52	199	13	81	125	219	1, 801
7:45 - 8:45	277	209	82	568	195	574	74	843	41	100	64	205	12	84	131	227	1, 843
8:00 - 9:00	272	218	70	560	187	569	59	815	44	98	75	217	14	80	122	216	1, 808
Peak Volumes:	**277**	**209**	**82**	**568**	**195**	**574**	**74**	**843**	**41**	**100**	**64**	**205**	**12**	**84**	**131**	**227**	**1,843**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	64	100	41	82	209	277	131	84	12	74	574	195



Calav eras/Milp itas CMP Volumes

	MILPITAS BLVD Southbound				CALAVERAS BLVD Westbound				MILPITAS BLVD Northbound				CALAVERAS BLVD Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Total
07:30 AM	151	47	39	0	22	506	9	0	2	40	74	0	65	113	12	0	1080
07:45 AM	151	94	52	0	26	497	8	0	6	24	100	0	117	157	30	0	1262
08:00 AM	177	69	70	0	24	486	31	1	4	22	89	0	89	187	36	0	1285
08:15 AM	136	69	57	1	15	451	26	0	5	42	96	1	97	191	55	0	1242
	615	**279**	**218**	**1**	**87**	**1940**	**74**	**1**	**17**	**128**	**359**	**1**	**368**	**648**	**133**	**0**	
04:45 PM	82	73	82	0	64	292	28	3	27	76	115	0	88	492	117	0	1539
05:00 PM	94	65	98	0	66	280	31	0	20	93	136	3	84	442	93	0	1505
05:15 PM	46	41	72	0	55	276	30	1	26	121	121	2	95	459	91	2	1438
05:30 PM	35	58	74	0	64	338	41	2	22	94	106	0	99	495	69	1	1498
	257	**237**	**326**	**0**	**249**	**1186**	**130**	**6**	**95**	**384**	**478**	**5**	**366**	**1888**	**370**	**3**	**5980**

Peak-Hour Volume Count Worksheet

Date: 11/15/06
Counter:
›n Name: Calav eras and Abel
Weather: Clear

AUTO-CENSUS

Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-16

AM Peak-Hour Volume Count Worksheet

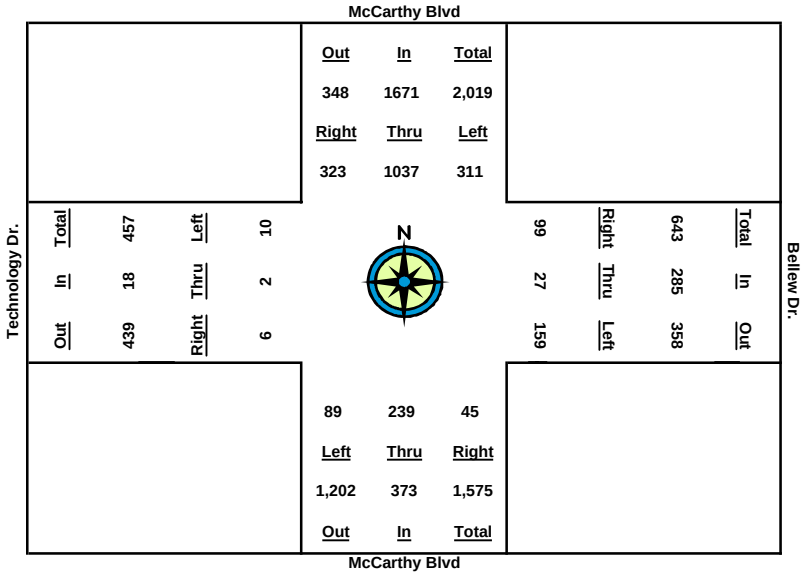
Date: 6/14/07
Counter: By ron and J amie
Intersection Name: McCarthy and Technology /Bellew
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd				Bellew Dr.				McCarthy Blvd				Technology Dr.			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	54	111	32	197	22	16	15	53	2	9	8	19	1	0	0	1
7:30	87	261	79	427	43	22	39	104	5	43	31	79	3	0	0	3
7:45	134	446	136	716	67	24	70	161	21	96	45	162	6	2	4	12
8:00	203	687	176	1, 066	82	32	112	226	39	145	70	254	8	4	6	18
8:15	269	937	244	1, 450	110	40	158	308	50	202	90	342	10	5	7	22
8:30	354	1, 189	319	1, 862	137	45	197	379	61	267	116	444	13	5	11	29
8:45	437	1, 468	398	2, 303	155	52	226	433	70	325	141	536	14	6	15	35
9:00	526	1, 724	487	2, 737	181	59	271	511	84	384	159	627	14	6	16	36

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
7:00 - 8:00	203	687	176	1, 066	82	32	112	226	39	145	70	254	8	4	6	18	1, 564
7:15 - 8:15	215	826	212	1, 253	88	24	143	255	48	193	82	323	9	5	7	21	1, 852
7:30 - 8:30	267	928	240	1, 435	94	23	158	275	56	224	85	365	10	5	11	26	2, 101
7:45 - 8:45	303	1, 022	262	1, 587	88	28	156	272	49	229	96	374	8	4	11	23	2, 256
8:00 - 9:00	323	1, 037	311	1, 671	99	27	159	285	45	239	89	373	6	2	10	18	2, 347
Peak Volumes:	**323**	**1,037**	**311**	**1,671**	**99**	**27**	**159**	**285**	**45**	**239**	**89**	**373**	**6**	**2**	**10**	**18**	**2,347**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	89	239	45	311	1, 037	323	10	2	6	159	27	99



AM Peak-Hour Volume Count Worksheet

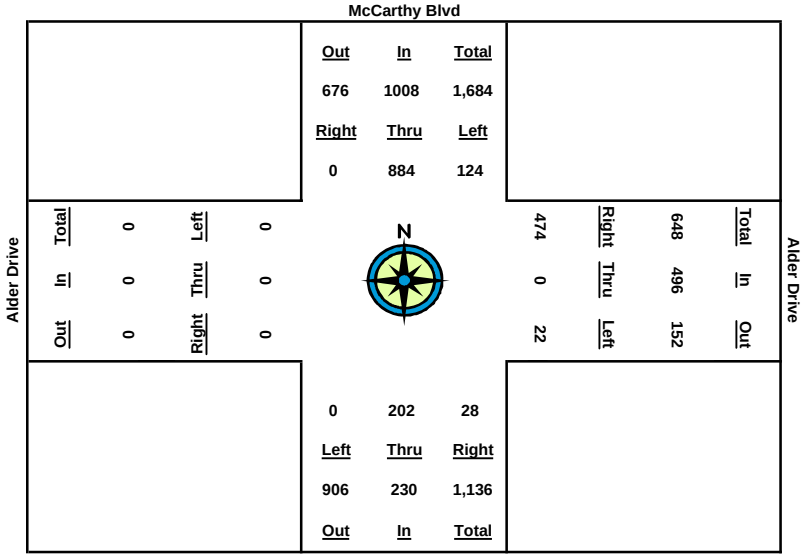
Date: 6/14/07
Counter: Logan and J ane
Intersection Name: McCarthy Blv d and Alder Driv e
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd				Alder Drive				McCarthy Blvd				Alder Drive			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	78	18	96	63	0	0	63	1	25	0	26	0	0	0	0
7:30	0	201	41	242	139	0	3	142	1	47	0	48	0	0	0	0
7:45	0	369	66	435	220	0	4	224	2	78	0	80	0	0	0	0
8:00	0	590	98	688	326	0	9	335	4	107	0	111	0	0	0	0
8:15	0	827	137	964	443	0	11	454	10	150	0	160	0	0	0	0
8:30	0	1, 058	153	1, 211	560	0	18	578	16	192	0	208	0	0	0	0
8:45	0	1, 273	184	1, 457	657	0	21	678	21	242	0	263	0	0	0	0
9:00	0	1, 474	222	1, 696	800	0	31	831	32	309	0	341	0	0	0	0

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	0	590	98	688	326	0	9	335	4	107	0	111	0	0	0	0	1, 134
7:15 - 8:15	0	749	119	868	380	0	11	391	9	125	0	134	0	0	0	0	1, 393
7:30 - 8:30	0	857	112	969	421	0	15	436	15	145	0	160	0	0	0	0	1, 565
7:45 - 8:45	0	904	118	1, 022	437	0	17	454	19	164	0	183	0	0	0	0	1, 659
8:00 - 9:00	0	884	124	1, 008	474	0	22	496	28	202	0	230	0	0	0	0	1, 734
Peak Volumes:	**0**	**884**	**124**	**1,008**	**474**	**0**	**22**	**496**	**28**	**202**	**0**	**230**	**0**	**0**	**0**	**0**	**1,734**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	0	202	28	124	884	0	0	0	0	22	0	474



AM Peak-Hour Volume Count Worksheet

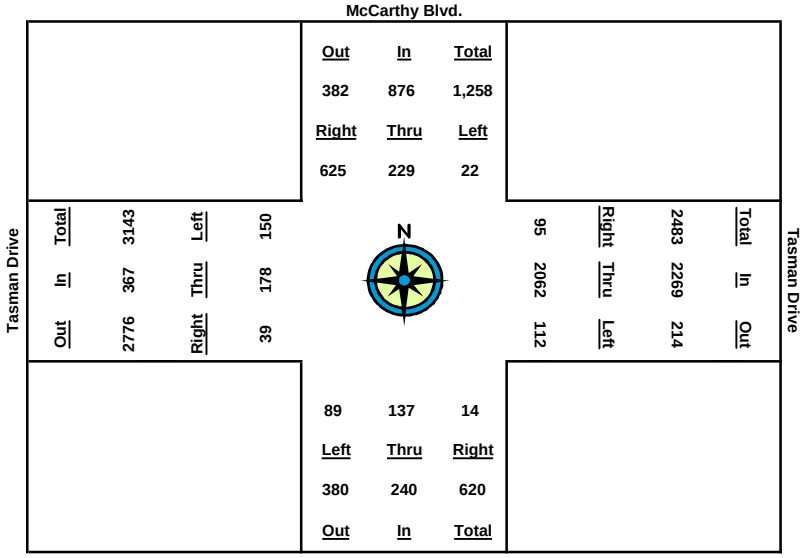
Date: 6/14/07
Counter: Patti and Dianne
Intersection Name: McCarthy Blvd. and Tasman Drive
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd.				Tasman Drive				McCarthy Blvd.				Tasman Drive			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	56	28	1	85	13	257	11	281	1	17	14	32	3	24	12	39
7:30	140	65	6	211	27	537	24	588	3	33	25	61	8	46	18	72
7:45	259	97	12	368	39	953	42	1, 034	7	58	42	107	13	76	29	118
8:00	388	140	14	542	58	1, 428	62	1, 548	10	85	63	158	25	101	55	181
8:15	572	204	20	796	83	1, 917	97	2, 097	12	120	85	217	39	135	88	262
8:30	729	252	25	1, 006	105	2, 481	126	2, 712	14	141	104	259	45	169	111	325
8:45	875	317	33	1, 225	130	2, 938	152	3, 220	16	188	133	337	53	213	144	410
9:00	1, 013	369	36	1, 418	153	3, 490	174	3, 817	24	222	152	398	64	279	205	548

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	388	140	14	542	58	1, 428	62	1, 548	10	85	63	158	25	101	55	181	2, 429
7:15 - 8:15	516	176	19	711	70	1, 660	86	1, 816	11	103	71	185	36	111	76	223	2, 935
7:30 - 8:30	589	187	19	795	78	1, 944	102	2, 124	11	108	79	198	37	123	93	253	3, 370
7:45 - 8:45	616	220	21	857	91	1, 985	110	2, 186	9	130	91	230	40	137	115	292	3, 565
8:00 - 9:00	625	229	22	876	95	2, 062	112	2, 269	14	137	89	240	39	178	150	367	3, 752
Peak Volumes:	**625**	**229**	**22**	**876**	**95**	**2,062**	**112**	**2,269**	**14**	**137**	**89**	**240**	**39**	**178**	**150**	**367**	**3,752**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	89	137	14	22	229	625	150	178	39	112	2, 062	95



AM Peak-Hour Volume Count Worksheet

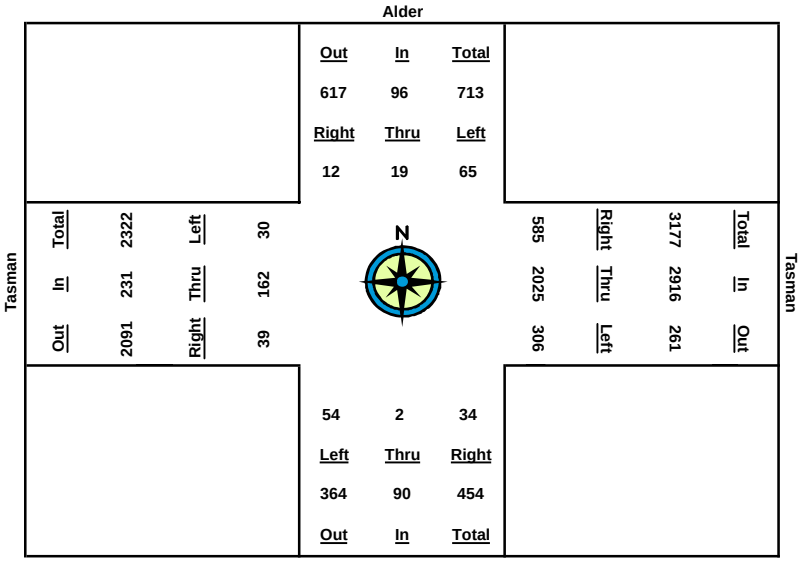
Date: 7/10/07
Counter: Logan & J ane
Intersection Name: Tasman Dr. & Alder Dr
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Alder				Tasman				Alder				Tasman			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	1	3	24	28	60	226	35	321	3	2	0	5	1	26	3	30
7:30	1	5	40	46	138	557	69	764	11	2	8	21	6	50	5	61
7:45	3	7	51	61	247	1, 000	115	1, 362	18	3	14	35	15	81	7	103
8:00	6	13	65	84	351	1, 441	168	1, 960	23	3	21	47	19	114	12	145
8:15	10	20	75	105	476	1, 957	234	2, 667	30	4	25	59	26	163	18	207
8:30	11	26	84	121	615	2, 495	311	3, 421	36	4	38	78	32	206	24	262
8:45	14	28	106	148	786	2, 994	405	4, 185	47	4	58	109	42	235	34	311
9:00	18	32	130	180	936	3, 466	474	4, 876	57	5	75	137	58	276	42	376

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	6	13	65	84	351	1, 441	168	1, 960	23	3	21	47	19	114	12	145	2, 236
7:15 - 8:15	9	17	51	77	416	1, 731	199	2, 346	27	2	25	54	25	137	15	177	2, 654
7:30 - 8:30	10	21	44	75	477	1, 938	242	2, 657	25	2	30	57	26	156	19	201	2, 990
7:45 - 8:45	11	21	55	87	539	1, 994	290	2, 823	29	1	44	74	27	154	27	208	3, 192
8:00 - 9:00	12	19	65	96	585	2, 025	306	2, 916	34	2	54	90	39	162	30	231	3, 333
Peak Volumes:	**12**	**19**	**65**	**96**	**585**	**2,025**	**306**	**2,916**	**34**	**2**	**54**	**90**	**39**	**162**	**30**	**231**	**3,333**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	54	2	34	65	19	12	30	162	39	306	2, 025	585



AM Peak-Hour Volume Count Worksheet

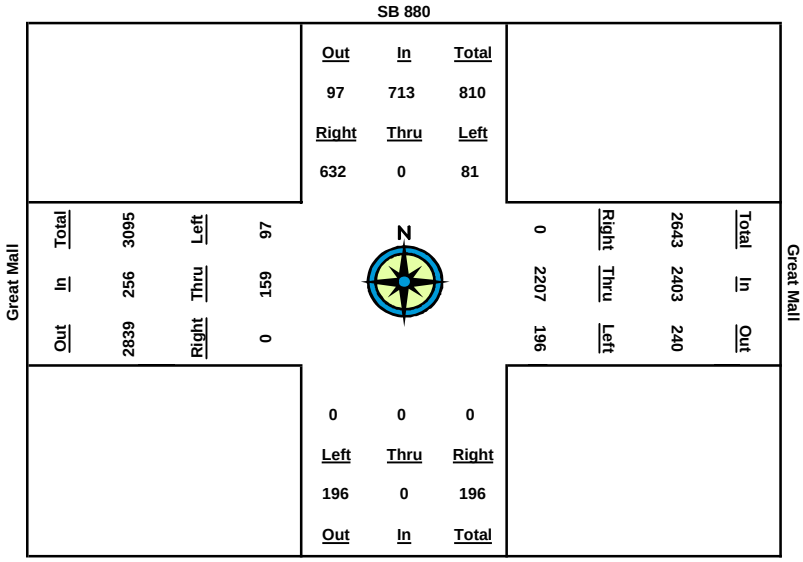
Date: 6/13/07
Counter: Alv an and Ngoc
Intersection Name: Tasman Driv e/Great Mall & 880 SB
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	SB 880				Great Mall				SB 880				Great Mall			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	76	0	17	93	0	258	20	278	0	0	0	0	0	28	20	48
7:30	162	0	31	193	0	625	57	682	0	0	0	0	0	55	42	97
7:45	293	0	57	350	0	1, 110	100	1, 210	0	0	0	0	0	83	65	148
8:00	459	0	85	544	0	1, 678	139	1, 817	0	0	0	0	0	121	89	210
8:15	640	0	105	745	0	2, 125	180	2, 305	0	0	0	0	0	161	115	276
8:30	765	0	115	880	0	2, 677	232	2, 909	0	0	0	0	0	200	137	337
8:45	925	0	138	1, 063	0	3, 317	296	3, 613	0	0	0	0	0	242	162	404
9:00	1, 104	0	161	1, 265	0	3, 838	338	4, 176	0	0	0	0	0	276	200	476

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	459	0	85	544	0	1, 678	139	1, 817	0	0	0	0	0	121	89	210	2, 571
7:15 - 8:15	564	0	88	652	0	1, 867	160	2, 027	0	0	0	0	0	133	95	228	2, 907
7:30 - 8:30	603	0	84	687	0	2, 052	175	2, 227	0	0	0	0	0	145	95	240	3, 154
7:45 - 8:45	632	0	81	713	0	2, 207	196	2, 403	0	0	0	0	0	159	97	256	3, 372
8:00 - 9:00	645	0	76	721	0	2, 160	199	2, 359	0	0	0	0	0	155	111	266	3, 346
Peak Volumes:	**632**	**0**	**81**	**713**	**0**	**2,207**	**196**	**2,403**	**0**	**0**	**0**	**0**	**0**	**159**	**97**	**256**	**3,372**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	0	0	0	81	0	632	97	159	0	196	2, 207	0



AM Peak-Hour Volume Count Worksheet

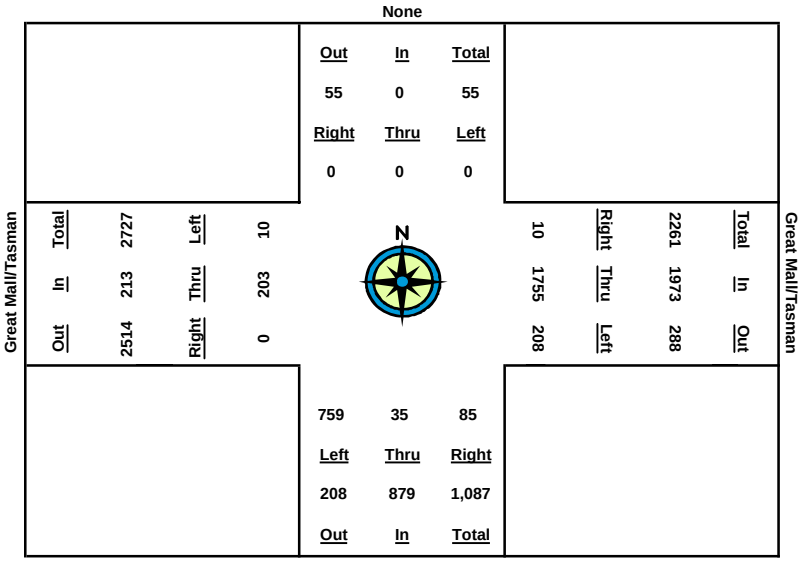
Date: 6/13/07
Counter: Patt and By ron
Intersection Name: NB 880 Ramp s and Tasman/Great Mall
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	None				Great Mall/Tasman				880 NB Off Ramp				Great Mall/Tasman			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	6	162	30	198	16	10	102	128	0	41	3	44
7:30	0	0	0	0	12	433	68	513	44	21	221	286	0	76	4	80
7:45	0	0	0	0	22	756	127	905	86	32	422	540	0	126	11	137
8:00	0	0	0	0	32	1, 134	184	1, 350	134	43	574	751	0	154	18	172
8:15	0	0	0	0	34	1, 536	232	1, 802	167	53	773	993	0	211	20	231
8:30	0	0	0	0	38	1, 993	297	2, 328	182	70	916	1, 168	0	256	21	277
8:45	0	0	0	0	39	2, 464	340	2, 843	204	74	1, 121	1, 399	0	316	25	341
9:00	0	0	0	0	42	2, 889	392	3, 323	219	78	1, 333	1, 630	0	357	28	385

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	0	0	0	0	32	1, 134	184	1, 350	134	43	574	751	0	154	18	172	2, 273
7:15 - 8:15	0	0	0	0	28	1, 374	202	1, 604	151	43	671	865	0	170	17	187	2, 656
7:30 - 8:30	0	0	0	0	26	1, 560	229	1, 815	138	49	695	882	0	180	17	197	2, 894
7:45 - 8:45	0	0	0	0	17	1, 708	213	1, 938	118	42	699	859	0	190	14	204	3, 001
8:00 - 9:00	0	0	0	0	10	1, 755	208	1, 973	85	35	759	879	0	203	10	213	3, 065
Peak Volumes:	**0**	**0**	**0**	**0**	**10**	**1,755**	**208**	**1,973**	**85**	**35**	**759**	**879**	**0**	**203**	**10**	**213**	**3,065**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	759	35	85	0	0	0	10	203	0	208	1, 755	10



PM Peak-Hour Volume Count Worksheet

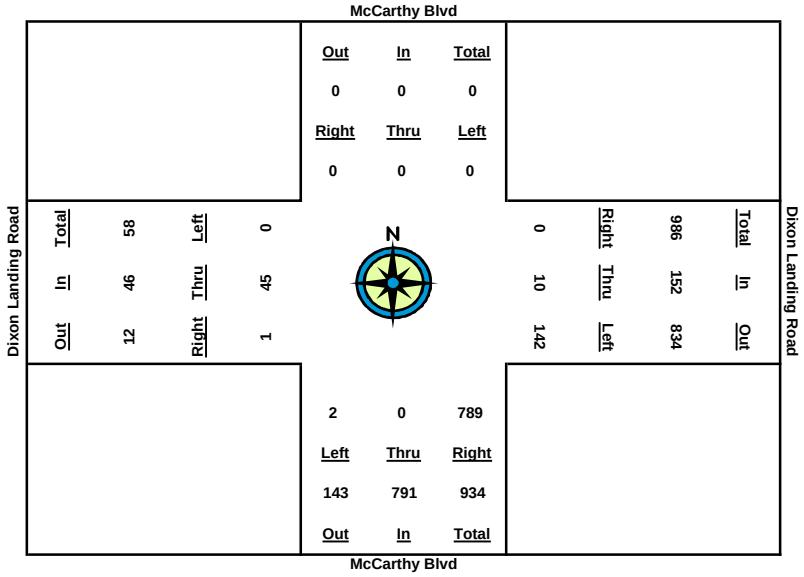
Date: 6/26/07
Counter: Alv an and Shaun
Intersection Name: McCarthy Blv d. and Dix on Landing Road
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd				Dixon Landing Road				McCarthy Blvd				Dixon Landing Road			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	0	0	0	0	4	18	22	111	0	0	111	0	22	0	22
4:30	0	0	0	0	0	8	40	48	230	0	0	230	0	36	0	36
4:45	0	0	0	0	0	10	75	85	405	0	1	406	1	63	0	64
5:00	0	0	0	0	0	12	108	120	610	0	1	611	1	70	0	71
5:15	0	0	0	0	0	18	143	161	803	0	2	805	1	80	0	81
5:30	0	0	0	0	0	18	182	200	1, 019	0	2	1, 021	1	81	0	82
5:45	0	0	0	0	0	20	210	230	1, 180	0	3	1, 183	1	86	0	87
6:00	0	0	0	0	0	21	236	257	1, 296	0	3	1, 299	1	92	0	93

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
4:00 - 5:00	0	0	0	0	0	12	108	120	610	0	1	611	1	70	0	71	802
4:15 - 5:15	0	0	0	0	0	14	125	139	692	0	2	694	1	58	0	59	892
4:30 - 5:30	0	0	0	0	0	10	142	152	789	0	2	791	1	45	0	46	989
4:45 - 5:45	0	0	0	0	0	10	135	145	775	0	2	777	0	23	0	23	945
5:00 - 6:00	0	0	0	0	0	9	128	137	686	0	2	688	0	22	0	22	847
Peak Volumes:	**0**	**0**	**0**	**0**	**0**	**10**	**142**	**152**	**789**	**0**	**2**	**791**	**1**	**45**	**0**	**46**	**989**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	2	0	789	0	0	0	0	45	1	142	10	0



PM Peak-Hour Volume Count Worksheet

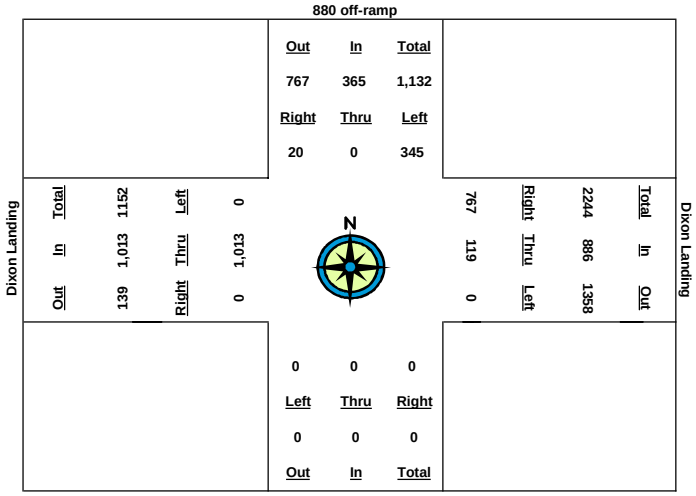
HEXAGON TRANSPORTATION CONSULTANTS
40 S. Market Street, Suite 600
San Jose, CA 95113
Phone 408-971-6100 Fax 408-971-6102

Date: 4/24/07
Counter: Ronald and Shaun
Intersection Name: 880 off-ramp and Dix on Landing
Weather: Clear
City /Proj ect: Milp itas - 07GB14

	880 off-ramp				Dixon Landing								Dixon Landing			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	14	0	85	99	170	26	0	196	0	0	0	0	0	124	0	124
4:30	22	0	158	180	332	47	0	379	0	0	0	0	0	235	0	235
4:45	41	0	247	288	514	73	0	587	0	0	0	0	0	392	0	392
5:00	48	0	305	353	653	102	0	755	0	0	0	0	0	538	0	538
5:15	55	0	389	444	879	131	0	1, 010	0	0	0	0	0	807	0	807
5:30	58	0	472	530	1, 067	165	0	1, 232	0	0	0	0	0	1, 036	0	1, 036
5:45	63	0	565	628	1, 268	187	0	1, 455	0	0	0	0	0	1, 351	0	1, 351
6:00	68	0	650	718	1, 420	221	0	1, 641	0	0	0	0	0	1, 551	0	1, 551

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
4:00 - 5:00	48	0	305	353	653	102	0	755	0	0	0	0	0	538	0	538	1, 646
4:15 - 5:15	41	0	304	345	709	105	0	814	0	0	0	0	0	683	0	683	1, 842
4:30 - 5:30	36	0	314	350	735	118	0	853	0	0	0	0	0	801	0	801	2, 004
4:45 - 5:45	22	0	318	340	754	114	0	868	0	0	0	0	0	959	0	959	2, 167
5:00 - 6:00	20	0	345	365	767	119	0	886	0	0	0	0	0	1, 013	0	1, 013	2, 264
Peak Volumes:	**20**	**0**	**345**	**365**	**767**	**119**	**0**	**886**	**0**	**0**	**0**	**0**	**0**	**1,013**	**0**	**1,013**	**2,264**

Cut and Paste	**NR**	**NT**	**NL**		**ER**	**ET**	**EL**		**SR**	**ST**	**SL**		**WR**	**WT**	**WL**
	20	0	345		767	119	0		0	0	0		0	1, 013	0



PM Peak-Hour Volume Count Worksheet

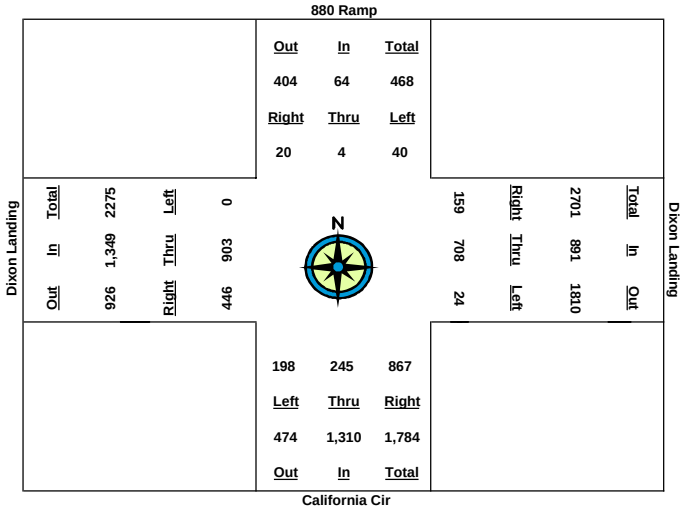
HEXAGON TRANSPORTATION CONSULTANTS
40 S. Market Street, Suite 600
San Jose, CA 95113
Phone 408-971-6100 Fax 408-971-6102

Date: 4/24/07
Counter: Rholan and Geralc
Intersection Name: California Cir-880 ramp and Dix on Landing Rd
Weather: Clear
City /Proj ect: Milp itas - 07GB14

	880 Ramp				Dixon Landing				California Cir				Dixon Landing			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	7	0	1	8	55	157	6	218	239	19	30	288	54	137	0	191
4:30	11	0	3	14	103	306	11	420	501	37	60	598	108	315	0	423
4:45	13	0	8	21	160	469	14	643	790	61	89	940	153	459	0	612
5:00	15	0	12	27	199	624	18	841	1, 082	95	126	1, 303	212	663	0	875
5:15	17	0	15	32	241	799	23	1, 063	1, 311	141	177	1, 629	303	846	0	1, 149
5:30	22	3	30	55	276	981	28	1, 285	1, 478	202	228	1, 908	422	1, 083	0	1, 505
5:45	33	4	48	85	319	1, 177	38	1, 534	1, 657	306	287	2, 250	599	1, 362	0	1, 961
6:00	36	4	56	96	344	1, 297	41	1, 682	1, 803	366	319	2, 488	703	1, 574	0	2, 277

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00 - 5:00	15	0	12	27	199	624	18	841	1, 082	95	126	1, 303	212	663	0	875	3, 046
4:15 - 5:15	10	0	14	24	186	642	17	845	1, 072	122	147	1, 341	249	709	0	958	3, 168
4:30 - 5:30	11	3	27	41	173	675	17	865	977	165	168	1, 310	314	768	0	1, 082	3, 298
4:45 - 5:45	20	4	40	64	159	708	24	891	867	245	198	1, 310	446	903	0	1, 349	3, 614
5:00 - 6:00	21	4	44	69	145	673	23	841	721	271	193	1, 185	491	911	0	1, 402	3, 497
Peak Volumes:	**20**	**4**	**40**	**64**	**159**	**708**	**24**	**891**	**867**	**245**	**198**	**1,310**	**446**	**903**	**0**	**1,349**	**3,614**

Cut and Paste	NR	NT	NL		ER	ET	EL		SR	ST	SL		WR	WT	WL
	20	4	40		159	708	24		867	245	198		446	903	0



PM Peak-Hour Volume Count Worksheet

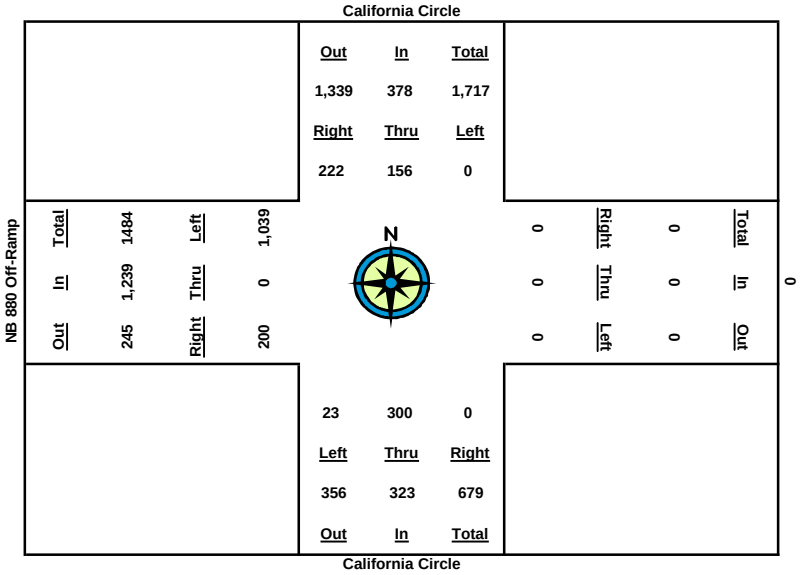
Date: 6/20/07
Counter: Kev in and By ron
Intersection Name: NB 880 Ramp s and California Circle
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	California Circle								California Circle				NB 880 Off-Ramp			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	30	9	0	39	0	0	0	0	0	19	3	22	19	0	150	169
4:30	81	27	0	108	0	0	0	0	0	65	6	71	53	0	395	448
4:45	135	37	0	172	0	0	0	0	0	121	15	136	79	0	576	655
5:00	188	59	0	247	0	0	0	0	0	175	20	195	109	0	797	906
5:15	248	80	0	328	0	0	0	0	0	261	27	288	146	0	1, 044	1, 190
5:30	309	117	0	426	0	0	0	0	0	321	29	350	197	0	1, 308	1, 505
5:45	368	169	0	537	0	0	0	0	0	390	37	427	249	0	1, 577	1, 826
6:00	410	215	0	625	0	0	0	0	0	475	43	518	309	0	1, 836	2, 145

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00 - 5:00	188	59	0	247	0	0	0	0	0	175	20	195	109	0	797	906	1, 348
4:15 - 5:15	218	71	0	289	0	0	0	0	0	242	24	266	127	0	894	1, 021	1, 576
4:30 - 5:30	228	90	0	318	0	0	0	0	0	256	23	279	144	0	913	1, 057	1, 654
4:45 - 5:45	233	132	0	365	0	0	0	0	0	269	22	291	170	0	1, 001	1, 171	1, 827
5:00 - 6:00	222	156	0	378	0	0	0	0	0	300	23	323	200	0	1, 039	1, 239	1, 940
Peak Volumes:	**222**	**156**	**0**	**378**	**0**	**0**	**0**	**0**	**0**	**300**	**23**	**323**	**200**	**0**	**1,039**	**1,239**	**1,940**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	23	300	0	0	156	222	1, 039	0	200	0	0	0



PM Peak-Hour Volume Count Worksheet

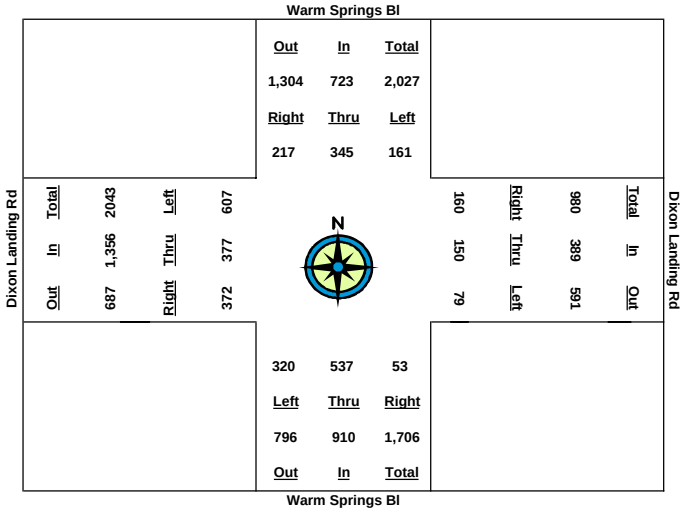
HEXAGON TRANSPORTATION CONSULTANTS
40 S. Market Street, Suite 600
San Jose, CA 95113
Phone 408-971-6100 Fax 408-971-6102

Date: 3/21/07
Counter: Rholan & Ronald
Intersection Name: Warm Sp rings Bl and Dix on Landing Rd
Weather: Sunny
City /Proj ect: Milp itas - Fremont Milmont - 07GB14

	Warm Springs Bl				Dixon Landing Rc				Warm Springs Bl				Dixon Landing Rd			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	47	74	38	159	23	29	13	65	12	119	76	207	66	58	107	231
4:30	93	145	81	319	41	54	27	122	33	201	138	372	139	111	201	451
4:45	133	230	122	485	72	76	37	185	41	319	227	587	225	174	303	702
5:00	179	295	148	622	113	106	49	268	67	461	308	836	299	260	430	989
5:15	248	373	187	808	148	138	60	346	89	530	369	988	401	344	585	1, 330
5:30	298	464	227	989	189	185	84	458	94	668	447	1, 209	485	447	740	1, 672
5:45	350	551	263	1, 164	238	227	93	558	106	846	529	1, 481	577	555	904	2, 036
6:00	396	640	309	1, 345	273	256	128	657	120	998	628	1, 746	671	637	1, 037	2, 345

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00 - 5:00	179	295	148	622	113	106	49	268	67	461	308	836	299	260	430	989	2, 715
4:15 - 5:15	201	299	149	649	125	109	47	281	77	411	293	781	335	286	478	1, 099	2, 810
4:30 - 5:30	205	319	146	670	148	131	57	336	61	467	309	837	346	336	539	1, 221	3, 064
4:45 - 5:45	217	321	141	679	166	151	56	373	65	527	302	894	352	381	601	1, 334	3, 280
5:00 - 6:00	217	345	161	723	160	150	79	389	53	537	320	910	372	377	607	1, 356	3, 378
Peak Volumes:	**217**	**345**	**161**	**723**	**160**	**150**	**79**	**389**	**53**	**537**	**320**	**910**	**372**	**377**	**607**	**1,356**	**3,378**

Cut and Paste	NR	NT	NL		ER	ET	EL		SR	ST	SL		WR	WT	WL
	217	345	161		160	150	79		53	537	320		372	377	607



PM Peak-Hour Volume Count Worksheet

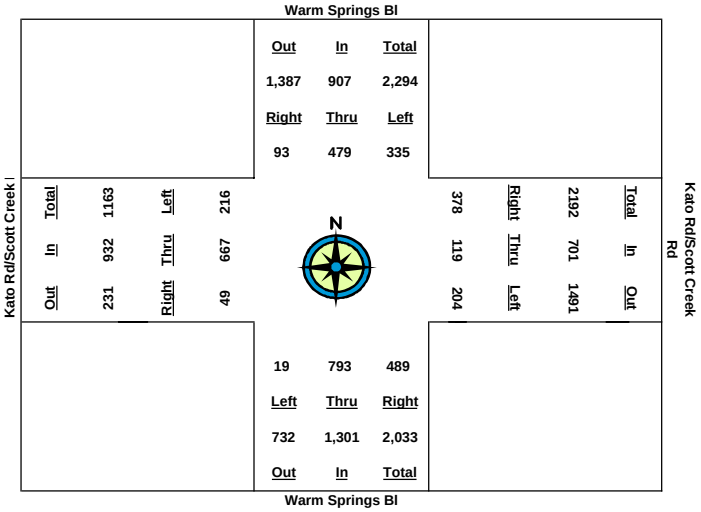
HEXAGON TRANSPORTATION CONSULTANTS
40 S. Market Street, Suite 600
San Jose, CA 95113
Phone 408-971-6100 Fax 408-971-6102

Date: 3/21/07
Counter: Nathan & Ryan
Intersection Name: Warm Springs Bl and Kato Rd/Scot Creek Rd
Weather: Clear and Sunny
City /Project: Fremont - Fremont Milmont - 07GB01

	Warm Springs Bl				Kato Rd/Scott Creek Rd				Warm Springs Bl				Kato Rd/Scott Creek Rd			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	15	102	93	210	46	42	35	123	92	109	10	211	15	145	32	192
4:30	29	198	149	376	100	65	92	257	176	231	14	421	25	257	63	345
4:45	49	299	269	617	142	87	125	354	248	346	15	609	40	463	95	598
5:00	59	388	325	772	197	112	175	484	396	503	21	920	55	626	132	813
5:15	85	517	432	1,034	261	138	214	613	503	647	28	1,178	70	799	182	1,051
5:30	110	631	502	1,243	342	170	202	714	638	863	31	1,532	85	960	229	1,274
5:45	131	735	592	1,458	469	204	316	989	750	1,076	33	1,859	96	1,128	284	1,508
6:00	152	867	660	1,679	575	231	379	1,185	885	1,296	40	2,221	104	1,293	348	1,745

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00 - 5:00	59	388	325	772	197	112	175	484	396	503	21	920	55	626	132	813	2,989
4:15 - 5:15	70	415	339	824	215	96	179	490	411	538	18	967	55	654	150	859	3,140
4:30 - 5:30	81	433	353	867	242	105	110	457	462	632	17	1,111	60	703	166	929	3,364
4:45 - 5:45	82	436	323	841	327	117	191	635	502	730	18	1,250	56	665	189	910	3,636
5:00 - 6:00	93	479	335	907	378	119	204	701	489	793	19	1,301	49	667	216	932	3,841
Peak Volumes:	**93**	**479**	**335**	**907**	**378**	**119**	**204**	**701**	**489**	**793**	**19**	**1,301**	**49**	**667**	**216**	**932**	**3,841**

Cut and Paste	NR	NT	NL		ER	ET	EL		SR	ST	SL		WR	WT	WL
	93	479	335		378	119	204		489	793	19		49	667	216



PM Peak-Hour Volume Count Worksheet

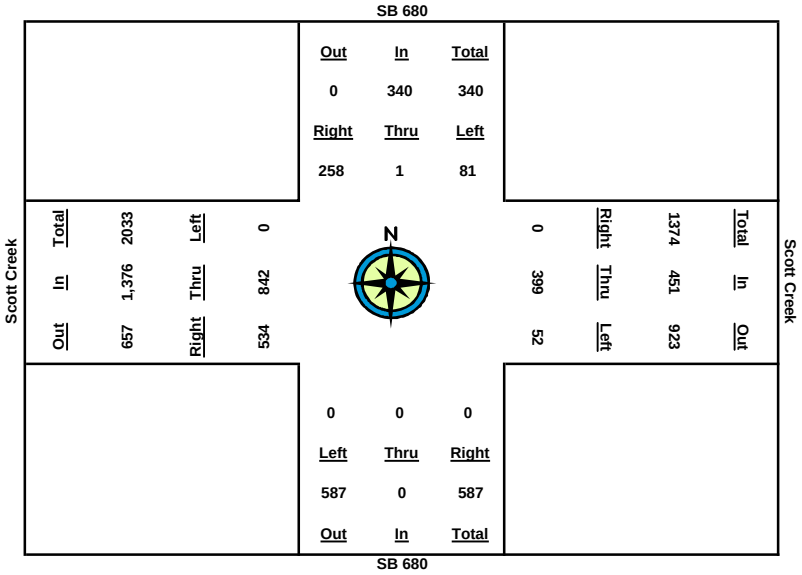
Date: 6/19/07
Counter: Matt & J amy e
Intersection Name: SB 680 & Scott Creek
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	SB 680				Scott Creek				SB 680				Scott Creek			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	34	0	8	42	0	52	9	61	0	0	0	0	138	136	0	274
4:30	93	0	31	124	0	112	19	131	0	0	0	0	233	278	0	511
4:45	144	0	43	187	0	173	37	210	0	0	0	0	452	439	0	891
5:00	201	1	66	268	0	238	45	283	0	0	0	0	569	615	0	1, 184
5:15	262	1	79	342	0	317	56	373	0	0	0	0	732	795	0	1, 527
5:30	321	2	102	425	0	418	66	484	0	0	0	0	886	1, 075	0	1, 961
5:45	387	2	122	511	0	514	81	595	0	0	0	0	993	1, 263	0	2, 256
6:00	459	2	147	608	0	637	97	734	0	0	0	0	1, 103	1, 457	0	2, 560

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00 - 5:00	201	1	66	268	0	238	45	283	0	0	0	0	569	615	0	1, 184	1, 735
4:15 - 5:15	228	1	71	300	0	265	47	312	0	0	0	0	594	659	0	1, 253	1, 865
4:30 - 5:30	228	2	71	301	0	306	47	353	0	0	0	0	653	797	0	1, 450	2, 104
4:45 - 5:45	243	2	79	324	0	341	44	385	0	0	0	0	541	824	0	1, 365	2, 074
4:00 - 5:00	258	1	81	340	0	399	52	451	0	0	0	0	534	842	0	1, 376	2, 167
Peak Volumes:	**258**	**1**	**81**	**340**	**0**	**399**	**52**	**451**	**0**	**0**	**0**	**0**	**534**	**842**	**0**	**1,376**	**2,167**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	0	0	0	81	1	258	0	842	534	52	399	0



PM Peak-Hour Volume Count Worksheet

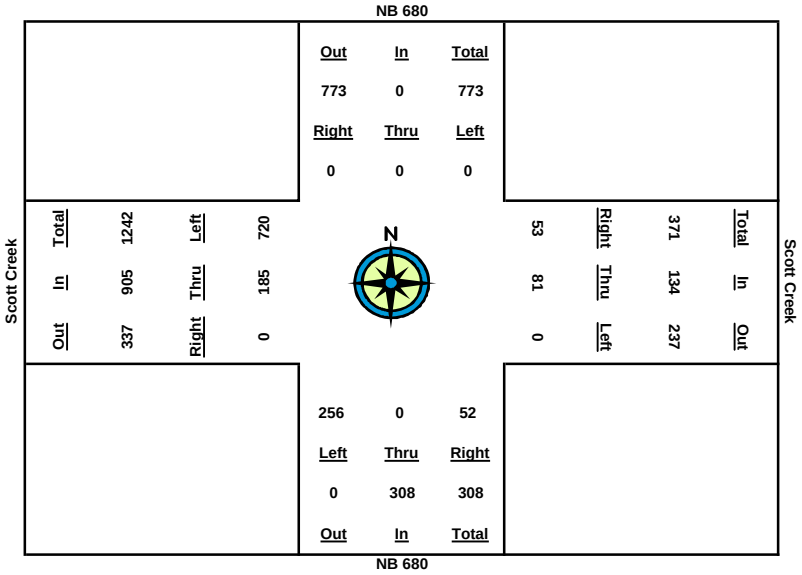
Date: 6/19/07
Counter: Alv an & Kev in
Intersection Name: NB 680 & (Scott Creek) Kato Rd.
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	NB 680				Scott Creek				NB 680				Scott Creek			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	0	0	0	17	18	0	35	12	0	52	64	0	28	132	160
4:30	0	0	0	0	31	38	0	69	23	0	91	114	0	65	260	325
4:45	0	0	0	0	44	55	0	99	35	0	144	179	0	101	389	490
5:00	0	0	0	0	55	76	0	131	50	0	191	241	0	149	546	695
5:15	0	0	0	0	64	94	0	158	63	0	253	316	0	185	718	903
5:30	0	0	0	0	73	120	0	193	75	0	319	394	0	241	918	1, 159
5:45	0	0	0	0	97	136	0	233	87	0	400	487	0	286	1, 109	1, 395
6:00	0	0	0	0	109	161	0	270	97	0	470	567	0	323	1, 229	1, 552

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00-5:00	0	0	0	0	55	76	0	131	50	0	191	241	0	149	546	695	1, 067
4:15-5:15	0	0	0	0	47	76	0	123	51	0	201	252	0	157	586	743	1, 118
4:30 - 5:30	0	0	0	0	42	82	0	124	52	0	228	280	0	176	658	834	1, 238
4:45 - 5:45	0	0	0	0	53	81	0	134	52	0	256	308	0	185	720	905	1, 347
5:00 - 6:00	0	0	0	0	54	85	0	139	47	0	279	326	0	174	683	857	1, 322
Peak Volumes:	**0**	**0**	**0**	**0**	**53**	**81**	**0**	**134**	**52**	**0**	**256**	**308**	**0**	**185**	**720**	**905**	**1,347**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	256	0	52	0	0	0	720	185	0	0	81	53



PM Peak-Hour Volume Count Worksheet

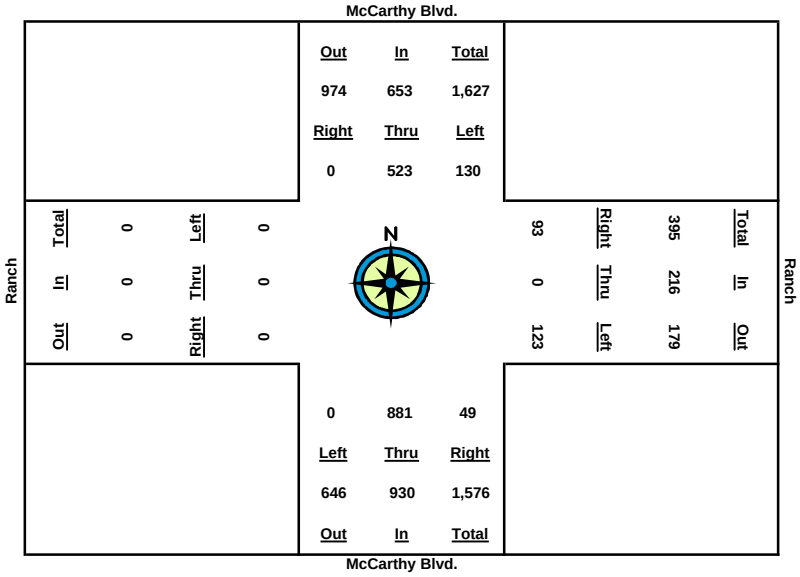
Date: 6/20/07
Counter: Alv an & kev in
Intersection Name: McCarthy Blv d. & Ranch Dr. North
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd.				Ranch				McCarthy Blvd.				Ranch			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	26	9	35	13	0	21	34	15	87	0	102	0	0	0	0
4:30	0	61	27	88	32	0	44	76	28	181	0	209	0	0	0	0
4:45	0	96	48	144	50	0	70	120	50	304	0	354	0	0	0	0
5:00	0	131	75	206	75	0	97	172	62	449	0	511	0	0	0	0
5:15	0	189	103	292	91	0	126	217	74	650	0	724	0	0	0	0
5:30	0	249	130	379	111	0	162	273	83	900	0	983	0	0	0	0
5:45	0	306	162	468	142	0	195	337	103	1, 144	0	1, 247	0	0	0	0
6:00	0	654	205	859	168	0	220	388	111	1, 330	0	1, 441	0	0	0	0

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00 - 5:00	0	131	75	206	75	0	97	172	62	449	0	511	0	0	0	0	889
4:15 - 5:15	0	163	94	257	78	0	105	183	59	563	0	622	0	0	0	0	1, 062
4:30 - 5:30	0	188	103	291	79	0	118	197	55	719	0	774	0	0	0	0	1, 262
4:45 - 5:45	0	210	114	324	92	0	125	217	53	840	0	893	0	0	0	0	1, 434
5:00 - 6:00	0	523	130	653	93	0	123	216	49	881	0	930	0	0	0	0	1, 799
Peak Volumes:	**0**	**523**	**130**	**653**	**93**	**0**	**123**	**216**	**49**	**881**	**0**	**930**	**0**	**0**	**0**	**0**	**1,799**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	0	881	49	130	523	0	0	0	0	123	0	93



PM Peak-Hour Volume Count Worksheet

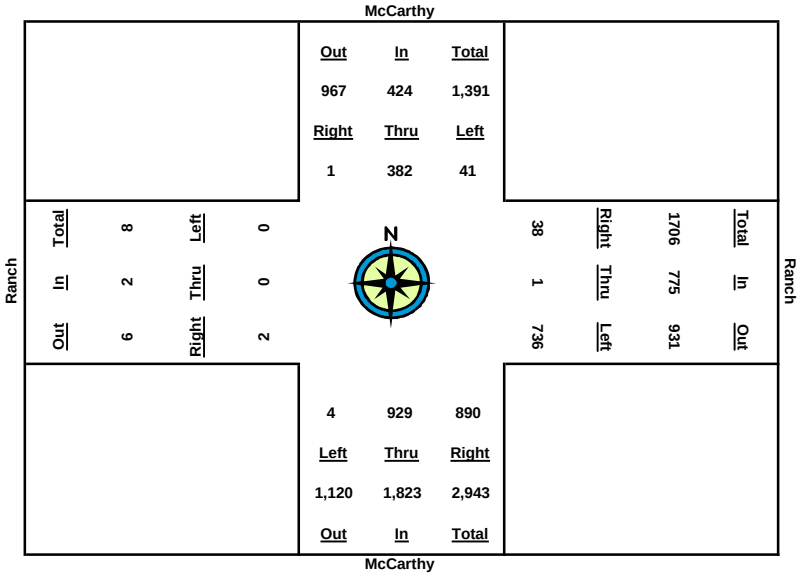
Date: 6/20/07
Counter: J amy e & Matt
Intersection Name: McCarthy Blv d. & Ranch Dr. South
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy				Ranch				McCarthy				Ranch			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	69	7	76	9	0	22	31	183	111	1	295	0	1	1	2
4:30	0	137	10	147	12	0	405	417	362	215	1	578	1	1	1	3
4:45	0	196	13	209	19	0	571	590	527	360	4	891	3	1	1	5
5:00	0	262	15	277	28	1	720	749	724	529	5	1, 258	4	1	1	6
5:15	1	360	22	383	39	2	912	953	914	715	6	1, 635	5	1	1	7
5:30	1	459	27	487	47	2	1, 091	1, 140	1, 147	970	7	2, 124	5	1	1	7
5:45	1	571	43	615	57	2	1, 283	1, 342	1, 386	1, 245	8	2, 639	6	1	1	8
6:00	1	644	56	701	66	2	1, 456	1, 524	1, 614	1, 458	9	3, 081	6	1	1	8

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00 - 5:00	0	262	15	277	28	1	720	749	724	529	5	1, 258	4	1	1	6	2, 290
4:15 - 5:15	1	291	15	307	30	2	890	922	731	604	5	1, 340	5	0	0	5	2, 574
4:30 - 5:30	1	322	17	340	35	2	686	723	785	755	6	1, 546	4	0	0	4	2, 613
4:45 - 5:45	1	375	30	406	38	2	712	752	859	885	4	1, 748	3	0	0	3	2, 909
5:00 - 6:00	1	382	41	424	38	1	736	775	890	929	4	1, 823	2	0	0	2	3, 024
Peak Volumes:	**1**	**382**	**41**	**424**	**38**	**1**	**736**	**775**	**890**	**929**	**4**	**1,823**	**2**	**0**	**0**	**2**	**3,024**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	4	929	890	41	382	1	0	0	2	736	1	38



PM Peak-Hour Volume Count Worksheet

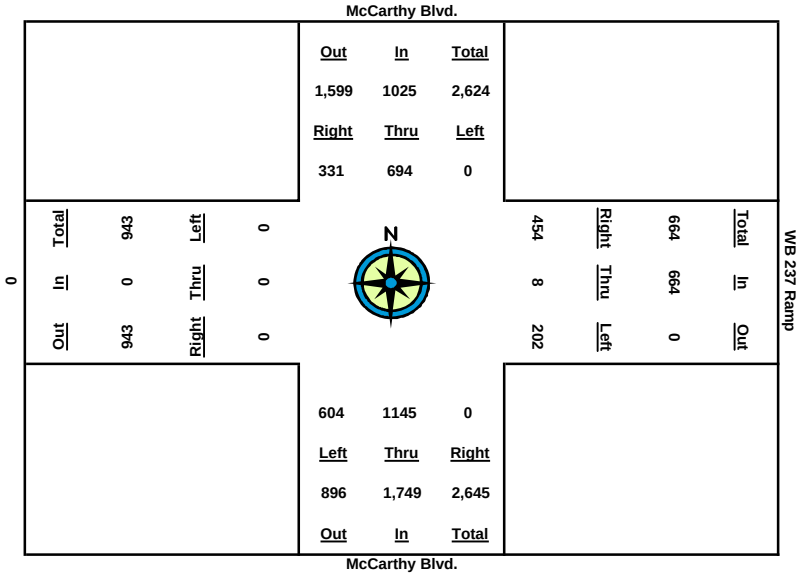
Date: 6/20/07
Counter: Logan & Huy
Intersection Name: WB 237 & McCarthy Blvd.
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd.				WB 237 Ramp				McCarthy Blvd.							
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	84	240	0	324	120	0	40	160	0	201	87	288	0	0	0	0
4:30	145	393	0	538	189	3	73	265	0	394	189	583	0	0	0	0
4:45	294	647	0	941	327	7	120	454	0	580	296	876	0	0	0	0
5:00	327	717	0	1, 044	385	9	182	576	0	809	433	1, 242	0	0	0	0
5:15	409	863	0	1, 272	493	11	228	732	0	1, 050	591	1, 641	0	0	0	0
5:30	508	1, 029	0	1, 537	594	14	263	871	0	1, 369	763	2, 132	0	0	0	0
5:45	591	1, 230	0	1, 821	717	16	325	1, 058	0	1, 637	881	2, 518	0	0	0	0
6:00	658	1, 411	0	2, 069	839	17	384	1, 240	0	1, 954	1, 037	2, 991	0	0	0	0

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
4:00 - 5:00	327	717	0	1, 044	385	9	182	576	0	809	433	1, 242	0	0	0	0	2, 862
4:15 - 5:15	325	623	0	948	373	11	188	572	0	849	504	1, 353	0	0	0	0	2, 873
4:30 - 5:30	363	636	0	999	405	11	190	606	0	975	574	1, 549	0	0	0	0	3, 154
4:45 - 5:45	297	583	0	880	390	9	205	604	0	1, 057	585	1, 642	0	0	0	0	3, 126
5:00 - 6:00	331	694	0	1, 025	454	8	202	664	0	1, 145	604	1, 749	0	0	0	0	3, 438
Peak Volumes:	**331**	**694**	**0**	**1,025**	**454**	**8**	**202**	**664**	**0**	**1,145**	**604**	**1,749**	**0**	**0**	**0**	**0**	**3,438**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	604	1, 145	0	0	694	331	0	0	0	202	8	454



PM Peak-Hour Volume Count Worksheet

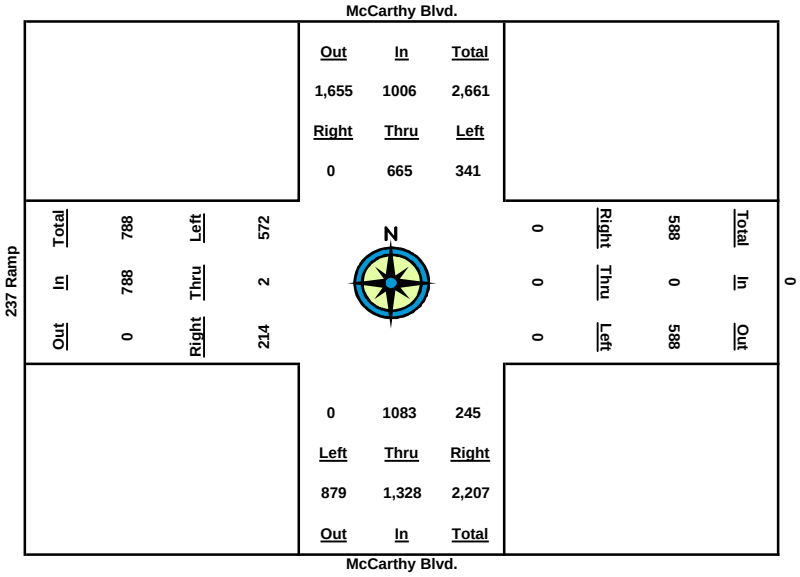
Date: 6/20/07
Counter: Patti & Shun Alv erez
Intersection Name: EB 237 & McCarthy Blv d.
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd.								McCarthy Blvd.				237 Ramp			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	138	101	239	0	0	0	0	83	154	0	237	79	3	83	165
4:30	0	287	184	471	0	0	0	0	132	289	0	421	151	8	160	319
4:45	0	418	272	690	0	0	0	0	211	453	0	664	208	13	252	473
5:00	0	567	335	902	0	0	0	0	268	645	0	913	264	16	338	618
5:15	0	745	410	1, 155	0	0	0	0	332	895	0	1, 227	335	16	441	792
5:30	0	902	486	1, 388	0	0	0	0	413	1, 224	0	1, 637	394	17	585	996
5:45	0	1, 075	567	1, 642	0	0	0	0	486	1, 439	0	1, 925	430	17	730	1, 177
6:00	0	1, 232	676	1, 908	0	0	0	0	513	1, 728	0	2, 241	478	18	910	1, 406

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00 - 5:00	0	567	335	902	0	0	0	0	268	645	0	913	264	16	338	618	2, 433
4:15 - 5:15	0	607	309	916	0	0	0	0	249	741	0	990	256	13	358	627	2, 533
4:30 - 5:30	0	615	302	917	0	0	0	0	281	935	0	1, 216	243	9	425	677	2, 810
4:45 - 5:45	0	657	295	952	0	0	0	0	275	986	0	1, 261	222	4	478	704	2, 917
5:00 - 6:00	0	665	341	1, 006	0	0	0	0	245	1, 083	0	1, 328	214	2	572	788	3, 122
Peak Volumes:	**0**	**665**	**341**	**1,006**	**0**	**0**	**0**	**0**	**245**	**1,083**	**0**	**1,328**	**214**	**2**	**572**	**788**	**3,122**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	0	1, 083	245	341	665	0	572	2	214	0	0	0



Traffic Data Service

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

File Name : 1PM FINAL
Site Code : 00000001
Start Date : 8/14/2007
Page No : 1

Groups Printed- Vehicles

	I-880 SB RAMPS Southbound					SR-237 Westbound					Northbound					SR-237 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	22	0	68	0	90	112	442	0	0	554	0	0	0	0	0	0	686	0	0	686	1330
04:15 PM	46	0	90	0	136	93	436	0	0	529	0	0	0	0	0	0	664	0	0	664	1329
04:30 PM	32	0	98	0	130	103	488	0	0	591	0	0	0	0	0	0	715	0	0	715	1436
04:45 PM	51	0	81	0	132	82	457	0	0	539	0	0	0	0	0	0	735	0	0	735	1406
Total	151	0	337	0	488	390	1823	0	0	2213	0	0	0	0	0	0	2800	0	0	2800	5501
05:00 PM	33	0	79	0	112	84	446	0	0	530	0	0	0	0	0	0	747	0	0	747	1389
05:15 PM	45	0	80	0	125	100	465	0	0	565	0	0	0	0	0	0	764	0	0	764	1454
05:30 PM	37	0	74	0	111	95	446	0	0	541	0	0	0	0	0	0	764	0	0	764	1416
05:45 PM	71	0	83	0	154	88	460	0	0	548	0	0	0	0	0	0	765	0	0	765	1467
Total	186	0	316	0	502	367	1817	0	0	2184	0	0	0	0	0	0	3040	0	0	3040	5726
Grand Total	337	0	653	0	990	757	3640	0	0	4397	0	0	0	0	0	0	5840	0	0	5840	11227
Apprch %	34	0	66	0		17.2	82.8	0	0		0	0	0	0		0	100	0	0		
Total %	3	0	5.8	0	8.8	6.7	32.4	0	0	39.2	0	0	0	0	0	0	52	0	0	52	

	I-880 SB RAMPS Southbound					SR-237 Westbound					Northbound					SR-237 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	33	0	79	0	112	84	446	0	0	530	0	0	0	0	0	0	747	0	0	747	1389
05:15 PM	45	0	80	0	125	**100**	**465**	0	0	**565**	0	0	0	0	0	0	764	0	0	764	1454
05:30 PM	37	0	74	0	111	95	446	0	0	541	0	0	0	0	0	0	764	0	0	764	1416
05:45 PM	**71**	0	**83**	0	**154**	88	460	0	0	548	0	0	0	0	0	0	**765**	0	0	**765**	**1467**
Total Volume	186	0	316	0	502	367	1817	0	0	2184	0	0	0	0	0	0	3040	0	0	3040	5726
% App. Total	37.1	0	62.9	0		16.8	83.2	0	0		0	0	0	0		0	100	0	0		
PHF	.655	.000	.952	.000	.815	.918	.977	.000	.000	.966	.000	.000	.000	.000	.000	.000	.993	.000	.000	.993	.976

Traffic Data Service

Campbell, CA

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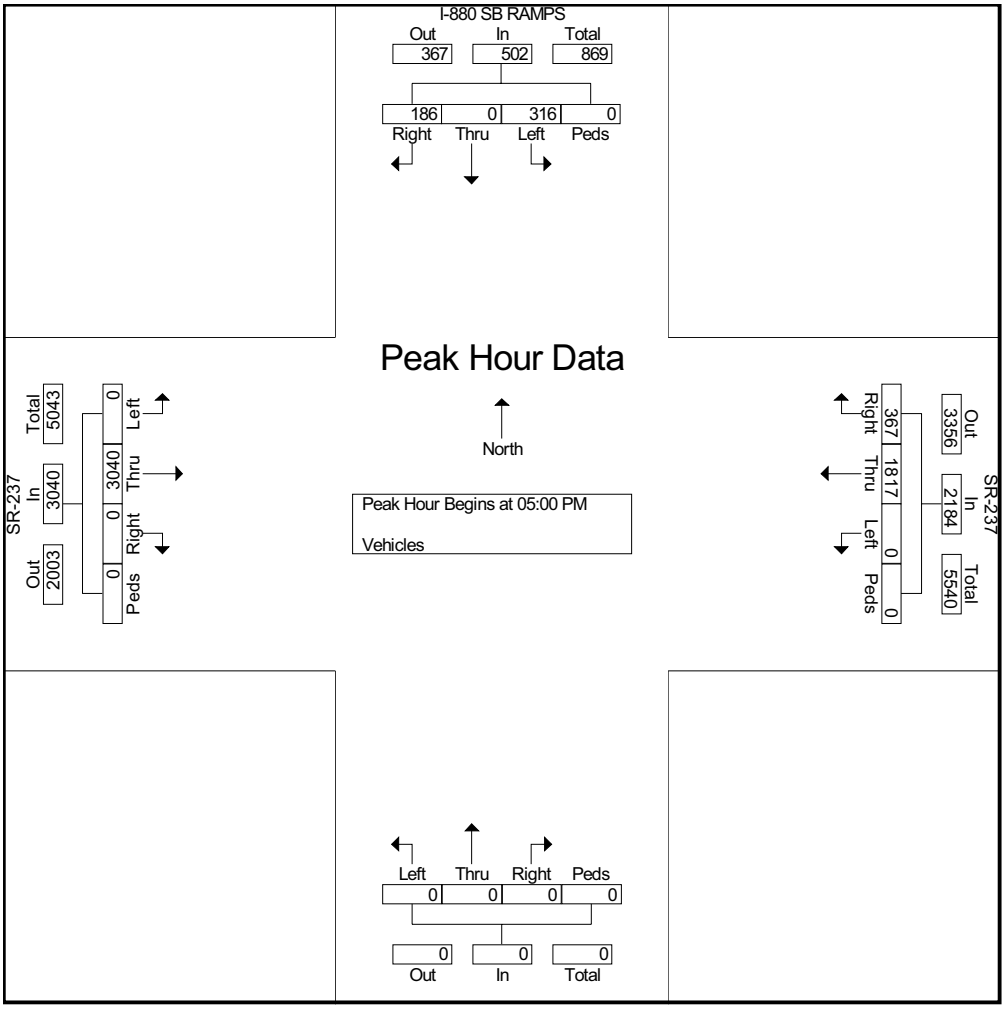
File Name : 1PM FINAL
Site Code : 00000001
Start Date : 8/14/2007
Page No : 2



Traffic Data Service

Campbell, CA

(408) 377-2988
tdsbay@cs.com

File Name : 2PM FINAL
Site Code : 00000002
Start Date : 8/14/2007
Page No : 1

Groups Printed- Vehicles

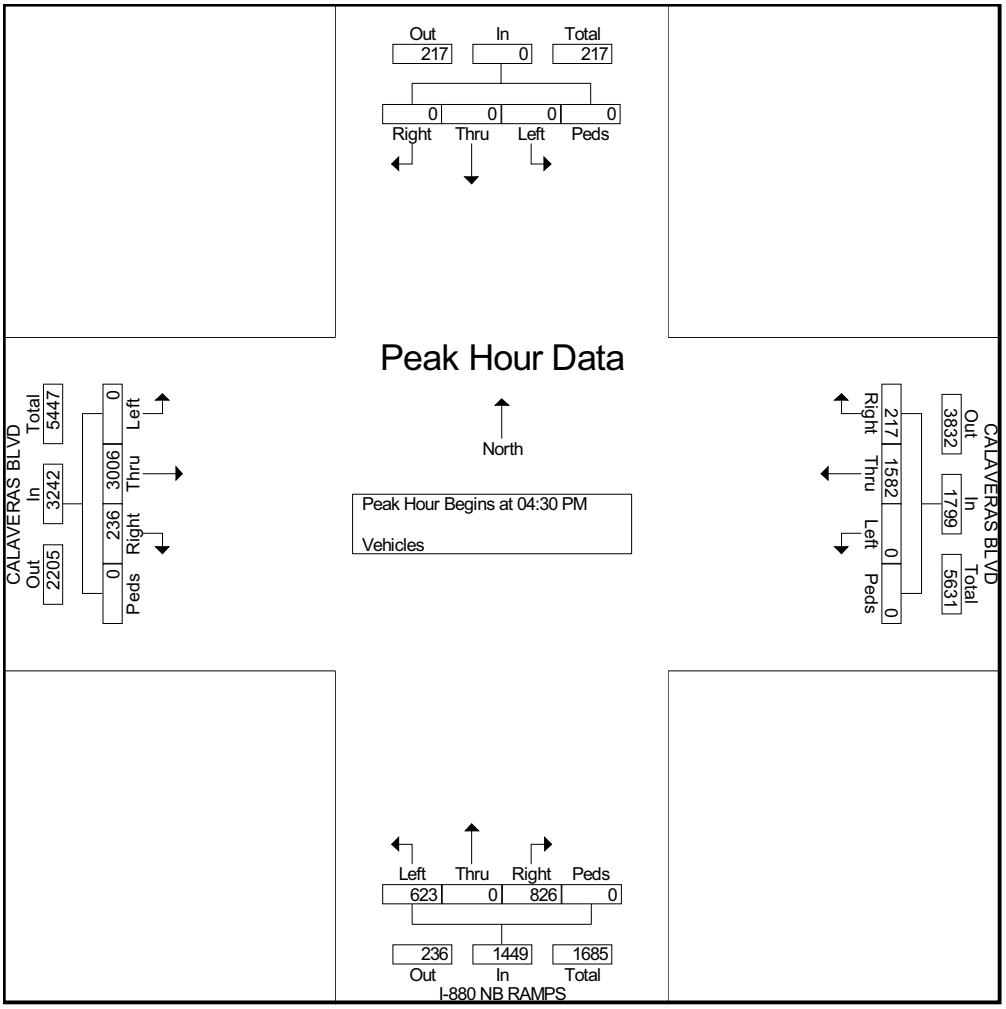
	Southbound					CALAVERAS BLVD Westbound					I-880 NB RAMPS Northbound					CALAVERAS BLVD Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	0	0	0	0	0	49	384	0	0	433	140	0	143	0	283	59	652	0	0	711	1427
04:15 PM	0	0	0	0	0	52	370	0	0	422	175	0	148	0	323	53	723	0	0	776	1521
04:30 PM	0	0	0	0	0	53	388	0	0	441	205	0	165	0	370	54	731	0	0	785	1596
04:45 PM	0	0	0	0	0	56	363	0	0	419	196	0	149	0	345	61	743	0	0	804	1568
Total	0	0	0	0	0	210	1505	0	0	1715	716	0	605	0	1321	227	2849	0	0	3076	6112
05:00 PM	0	0	0	0	0	60	427	0	0	487	213	0	141	0	354	65	783	0	0	848	1689
05:15 PM	0	0	0	0	0	48	404	0	0	452	212	0	168	0	380	56	749	0	0	805	1637
05:30 PM	0	0	0	0	0	29	347	0	0	376	188	0	165	0	353	62	759	0	0	821	1550
05:45 PM	0	0	0	0	0	40	359	0	0	399	193	0	155	0	348	58	753	0	0	811	1558
Total	0	0	0	0	0	177	1537	0	0	1714	806	0	629	0	1435	241	3044	0	0	3285	6434
Grand Total	0	0	0	0	0	387	3042	0	0	3429	1522	0	1234	0	2756	468	5893	0	0	6361	12546
Apprch %	0	0	0	0		11.3	88.7	0	0		55.2	0	44.8	0		7.4	92.6	0	0		
Total %	0	0	0	0	0	3.1	24.2	0	0	27.3	12.1	0	9.8	0	22	3.7	47	0	0	50.7	

	Southbound					CALAVERAS BLVD Westbound					I-880 NB RAMPS Northbound					CALAVERAS BLVD Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	53	388	0	0	441	205	0	165	0	370	54	731	0	0	785	1596
04:45 PM	0	0	0	0	0	56	363	0	0	419	196	0	149	0	345	61	743	0	0	804	1568
05:00 PM	0	0	0	0	0	**60**	**427**	0	0	**487**	**213**	0	141	0	354	**65**	**783**	0	0	**848**	**1689**
05:15 PM	0	0	0	0	0	48	404	0	0	452	212	0	**168**	0	**380**	56	749	0	0	805	1637
Total Volume	0	0	0	0	0	217	1582	0	0	1799	826	0	623	0	1449	236	3006	0	0	3242	6490
% App. Total	0	0	0	0		12.1	87.9	0	0		57	0	43	0		7.3	92.7	0	0		
PHF	.000	.000	.000	.000	.000	.904	.926	.000	.000	.924	.969	.000	.927	.000	.953	.908	.960	.000	.000	.956	.961

Traffic Data Service

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

File Name : 2PM FINAL
Site Code : 00000002
Start Date : 8/14/2007
Page No : 2



PM Peak-Hour Volume Count Worksheet

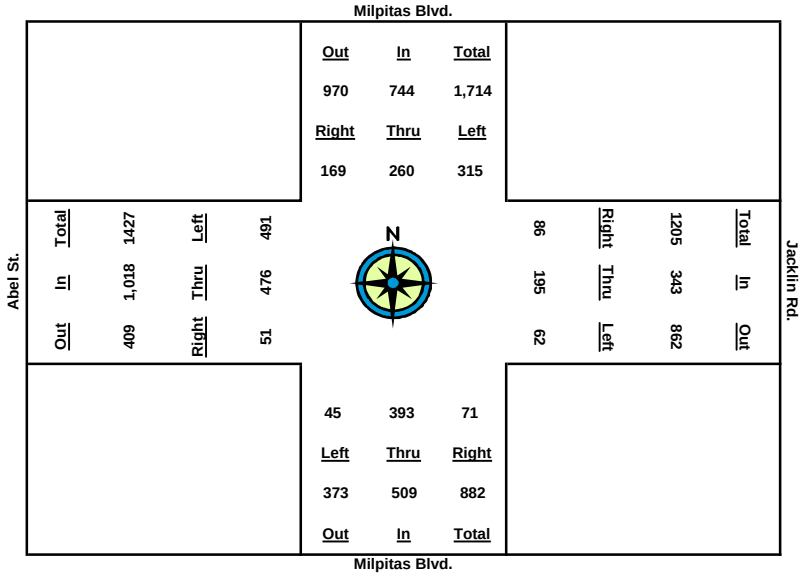
Date: 6/19/07
Counter: Shaun and Kristin
Intersection Name: Milpitas Blvd. and Abel St. / Jacklin Rd.
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Milpitas Blvd.				Jacklin Rd.				Milpitas Blvd.				Abel St.			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	38	53	35	126	23	30	12	65	36	64	23	123	3	58	57	118
4:30	79	109	84	272	54	93	29	176	53	125	47	225	7	137	133	277
4:45	123	165	141	429	94	142	44	280	72	242	55	369	19	229	232	480
5:00	174	217	230	621	133	204	60	397	85	312	63	460	24	326	329	679
5:15	219	276	313	808	154	243	77	474	98	432	78	608	32	411	419	862
5:30	255	345	384	984	173	278	93	544	121	506	92	719	51	540	553	1, 144
5:45	292	425	456	1, 173	180	337	106	623	143	635	100	878	70	705	723	1, 498
6:00	316	465	492	1, 273	195	380	122	697	162	733	109	1, 004	84	781	801	1, 666

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
4:00 - 5:00	174	217	230	621	133	204	60	397	85	312	63	460	24	326	329	679	2, 157
4:15 - 5:15	181	223	278	682	131	213	65	409	62	368	55	485	29	353	362	744	2, 320
4:30 - 5:30	176	236	300	712	119	185	64	368	68	381	45	494	44	403	420	867	2, 441
4:45 - 5:45	169	260	315	744	86	195	62	343	71	393	45	509	51	476	491	1, 018	2, 614
5:00 - 6:00	142	248	262	652	62	176	62	300	77	421	46	544	60	455	472	987	2, 483
Peak Volumes:	**169**	**260**	**315**	**744**	**86**	**195**	**62**	**343**	**71**	**393**	**45**	**509**	**51**	**476**	**491**	**1,018**	**2,614**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	45	393	71	315	260	169	491	476	51	62	195	86



Calav eras/Milp itas CMP Volumes

	MILPITAS BLVD Southbound				CALAVERAS BLVD Westbound				MILPITAS BLVD Northbound				CALAVERAS BLVD Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Total
07:30 AM	151	47	39	0	22	506	9	0	2	40	74	0	65	113	12	0	1080
07:45 AM	151	94	52	0	26	497	8	0	6	24	100	0	117	157	30	0	1262
08:00 AM	177	69	70	0	24	486	31	1	4	22	89	0	89	187	36	0	1285
08:15 AM	136	69	57	1	15	451	26	0	5	42	96	1	97	191	55	0	1242
	615	**279**	**218**	**1**	**87**	**1940**	**74**	**1**	**17**	**128**	**359**	**1**	**368**	**648**	**133**	**0**	
04:45 PM	82	73	82	0	64	292	28	3	27	76	115	0	88	492	117	0	1539
05:00 PM	94	65	98	0	66	280	31	0	20	93	136	3	84	442	93	0	1505
05:15 PM	46	41	72	0	55	276	30	1	26	121	121	2	95	459	91	2	1438
05:30 PM	35	58	74	0	64	338	41	2	22	94	106	0	99	495	69	1	1498
	257	**237**	**326**	**0**	**249**	**1186**	**130**	**6**	**95**	**384**	**478**	**5**	**366**	**1888**	**370**	**3**	**5980**

Peak-Hour Volume Count Worksheet

Date: 11/15/06
Counter:
›n Name: Calav eras and Abel
Weather: Clear

AUTO-CENSUS

Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-16

PM Peak-Hour Volume Count Worksheet

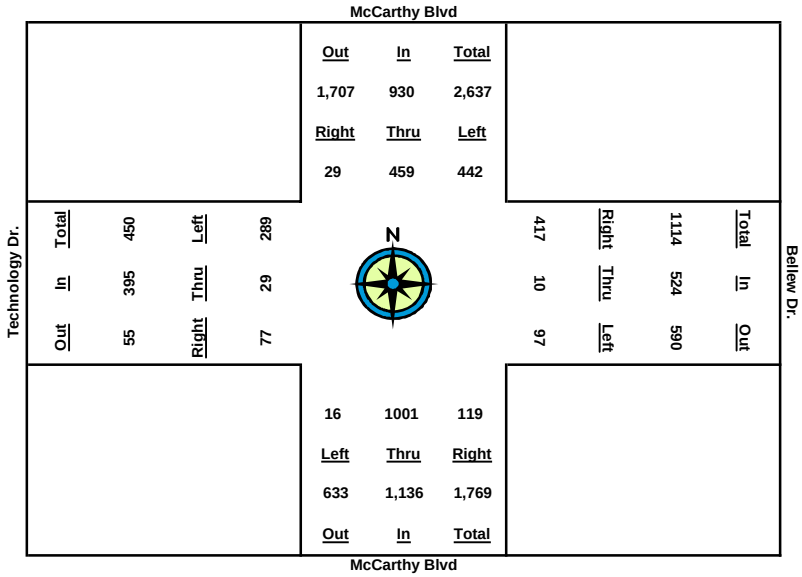
Date: 6/14/07
Counter: Shaun and By ron
Intersection Name: McCarthy Blv d and Technology /Bellew Dr.
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd				Bellew Dr.				McCarthy Blvd				Technology Dr.			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	13	129	97	239	93	4	23	120	19	91	4	114	9	4	25	38
4:30	26	235	168	429	165	4	49	218	37	286	9	332	16	7	50	73
4:45	31	335	237	603	257	10	69	336	63	369	12	444	34	9	79	122
5:00	36	452	311	799	344	14	95	453	93	534	15	642	43	17	118	178
5:15	41	559	389	989	464	19	127	610	115	738	19	872	63	21	194	278
5:30	44	671	466	1, 181	556	20	151	727	144	1, 027	20	1, 191	82	28	283	393
5:45	60	799	678	1, 537	658	23	189	870	174	1, 290	24	1, 488	102	38	349	489
6:00	65	911	753	1, 729	761	24	192	977	212	1, 535	31	1, 778	120	46	407	573

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
4:00 - 5:00	36	452	311	799	344	14	95	453	93	534	15	642	43	17	118	178	2, 072
4:15 - 5:15	28	430	292	750	371	15	104	490	96	647	15	758	54	17	169	240	2, 238
4:30 - 5:30	18	436	298	752	391	16	102	509	107	741	11	859	66	21	233	320	2, 440
4:45 - 5:45	29	464	441	934	401	13	120	534	111	921	12	1, 044	68	29	270	367	2, 879
5:00 - 6:00	29	459	442	930	417	10	97	524	119	1, 001	16	1, 136	77	29	289	395	2, 985
Peak Volumes:	**29**	**459**	**442**	**930**	**417**	**10**	**97**	**524**	**119**	**1,001**	**16**	**1,136**	**77**	**29**	**289**	**395**	**2,985**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	16	1, 001	119	442	459	29	289	29	77	97	10	417



PM Peak-Hour Volume Count Worksheet

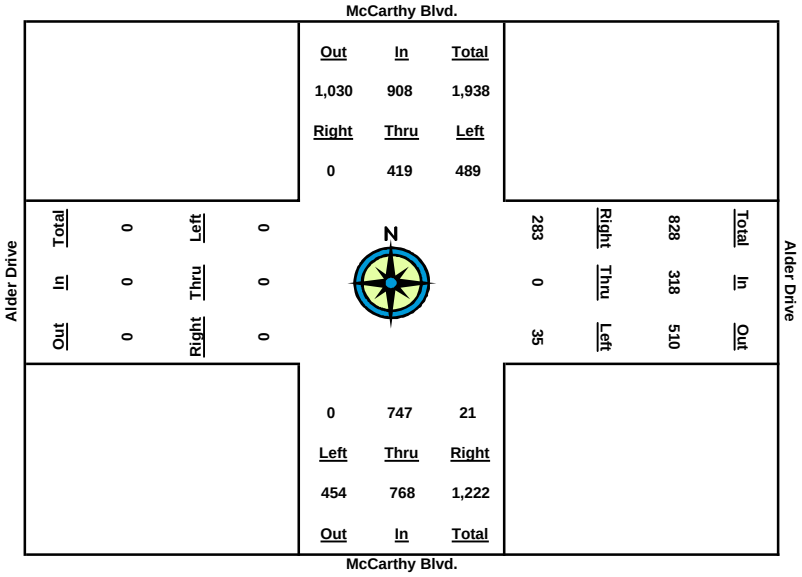
Date: 6/14/07
Counter: Logan and J ay me
Intersection Name: McCarthy Blv d. and Alder Dr.
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd.				Alder Drive				McCarthy Blvd.				Alder Drive			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	71	91	162	50	0	5	55	1	61	0	62	0	0	0	0
4:30	0	166	220	386	101	0	7	108	4	185	0	189	0	0	0	0
4:45	0	231	304	535	143	0	15	158	12	340	0	352	0	0	0	0
5:00	0	380	470	850	225	0	24	249	19	488	0	507	0	0	0	0
5:15	0	440	562	1, 002	275	0	29	304	24	696	0	720	0	0	0	0
5:30	0	526	660	1, 186	337	0	35	372	29	870	0	899	0	0	0	0
5:45	0	650	793	1, 443	426	0	50	476	33	1, 087	0	1, 120	0	0	0	0
6:00	0	751	883	1, 634	498	0	59	557	37	1, 297	0	1, 334	0	0	0	0

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
4:00 - 5:00	0	380	470	850	225	0	24	249	19	488	0	507	0	0	0	0	1, 606
4:15 - 5:15	0	369	471	840	225	0	24	249	23	635	0	658	0	0	0	0	1, 747
4:30 - 5:30	0	360	440	800	236	0	28	264	25	685	0	710	0	0	0	0	1, 774
4:45 - 5:45	0	419	489	908	283	0	35	318	21	747	0	768	0	0	0	0	1, 994
5:00 - 6:00	0	371	413	784	273	0	35	308	18	809	0	827	0	0	0	0	1, 919
Peak Volumes:	**0**	**419**	**489**	**908**	**283**	**0**	**35**	**318**	**21**	**747**	**0**	**768**	**0**	**0**	**0**	**0**	**1,994**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	0	747	21	489	419	0	0	0	0	35	0	283



PM Peak-Hour Volume Count Worksheet

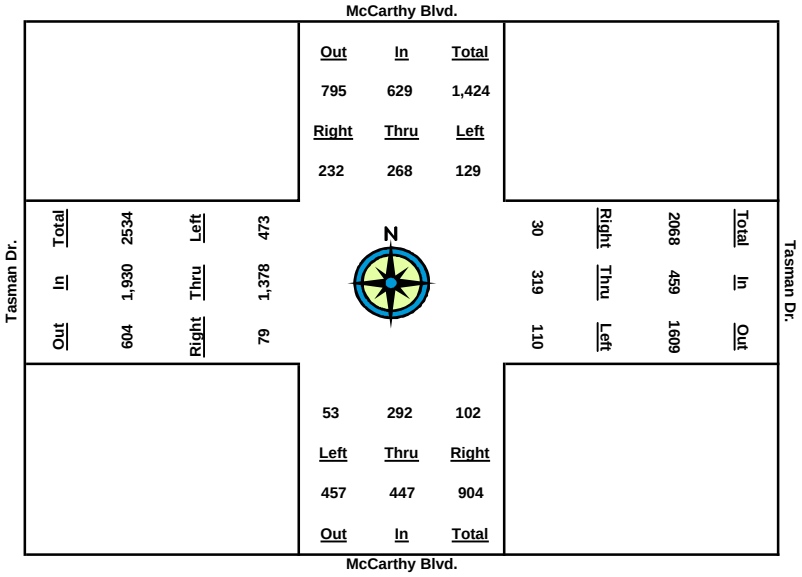
Date: 6/14/07
Counter: Patti and By ron
Intersection Name: McCarthy Blv d. and Tasman Dr.
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	McCarthy Blvd.				Tasman Dr.				McCarthy Blvd.				Tasman Dr.			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	40	43	20	103	8	53	7	68	21	53	13	87	14	220	56	290
4:30	75	89	46	210	12	121	9	142	34	101	27	162	30	453	130	613
4:45	109	134	78	321	19	179	19	217	54	173	36	263	42	740	211	993
5:00	156	183	108	447	23	241	28	292	72	243	61	376	49	1, 013	269	1, 331
5:15	203	244	142	589	30	301	40	371	101	316	74	491	68	1, 326	387	1, 781
5:30	253	307	169	729	38	384	73	495	126	363	83	572	82	1, 652	489	2, 223
5:45	323	370	193	886	49	466	119	634	151	464	97	712	104	2, 052	611	2, 767
6:00	388	451	237	1, 076	53	560	138	751	174	535	114	823	128	2, 391	742	3, 261

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
4:00 - 5:00	156	183	108	447	23	241	28	292	72	243	61	376	49	1, 013	269	1, 331	2, 446
4:15 - 5:15	163	201	122	486	22	248	33	303	80	263	61	404	54	1, 106	331	1, 491	2, 684
4:30 - 5:30	178	218	123	519	26	263	64	353	92	262	56	410	52	1, 199	359	1, 610	2, 892
4:45 - 5:45	214	236	115	565	30	287	100	417	97	291	61	449	62	1, 312	400	1, 774	3, 205
5:00 - 6:00	232	268	129	629	30	319	110	459	102	292	53	447	79	1, 378	473	1, 930	3, 465
Peak Volumes:	**232**	**268**	**129**	**629**	**30**	**319**	**110**	**459**	**102**	**292**	**53**	**447**	**79**	**1,378**	**473**	**1,930**	**3,465**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	53	292	102	129	268	232	473	1, 378	79	110	319	30



PM Peak-Hour Volume Count Worksheet

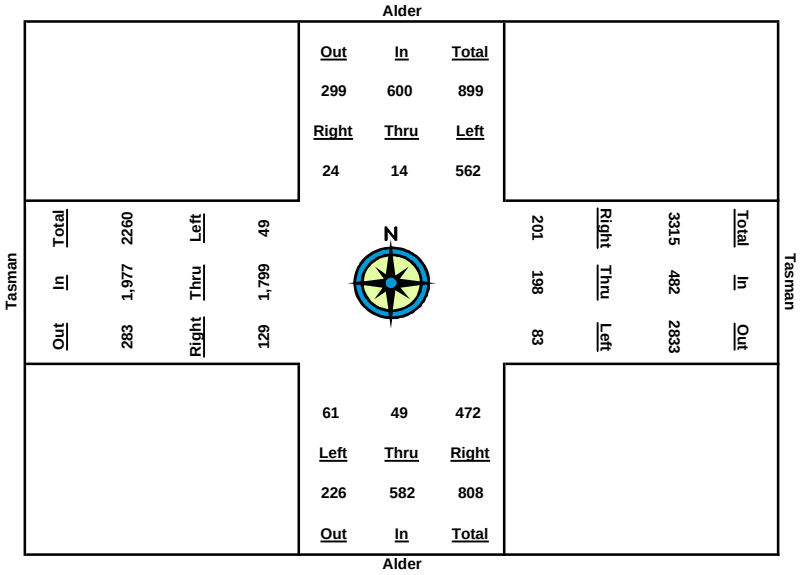
Date: 6/13/07
Counter: Kev in and J osh
Intersection Name: Tasman and Alder
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Alder				Tasman				Alder				Tasman			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	8	1	83	92	43	61	13	117	47	13	41	101	14	144	8	166
4:30	13	5	211	229	87	110	32	229	140	33	55	228	30	300	24	354
4:45	19	7	322	348	116	163	46	325	219	36	72	327	57	756	41	854
5:00	24	11	468	503	154	220	66	440	281	43	83	407	74	1, 188	53	1, 315
5:15	30	16	610	656	213	265	86	564	415	51	96	562	98	1, 607	62	1, 767
5:30	34	18	780	832	267	326	106	699	524	62	116	702	130	2, 024	79	2, 233
5:45	42	22	905	969	305	374	132	811	681	80	131	892	174	2, 511	88	2, 773
6:00	48	25	1, 030	1, 103	355	418	149	922	753	92	144	989	203	2, 987	102	3, 292

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
4:00 - 5:00	24	11	468	503	154	220	66	440	281	43	83	407	74	1, 188	53	1, 315	2, 665
4:15 - 5:15	22	15	527	564	170	204	73	447	368	38	55	461	84	1, 463	54	1, 601	3, 073
4:30 - 5:30	21	13	569	603	180	216	74	470	384	29	61	474	100	1, 724	55	1, 879	3, 426
4:45 - 5:45	23	15	583	621	189	211	86	486	462	44	59	565	117	1, 755	47	1, 919	3, 591
5:00 - 6:00	24	14	562	600	201	198	83	482	472	49	61	582	129	1, 799	49	1, 977	3, 641
Peak Volumes:	**24**	**14**	**562**	**600**	**201**	**198**	**83**	**482**	**472**	**49**	**61**	**582**	**129**	**1,799**	**49**	**1,977**	**3,641**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	61	49	472	562	14	24	49	1, 799	129	83	198	201



PM Peak-Hour Volume Count Worksheet

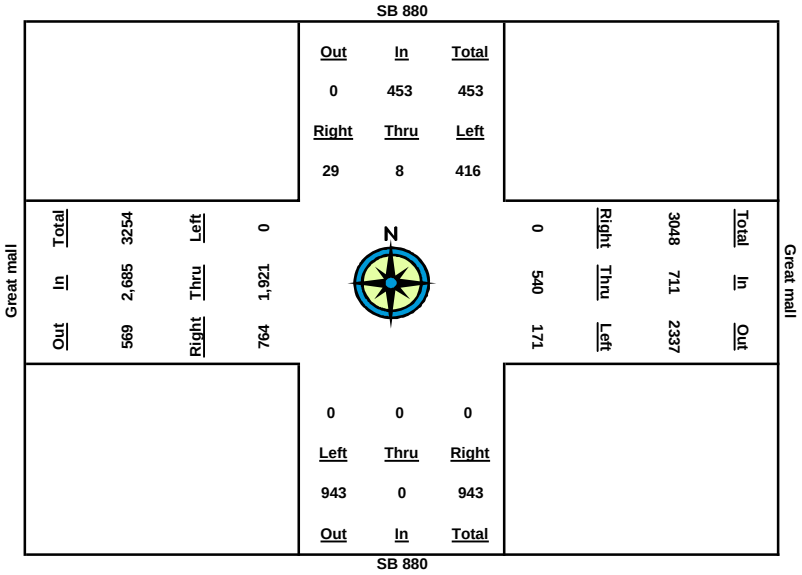
Date: 6/13/07
Counter: Shoun Alv arez & Kristen Pedronan
Intersection Name: Tasman Driv e/Great Mall & 880 SB
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	SB 880				Great mall				SB 880				Great mall			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	15	1	56	72	0	87	57	144	0	0	0	0	135	246	0	381
4:30	21	5	107	133	0	190	109	299	0	0	0	0	321	846	0	1, 167
4:45	28	7	170	205	0	307	161	468	0	0	0	0	511	900	0	1, 411
5:00	39	7	232	278	0	391	200	591	0	0	0	0	667	1, 284	0	1, 951
5:15	45	8	415	468	0	530	264	794	0	0	0	0	894	1, 769	0	2, 663
5:30	52	9	500	561	0	669	314	983	0	0	0	0	1, 111	2, 325	0	3, 436
5:45	65	15	588	668	0	807	341	1, 148	0	0	0	0	1, 277	2, 768	0	4, 045
6:00	68	15	648	731	0	931	371	1, 302	0	0	0	0	1, 431	3, 205	0	4, 636

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00 - 5:00	39	7	232	278	0	391	200	591	0	0	0	0	667	1, 284	0	1, 951	2, 820
4:15 - 5:15	30	7	359	396	0	443	207	650	0	0	0	0	759	1, 523	0	2, 282	3, 328
4:30 - 5:30	31	4	393	428	0	479	205	684	0	0	0	0	790	1, 479	0	2, 269	3, 381
4:45 - 5:45	37	8	418	463	0	500	180	680	0	0	0	0	766	1, 868	0	2, 634	3, 777
5:00 - 6:00	29	8	416	453	0	540	171	711	0	0	0	0	764	1, 921	0	2, 685	3, 849
Peak Volumes:	**29**	**8**	**416**	**453**	**0**	**540**	**171**	**711**	**0**	**0**	**0**	**0**	**764**	**1,921**	**0**	**2,685**	**3,849**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	0	0	0	416	8	29	0	1, 921	764	171	540	0



PM Peak-Hour Volume Count Worksheet

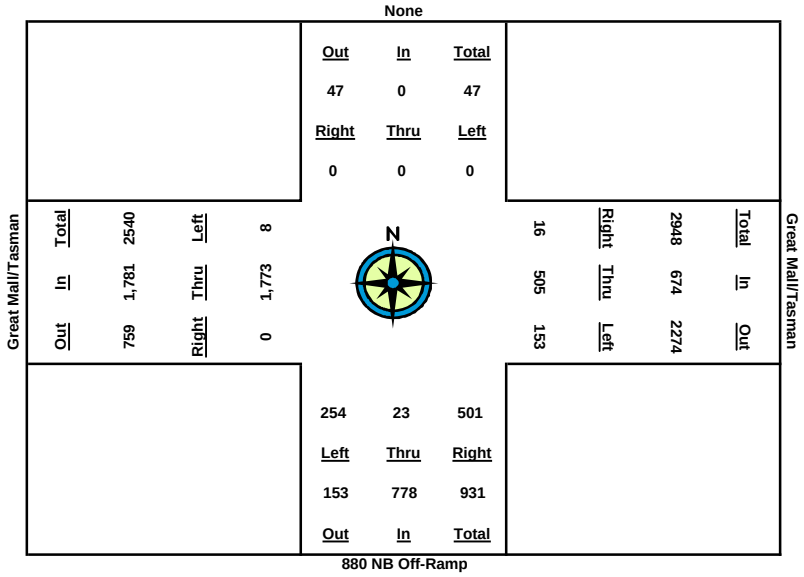
Date: 6/14/07
Counter: Patti and By ron
Intersection Name: NB 880 Ramp s and Great Mall/Tasman
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	None				Great Mall/Tasman				880 NB Off-Ramp				Great Mall/Tasman			
	North Approach				East Approach				South Approach				West Approach			
Start Time	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	0	0	0	4	97	44	145	112	7	58	177	0	22	5	27
4:30	0	0	0	0	7	211	87	305	241	11	107	359	0	495	6	501
4:45	0	0	0	0	18	312	135	465	321	12	142	475	0	787	10	797
5:00	0	0	0	0	22	412	165	599	429	19	197	645	0	1, 112	16	1, 128
5:15	0	0	0	0	24	550	210	784	604	22	267	893	0	1, 475	19	1, 494
5:30	0	0	0	0	26	675	241	942	738	28	332	1, 098	0	2, 036	21	2, 057
5:45	0	0	0	0	30	783	281	1, 094	828	38	394	1, 260	0	2, 491	24	2, 515
6:00	0	0	0	0	38	917	318	1, 273	930	42	451	1, 423	0	2, 885	24	2, 909

Peak Hour	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**Right**	**Thru**	**Left**	**Total**	**PK Hour**
4:00 - 5:00	0	0	0	0	22	412	165	599	429	19	197	645	0	1, 112	16	1, 128	2, 372
4:15 - 5:15	0	0	0	0	20	453	166	639	492	15	209	716	0	1, 453	14	1, 467	2, 822
4:30 - 5:30	0	0	0	0	19	464	154	637	497	17	225	739	0	1, 541	15	1, 556	2, 932
4:45 - 5:45	0	0	0	0	12	471	146	629	507	26	252	785	0	1, 704	14	1, 718	3, 132
5:00 - 6:00	0	0	0	0	16	505	153	674	501	23	254	778	0	1, 773	8	1, 781	3, 233
Peak Volumes:	**0**	**0**	**0**	**0**	**16**	**505**	**153**	**674**	**501**	**23**	**254**	**778**	**0**	**1,773**	**8**	**1,781**	**3,233**

Cut and Paste	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**
	254	23	501	0	0	0	8	1, 773	0	153	505	16



MILPITAS SQUARE DATE:12-5-07
RECORDER: ERVIN
SECTION: A

	1	2	2HC	3	3HC	4	5	6	6HC	7	TOTAL
#SPACES	60	62	2	25	4	48	46	31	3	33	314
9:00	10	14	0	3	0	2	5	0	0	4	38
9:30	16	17	0	7	0	2	8	2	0	4	56
10:00	20	19	0	11	0	2	11	4	0	3	70
10:30	25	25	0	15	0	8	19	3	0	3	98
11:00	31	30	0	21	0	10	22	12	0	6	132
11:30	23	19	0	20	0	13	24	24	0	5	128
12:00	60	62	0	25	0	48	46	31	1	33	306
12:30	60	62	1	25	3	48	46	31	1	33	310
13:00	58	61	0	25	3	48	45	28	2	25	295
13:30	54	59	0	24	2	45	44	30	0	5	263
14:00	25	48	0	14	0	21	30	29	0	3	170
14:30	26	29	0	12	2	14	35	20	1	7	146
15:00	30	29	0	15	1	10	18	22	1	7	133
15:30	23	18	0	17	2	12	10	11	0	6	99
16:00	26	25	0	16	1	15	10	15	1	4	113
16:30	26	29	0	17	0	15	10	12	0	5	114
17:00	27	26	0	21	0	10	11	16	1	7	119
17:30	30	27	0	17	0	8	9	18	0	7	116
18:00	27	27	0	17	0	14	17	19	0	9	130
18:30	17	42	0	21	0	23	37	26	0	7	173
19:00	20	39	0	22	0	29	36	24	0	7	177
19:30	23	43	0	24	0	33	36	24	0	7	190
20:00	23	48	0	15	0	33	36	31	0	8	194

MILPITAS SQUARE DATE:12-5-07
RECORDER: MARWIN
SECTION: B

	1	2	3	4	5	6	TOTAL
#SPACES	106	144	49	45	38	158	540
9:00	17	6	12	6	0	13	54
9:30	23	6	15	12	0	24	80
10:00	28	15	15	15	1	29	103
10:30	44	20	25	15	10	36	150
11:00	80	27	25	18	17	58	225
11:30	87	34	29	29	28	82	289
12:00	106	130	49	45	32	158	520
12:30	106	144	49	45	38	149	531
13:00	106	144	49	45	38	137	519
13:30	91	144	46	45	23	113	462
14:00	82	137	38	42	23	88	410
14:30	70	127	31	38	11	73	350
15:00	61	116	26	33	12	51	299
15:30	61	107	24	33	11	44	280
16:00	58	88	20	31	13	40	250
16:30	47	79	16	27	10	53	232
17:00	43	77	16	29	10	57	232
17:30	39	63	13	31	8	62	216
18:00	37	57	13	32	8	68	215
18:30	47	46	17	35	3	102	250
19:00	68	34	22	35	4	107	270
19:30	68	36	28	40	5	126	303
20:00	76	59	32	42	5	119	333

MILPITAS SQUARE DATE:12-5-07
RECORDER: HARVEY
SECTION: C

	1	2	3	4	4HC	TOTAL
#SPACES	134	31	30	35	6	236
9:00	1	2	1	1	0	5
9:30	2	5	8	2	0	17
10:00	4	5	8	2	0	19
10:30	25	16	9	9	0	59
11:00	29	16	9	14	0	68
11:30	55	19	15	16	0	105
12:00	74	17	16	17	1	125
12:30	87	17	17	17	1	139
13:00	79	19	18	17	1	134
13:30	65	20	18	17	1	121
14:00	54	19	16	17	2	108
14:30	41	16	16	15	2	90
15:00	27	16	16	9	0	68
15:30	29	16	16	12	1	74
16:00	29	18	12	13	1	73
16:30	28	19	11	13	1	72
17:00	30	19	11	13	0	73
17:30	34	19	9	14	1	77
18:00	33	19	9	14	1	76
18:30	32	18	10	14	1	75
19:00	32	18	11	14	0	75
19:30	35	17	11	14	1	78
20:00	35	18	10	14	1	78

MILPITAS SQUARE DATE:12-5-07

RECORDER: ERVIN/HARVEY

SECTION: ON-STREET

	N/O BELLEW	S/O BELLEW
#SPACES	26	~15
9:00	0	2
9:30	0	2
10:00	0	3
10:30	0	2
11:00	0	4
11:30	0	5
12:00	26	9
12:30	26	12
13:00	24	11
13:30	10	9
14:00	4	8
14:30	4	4
15:00	3	6
15:30	1	5
16:00	1	5
16:30	1	5
17:00	2	6
17:30	2	7
18:00	1	6
18:30	2	9
19:00	3	8
19:30	3	8
20:00	5	5

MILPITAS SQUARE

RECORDER:A LEONARD DATE:12-5-07

CROWN PLAZA

11:00-14:00 PARK/WALK	16:00-19:00 PARK/WALK	TIME
11:10	18:07	
11:51	18:42	
11:52	18:50	
11:53		
11:54		
11:56		
11:56		
11:59		
12:02		
12:03		
12:04		
12::05		
12:06		
12:07		
12:08		
12:10		
12:12		
12:13		
12:15		
12:15		
12:16		
12:16		
12:17		
12:23		
12:24		
12:26		
12:27		
12:42		
12:49		
13:04		
13:06		
13:07		
13:11		
13:42		
13:53		
13:56		
35	3	

MILPITAS SQUARE

RECORDER: J LEONARD DATE:12-5-07

CISCO

11:00-14:00 PARK/WALK	16:00-19:00 PARK/WALK
11:56	None
12:01	
12:01	
12:02	
12:05	
12:07	
6	0

MILPITAS SQUARE DATE:12-8-07
RECORDER: EBV
SECTION: A

	1	2	2HC	3	3HC	4	5	6	6HC	7	TOTAL
#SPACES	60	62	2	25	4	48	46	31	3	33	314
9:00	27	51	1	7	1	3	8	7	0	4	109
9:30	23	50	0	10	0	4	7	13	0	5	112
10:00	29	43	0	10	0	8	10	20	0	9	129
10:30	50	59	0	20	0	13	20	28	0	10	200
11:00	52	49	0	25	0	17	33	31	0	11	218
11:30	56	59	0	25	0	48	46	31	2	13	280
12:00	59	62	0	25	4	48	46	31	0	15	290
12:30	60	62	2	21	1	48	46	30	0	33	303
13:00	60	62	1	25	2	48	46	31	3	32	310
13:30	60	59	0	25	0	48	44	31	0	33	300
14:00	60	62	1	25	4	48	46	31	2	33	312
14:30	60	59	0	23	2	48	44	31	1	8	276
15:00	60	55	0	25	2	38	39	28	0	6	253
15:30	60	53	0	25	0	39	41	27	0	7	252
16:00	59	59	0	22	0	40	43	29	0	7	259
16:30	57	61	0	24	0	37	40	29	0	8	256
17:00	59	62	0	25	2	45	44	31	0	25	293
17:30	60	62	2	25	2	48	46	31	0	30	306
18:00	60	62	2	25	2	48	46	31	1	26	303
18:30	60	62	1	25	4	48	46	31	2	29	308
19:00	60	59	1	24	1	48	44	31	2	33	303
19:30	60	62	0	25	1	43	46	31	1	31	300
20:00	58	62	1	25	2	43	45	26	1	30	293

MILPITAS SQUARE DATE:12-8-07
RECORDER: MARWIN
SECTION: B

	1	2	3	4	5	6	
#SPACES	106	144	49	45	38	158	540
9:00	18	7	3	19	0	23	70
9:30	24	12	10	22	0	36	104
10:00	44	17	18	27	0	47	153
10:30	57	36	29	37	0	71	230
11:00	70	42	40	39	1	93	285
11:30	72	86	42	42	5	122	369
12:00	106	91	44	45	18	152	456
12:30	106	144	49	45	23	157	524
13:00	106	144	49	45	38	157	539
13:30	106	144	49	45	38	158	540
14:00	106	144	49	45	38	156	538
14:30	102	120	44	41	36	147	490
15:00	94	108	40	38	33	133	446
15:30	88	99	36	38	31	118	410
16:00	83	97	32	35	28	117	392
16:30	79	94	27	33	25	112	370
17:00	73	78	24	39	20	117	351
17:30	68	47	47	41	18	124	345
18:00	79	57	49	45	38	137	405
18:30	84	76	49	45	38	153	445
19:00	91	118	44	41	35	158	487
19:30	94	124	39	43	36	158	494
20:00	96	126	41	43	36	157	499

MILPITAS SQUARE DATE:12-8-07
RECORDER: HARVEY
SECTION: C

	1	2	3	4	4HC	
#SPACES	134	31	30	35	6	236
9:00	1	2	10	3	0	16
9:30	4	8	12	11	0	35
10:00	7	12	15	20	0	54
10:30	20	15	17	20	0	72
11:00	31	23	17	19	0	90
11:30	38	23	18	22	1	102
12:00	44	22	20	26	3	115
12:30	73	23	25	33	3	157
13:00	100	23	25	35	3	186
13:30	104	23	25	35	3	190
14:00	95	23	25	35	2	180
14:30	86	20	25	32	2	165
15:00	67	19	25	31	2	144
15:30	49	16	22	25	1	113
16:00	35	16	23	25	1	100
16:30	33	16	23	24	0	96
17:00	39	18	19	26	0	102
17:30	45	21	17	26	0	109
18:00	61	21	15	27	2	126
18:30	72	22	15	30	3	142
19:00	95	22	15	33	4	169
19:30	111	22	15	33	4	185
20:00	115	21	15	32	4	187

MILPITAS SQUARE DATE:12-5-07

RECORDER: ERVIN/HARVY

SECTION: ON-STREET

	N/O BELLEW	S/O BELLEW
#SPACES	26	~15
9:00	2	1
9:30	2	1
10:00	2	1
10:30	2	1
11:00	4	4
11:30	5	8
12:00	10	12
12:30	26	12
13:00	26	11
13:30	26	12
14:00	26	9
14:30	13	8
15:00	12	9
15:30	11	6
16:00	10	7
16:30	7	6
17:00	16	4
17:30	17	8
18:00	11	11
18:30	17	9
19:00	26	12
19:30	22	11
20:00	19	12

RECORDER: THAI DATE: 12/8/2007
CROWNE PLAZA HOTEL

PARK/WALK
10:22
10:33
10:36
10:49
11:19
11:33
11:55
13:01
12:08
12:15
12:19
12:25
12:31
12:32
12:35
12:40
12:46
12:47
12:58
13:00
13:04
13:17
13:26
13:28
13:31
13:34
13:38
13:43
13:45
13:49
13:55

PARK/WALK
16:04
16:14
16:30
16:50
17:06
17:06
17:18
17:25
17:26
17:30
17:44
17:50
18:48
18:49
18:49
18:55
18:57
18:57

RECORDER: RJ CISCO

DATE: 12/8/2007

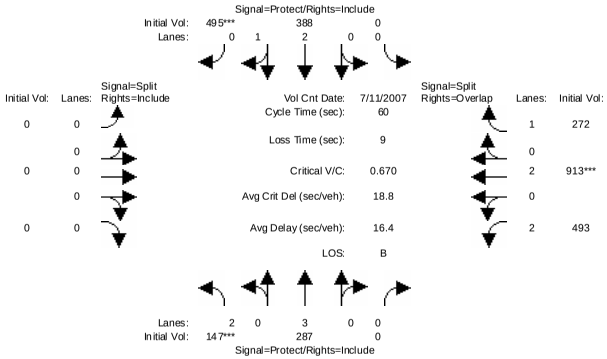
11:00-14:00 PARK/WALK	16:00-19:00 PARK/WALK
9:51	16:06
10:19	16"28
10:54	
11:16	
11:18	
11:35	
12:05	
12:13	
12:23	
12:39	
12:41	
12:50	
13:18	
13:20	
13:31	

Appendix B:
Intersection Level of Service Calculations

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1: McCarthy Blvd. & SR 237 WB Ramps



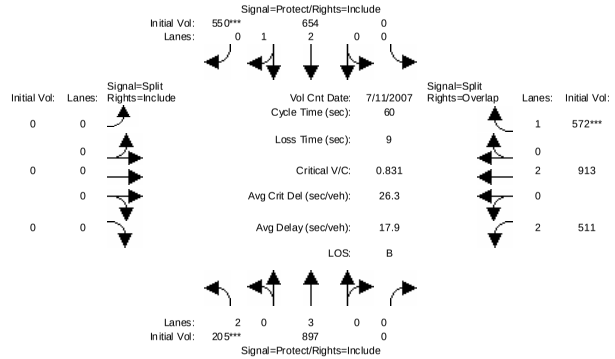
Street Name:	McCarthy Blvd.						SR 237 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Volume Module: >> Count Date: 11 Jul 2007 << 7-9a												
Base Vol:	147	287	0	0	388	495	0	0	0	493	913	272
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	147	287	0	0	388	495	0	0	0	493	913	272
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	147	287	0	0	388	495	0	0	0	493	913	272
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	147	287	0	0	388	495	0	0	0	493	913	272
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	287	0	0	388	495	0	0	0	493	913	272
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	147	287	0	0	388	495	0	0	0	493	913	272
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	2.00	2.00	1.00
Final Sat.:	3150	5700	0	0	3800	1750	0	0	0	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.00	0.00	0.10	0.28	0.00	0.00	0.00	0.16	0.24	0.16
Crit Moves:	****					****					****	
Green Time:	7.0	30.8	0.0	0.0	23.8	23.8	0.0	0.0	0.0	20.2	20.2	20.2
Volume/Cap:	0.40	0.10	0.00	0.00	0.26	0.71	0.00	0.00	0.00	0.46	0.71	0.46
Delay/Veh:	25.3	7.5	0.0	0.0	12.2	17.2	0.0	0.0	0.0	16.0	19.3	16.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.3	7.5	0.0	0.0	12.2	17.2	0.0	0.0	0.0	16.0	19.3	16.2
LOS by Move:	C	A	A	A	B	B	A	A	A	B	B-	B
HCM2kAvgQ:	2	1	0	0	2	9	0	0	0	5	9	5

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1: McCarthy Blvd. & SR 237 WB Ramps



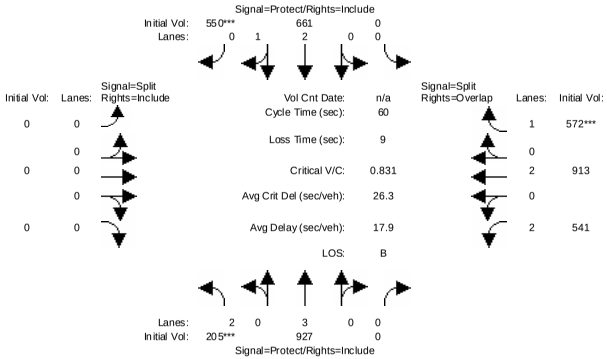
Street Name:	McCarthy Blvd.						SR 237 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Volume Module: >> Count Date: 11 Jul 2007 << 7-9a												
Base Vol:	147	287	0	0	388	495	0	0	0	493	913	272
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	147	287	0	0	388	495	0	0	0	493	913	272
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	58	610	0	0	266	55	0	0	0	18	0	300
Initial Fut:	205	897	0	0	654	550	0	0	0	511	913	572
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	205	897	0	0	654	550	0	0	0	511	913	572
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	205	897	0	0	654	550	0	0	0	511	913	572
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	205	897	0	0	654	550	0	0	0	511	913	572
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	2.00	2.00	1.00
Final Sat.:	3150	5700	0	0	3800	1750	0	0	0	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.16	0.00	0.00	0.17	0.31	0.00	0.00	0.00	0.16	0.24	0.33
Crit Moves:	****					****						****
Green Time:	7.0	28.6	0.0	0.0	21.6	21.6	0.0	0.0	0.0	22.4	22.4	22.4
Volume/Cap:	0.56	0.33	0.00	0.00	0.48	0.87	0.00	0.00	0.00	0.43	0.64	0.87
Delay/Veh:	27.0	9.8	0.0	0.0	15.0	24.5	0.0	0.0	0.0	14.3	16.5	30.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.0	9.8	0.0	0.0	15.0	24.5	0.0	0.0	0.0	14.3	16.5	30.0
LOS by Move:	C	A	A	A	B	C	A	A	A	B	B	C
HCM2kAvgQ:	2	3	0	0	5	11	0	0	0	5	8	14

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1: McCarthy Blvd. & SR 237 WB Ramps



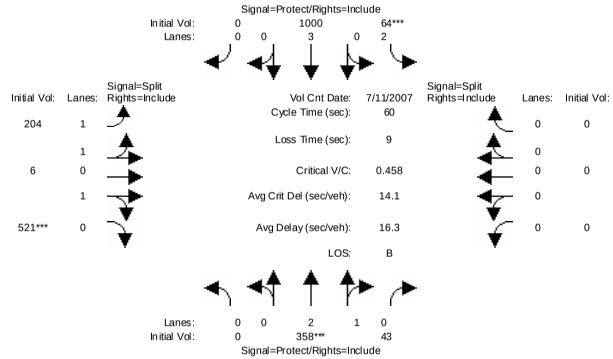
Street Name:	McCarthy Blvd.									SR 237 WB Ramps		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Volume Module:												
Base Vol:	205	897	0	0	654	550	0	0	0	511	913	572
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	205	897	0	0	654	550	0	0	0	511	913	572
Added Vol:	0	30	0	0	7	0	0	0	0	30	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	205	927	0	0	661	550	0	0	0	541	913	572
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	205	927	0	0	661	550	0	0	0	541	913	572
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	205	927	0	0	661	550	0	0	0	541	913	572
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	205	927	0	0	661	550	0	0	0	541	913	572
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	2.00	2.00	1.00
Final Sat.:	3150	5700	0	0	3800	1750	0	0	0	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.16	0.00	0.00	0.17	0.31	0.00	0.00	0.00	0.17	0.24	0.33
Crit Moves:	****					****						****
Green Time:	7.0	28.6	0.0	0.0	21.6	21.6	0.0	0.0	0.0	22.4	22.4	22.4
Volume/Cap:	0.56	0.34	0.00	0.00	0.48	0.87	0.00	0.00	0.00	0.46	0.64	0.87
Delay/Veh:	27.0	9.9	0.0	0.0	15.0	24.4	0.0	0.0	0.0	14.5	16.5	30.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.0	9.9	0.0	0.0	15.0	24.4	0.0	0.0	0.0	14.5	16.5	30.0
LOS by Move:	C	A	A	A	B	C	A	A	A	B	B	C
HCM2kAvgQ:	2	3	0	0	5	11	0	0	0	5	8	14

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #2: McCarthy Blvd. & SR 237 EB Ramps



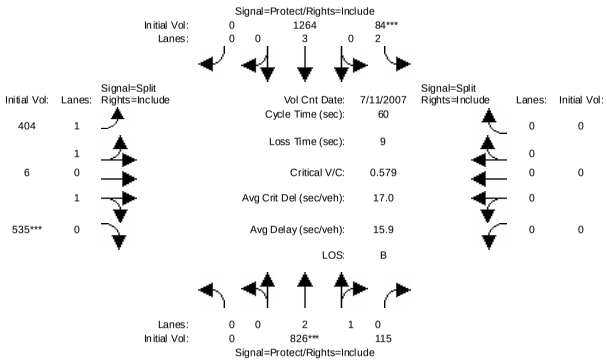
Street Name:	McCarthy Blvd.									SR 237 EB Ramps		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	10	10	10	0	0	0
Volume Module: >> Count Date: 11 Jul 2007 <<												
Base Vol:	0	358	43	64	1000	0	204	6	521	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	358	43	64	1000	0	204	6	521	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	358	43	64	1000	0	204	6	521	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	358	43	64	1000	0	204	6	521	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	358	43	64	1000	0	204	6	521	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	358	43	64	1000	0	204	6	521	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	2.67	0.33	2.00	3.00	0.00	1.95	0.05	1.00	0.00	0.00	0.00
Final Sat.:	0	4999	600	3150	5700	0	3408	100	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.07	0.07	0.02	0.18	0.00	0.06	0.06	0.30	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	10.0	10.0	7.0	17.0	0.0	34.0	34.0	34.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.43	0.43	0.17	0.62	0.00	0.11	0.11	0.53	0.00	0.00	0.00
Delay/Veh:	0.0	22.8	22.8	24.1	19.4	0.0	6.0	6.0	8.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	22.8	22.8	24.1	19.4	0.0	6.0	6.0	8.4	0.0	0.0	0.0
LOS by Move:	A	C+	C+	C	B-	A	A	A	A	A	A	A
HCM2kAvgQ:	0	2	2	1	5	0	1	1	7	0	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #2: McCarthy Blvd. & SR 237 EB Ramps

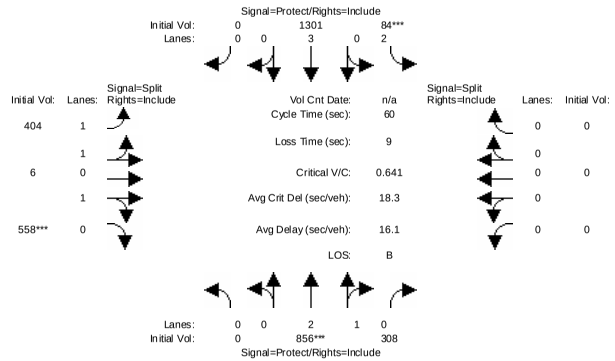



```
Street Name:          McCarthy Blvd.                    SR 237 EB Ramps
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0   10   10     7   10    0    10   10   10     0    0    0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 11 Jul 2007 <<
Base Vol:       0  358   43    64 1000    0   204    6  521     0    0    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0  358   43    64 1000    0   204    6  521     0    0    0
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            0  468   72    20  264    0   200    0   14     0    0    0
Initial Fut:    0  826  115    84 1264    0   404    6  535     0    0    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0  826  115    84 1264    0   404    6  535     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0  826  115    84 1264    0   404    6  535     0    0    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    0  826  115    84 1264    0   404    6  535     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.99 0.95  0.83 1.00 0.92  0.93 0.95 0.95  0.92 1.00 0.92
Lanes:       0.00 2.62 0.38  2.00 3.00 0.00  1.97 0.03 1.00  0.00 0.00 0.00
Final Sat.:     0 4915  684  3150 5700    0  3472   52 1800     0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.17 0.17  0.03 0.22 0.00  0.12 0.12 0.30  0.00 0.00 0.00
Crit Moves:          ****          ****                ****
Green Time:   0.0 15.9 15.9   7.0 22.9  0.0  28.1 28.1 28.1   0.0  0.0  0.0
Volume/Cap:  0.00 0.63 0.63  0.23 0.58 0.00  0.25 0.25 0.63  0.00 0.00 0.00
Delay/Veh:    0.0 20.4 20.4  24.4 15.1  0.0   9.6  9.6 13.0   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 20.4 20.4  24.4 15.1  0.0   9.6  9.6 13.0   0.0  0.0  0.0
LOS by Move:    A   C+   C+     C    B    A     A    A    B     A    A    A
HCM2kAvgQ:      0    5    5     1    6    0     3    3    9     0    0    0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #2: McCarthy Blvd. & SR 237 EB Ramps

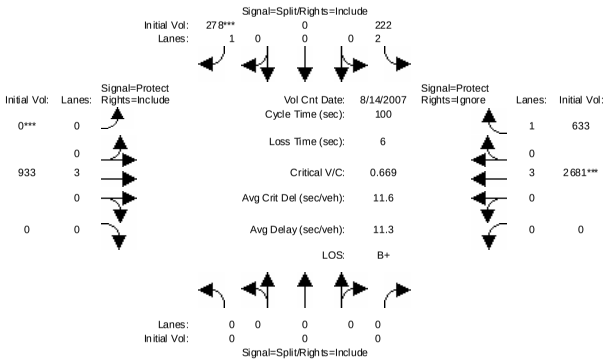



```
Street Name:          McCarthy Blvd.                    SR 237 EB Ramps
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0   10   10     7   10    0    10   10   10     0    0    0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  826  115    84 1264    0   404    6  535     0    0    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0  826  115    84 1264    0   404    6  535     0    0    0
Added Vol:      0   30  193     0   37    0     0    0   23     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    0  856  308    84 1301    0   404    6  558     0    0    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0  856  308    84 1301    0   404    6  558     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0  856  308    84 1301    0   404    6  558     0    0    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    0  856  308    84 1301    0   404    6  558     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.95  0.83 1.00 0.92  0.93 0.95 0.95  0.92 1.00 0.92
Lanes:       0.00 2.18 0.82  2.00 3.00 0.00  1.97 0.03 1.00  0.00 0.00 0.00
Final Sat.:     0 4116 1481  3150 5700    0  3470   52 1800     0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.21 0.21  0.03 0.23 0.00  0.12 0.12 0.31  0.00 0.00 0.00
Crit Moves:          ****          ****                ****
Green Time:   0.0 17.7 17.7   7.0 24.7  0.0  26.3 26.3 26.3   0.0  0.0  0.0
Volume/Cap:  0.00 0.71 0.71  0.23 0.56 0.00  0.27 0.27 0.71  0.00 0.00 0.00
Delay/Veh:    0.0 20.3 20.3  24.4 13.8  0.0  10.7 10.7 15.4   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 20.3 20.3  24.4 13.8  0.0  10.7 10.7 15.4   0.0  0.0  0.0
LOS by Move:    A   C+   C+     C    B    A    B+   B+    B     A    A    A
HCM2kAvgQ:      0    7    7     1    6    0     3    3   10     0    0    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #3: SR 237 & I-880 SB Ramps

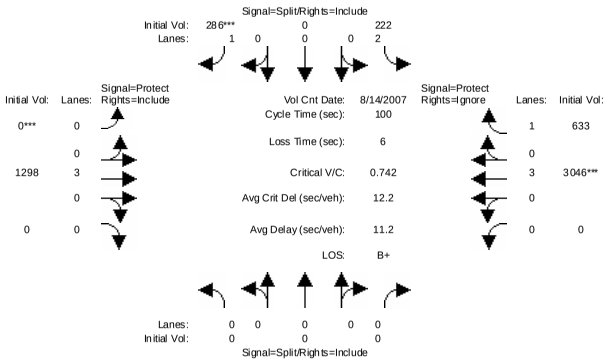



```
Street Name:          I-880 SB Ramps                        SR 237
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0   10     0    10     0    10     0     0    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 7:45Am-9:00
Base Vol:       0     0     0  222     0   278     0   933     0     0  2681   633
Growth Adj:  1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0  222     0   278     0   933     0     0  2681   633
Added Vol:      0     0     0    0     0     0     0     0     0     0     0     0
PasserByVol:    0     0     0    0     0     0     0     0     0     0     0     0
Initial Fut:    0     0     0  222     0   278     0   933     0     0  2681   633
User Adj:    1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
PHF Volume:     0     0     0  222     0   278     0   933     0     0  2681     0
Reduct Vol:     0     0     0    0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0  222     0   278     0   933     0     0  2681     0
PCE Adj:     1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
FinalVolume:    0     0     0  222     0   278     0   933     0     0  2681     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900 1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92 0.83  1.00  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       0.00  0.00  0.00 2.00  0.00  1.00  0.00  3.00  0.00  0.00  3.00  1.00
Final Sat.:     0     0     0 3150     0  1750     0  5700     0     0  5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00 0.07  0.00  0.16  0.00  0.16  0.00  0.00  0.47  0.00
Crit Moves:                                ****  ****                      ****
Green Time:   0.0   0.0   0.0 23.7   0.0  23.7   0.0  70.3   0.0   0.0  70.3   0.0
Volume/Cap:  0.00  0.00  0.00 0.30  0.00  0.67  0.00  0.23  0.00  0.00  0.67  0.00
Delay/Veh:    0.0   0.0   0.0 31.5   0.0  38.8   0.0   5.3   0.0   0.0   8.8   0.0
User DelAdj: 1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0 31.5   0.0  38.8   0.0   5.3   0.0   0.0   8.8   0.0
LOS by Move:    A     A     A    C     A    D+     A     A     A     A     A     A
HCM2kAvgQ:      0     0     0    3     0     9     0     3     0     0    15     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #3: SR 237 & I-880 SB Ramps

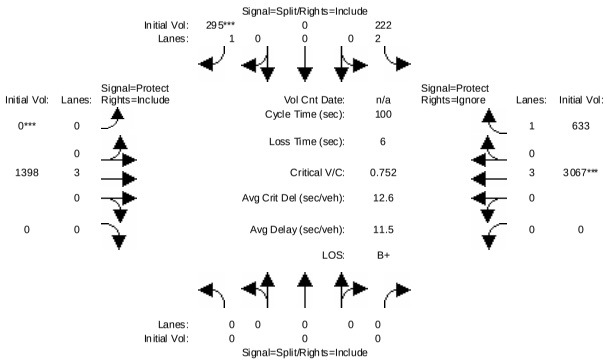



```
Street Name:          I-880 SB Ramps                        SR 237
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0   10     0    10     0    10     0     0    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 7:45Am-9:00
Base Vol:       0     0     0  222     0   278     0   933     0     0  2681   633
Growth Adj:  1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0  222     0   278     0   933     0     0  2681   633
Added Vol:      0     0     0    0     0     0     0     0     0     0     0     0
ATI:            0     0     0    0     0     8     0   365     0     0   365     0
Initial Fut:    0     0     0  222     0   286     0  1298     0     0  3046   633
User Adj:    1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
PHF Volume:     0     0     0  222     0   286     0  1298     0     0  3046     0
Reduct Vol:     0     0     0    0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0  222     0   286     0  1298     0     0  3046     0
PCE Adj:     1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
FinalVolume:    0     0     0  222     0   286     0  1298     0     0  3046     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900 1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92 0.83  1.00  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       0.00  0.00  0.00 2.00  0.00  1.00  0.00  3.00  0.00  0.00  3.00  1.00
Final Sat.:     0     0     0 3150     0  1750     0  5700     0     0  5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00 0.07  0.00  0.16  0.00  0.23  0.00  0.00  0.53  0.00
Crit Moves:                                ****  ****                      ****
Green Time:   0.0   0.0   0.0 22.0   0.0  22.0   0.0  72.0   0.0   0.0  72.0   0.0
Volume/Cap:  0.00  0.00  0.00 0.32  0.00  0.74  0.00  0.32  0.00  0.00  0.74  0.00
Delay/Veh:    0.0   0.0   0.0 33.0   0.0  43.9   0.0   5.1   0.0   0.0   9.2   0.0
User DelAdj: 1.00  1.00  1.00 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0 33.0   0.0  43.9   0.0   5.1   0.0   0.0   9.2   0.0
LOS by Move:    A     A     A    C-     A     D     A     A     A     A     A     A
HCM2kAvgQ:      0     0     0    4     0    10     0     5     0     0    18     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #3: SR 237 & I-880 SB Ramps

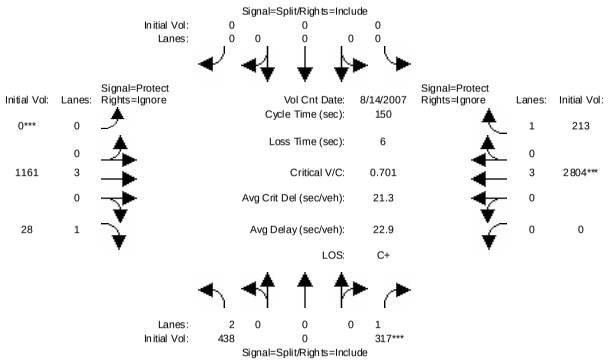



```
Street Name:          I-880 SB Ramps                    SR 237
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0   10     0    10     0   10     0     0   10     0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0  222     0   286     0 1298     0     0 3046   633
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0  222     0   286     0 1298     0     0 3046   633
Added Vol:      0    0     0    0     0     9     0  100     0     0   21     0
PasserByVol:    0    0     0    0     0     0     0    0     0     0    0     0
Initial Fut:    0    0     0  222     0   295     0 1398     0     0 3067   633
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:     0    0     0  222     0   295     0 1398     0     0 3067     0
Reduct Vol:     0    0     0    0     0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0  222     0   295     0 1398     0     0 3067     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:    0    0     0  222     0   295     0 1398     0     0 3067     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92 0.83 1.00  0.92  0.92 1.00  0.92  0.92 1.00  0.92
Lanes:       0.00 0.00  0.00 2.00 0.00  1.00  0.00 3.00  0.00  0.00 3.00  1.00
Final Sat.:     0    0     0 3150     0  1750     0 5700     0     0 5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00 0.07 0.00  0.17  0.00 0.25  0.00  0.00 0.54  0.00
Crit Moves:                              ****  ****                ****
Green Time:   0.0  0.0   0.0 22.4  0.0  22.4   0.0 71.6   0.0   0.0 71.6   0.0
Volume/Cap:  0.00 0.00  0.00 0.31 0.00  0.75  0.00 0.34  0.00  0.00 0.75  0.00
Delay/Veh:    0.0  0.0   0.0 32.6  0.0  44.1   0.0  5.4   0.0   0.0  9.6   0.0
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0 32.6  0.0  44.1   0.0  5.4   0.0   0.0  9.6   0.0
LOS by Move:    A    A     A    C-    A     D     A    A     A     A    A     A
HCM2kAvgQ:      0    0     0    4    0    11     0    5     0     0   19     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #4: Calaveras Blvd. & I-880 NB Ramps

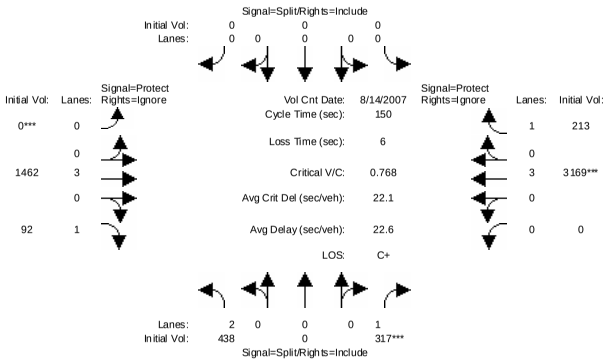



```
Street Name:          I-880 NB Ramps                    Calaveras Blvd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10    10     7   10    10     7   10    10     7   10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 7:45AM-8:45AM
Base Vol:     438    0   317     0    0     0     0 1161    28     0 2804   213
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  438    0   317     0    0     0     0 1161    28     0 2804   213
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  438    0   317     0    0     0     0 1161    28     0 2804   213
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00
PHF Volume:   438    0   317     0    0     0     0 1161     0     0 2804     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  438    0   317     0    0     0     0 1161     0     0 2804     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00
FinalVolume:  438    0   317     0    0     0     0 1161     0     0 2804     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.83 1.00  0.92 0.92 1.00  0.92  0.92 1.00  0.92  0.92 1.00  0.92
Lanes:       2.00 0.00  1.00 0.00 0.00  0.00  0.00 3.00  1.00  0.00 3.00  1.00
Final Sat.:  3150    0  1750     0    0     0     0 5700  1750     0 5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.14 0.00  0.18 0.00 0.00  0.00  0.00 0.20  0.00  0.00 0.49  0.00
Crit Moves:              ****                ****                      ****
Green Time:  36.9  0.0  36.9  0.0  0.0   0.0   0.0 87.2   0.0   0.0  100   0.0
Volume/Cap:  0.57 0.00  0.74 0.00 0.00  0.00  0.00 0.35  0.00  0.00 0.74  0.00
Delay/Veh:   50.5  0.0  58.7  0.0  0.0   0.0   0.0 16.6   0.0   0.0 17.1   0.0
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  50.5  0.0  58.7  0.0  0.0   0.0   0.0 16.6   0.0   0.0 17.1   0.0
LOS by Move:    D    A    E+    A    A     A     A    B     A     A    B     A
HCM2kAvgQ:     11    0    16    0    0     0     0    9     0     0   28     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #4: Calaveras Blvd. & I-880 NB Ramps

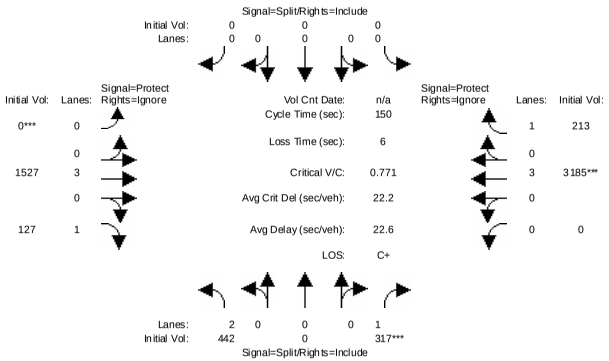



```
Street Name:          I-880 NB Ramps                    Calaveras Blvd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 7:45AM-8:45AM
Base Vol:     438    0  317     0    0    0     0 1161   28     0 2804  213
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  438    0  317     0    0    0     0 1161   28     0 2804  213
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            0    0    0     0    0    0     0  301   64     0  365    0
Initial Fut:  438    0  317     0    0    0     0 1462   92     0 3169  213
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Volume:   438    0  317     0    0    0     0 1462    0     0 3169    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  438    0  317     0    0    0     0 1462    0     0 3169    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
FinalVolume:  438    0  317     0    0    0     0 1462    0     0 3169    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       2.00 0.00 1.00  0.00 0.00 0.00  0.00 3.00 1.00  0.00 3.00 1.00
Final Sat.:  3150    0 1750     0    0    0     0 5700 1750     0 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.14 0.00 0.18  0.00 0.00 0.00  0.00 0.26 0.00  0.00 0.56 0.00
Crit Moves:            ****                   ****                   ****
Green Time:  33.7  0.0 33.7   0.0  0.0  0.0   0.0 93.3  0.0   0.0  103  0.0
Volume/Cap:  0.62 0.00 0.81  0.00 0.00 0.00  0.00 0.41 0.00  0.00 0.81 0.00
Delay/Veh:   54.1  0.0 66.8   0.0  0.0  0.0   0.0 14.5  0.0   0.0 17.7  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  54.1  0.0 66.8   0.0  0.0  0.0   0.0 14.5  0.0   0.0 17.7  0.0
LOS by Move:   D-    A    E     A    A    A     A    B    A     A    B    A
HCM2kAvgQ:     11    0   17     0    0    0     0   11    0     0   35    0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #4: Calaveras Blvd. & I-880 NB Ramps

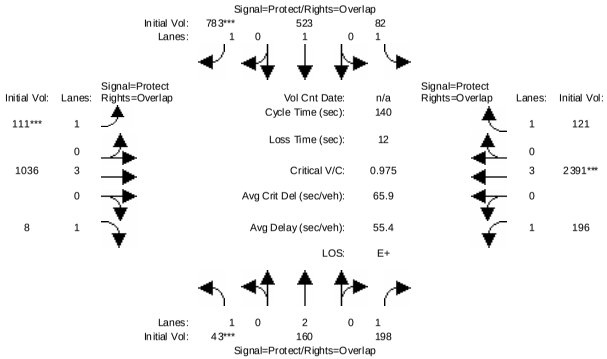



```
Street Name:          I-880 NB Ramps                    Calaveras Blvd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     438    0  317     0    0    0     0 1462   92     0 3169  213
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  438    0  317     0    0    0     0 1462   92     0 3169  213
Added Vol:      4    0    0     0    0    0     0   65   35     0   16    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  442    0  317     0    0    0     0 1527  127     0 3185  213
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Volume:   442    0  317     0    0    0     0 1527    0     0 3185    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  442    0  317     0    0    0     0 1527    0     0 3185    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
FinalVolume:  442    0  317     0    0    0     0 1527    0     0 3185    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       2.00 0.00 1.00  0.00 0.00 0.00  0.00 3.00 1.00  0.00 3.00 1.00
Final Sat.:  3150    0 1750     0    0    0     0 5700 1750     0 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.14 0.00 0.18  0.00 0.00 0.00  0.00 0.27 0.00  0.00 0.56 0.00
Crit Moves:            ****                   ****                   ****
Green Time:  33.5  0.0 33.5   0.0  0.0  0.0   0.0 94.1  0.0   0.0  103  0.0
Volume/Cap:  0.63 0.00 0.81  0.00 0.00 0.00  0.00 0.43 0.00  0.00 0.81 0.00
Delay/Veh:   54.4  0.0 67.2   0.0  0.0  0.0   0.0 14.3  0.0   0.0 17.7  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  54.4  0.0 67.2   0.0  0.0  0.0   0.0 14.3  0.0   0.0 17.7  0.0
LOS by Move:   D-    A    E     A    A    A     A    B    A     A    B    A
HCM2kAvgQ:     12    0   17     0    0    0     0   12    0     0   35    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #5: Calaveras Blvd. / Abel St. [CMP]



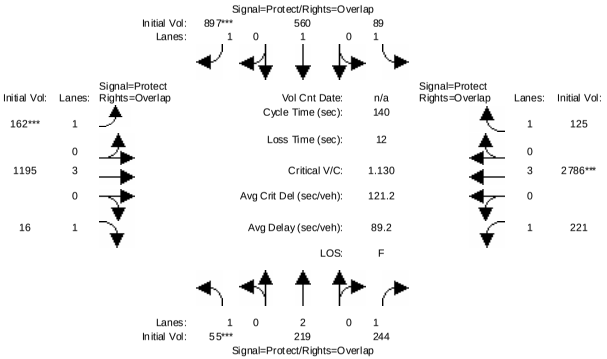
Street Name:	Abel St.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	43	160	198	82	523	783	111	1036	8	196	2391	121
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	160	198	82	523	783	111	1036	8	196	2391	121
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	160	198	82	523	783	111	1036	8	196	2391	121
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	43	160	198	82	523	783	111	1036	8	196	2391	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	160	198	82	523	783	111	1036	8	196	2391	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	160	198	82	523	783	111	1036	8	196	2391	121
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.04	0.11	0.05	0.28	0.45	0.06	0.18	0.00	0.11	0.42	0.07
Crit Moves:	****					****	****				****	
Green Time:	7.0	35.6	61.3	25.0	53.6	62.5	8.9	41.7	48.7	25.7	58.5	83.5
Volume/Cap:	0.49	0.17	0.26	0.26	0.72	1.00	1.00	0.61	0.01	0.61	1.00	0.12
Delay/Veh:	69.1	40.7	25.1	50.0	40.3	71.7	151.9	42.8	29.9	56.0	59.9	12.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.1	40.7	25.1	50.0	40.3	71.7	151.9	42.8	29.9	56.0	59.9	12.3
LOS by Move:	E	D	C	D	D	E	F	D	C	E+	E+	B
HCM2kAvgQ:	3	3	6	3	20	44	7	12	0	8	34	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #5: Calaveras Blvd. / Abel St. [CMP]



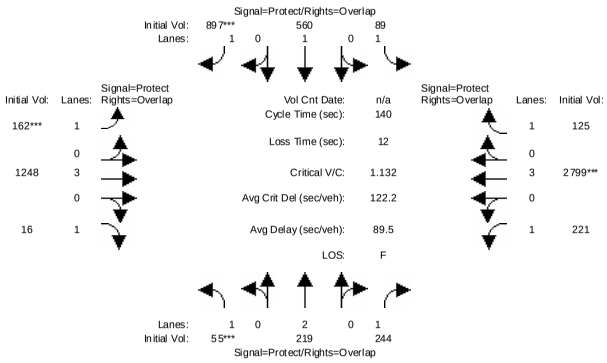
Street Name:	Abel St.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	43	160	198	82	523	783	111	1036	8	196	2391	121
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	160	198	82	523	783	111	1036	8	196	2391	121
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	12	59	46	7	37	114	51	159	8	25	395	4
Initial Fut:	55	219	244	89	560	897	162	1195	16	221	2786	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	219	244	89	560	897	162	1195	16	221	2786	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	219	244	89	560	897	162	1195	16	221	2786	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	219	244	89	560	897	162	1195	16	221	2786	125
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.14	0.05	0.29	0.51	0.09	0.21	0.01	0.13	0.49	0.07
Crit Moves:	****					****	****				****	
Green Time:	7.0	33.7	60.1	24.0	50.8	61.9	11.2	43.8	50.8	26.4	59.1	83.1
Volume/Cap:	0.63	0.24	0.32	0.30	0.81	1.16	1.16	0.67	0.03	0.67	1.16	0.12
Delay/Veh:	78.9	42.9	26.7	51.2	47.7	124.6	189.4	42.8	28.7	58.0	117	12.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	78.9	42.9	26.7	51.2	47.7	124.6	189.4	42.8	28.7	58.0	117	12.5
LOS by Move:	E-	D	C	D-	D	F	F	D	C	E+	F	B
HCM2kAvgQ:	4	4	7	4	23	60	11	15	0	9	53	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #5: Calaveras Blvd. / Abel St. [CMP]



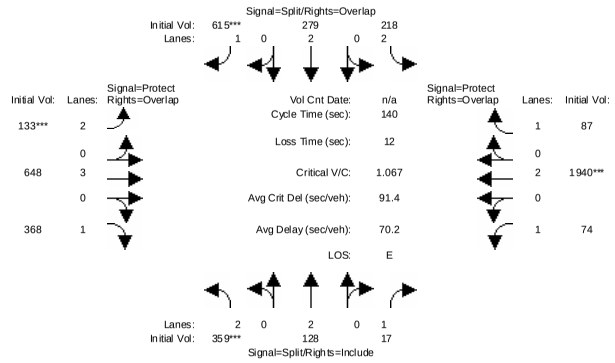
Street Name:	Abel St.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	55	219	244	89	560	897	162	1195	16	221	2786	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	219	244	89	560	897	162	1195	16	221	2786	125
Added Vol:	0	0	0	0	0	0	0	53	0	0	13	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	219	244	89	560	897	162	1248	16	221	2799	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	219	244	89	560	897	162	1248	16	221	2799	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	219	244	89	560	897	162	1248	16	221	2799	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	219	244	89	560	897	162	1248	16	221	2799	125
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.14	0.05	0.29	0.51	0.09	0.22	0.01	0.13	0.49	0.07
Crit Moves:	****					****	****				****	
Green Time:	7.0	33.7	59.4	24.0	50.6	61.8	11.2	44.6	51.6	25.7	59.2	83.2
Volume/Cap:	0.63	0.24	0.33	0.30	0.81	1.16	1.16	0.69	0.02	0.69	1.16	0.12
Delay/Veh:	78.9	43.0	27.2	51.2	47.9	125.7	190.5	42.7	28.2	59.5	118	12.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	78.9	43.0	27.2	51.2	47.9	125.7	190.5	42.7	28.2	59.5	118	12.5
LOS by Move:	E-	D	C	D-	D	F	F	D	C	E+	F	B
HCM2kAvgQ:	4	4	7	4	23	60	11	15	0	9	53	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #6: Milpitas Blvd. / Calaveras Blvd. [CMP]



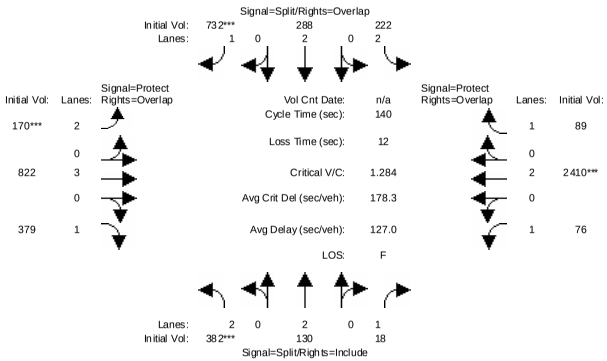
Street Name:	Milpitas Blvd.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	359	128	17	218	279	615	133	648	368	74	1940	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	359	128	17	218	279	615	133	648	368	74	1940	87
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	359	128	17	218	279	615	133	648	368	74	1940	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	359	128	17	218	279	615	133	648	368	74	1940	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	359	128	17	218	279	615	133	648	368	74	1940	87
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	359	128	17	218	279	615	133	648	368	74	1940	87
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.11	0.03	0.01	0.07	0.07	0.35	0.04	0.11	0.21	0.04	0.51	0.05
Crit Moves:	****					****	****				****	
Green Time:	14.9	14.9	14.9	39.4	39.4	46.4	7.0	51.2	66.1	22.5	66.7	106.1
Volume/Cap:	1.07	0.32	0.09	0.25	0.26	1.06	0.84	0.31	0.45	0.26	1.07	0.07
Delay/Veh:	132.0	59.9	57.4	39.5	39.6	101.3	105.6	32.2	26.4	53.7	79.8	4.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	132.0	59.9	57.4	39.5	39.6	101.3	105.6	32.2	26.4	53.7	79.8	4.4
LOS by Move:	F	E+	E+	D	D	F	F	C-	C	D-	E-	A
HCM2kAvgQ:	15	3	1	4	5	38	4	6	11	3	56	1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #6: Milpitas Blvd. / Calaveras Blvd. [CMP]



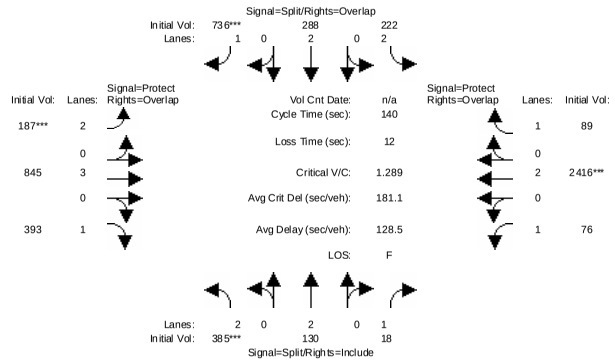
Street Name:	Milpitas Blvd.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	359	128	17	218	279	615	133	648	368	74	1940	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	359	128	17	218	279	615	133	648	368	74	1940	87
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	23	2	1	4	9	117	37	174	11	2	470	2
Initial Fut:	382	130	18	222	288	732	170	822	379	76	2410	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	382	130	18	222	288	732	170	822	379	76	2410	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	382	130	18	222	288	732	170	822	379	76	2410	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	382	130	18	222	288	732	170	822	379	76	2410	89
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.03	0.01	0.07	0.08	0.42	0.05	0.14	0.22	0.04	0.63	0.05
Crit Moves:	****					****	****				****	
Green Time:	13.1	13.1	13.1	39.4	39.4	46.4	7.0	56.1	69.2	19.4	68.5	107.9
Volume/Cap:	1.30	0.37	0.11	0.25	0.27	1.26	1.08	0.36	0.44	0.31	1.30	0.07
Delay/Veh:	219.3	62.4	59.5	39.6	39.8	178.6	161.0	29.8	24.5	57.6	173	4.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	219.3	62.4	59.5	39.6	39.8	178.6	161.0	29.8	24.5	57.6	173	4.0
LOS by Move:	F	E	E+	D	D	F	F	C	C	E+	F	A
HCM2kAvgQ:	19	3	1	4	5	56	6	8	11	3	87	1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #6: Milpitas Blvd. / Calaveras Blvd. [CMP]



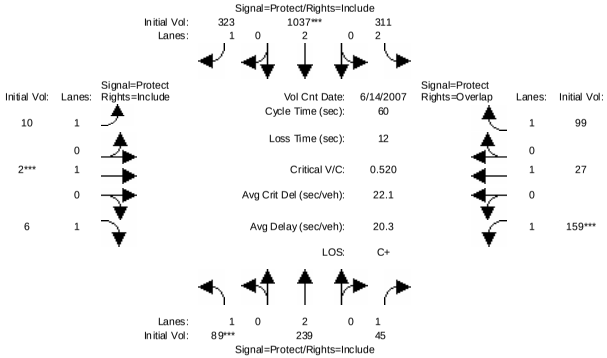
Street Name:	Milpitas Blvd.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	382	130	18	222	288	732	170	822	379	76	2410	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	382	130	18	222	288	732	170	822	379	76	2410	89
Added Vol:	3	0	0	0	0	4	17	23	14	0	6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	385	130	18	222	288	736	187	845	393	76	2416	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	385	130	18	222	288	736	187	845	393	76	2416	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	385	130	18	222	288	736	187	845	393	76	2416	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	385	130	18	222	288	736	187	845	393	76	2416	89
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.03	0.01	0.07	0.08	0.42	0.06	0.15	0.22	0.04	0.64	0.05
Crit Moves:	****					****	****				****	
Green Time:	13.2	13.2	13.2	39.1	39.1	46.1	7.0	56.6	69.8	19.1	68.7	107.8
Volume/Cap:	1.29	0.36	0.11	0.25	0.27	1.28	1.19	0.37	0.45	0.32	1.29	0.07
Delay/Veh:	218.8	62.3	59.3	39.8	40.0	185.3	197.4	29.6	24.3	58.1	172	4.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	218.8	62.3	59.3	39.8	40.0	185.3	197.4	29.6	24.3	58.1	172	4.0
LOS by Move:	F	E	E+	D	D	F	F	C	C	E+	F	A
HCM2kAvgQ:	19	3	1	4	5	57	8	8	12	3	87	1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #7: McCarthy Blvd. & Bellew Dr.

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Street Name:          McCarthy Blvd.                    Bellew Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:      89  239   45   311 1037  323    10    2    6   159   27   99
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   89  239   45   311 1037  323    10    2    6   159   27   99
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   89  239   45   311 1037  323    10    2    6   159   27   99
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    89  239   45   311 1037  323    10    2    6   159   27   99
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   89  239   45   311 1037  323    10    2    6   159   27   99
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   89  239   45   311 1037  323    10    2    6   159   27   99
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  2.00 2.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:  1750 3800 1750  3150 3800 1750  1750 1900 1750  1750 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.06 0.03  0.10 0.27 0.18  0.01 0.00 0.00  0.09 0.01 0.06
Crit Moves:  ****             ****             ****             ****
Green Time:   7.0 17.8 17.8  12.5 23.3 23.3   7.3 10.0 10.0   7.7 10.4 22.9
Volume/Cap:  0.44 0.21 0.09  0.48 0.70 0.48  0.05 0.01 0.02  0.70 0.08 0.15
Delay/Veh:   31.3 16.3 15.6  23.4 18.3 16.2  23.7 20.9 21.0  41.9 21.2 12.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  31.3 16.3 15.6  23.4 18.3 16.2  23.7 20.9 21.0  41.9 21.2 12.6
LOS by Move:    C    B    B     C   B-    B     C   C+   C+     D   C+    B
HCM2kAvgQ:      2    2    1     3    8    5     0    0    0     3    0    1
Note: Queue reported is the number of cars per lane.
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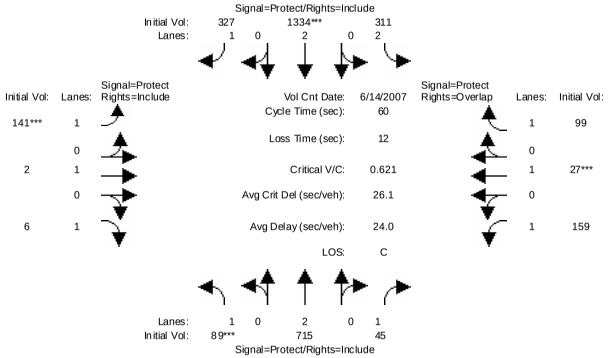
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #7: McCarthy Blvd. & Bellew Dr.

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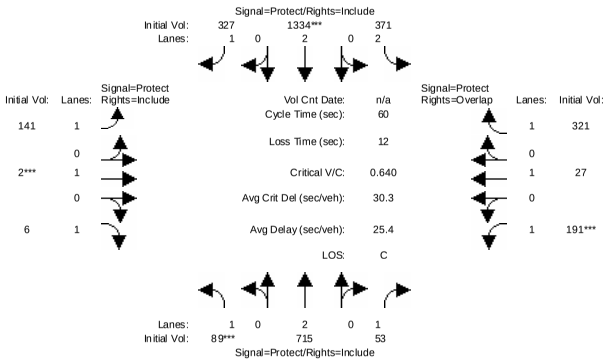
Street Name:          McCarthy Blvd.                    Bellew Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:      89  239   45   311 1037  323    10    2    6   159   27   99
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   89  239   45   311 1037  323    10    2    6   159   27   99
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            0  476    0     0  297    4   131    0    0     0    0    0
Initial Fut:   89  715   45   311 1334  327   141    2    6   159   27   99
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    89  715   45   311 1334  327   141    2    6   159   27   99
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   89  715   45   311 1334  327   141    2    6   159   27   99
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   89  715   45   311 1334  327   141    2    6   159   27   99
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  2.00 2.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:  1750 3800 1750  3150 3800 1750  1750 1900 1750  1750 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.19 0.03  0.10 0.35 0.19  0.08 0.00 0.00  0.09 0.01 0.06
Crit Moves:  ****             ****             ****             ****
Green Time:   7.0 19.1 19.1  11.9 24.0 24.0   7.0 10.0 10.0   7.0 10.0 21.9
Volume/Cap:  0.44 0.59 0.08  0.50 0.88 0.47  0.69 0.01 0.02  0.78 0.09 0.16
Delay/Veh:   31.3 19.3 14.6  24.3 24.1 15.5  42.9 20.9 21.0  50.6 21.7 13.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  31.3 19.3 14.6  24.3 24.1 15.5  42.9 20.9 21.0  50.6 21.7 13.4
LOS by Move:    C   B-    B     C    C    B     D   C+   C+     D   C+    B
HCM2kAvgQ:      2    6    1     3   13    5     4    0    0     4    0    1
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #7: McCarthy Blvd. & Bellew Dr.



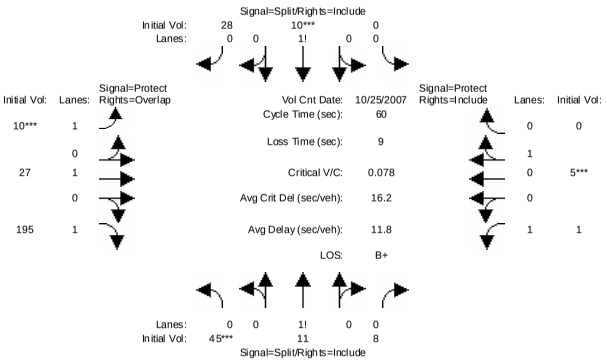
Street Name:	McCarthy Blvd.						Bellew Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	89	715	45	311	1334	327	141	2	6	159	27	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	715	45	311	1334	327	141	2	6	159	27	99
Added Vol:	0	0	8	60	0	0	0	0	0	32	0	222
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	89	715	53	371	1334	327	141	2	6	191	27	321
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	715	53	371	1334	327	141	2	6	191	27	321
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	715	53	371	1334	327	141	2	6	191	27	321
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	89	715	53	371	1334	327	141	2	6	191	27	321
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	1750	1900	1750	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.19	0.03	0.12	0.35	0.19	0.08	0.00	0.00	0.11	0.01	0.18
Crit Moves:	****				****			****		****		
Green Time:	7.0	18.8	18.8	11.8	23.6	23.6	7.1	10.0	10.0	7.4	10.2	22.0
Volume/Cap:	0.44	0.60	0.10	0.60	0.89	0.47	0.68	0.01	0.02	0.89	0.08	0.50
Delay/Veh:	31.3	19.6	14.9	26.2	25.3	15.9	41.6	20.9	21.0	64.3	21.5	17.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.3	19.6	14.9	26.2	25.3	15.9	41.6	20.9	21.0	64.3	21.5	17.5
LOS by Move:	C	B-	B	C	C	B	D	C+	C+	E	C+	B
HCM2kAvgQ:	2	6	1	4	14	5	4	0	0	5	0	5

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #8: Barber Ln & Bellew Dr



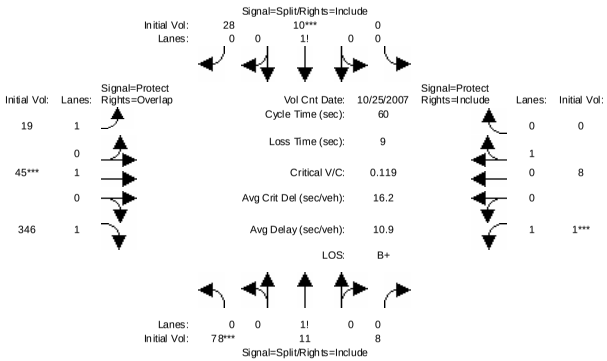
Street Name:	Barber Ln						Bellew Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 25 Oct 2007 <<												
Base Vol:	45	11	8	0	10	28	10	27	195	1	5	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	11	8	0	10	28	10	27	195	1	5	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	11	8	0	10	28	10	27	195	1	5	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	11	8	0	10	28	10	27	195	1	5	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	11	8	0	10	28	10	27	195	1	5	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	11	8	0	10	28	10	27	195	1	5	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	0.95	0.92
Lanes:	0.70	0.17	0.13	0.00	0.26	0.74	1.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1230	301	219	0	474	1326	1750	1900	1750	1750	1800	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.04	0.00	0.02	0.02	0.01	0.01	0.11	0.00	0.00	0.00
Crit Moves:	****				****		****				****	
Green Time:	21.6	21.6	21.6	0.0	12.4	12.4	7.0	10.0	31.6	7.0	10.0	0.0
Volume/Cap:	0.10	0.10	0.10	0.00	0.10	0.10	0.05	0.09	0.21	0.00	0.02	0.00
Delay/Veh:	12.9	12.9	12.9	0.0	19.4	19.4	23.6	21.3	7.7	23.4	20.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.9	12.9	12.9	0.0	19.4	19.4	23.6	21.3	7.7	23.4	20.9	0.0
LOS by Move:	B	B	B	A	B-	B-	C	C+	A	C	C+	A
HCM2kAvgQ:	1	1	1	0	1	1	0	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #8: Barber Ln & Bellew Dr

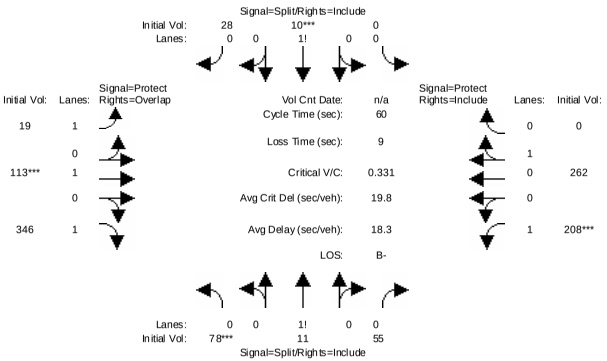



```
Street Name:            Barber Ln                       Bellew Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10   10    10   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Oct 2007 <<
Base Vol:      45   11    8     0   10   28    10   27  195     1    5    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   45   11    8     0   10   28    10   27  195     1    5    0
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:           33    0    0     0    0    0     9   18  151     0    3    0
Initial Fut:   78   11    8     0   10   28    19   45  346     1    8    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    78   11    8     0   10   28    19   45  346     1    8    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   78   11    8     0   10   28    19   45  346     1    8    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   78   11    8     0   10   28    19   45  346     1    8    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.92 0.92  0.92 0.95 0.95  0.92 1.00 0.92  0.92 0.95 0.92
Lanes:       0.81 0.11 0.08  0.00 0.26 0.74  1.00 1.00 1.00  1.00 1.00 0.00
Final Sat.:  1407  198  144     0  474 1326  1750 1900 1750  1750 1800    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.06 0.06  0.00 0.02 0.02  0.01 0.02 0.20  0.00 0.00 0.00
Crit Moves:  ****             ****             ****             ****
Green Time:  23.8 23.8 23.8   0.0 10.0 10.0   7.1 10.2 34.0   7.0 10.1  0.0
Volume/Cap:  0.14 0.14 0.14  0.00 0.13 0.13  0.09 0.14 0.35  0.00 0.03 0.00
Delay/Veh:   11.6 11.6 11.6   0.0 21.5 21.5  23.8 21.4  7.2  23.4 20.9  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  11.6 11.6 11.6   0.0 21.5 21.5  23.8 21.4  7.2  23.4 20.9  0.0
LOS by Move:   B+   B+   B+     A   C+   C+     C   C+    A     C   C+    A
HCM2kAvgQ:      1    1    1     0    1    1     0    1    4     0    0    0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #8: Barber Ln & Bellew Dr

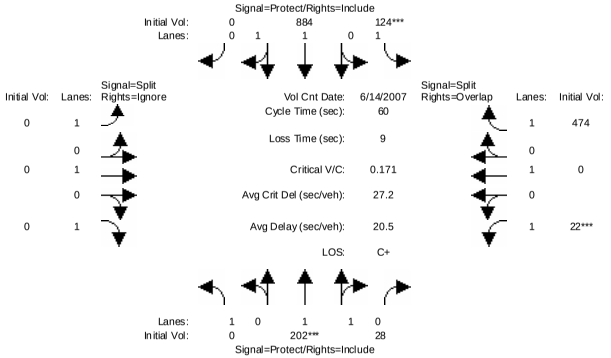



```
Street Name:            Barber Ln                       Bellew Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10   10    10   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      78   11    8     0   10   28    19   45  346     1    8    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   78   11    8     0   10   28    19   45  346     1    8    0
Added Vol:      0    0   47     0    0    0     0   68    0   207  254    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   78   11   55     0   10   28    19  113  346   208  262    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    78   11   55     0   10   28    19  113  346   208  262    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   78   11   55     0   10   28    19  113  346   208  262    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   78   11   55     0   10   28    19  113  346   208  262    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.92 0.92  0.92 0.95 0.95  0.92 1.00 0.92  0.92 0.95 0.92
Lanes:       0.54 0.08 0.38  0.00 0.26 0.74  1.00 1.00 1.00  1.00 1.00 0.00
Final Sat.:   948  134  668     0  474 1326  1750 1900 1750  1750 1800    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08 0.08  0.00 0.02 0.02  0.01 0.06 0.20  0.12 0.15 0.00
Crit Moves:  ****             ****             ****             ****
Green Time:  12.7 12.7 12.7   0.0 10.0 10.0  11.7 10.0 22.7  18.3 16.7  0.0
Volume/Cap:  0.39 0.39 0.39  0.00 0.13 0.13  0.06 0.36 0.52  0.39 0.52 0.00
Delay/Veh:   21.0 21.0 21.0   0.0 21.5 21.5  19.8 22.8 15.2  16.9 19.3  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  21.0 21.0 21.0   0.0 21.5 21.5  19.8 22.8 15.2  16.9 19.3  0.0
LOS by Move:   C+   C+   C+     A   C+   C+    B-   C+    B     B   B-    A
HCM2kAvgQ:      3    3    3     0    1    1     0    2    5     4    5    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #9: McCarthy Blvd. & Alder Dr.

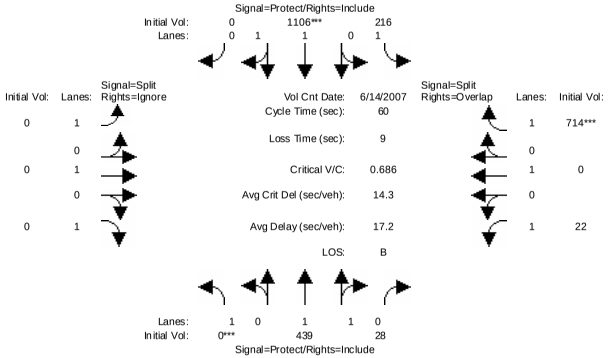



```
Street Name:          McCarthy Blvd.                    Alder Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0   10   10     7   10    0     0    0    0    10    0   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:       0  202   28   124  884    0     0    0    0    22    0  474
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0  202   28   124  884    0     0    0    0    22    0  474
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    0  202   28   124  884    0     0    0    0    22    0  474
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Volume:     0  202   28   124  884    0     0    0    0    22    0  474
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0  202   28   124  884    0     0    0    0    22    0  474
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
FinalVolume:    0  202   28   124  884    0     0    0    0    22    0  474
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.98 0.95  0.92 0.97 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 1.75 0.25  1.00 2.00 0.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:  1750 3249  450  1750 3700    0  1750 1900 1750  1750 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.06 0.06  0.07 0.24 0.00  0.00 0.00 0.00  0.01 0.00 0.27
Crit Moves:          ****          ****                     ****
Green Time:   0.0 10.0 10.0   7.0 17.0  0.0   0.0  0.0  0.0  54.0  0.0 61.0
Volume/Cap:  0.00 0.37 0.37  0.61 0.84 0.00  0.00 0.00 0.00  0.01 0.00 0.27
Delay/Veh:    0.0 23.9 23.9  37.9 28.5  0.0   0.0  0.0  0.0   0.3  0.0  0.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 23.9 23.9  37.9 28.5  0.0   0.0  0.0  0.0   0.3  0.0  0.4
LOS by Move:    A    C    C    D+    C    A     A    A    A     A    A    A
HCM2kAvgQ:      0    2    2     4   11    0     0    0    0     0    0    0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #9: McCarthy Blvd. & Alder Dr.

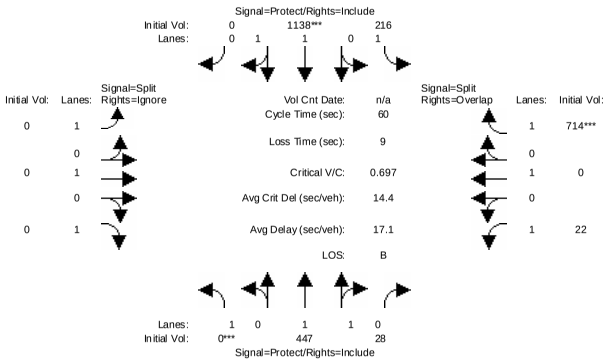



```
Street Name:          McCarthy Blvd.                    Alder Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0   10   10     7   10    0     0    0    0    10    0   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:       0  202   28   124  884    0     0    0    0    22    0  474
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0  202   28   124  884    0     0    0    0    22    0  474
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            0  237    0    92  222    0     0    0    0     0    0  240
Initial Fut:    0  439   28   216 1106    0     0    0    0    22    0  714
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Volume:     0  439   28   216 1106    0     0    0    0    22    0  714
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0  439   28   216 1106    0     0    0    0    22    0  714
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
FinalVolume:    0  439   28   216 1106    0     0    0    0    22    0  714
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.98 0.95  0.92 0.97 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 1.88 0.12  1.00 2.00 0.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:  1750 3478  222  1750 3700    0  1750 1900 1750  1750 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.13 0.13  0.12 0.30 0.00  0.00 0.00 0.00  0.01 0.00 0.41
Crit Moves:  ****                ****                     ****               ****
Green Time:   0.0 15.0 15.0  11.1 26.1  0.0   0.0  0.0  0.0  24.9  0.0 36.0
Volume/Cap:  0.00 0.50 0.50  0.67 0.69 0.00  0.00 0.00 0.00  0.03 0.00 0.68
Delay/Veh:    0.0 21.3 21.3  33.1 16.0  0.0   0.0  0.0  0.0  10.5  0.0 11.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 21.3 21.3  33.1 16.0  0.0   0.0  0.0  0.0  10.5  0.0 11.7
LOS by Move:    A   C+   C+    C-    B    A     A    A    A    B+    A   B+
HCM2kAvgQ:      0    4    4     5   10    0     0    0    0     0    0   10
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #9: McCarthy Blvd. & Alder Dr.



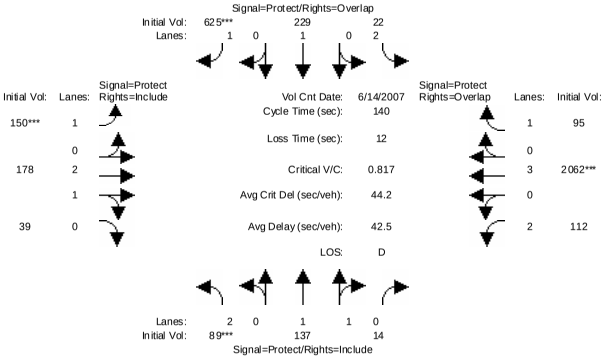
Street Name:	McCarthy Blvd.									Alder Dr.		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Volume Module:												
Base Vol:	0	439	28	216	1106	0	0	0	0	22	0	714
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	439	28	216	1106	0	0	0	0	22	0	714
Added Vol:	0	8	0	0	32	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	447	28	216	1138	0	0	0	0	22	0	714
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	447	28	216	1138	0	0	0	0	22	0	714
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	447	28	216	1138	0	0	0	0	22	0	714
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	447	28	216	1138	0	0	0	0	22	0	714
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.97	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.88	0.12	1.00	2.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	3482	218	1750	3700	0	1750	1900	1750	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.13	0.12	0.31	0.00	0.00	0.00	0.00	0.01	0.00	0.41
Crit Moves:	****				****							****
Green Time:	0.0	15.2	15.2	11.3	26.5	0.0	0.0	0.0	0.0	24.5	0.0	35.8
Volume/Cap:	0.00	0.51	0.51	0.66	0.70	0.00	0.00	0.00	0.00	0.03	0.00	0.68
Delay/Veh:	0.0	21.1	21.1	32.4	16.0	0.0	0.0	0.0	0.0	10.7	0.0	11.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	21.1	21.1	32.4	16.0	0.0	0.0	0.0	0.0	10.7	0.0	11.9
LOS by Move:	A	C+	C+	C-	B	A	A	A	A	B+	A	B+
HCM2kAvgQ:	0	4	4	5	10	0	0	0	0	0	0	10

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #10: McCarthy Blvd. & Tasman Dr.



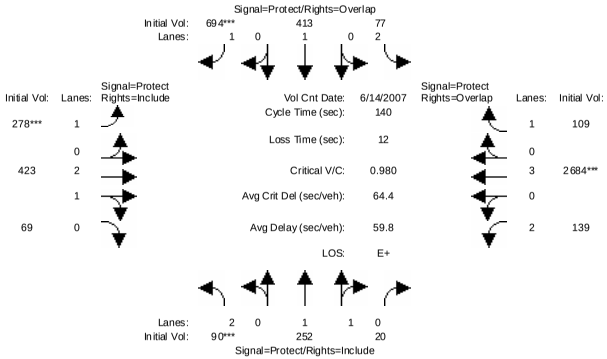
Street Name:	McCarthy Blvd.									Tasman Dr.		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 14 Jun 2007 <<												
Base Vol:	89	137	14	22	229	625	150	178	39	112	2062	95
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	137	14	22	229	625	150	178	39	112	2062	95
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	89	137	14	22	229	625	150	178	39	112	2062	95
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	137	14	22	229	625	150	178	39	112	2062	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	137	14	22	229	625	150	178	39	112	2062	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	89	137	14	22	229	625	150	178	39	112	2062	95
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	1.00	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	1.81	0.19	2.00	1.00	1.00	1.00	2.44	0.56	2.00	3.00	1.00
Final Sat.:	3150	3357	343	3150	1900	1750	1750	4592	1006	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.04	0.04	0.01	0.12	0.36	0.09	0.04	0.04	0.04	0.36	0.05
Crit Moves:	****					****	****				****	
Green Time:	7.0	31.0	31.0	21.7	45.7	60.1	14.4	44.3	44.3	31.0	60.9	82.6
Volume/Cap:	0.57	0.18	0.18	0.05	0.37	0.83	0.83	0.12	0.12	0.16	0.83	0.09
Delay/Veh:	78.9	44.7	44.7	50.5	37.8	45.9	95.6	34.2	34.2	44.5	38.5	12.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	78.9	44.7	44.7	50.5	37.8	45.9	95.6	34.2	34.2	44.5	38.5	12.6
LOS by Move:	E-	D	D	D	D+	D	F	C-	C-	D	D+	B
HCM2kAvgQ:	2	3	3	0	7	27	8	2	2	2	28	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #10: McCarthy Blvd. & Tasman Dr.



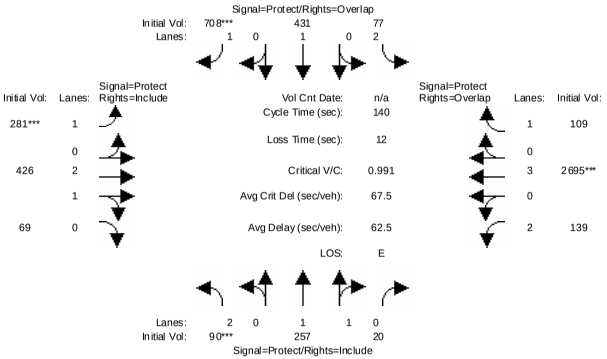
Street Name:	McCarthy Blvd.									Tasman Dr.		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 14 Jun 2007 <<												
Base Vol:	89	137	14	22	229	625	150	178	39	112	2062	95
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	137	14	22	229	625	150	178	39	112	2062	95
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	1	115	6	55	184	69	128	245	30	27	622	14
Initial Fut:	90	252	20	77	413	694	278	423	69	139	2684	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	252	20	77	413	694	278	423	69	139	2684	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	252	20	77	413	694	278	423	69	139	2684	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	252	20	77	413	694	278	423	69	139	2684	109
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	1.00	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	1.85	0.15	2.00	1.00	1.00	1.00	2.56	0.44	2.00	3.00	1.00
Final Sat.:	3150	3428	272	3150	1900	1750	1750	4814	785	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.02	0.22	0.40	0.16	0.09	0.09	0.04	0.47	0.06
Crit Moves:	****					****	****				****	
Green Time:	7.0	23.9	23.9	16.3	33.2	55.3	22.2	56.0	56.0	31.9	65.7	81.9
Volume/Cap:	0.57	0.43	0.43	0.21	0.92	1.00	1.00	0.22	0.22	0.19	1.00	0.11
Delay/Veh:	79.2	54.1	54.1	57.4	78.2	77.5	113.9	27.9	27.9	44.3	55.4	13.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	79.2	54.1	54.1	57.4	78.2	77.5	113.9	27.9	27.9	44.3	55.4	13.0
LOS by Move:	E-	D-	D-	E+	E-	E-	F	C	C	D	E+	B
HCM2kAvgQ:	2	5	5	2	21	39	17	5	5	3	44	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #10: McCarthy Blvd. & Tasman Dr.



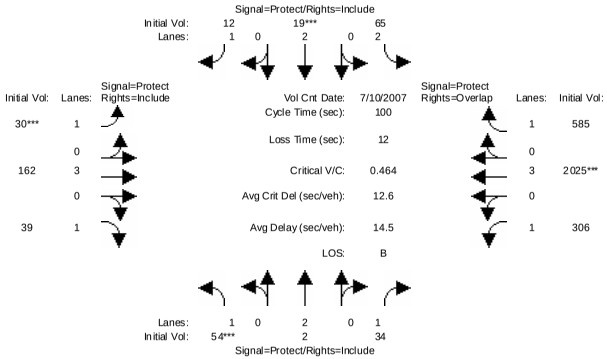
Street Name:	McCarthy Blvd.									Tasman Dr.		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	90	252	20	77	413	694	278	423	69	139	2684	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	252	20	77	413	694	278	423	69	139	2684	109
Added Vol:	0	5	0	0	18	14	3	3	0	0	11	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	257	20	77	431	708	281	426	69	139	2695	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	257	20	77	431	708	281	426	69	139	2695	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	257	20	77	431	708	281	426	69	139	2695	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	257	20	77	431	708	281	426	69	139	2695	109
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	1.00	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	1.85	0.15	2.00	1.00	1.00	1.00	2.57	0.43	2.00	3.00	1.00
Final Sat.:	3150	3433	267	3150	1900	1750	1750	4818	780	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.02	0.23	0.40	0.16	0.09	0.09	0.04	0.47	0.06
Crit Moves:	****					****	****				****	
Green Time:	7.0	24.4	24.4	16.3	33.7	55.8	22.1	55.8	55.8	31.6	65.2	81.5
Volume/Cap:	0.57	0.43	0.43	0.21	0.94	1.02	1.02	0.22	0.22	0.20	1.02	0.11
Delay/Veh:	79.2	53.7	53.7	57.3	82.4	80.0	116.9	28.0	28.0	44.6	58.7	13.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	79.2	53.7	53.7	57.3	82.4	80.0	116.9	28.0	28.0	44.6	58.7	13.3
LOS by Move:	E-	D-	D-	E+	F	F	F	C	C	D	E+	B
HCM2kAvgQ:	2	5	5	2	22	40	17	5	5	3	45	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #11: Tasman Dr. & Alder Dr.



Street Name:	Alder Dr.									Tasman Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R			
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10			
Volume Module: >> Count Date: 10 Jul 2007 <<															
Base Vol:	54	2	34	65	19	12	30	162	39	306	2025	585			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	54	2	34	65	19	12	30	162	39	306	2025	585			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	54	2	34	65	19	12	30	162	39	306	2025	585			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	54	2	34	65	19	12	30	162	39	306	2025	585			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	54	2	34	65	19	12	30	162	39	306	2025	585			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	54	2	34	65	19	12	30	162	39	306	2025	585			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92			
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00			
Final Sat.:	1750	3800	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750			
Capacity Analysis Module:															
Vol/Sat:	0.03	0.00	0.02	0.02	0.01	0.01	0.02	0.03	0.02	0.17	0.36	0.33			
Crit Moves:	****				****		****				****				
Green Time:	7.0	10.0	10.0	7.0	10.0	10.0	7.0	25.8	25.8	45.2	64.0	71.0			
Volume/Cap:	0.44	0.01	0.19	0.29	0.05	0.07	0.24	0.11	0.09	0.39	0.56	0.47			
Delay/Veh:	55.7	40.5	43.8	47.5	41.0	41.5	48.7	28.5	28.5	19.6	10.7	7.6			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	55.7	40.5	43.8	47.5	41.0	41.5	48.7	28.5	28.5	19.6	10.7	7.6			
LOS by Move:	E+	D	D	D	D	D	D	C	C	B-	B+	A			
HCM2kAvgQ:	2	0	1	1	0	0	1	1	1	7	12	9			

Note: Queue reported is the number of cars per lane.

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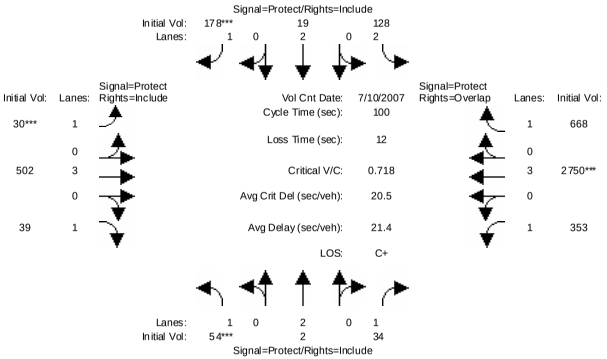
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #11: Tasman Dr. & Alder Dr.



Street Name:	Alder Dr.									Tasman Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R			
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10			
Volume Module: >> Count Date: 10 Jul 2007 <<															
Base Vol:	54	2	34	65	19	12	30	162	39	306	2025	585			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	54	2	34	65	19	12	30	162	39	306	2025	585			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
ATI:	0	0	0	63	0	166	0	340	0	47	725	83			
Initial Fut:	54	2	34	128	19	178	30	502	39	353	2750	668			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	54	2	34	128	19	178	30	502	39	353	2750	668			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	54	2	34	128	19	178	30	502	39	353	2750	668			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	54	2	34	128	19	178	30	502	39	353	2750	668			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92			
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00			
Final Sat.:	1750	3800	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750			
Capacity Analysis Module:															
Vol/Sat:	0.03	0.00	0.02	0.04	0.01	0.10	0.02	0.09	0.02	0.20	0.48	0.38			
Crit Moves:	****					****	****				****				
Green Time:	7.0	11.7	11.7	8.2	12.9	12.9	7.0	22.6	22.6	45.5	61.1	69.3			
Volume/Cap:	0.44	0.00	0.17	0.50	0.04	0.79	0.24	0.39	0.10	0.44	0.79	0.55			
Delay/Veh:	55.7	39.0	41.5	50.6	38.3	66.1	48.7	33.8	31.2	20.4	16.5	9.4			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	55.7	39.0	41.5	50.6	38.3	66.1	48.7	33.8	31.2	20.4	16.5	9.4			
LOS by Move:	E+	D	D	D	D+	E	D	C-	C	C+	B	A			
HCM2kAvgQ:	2	0	1	2	0	6	1	4	1	8	21	11			

Note: Queue reported is the number of cars per lane.

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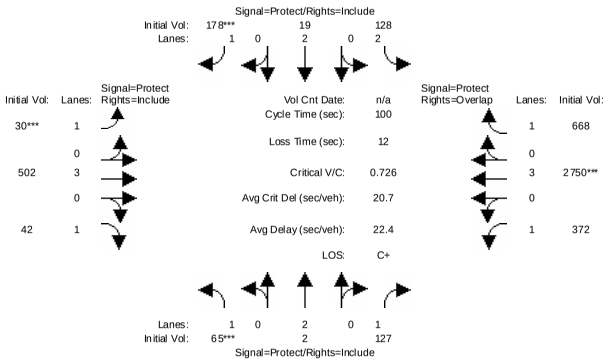
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #11: Tasman Dr. & Alder Dr.

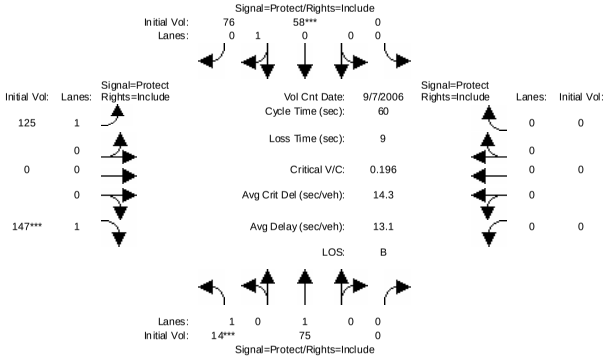



```
Street Name:            Alder Dr.                       Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10  10     7  10  10     7  10  10     7  10  10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      54   2  34   128  19 178    30 502  39   353 2750 668
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   54   2  34   128  19 178    30 502  39   353 2750 668
Added Vol:     11   0  93     0   0   0     0   0   3    19    0   0
PasserByVol:    0   0   0     0   0   0     0   0   0     0    0   0
Initial Fut:   65   2 127   128  19 178    30 502  42   372 2750 668
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    65   2 127   128  19 178    30 502  42   372 2750 668
Reduct Vol:     0   0   0     0   0   0     0   0   0     0    0   0
Reduced Vol:   65   2 127   128  19 178    30 502  42   372 2750 668
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   65   2 127   128  19 178    30 502  42   372 2750 668
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.92 1.00 0.92 0.83 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
Lanes:       1.00 2.00 1.00 2.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00
Final Sat.:  1750 3800 1750 3150 3800 1750 1750 5700 1750 1750 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.00 0.07 0.04 0.01 0.10 0.02 0.09 0.02 0.21 0.48 0.38
Crit Moves:  ****                 ****  ****                ****
Green Time:   7.0 11.7 11.7  8.2 12.9 12.9  7.0 21.8 21.8 46.3 61.1 69.3
Volume/Cap:  0.53 0.00 0.62 0.50 0.04 0.79 0.24 0.40 0.11 0.46 0.79 0.55
Delay/Veh:   60.4 39.0 55.4 50.6 38.3 66.1 48.7 34.5 31.9 20.2 16.5  9.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  60.4 39.0 55.4 50.6 38.3 66.1 48.7 34.5 31.9 20.2 16.5  9.4
LOS by Move:    E    D    E+    D   D+    E    D   C-    C   C+    B    A
HCM2kAvgQ:      2    0     4    2    0    6    1    4    1    8   21   11
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #12: Barber Ln / Alder Dr

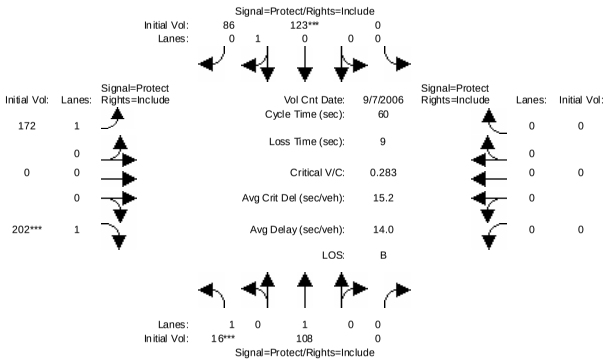



```
Street Name:            Barber Ln                       Alder Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10   0     0  10  10     7   0  10     0   0   0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 7 Sep 2006 <<
Base Vol:      14  75   0     0  58  76   125   0 147     0   0   0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   14  75   0     0  58  76   125   0 147     0   0   0
Added Vol:      0   0   0     0   0   0     0   0   0     0   0   0
PasserByVol:    0   0   0     0   0   0     0   0   0     0   0   0
Initial Fut:   14  75   0     0  58  76   125   0 147     0   0   0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    14  75   0     0  58  76   125   0 147     0   0   0
Reduct Vol:     0   0   0     0   0   0     0   0   0     0   0   0
Reduced Vol:   14  75   0     0  58  76   125   0 147     0   0   0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   14  75   0     0  58  76   125   0 147     0   0   0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.92 1.00 0.92 0.92 0.95 0.95 0.92 1.00 0.92 0.92 1.00 0.92
Lanes:       1.00 1.00 0.00 0.00 0.43 0.57 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.:  1750 1900    0    0  779 1021 1750    0 1750    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.04 0.00 0.00 0.07 0.07 0.07 0.00 0.08 0.00 0.00 0.00
Crit Moves:  ****                 ****                ****
Green Time:   7.0 27.7  0.0  0.0 20.7 20.7 23.3  0.0 23.3  0.0  0.0  0.0
Volume/Cap:  0.07 0.09 0.00 0.00 0.22 0.22 0.18 0.00 0.22 0.00 0.00 0.00
Delay/Veh:   24.2  9.3  0.0  0.0 14.7 14.7 12.7  0.0 13.0  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  24.2  9.3  0.0  0.0 14.7 14.7 12.7  0.0 13.0  0.0  0.0  0.0
LOS by Move:    C    A    A    A    B    B    B    A    B    A    A    A
HCM2kAvgQ:      0    1    0    0    2    2    2    0    2    0    0    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #12: Barber Ln / Alder Dr

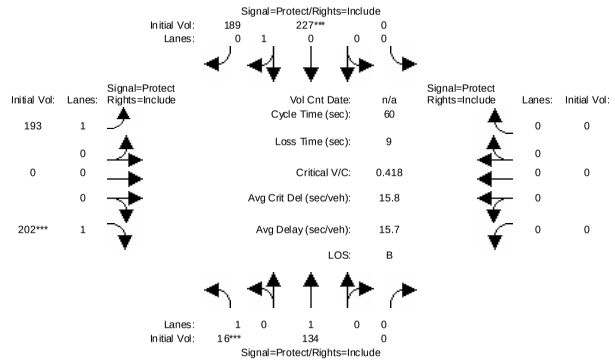



```
Street Name:            Barber Ln                          Alder Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10   0     0  10  10     7   0  10     0   0   0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 7 Sep 2006 <<
Base Vol:      14  75   0     0  58  76   125   0 147     0   0   0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   14  75   0     0  58  76   125   0 147     0   0   0
Added Vol:      0   0   0     0   0   0     0   0   0     0   0   0
ATI:            2  33   0     0  65  10    47   0  55     0   0   0
Initial Fut:   16 108   0     0 123  86   172   0 202     0   0   0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    16 108   0     0 123  86   172   0 202     0   0   0
Reduct Vol:     0   0   0     0   0   0     0   0   0     0   0   0
Reduced Vol:   16 108   0     0 123  86   172   0 202     0   0   0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   16 108   0     0 123  86   172   0 202     0   0   0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900 1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 0.95 0.95 0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 1.00 0.00  0.00 0.59 0.41 1.00 0.00 1.00  0.00 0.00 0.00
Final Sat.:  1750 1900    0     0 1059  741 1750    0 1750     0   0   0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.06 0.00  0.00 0.12 0.12 0.10 0.00 0.12  0.00 0.00 0.00
Crit Moves:  ****              ****              ****
Green Time:   7.0 29.1  0.0   0.0 22.1 22.1 21.9  0.0 21.9   0.0  0.0  0.0
Volume/Cap:  0.08 0.12 0.00  0.00 0.32 0.32 0.27 0.00 0.32  0.00 0.00 0.00
Delay/Veh:   24.4  8.7  0.0   0.0 14.8 14.8 14.4  0.0 14.9   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  24.4  8.7  0.0   0.0 14.8 14.8 14.4  0.0 14.9   0.0  0.0  0.0
LOS by Move:    C    A    A     A    B    B    B    A    B     A    A    A
HCM2kAvgQ:      0    1    0     0    3    3    2    0    3     0    0    0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #12: Barber Ln / Alder Dr

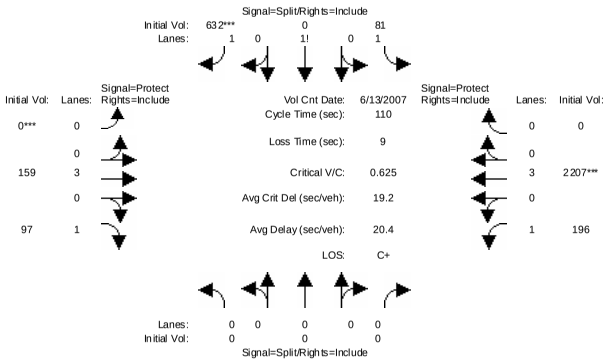



```
Street Name:            Barber Ln                          Alder Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10   0     0  10  10     7   0  10     0   0   0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      16 108   0     0 123  86   172   0 202     0   0   0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   16 108   0     0 123  86   172   0 202     0   0   0
Added Vol:      0  26   0     0 104 103    21   0   0     0   0   0
PasserByVol:    0   0   0     0   0   0     0   0   0     0   0   0
Initial Fut:   16 134   0     0 227 189   193   0 202     0   0   0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    16 134   0     0 227 189   193   0 202     0   0   0
Reduct Vol:     0   0   0     0   0   0     0   0   0     0   0   0
Reduced Vol:   16 134   0     0 227 189   193   0 202     0   0   0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   16 134   0     0 227 189   193   0 202     0   0   0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900 1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 0.95 0.95 0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 1.00 0.00  0.00 0.55 0.45 1.00 0.00 1.00  0.00 0.00 0.00
Final Sat.:  1750 1900    0     0  982 818 1750    0 1750     0   0   0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.07 0.00  0.00 0.23 0.23 0.11 0.00 0.12  0.00 0.00 0.00
Crit Moves:  ****              ****              ****
Green Time:   7.0 36.3  0.0   0.0 29.3 29.3 14.7  0.0 14.7   0.0  0.0  0.0
Volume/Cap:  0.08 0.12 0.00  0.00 0.47 0.47 0.45 0.00 0.47  0.00 0.00 0.00
Delay/Veh:   24.4  5.2  0.0   0.0 12.0 12.0 22.7  0.0 23.1   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  24.4  5.2  0.0   0.0 12.0 12.0 22.7  0.0 23.1   0.0  0.0  0.0
LOS by Move:    C    A    A     A    B    B   C+    A    C     A    A    A
HCM2kAvgQ:      0    1    0     0    6    6    3    0    4     0    0    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #13: Tasman Dr. & I-880 SB Ramps

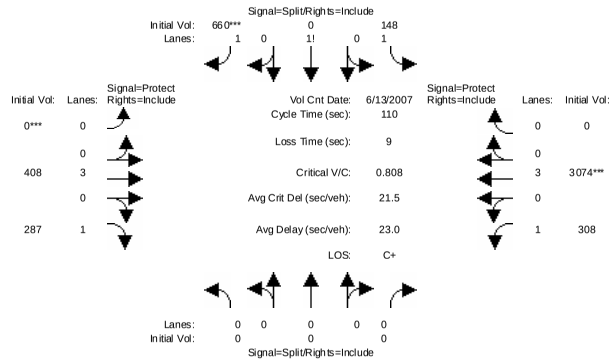



```
Street Name:          I-880 SB Ramps                    Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0    10    0    10     7   10     0     7   10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:       0    0     0    81    0   632     0  159    97   196 2207     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0    81    0   632     0  159    97   196 2207     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0    81    0   632     0  159    97   196 2207     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0    0     0    81    0   632     0  159    97   196 2207     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0    81    0   632     0  159    97   196 2207     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0    0     0    81    0   632     0  159    97   196 2207     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 1.00  0.95  0.92 1.00  0.92  0.92 1.00  0.92
Lanes:       0.00 0.00  0.00  1.12 0.00  1.88  0.00 3.00  1.00  1.00 3.00  0.00
Final Sat.:     0    0     0  1954    0  3390     0 5700  1750  1750 5700     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.04 0.00  0.19  0.00 0.03  0.06  0.11 0.39  0.00
Crit Moves:                                ****  ****                ****
Green Time:   0.0  0.0   0.0  32.8  0.0  32.8   0.0 30.5  30.5  37.6 68.2   0.0
Volume/Cap:  0.00 0.00  0.00  0.14 0.00  0.62  0.00 0.10  0.20  0.33 0.62  0.00
Delay/Veh:    0.0  0.0   0.0  28.3  0.0  35.9   0.0 29.6  31.3  28.3 13.8   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  28.3  0.0  35.9   0.0 29.6  31.3  28.3 13.8   0.0
LOS by Move:    A    A     A     C    A    D+     A    C     C     C    B     A
HCM2kAvgQ:      0    0     0     2    0    11     0    1     3     5   16     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #13: Tasman Dr. & I-880 SB Ramps

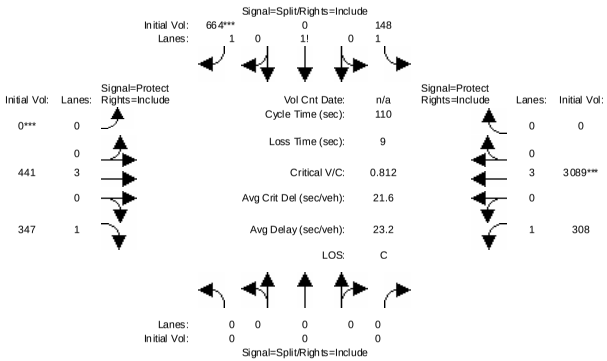



```
Street Name:          I-880 SB Ramps                    Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0    10    0    10     7   10     0     7   10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:       0    0     0    81    0   632     0  159    97   196 2207     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0    81    0   632     0  159    97   196 2207     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
ATI:            0    0     0    67    0    28     0  249   190   112  867     0
Initial Fut:    0    0     0   148    0   660     0  408   287   308 3074     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0    0     0   148    0   660     0  408   287   308 3074     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   148    0   660     0  408   287   308 3074     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0    0     0   148    0   660     0  408   287   308 3074     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 1.00  0.95  0.92 1.00  0.92  0.92 1.00  0.92
Lanes:       0.00 0.00  0.00  1.19 0.00  1.81  0.00 3.00  1.00  1.00 3.00  0.00
Final Sat.:     0    0     0  2078    0  3263     0 5700  1750  1750 5700     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.07 0.00  0.20  0.00 0.07  0.16  0.18 0.54  0.00
Crit Moves:                                ****  ****                ****
Green Time:   0.0  0.0   0.0  27.6  0.0  27.6   0.0 35.4  35.4  38.0 73.4   0.0
Volume/Cap:  0.00 0.00  0.00  0.28 0.00  0.81  0.00 0.22  0.51  0.51 0.81  0.00
Delay/Veh:    0.0  0.0   0.0  33.5  0.0  45.7   0.0 27.5  33.5  31.6 15.1   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  33.5  0.0  45.7   0.0 27.5  33.5  31.6 15.1   0.0
LOS by Move:    A    A     A    C-    A     D     A    C    C-     C    B     A
HCM2kAvgQ:      0    0     0     4    0    14     0    3     9     8   23     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #13: Tasman Dr. & I-880 SB Ramps

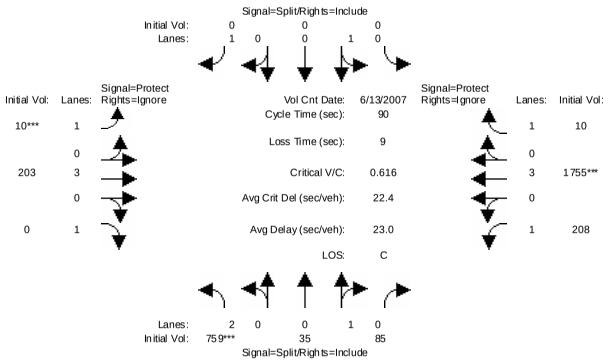



```
Street Name:          I-880 SB Ramps                    Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     7    10     0     7    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0     0     0   148     0   660     0   408   287   308  3074     0
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   148     0   660     0   408   287   308  3074     0
Added Vol:      0     0     0     0     0     4     0    33    60     0    15     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:    0     0     0   148     0   664     0   441   347   308  3089     0
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:     0     0     0   148     0   664     0   441   347   308  3089     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   148     0   664     0   441   347   308  3089     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
FinalVolume:    0     0     0   148     0   664     0   441   347   308  3089     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.92  1.00  0.95  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       0.00  0.00  0.00  1.19  0.00  1.81  0.00  3.00  1.00  1.00  3.00  0.00
Final Sat.:     0     0     0  2076     0  3264     0  5700  1750  1750  5700     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.07  0.00  0.20  0.00  0.08  0.20  0.18  0.54  0.00
Crit Moves:                                 ****  ****                    ****
Green Time:   0.0   0.0   0.0  27.6   0.0  27.6   0.0  38.9  38.9  34.5  73.4   0.0
Volume/Cap:  0.00  0.00  0.00  0.28  0.00  0.81  0.00  0.22  0.56  0.56  0.81  0.00
Delay/Veh:    0.0   0.0   0.0  33.5   0.0  45.9   0.0  25.2  32.3  35.5  15.3   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0  33.5   0.0  45.9   0.0  25.2  32.3  35.5  15.3   0.0
LOS by Move:    A     A     A    C-     A     D     A     C    C-    D+     B     A
HCM2kAvgQ:      0     0     0     4     0    14     0     3    10     9    23     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #14: Great Mall Pkwy. & I-880 NB Ramps

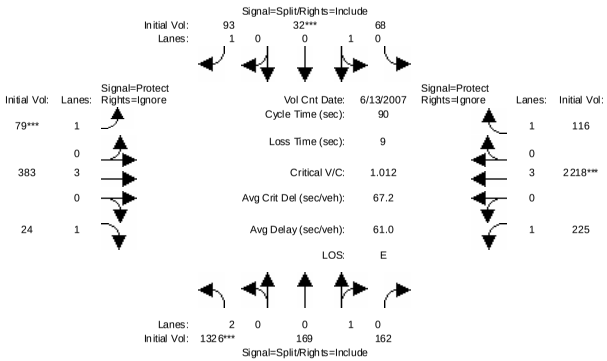



```
Street Name:          I-880 NB Ramps                    Great Mall Pkwy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10    10    10    10    10    10     7    10    10     7    10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:     759    35    85     0     0     0    10   203     0   208  1755    10
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:  759    35    85     0     0     0    10   203     0   208  1755    10
Added Vol:      0     0     0     0     0     0     0     0     0     0     0     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:  759    35    85     0     0     0    10   203     0   208  1755    10
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:   759    35    85     0     0     0    10   203     0   208  1755     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:  759    35    85     0     0     0    10   203     0   208  1755     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:  759    35    85     0     0     0    10   203     0   208  1755     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.83  0.95  0.95  0.95  0.95  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       2.00  0.29  0.71  0.00  1.00  1.00  1.00  3.00  1.00  1.00  3.00  1.00
Final Sat.:  3150   525  1275     0  1800  1750  1750  5700  1750  1750  5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.24  0.07  0.07  0.00  0.00  0.00  0.01  0.04  0.00  0.12  0.31  0.00
Crit Moves:  ****                                ****                    ****
Green Time:  32.5  32.5  32.5   0.0   0.0   0.0   7.0  23.4   0.0  25.1  41.5   0.0
Volume/Cap:  0.67  0.18  0.18  0.00  0.00  0.00  0.07  0.14  0.00  0.43  0.67  0.00
Delay/Veh:   27.3  20.3  20.3   0.0   0.0   0.0  39.5  25.7   0.0  29.3  20.2   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:  27.3  20.3  20.3   0.0   0.0   0.0  39.5  25.7   0.0  29.3  20.2   0.0
LOS by Move:   C    C+    C+     A     A     A     D     C     A     C    C+     A
HCM2kAvgQ:    12     2     2     0     0     0     0     1     0     5    13     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #14: Great Mall Pkwy. & I-880 NB Ramps

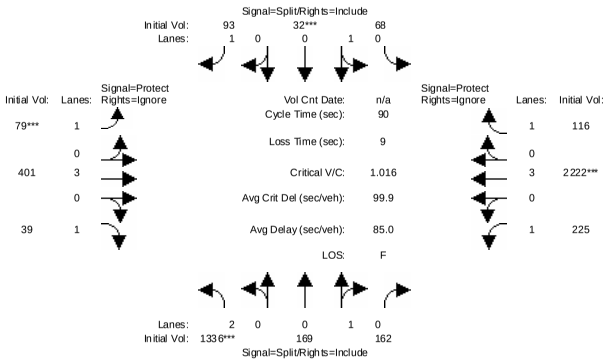



```
Street Name:          I-880 NB Ramps                    Great Mall Pkwy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10   10    10   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:     759   35   85     0    0    0    10  203    0   208 1755   10
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  759   35   85     0    0    0    10  203    0   208 1755   10
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:          567  134   77    68   32   93    69  180   24    17  463  106
Initial Fut: 1326  169  162    68   32   93    79  383   24   225 2218  116
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Volume:  1326  169  162    68   32   93    79  383    0   225 2218    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 1326  169  162    68   32   93    79  383    0   225 2218    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
FinalVolume: 1326  169  162    68   32   93    79  383    0   225 2218    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 0.95 0.95  0.95 0.95 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       2.00 0.51 0.49  0.68 0.32 1.00  1.00 3.00 1.00  1.00 3.00 1.00
Final Sat.:  3150  919  881  1224  576 1750  1750 5700 1750  1750 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.42 0.18 0.18  0.06 0.06 0.05  0.05 0.07 0.00  0.13 0.39 0.00
Crit Moves:  ****             ****      ****                   ****
Green Time:  36.0 36.0 36.0   4.7  4.7  4.7   7.0 18.7  0.0  21.6 33.3  0.0
Volume/Cap:  1.05 0.46 0.46  1.05 1.05 1.01  0.58 0.32 0.00  0.54 1.05 0.00
Delay/Veh:   67.5 22.0 22.0 150.0  150 138.2  56.9 31.0  0.0  34.7 63.6  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  67.5 22.0 22.0 150.0  150 138.2  56.9 31.0  0.0  34.7 63.6  0.0
LOS by Move:    E   C+   C+     F    F    F    E+    C    A    C-    E    A
HCM2kAvgQ:     33    7    7     7    7    6     2    3    0     6   26    0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #14: Great Mall Pkwy. & I-880 NB Ramps

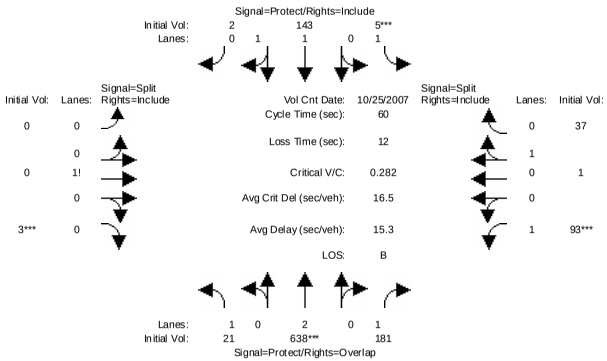



```
Street Name:          I-880 NB Ramps                    Great Mall Pkwy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10   10    10   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:    1326  169  162    68   32   93    79  383   24   225 2218  116
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 1326  169  162    68   32   93    79  383   24   225 2218  116
Added Vol:     10    0    0     0    0    0     0   18   15     0    4    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut: 1336  169  162    68   32   93    79  401   39   225 2222  116
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Volume:  1336  169  162    68   32   93    79  401    0   225 2222    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 1336  169  162    68   32   93    79  401    0   225 2222    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
FinalVolume: 1336  169  162    68   32   93    79  401    0   225 2222    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 0.95 0.95  0.95 0.95 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       2.00 0.51 0.49  0.68 0.32 1.00  1.00 3.00 1.00  1.00 3.00 1.00
Final Sat.:  3150  919  881  1224  576 1750  1750 5700 1750  1750 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.42 0.18 0.18  0.06 0.06 0.05  0.05 0.07 0.00  0.13 0.39 0.00
Crit Moves:  ****             ****      ****                   ****
Green Time:  33.3 33.3 33.3  10.0 10.0 10.0   7.0 17.5  0.0  20.2 30.7  0.0
Volume/Cap:  1.14 0.50 0.50  0.50 0.50 0.48  0.58 0.36 0.00  0.57 1.14 0.00
Delay/Veh:  103.9 24.5 24.5  46.3 46.3 45.8  56.9 32.4  0.0  37.0  101  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 103.9 24.5 24.5  46.3 46.3 45.8  56.9 32.4  0.0  37.0  101  0.0
LOS by Move:    F    C    C     D    D    D    E+   C-    A    D+    F    A
HCM2kAvgQ:     38    8    8     3    3    3     2    3    0     6   32    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #15: McCarthy Blvd / Barber Ln

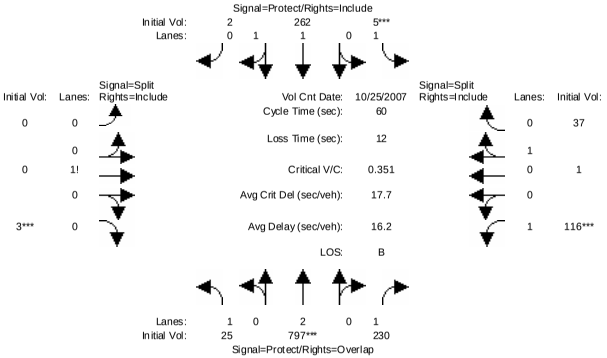



```
Street Name:          McCarthy Blvd                          Barber Ln.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10    10   10   10    10   10   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Oct 2007 <<
Base Vol:      21  638  181     5  143    2     0    0    3    93    1   37
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   21  638  181     5  143    2     0    0    3    93    1   37
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   21  638  181     5  143    2     0    0    3    93    1   37
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    21  638  181     5  143    2     0    0    3    93    1   37
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   21  638  181     5  143    2     0    0    3    93    1   37
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   21  638  181     5  143    2     0    0    3    93    1   37
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 0.97 0.95  0.92 1.00 0.92  0.92 0.95 0.95
Lanes:       1.00 2.00 1.00  1.00 1.97 0.03  0.00 0.00 1.00  1.00 0.03 0.97
Final Sat.:  1750 3800 1750  1750 3649   51     0    0 1750  1750   47 1753
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.17 0.10  0.00 0.04 0.04  0.00 0.00 0.00  0.05 0.02 0.02
Crit Moves:       ****       ****                    ****  ****
Green Time:  11.5 21.0 31.0   7.0 16.5 16.5   0.0  0.0 10.0  10.0 10.0 10.0
Volume/Cap:  0.06 0.48 0.20  0.02 0.14 0.14  0.00 0.00 0.01  0.32 0.13 0.13
Delay/Veh:   19.9 15.5  7.9  23.5 16.5 16.5   0.0  0.0 20.9  22.6 21.5 21.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  19.9 15.5  7.9  23.5 16.5 16.5   0.0  0.0 20.9  22.6 21.5 21.5
LOS by Move:   B-    B    A    C    B    B     A    A   C+    C+   C+   C+
HCM2kAvgQ:      0    4    2    0    1    1     0    0    0     2    1    1
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #15: McCarthy Blvd / Barber Ln

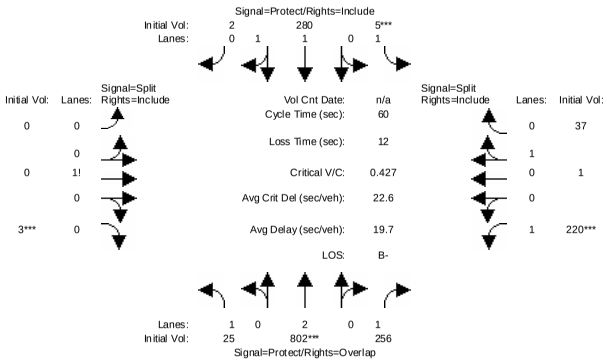



```
Street Name:          McCarthy Blvd                          Barber Ln.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10    10   10   10    10   10   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Oct 2007 <<
Base Vol:      21  638  181     5  143    2     0    0    3    93    1   37
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   21  638  181     5  143    2     0    0    3    93    1   37
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            4  159   49     0  119    0     0    0    0    23    0    0
Initial Fut:   25  797  230     5  262    2     0    0    3   116    1   37
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    25  797  230     5  262    2     0    0    3   116    1   37
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   25  797  230     5  262    2     0    0    3   116    1   37
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   25  797  230     5  262    2     0    0    3   116    1   37
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 0.97 0.95  0.92 1.00 0.92  0.92 0.95 0.95
Lanes:       1.00 2.00 1.00  1.00 1.98 0.02  0.00 0.00 1.00  1.00 0.03 0.97
Final Sat.:  1750 3800 1750  1750 3672   28     0    0 1750  1750   47 1753
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.21 0.13  0.00 0.07 0.07  0.00 0.00 0.00  0.07 0.02 0.02
Crit Moves:       ****       ****                    ****  ****
Green Time:  11.5 21.0 31.0   7.0 16.5 16.5   0.0  0.0 10.0  10.0 10.0 10.0
Volume/Cap:  0.07 0.60 0.25  0.02 0.26 0.26  0.00 0.00 0.01  0.40 0.13 0.13
Delay/Veh:   20.0 16.8  8.2  23.5 17.1 17.1   0.0  0.0 20.9  23.2 21.5 21.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  20.0 16.8  8.2  23.5 17.1 17.1   0.0  0.0 20.9  23.2 21.5 21.5
LOS by Move:   B-    B    A    C    B    B     A    A   C+     C   C+   C+
HCM2kAvgQ:      0    6    2    0    2    2     0    0    0     2    1    1
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #15: McCarthy Blvd / Barber Ln



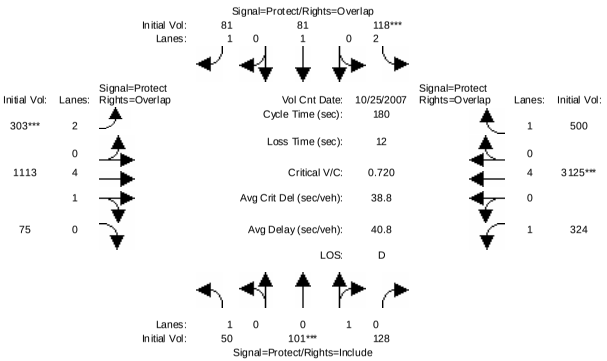
Street Name:	McCarthy Blvd						Barber Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Volume Module:												
Base Vol:	25	797	230	5	262	2	0	0	3	116	1	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	797	230	5	262	2	0	0	3	116	1	37
Added Vol:	0	5	26	0	18	0	0	0	0	104	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	802	256	5	280	2	0	0	3	220	1	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	25	802	256	5	280	2	0	0	3	220	1	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	802	256	5	280	2	0	0	3	220	1	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	25	802	256	5	280	2	0	0	3	220	1	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.97	0.95	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.00	0.00	1.00	1.00	0.03	0.97
Final Sat.:	1750	3800	1750	1750	3674	26	0	0	1750	1750	47	1753
Capacity Analysis Module:												
Vol/Sat:	0.01	0.21	0.15	0.00	0.08	0.08	0.00	0.00	0.00	0.13	0.02	0.02
Crit Moves:		****		****					****	****		
Green Time:	10.9	19.4	31.0	7.0	15.5	15.5	0.0	0.0	10.0	11.6	11.6	11.6
Volume/Cap:	0.08	0.65	0.28	0.02	0.29	0.29	0.00	0.00	0.01	0.65	0.11	0.11
Delay/Veh:	20.9	20.1	9.0	23.7	18.6	18.6	0.0	0.0	20.9	31.8	20.6	20.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.9	20.1	9.0	23.7	18.6	18.6	0.0	0.0	20.9	31.8	20.6	20.6
LOS by Move:	C+	C+	A	C	B-	B-	A	A	C+	C	C+	C+
HCM2kAvgQ:	0	6	3	0	2	2	0	0	0	4	1	1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #16: McCarthy Blvd. / Montague Expy. [CMP]



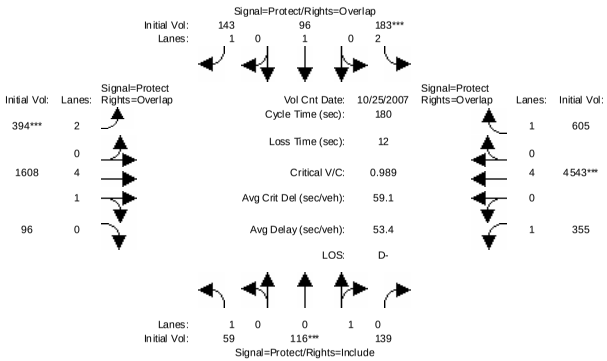
Street Name:	McCarthy Blvd.						Montague Expy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 25 Oct 2007 <<												
Base Vol:	50	101	128	118	81	81	303	1113	75	324	3125	500
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	101	128	118	81	81	303	1113	75	324	3125	500
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	101	128	118	81	81	303	1113	75	324	3125	500
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	101	128	118	81	81	303	1113	75	324	3125	500
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	101	128	118	81	81	303	1113	75	324	3125	500
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	101	128	118	81	81	303	1113	75	324	3125	500
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	0.44	0.56	2.00	1.00	1.00	2.00	4.67	0.33	1.00	4.00	1.00
Final Sat.:	1750	794	1006	3150	1900	1750	3150	8805	593	1750	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.13	0.04	0.04	0.05	0.10	0.13	0.13	0.19	0.41	0.29
Crit Moves:		****		****			****				****	
Green Time:	17.0	31.8	31.8	9.4	24.2	48.3	24.0	51.5	68.4	75.4	103	112.2
Volume/Cap:	0.30	0.72	0.72	0.72	0.32	0.17	0.72	0.44	0.33	0.44	0.72	0.46
Delay/Veh:	82.3	87.7	87.7	101.5	78.4	63.1	80.7	52.7	39.6	37.7	28.7	18.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	82.3	87.7	87.7	101.5	78.4	63.1	80.7	52.7	39.6	37.7	28.7	18.2
LOS by Move:	F	F	F	F	E-	E	F	D-	D	D+	C	B-
HCM2kAvgQ:	3	14	14	4	4	4	10	11	10	13	31	15

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #16: McCarthy Blvd. / Montague Expy. [CMP]

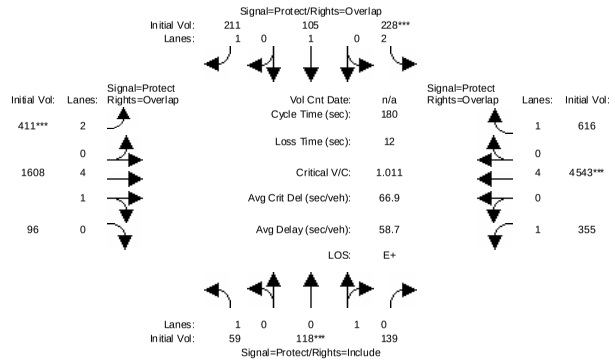



```
Street Name:          McCarthy Blvd.                    Montague Expy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Oct 2007 <<
Base Vol:      50  101  128   118   81   81   303 1113   75   324 3125  500
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   50  101  128   118   81   81   303 1113   75   324 3125  500
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            9   15   11    65   15   62    91  495   21    31 1418  105
Initial Fut:   59  116  139   183   96  143   394 1608   96   355 4543  605
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    59  116  139   183   96  143   394 1608   96   355 4543  605
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   59  116  139   183   96  143   394 1608   96   355 4543  605
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   59  116  139   183   96  143   394 1608   96   355 4543  605
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.95 0.95  0.83 1.00 0.92  0.83 0.99 0.95  0.92 1.00 0.92
Lanes:       1.00 0.45 0.55  2.00 1.00 1.00  2.00 4.71 0.29  1.00 4.00 1.00
Final Sat.:  1750  819  981  3150 1900 1750  3150 8869  530  1750 7600 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.14 0.14  0.06 0.05 0.08  0.13 0.18 0.18  0.20 0.60 0.35
Crit Moves:          ****          ****          ****          ****
Green Time:  15.0 25.8 25.8  10.6 21.4 44.2  22.8 62.1 77.1  69.5  109 119.4
Volume/Cap:  0.41 0.99 0.99  0.99 0.43 0.33  0.99 0.53 0.42  0.53 0.99 0.52
Delay/Veh:   84.9  138 138.2 150.8 81.5 68.4 120.4 47.3 36.0  43.3 45.7 16.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  84.9  138 138.2 150.8 81.5 68.4 120.4 47.3 36.0  43.3 45.7 16.0
LOS by Move:    F    F    F     F    F    E     F    D   D+     D    D    B
HCM2kAvgQ:      4   19   19     7    5    8    15   16   15    16   66   18
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #16: McCarthy Blvd. / Montague Expy. [CMP]

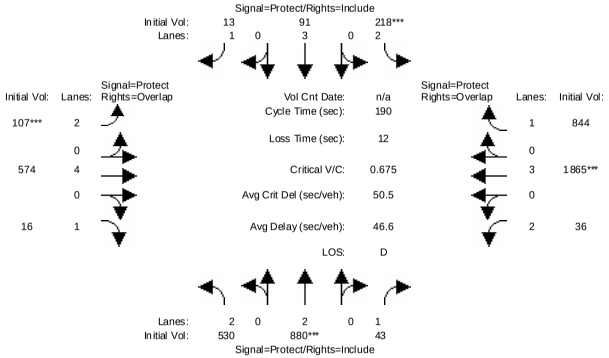



```
Street Name:          McCarthy Blvd.                    Montague Expy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      59  116  139   183   96  143   394 1608   96   355 4543  605
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   59  116  139   183   96  143   394 1608   96   355 4543  605
Added Vol:      0    2    0    45    9   68    17    0    0     0    0   11
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   59  118  139   228  105  211   411 1608   96   355 4543  616
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    59  118  139   228  105  211   411 1608   96   355 4543  616
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   59  118  139   228  105  211   411 1608   96   355 4543  616
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   59  118  139   228  105  211   411 1608   96   355 4543  616
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.95 0.95  0.83 1.00 0.92  0.83 0.99 0.95  0.92 1.00 0.92
Lanes:       1.00 0.46 0.54  2.00 1.00 1.00  2.00 4.71 0.29  1.00 4.00 1.00
Final Sat.:  1750  826  974  3150 1900 1750  3150 8869  530  1750 7600 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.14 0.14  0.07 0.06 0.12  0.13 0.18 0.18  0.20 0.60 0.35
Crit Moves:          ****          ****          ****          ****
Green Time:  15.8 25.4 25.4  12.9 22.5 45.8  23.2 61.2 77.0  68.5  106 119.3
Volume/Cap:  0.38 1.01 1.01  1.01 0.44 0.47  1.01 0.53 0.42  0.53 1.01 0.53
Delay/Veh:   84.1  145 145.0 150.6 81.2 70.6 125.7 48.1 36.1  44.2 52.9 16.2
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  84.1  145 145.0 150.6 81.2 70.6 125.7 48.1 36.1  44.2 52.9 16.2
LOS by Move:    F    F    F     F    F    E     F    D   D+     D   D-    B
HCM2kAvgQ:      4   20   20     9    5   12    16   16   15    16   69   18
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #17: Montague Expy. / Great Mall Pkwy./Capitol Ave. [CMP]



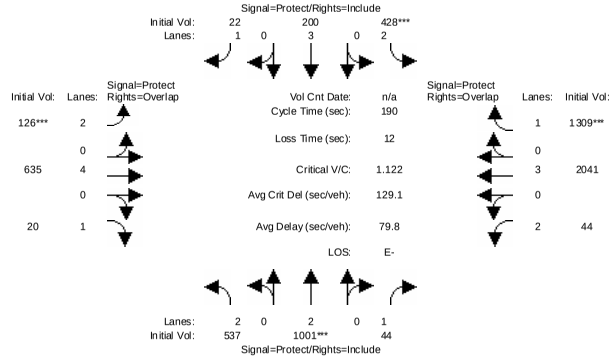
Street Name:	Great Mall Pkwy./Capitol Ave.						Montague Expy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	95	10	7	95	10
Volume Module:												
Base Vol:	530	880	43	218	91	13	107	574	16	36	1865	844
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	530	880	43	218	91	13	107	574	16	36	1865	844
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	530	880	43	218	91	13	107	574	16	36	1865	844
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	530	880	43	218	91	13	107	574	16	36	1697	844
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	530	880	43	218	91	13	107	574	16	36	1697	844
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	530	880	43	218	91	13	107	574	16	36	1697	844
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	3.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	5700	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.17	0.23	0.02	0.07	0.02	0.01	0.03	0.08	0.01	0.01	0.30	0.48
Crit Moves:		****		****			****				****	
Green Time:	56.8	57.4	57.4	17.2	17.8	17.8	8.4	96.3	153.1	7.1	95.0	112.2
Volume/Cap:	0.56	0.77	0.08	0.77	0.17	0.08	0.77	0.15	0.01	0.31	0.60	0.82
Delay/Veh:	56.9	63.4	47.5	96.3	79.5	78.9	111.9	25.0	3.6	90.5	34.2	36.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.9	63.4	47.5	96.3	79.5	78.9	111.9	25.0	3.6	90.5	34.2	36.0
LOS by Move:	E+	E	D	F	E-	E-	F	C	A	F	C-	D+
HCM2kAvgQ:	15	23	2	8	2	1	4	4	0	1	23	43

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #17: Montague Expy. / Great Mall Pkwy./Capitol Ave. [CMP]



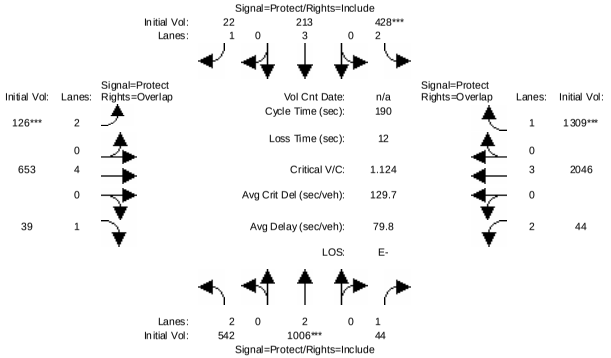
Street Name:	Great Mall Pkwy./Capitol Ave.						Montague Expy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	95	10	7	95	10
Volume Module:												
Base Vol:	530	880	43	218	91	13	107	574	16	36	1865	844
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	530	880	43	218	91	13	107	574	16	36	1865	844
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	7	121	1	210	109	9	19	61	4	8	176	465
Initial Fut:	537	1001	44	428	200	22	126	635	20	44	2041	1309
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	537	1001	44	428	200	22	126	635	20	44	1857	1309
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	537	1001	44	428	200	22	126	635	20	44	1857	1309
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	537	1001	44	428	200	22	126	635	20	44	1857	1309
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	3.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	5700	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.17	0.26	0.03	0.14	0.04	0.01	0.04	0.08	0.01	0.01	0.33	0.75
Crit Moves:		****		****			****					****
Green Time:	51.6	44.5	44.5	23.0	15.9	15.9	7.0	103	154.5	7.6	103	126.5
Volume/Cap:	0.63	1.12	0.11	1.12	0.42	0.15	1.09	0.15	0.01	0.35	0.60	1.12
Delay/Veh:	62.3	143	57.2	167.6	83.2	81.2	199.9	21.8	3.4	90.5	29.5	99.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.3	143	57.2	167.6	83.2	81.2	199.9	21.8	3.4	90.5	29.5	99.1
LOS by Move:	E	F	E+	F	F	F	F	C+	A	F	C	F
HCM2kAvgQ:	16	37	2	20	4	1	6	4	0	1	24	103

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #17: Montague Expy. / Great Mall Pkwy./Capitol Ave. [CMP]

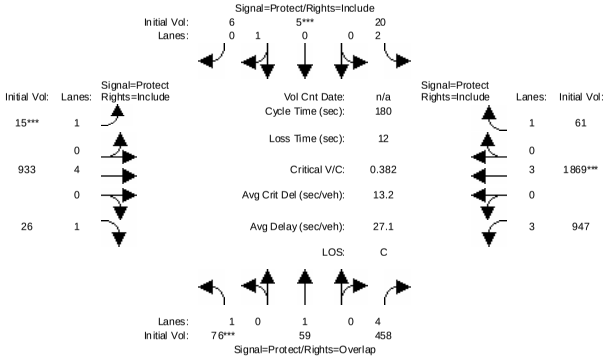



```
Street Name:  Great Mall Pkwy./Capitol Ave.            Montague Expy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   95   10     7   95   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     537 1001   44   428  200   22   126  635   20    44 2041 1309
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  537 1001   44   428  200   22   126  635   20    44 2041 1309
Added Vol:      5    5    0     0   13    0     0   18   19     0    5    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  542 1006   44   428  213   22   126  653   39    44 2046 1309
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.91 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   542 1006   44   428  213   22   126  653   39    44 1862 1309
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  542 1006   44   428  213   22   126  653   39    44 1862 1309
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  542 1006   44   428  213   22   126  653   39    44 1862 1309
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       2.00 2.00 1.00  2.00 3.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  3150 3800 1750  3150 5700 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.17 0.26 0.03  0.14 0.04 0.01  0.04 0.09 0.02  0.01 0.33 0.75
Crit Moves:       ****            ****            ****                 ****
Green Time:  51.8 44.7 44.7  22.9 15.8 15.8   7.0  103 154.6   7.6  103 126.3
Volume/Cap:  0.63 1.13 0.11  1.13 0.45 0.15  1.09 0.16 0.03  0.35 0.60 1.13
Delay/Veh:   62.2  143 57.1 168.2 83.6 81.3 199.9 21.9  3.4  90.5 29.7 99.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  62.2  143 57.1 168.2 83.6 81.3 199.9 21.9  3.4  90.5 29.7 99.8
LOS by Move:    E    F   E+     F    F    F     F   C+    A     F    C    F
HCM2kAvgQ:     16   37    2    20    4    1     6    4    0     1   24  103
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #18: Trimble / Montague Expy [CMP]

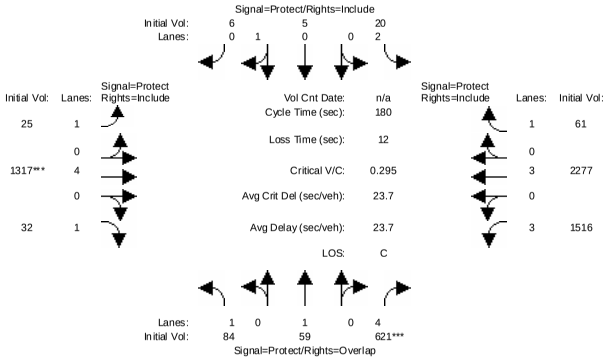



```
Street Name:            Trimble                        Montague Expy
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      76   59  458    20    5    6    15  933   26   947 1869   61
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   76   59  458    20    5    6    15  933   26   947 1869   61
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   76   59  458    20    5    6    15  933   26   947 1869   61
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.91 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    76   59  458    20    5    6    15  933   26   947 1701   61
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   76   59  458    20    5    6    15  933   26   947 1701   61
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   76   59  458    20    5    6    15  933   26   947 1701   61
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.80  0.83 0.95 0.95  0.92 1.00 0.92  0.80 1.00 0.92
Lanes:       1.00 1.00 4.00  2.00 0.45 0.55  1.00 4.00 1.00  3.00 3.00 1.00
Final Sat.:  1750 1900 6068  3150  818  982  1750 7600 1750  4551 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.03 0.08  0.01 0.01 0.01  0.01 0.12 0.01  0.21 0.30 0.03
Crit Moves:  ****                 ****        ****                 ****
Green Time:  19.2 17.2 104.5  12.0 10.0 10.0   7.0 51.5 51.5  87.3  132 131.8
Volume/Cap:  0.41 0.33 0.13  0.10 0.11 0.11  0.22 0.43 0.05  0.43 0.41 0.05
Delay/Veh:   76.6 77.1 17.2  79.1 81.3 81.3  85.5 52.4 46.6  30.3  9.3  6.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  76.6 77.1 17.2  79.1 81.3 81.3  85.5 52.4 46.6  30.3  9.3  6.7
LOS by Move:   E-   E-    B    E-    F    F     F   D-    D     C    A    A
HCM2kAvgQ:      4    3    3     1    1    1     1   10    1    13   11    1
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #18: Trimble / Montague Expy [CMP]



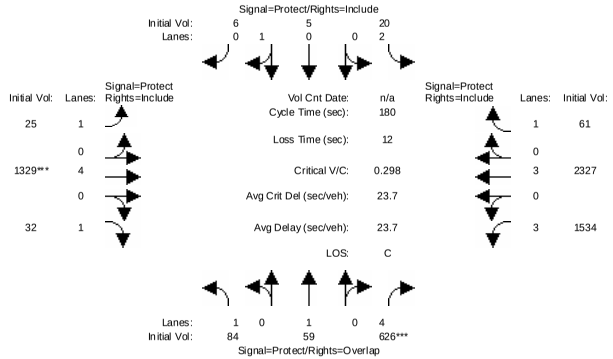
Street Name:	Trimble						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	76	59	458	20	5	6	15	933	26	947	1869	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	76	59	458	20	5	6	15	933	26	947	1869	61
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	8	0	163	0	0	0	10	384	6	569	408	0
Initial Fut:	84	59	621	20	5	6	25	1317	32	1516	2277	61
User Adj:	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	621	0	0	0	0	1317	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	621	0	0	0	0	1317	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	621	0	0	0	0	1317	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.80	0.83	1.00	0.92	0.92	1.00	0.92	0.80	1.00	0.92
Lanes:	1.00	1.00	4.00	2.00	1.00	0.00	1.00	4.00	1.00	3.00	3.00	1.00
Final Sat.:	1750	1900	6068	3150	1900	0	1750	7600	1750	4551	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	52.0	0.0	0.0	0.0	0.0	123	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	50.8	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	50.8	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	D	A	A	A	A	B+	A	A	A	A
HCM2kAvgQ:	0	0	8	0	0	0	0	7	0	0	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #18: Trimble / Montague Expy [CMP]



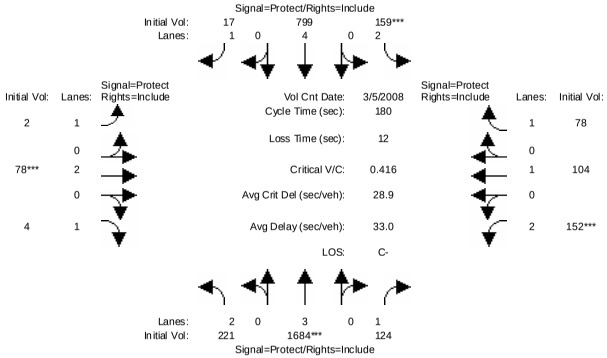
Street Name:	Trimble						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	84	59	621	20	5	6	25	1317	32	1516	2277	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	59	621	20	5	6	25	1317	32	1516	2277	61
Added Vol:	0	0	5	0	0	0	0	12	0	18	50	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	59	626	20	5	6	25	1329	32	1534	2327	61
User Adj:	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	626	0	0	0	0	1329	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	626	0	0	0	0	1329	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	626	0	0	0	0	1329	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.80	0.83	1.00	0.92	0.92	1.00	0.92	0.80	1.00	0.92
Lanes:	1.00	1.00	4.00	2.00	1.00	0.00	1.00	4.00	1.00	3.00	3.00	1.00
Final Sat.:	1750	1900	6068	3150	1900	0	1750	7600	1750	4551	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	52.2	0.0	0.0	0.0	0.0	123	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	50.7	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	50.7	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	D	A	A	A	A	B+	A	A	A	A
HCM2kAvgQ:	0	0	8	0	0	0	0	7	0	0	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #19: Montague Expy / River Oaks



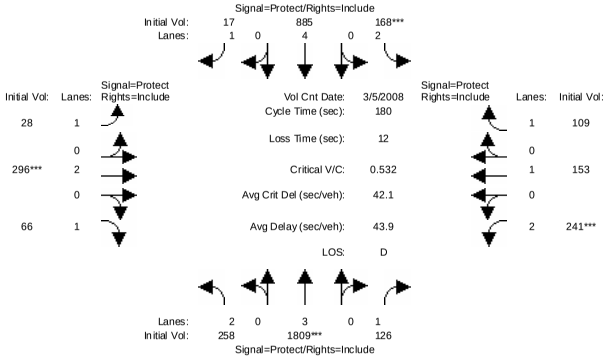
Street Name:	Montague Expy						River Oaks - E Pulmeria					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 5 Mar 2008 << 8-9												
Base Vol:	221	1684	124	159	799	17	2	78	4	152	104	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	221	1684	124	159	799	17	2	78	4	152	104	78
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	221	1684	124	159	799	17	2	78	4	152	104	78
User Adj:	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	221	1532	124	159	799	17	2	78	4	152	104	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	221	1532	124	159	799	17	2	78	4	152	104	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	221	1532	124	159	799	17	2	78	4	152	104	78
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	1750	3800	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.27	0.07	0.05	0.11	0.01	0.00	0.02	0.00	0.05	0.05	0.04
Crit Moves:		****		****				****		****		
Green Time:	54.9	116	115.6	21.7	82.3	82.3	12.7	10.0	10.0	20.7	18.1	18.1
Volume/Cap:	0.23	0.42	0.11	0.42	0.23	0.02	0.02	0.37	0.04	0.42	0.54	0.44
Delay/Veh:	47.3	16.1	12.6	76.7	29.8	26.8	78.1	86.9	81.3	77.6	87.8	84.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.3	16.1	12.6	76.7	29.8	26.8	78.1	86.9	81.3	77.6	87.8	84.1
LOS by Move:	D	B	B	E-	C	C	E-	F	F	E-	F	F
HCM2kAvgQ:	5	14	3	5	7	1	0	2	0	5	6	5

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #19: Montague Expy / River Oaks



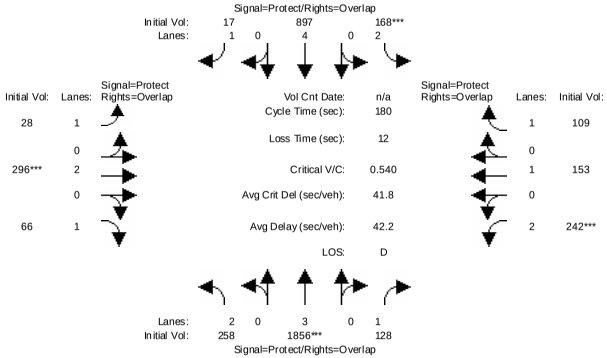
Street Name:	Montague Expy						River Oaks - E Pulmeria					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 5 Mar 2008 << 8-9												
Base Vol:	221	1684	124	159	799	17	2	78	4	152	104	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	221	1684	124	159	799	17	2	78	4	152	104	78
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	37	125	2	9	86	0	26	218	62	89	49	31
Initial Fut:	258	1809	126	168	885	17	28	296	66	241	153	109
User Adj:	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	258	1646	126	168	885	17	28	296	66	241	153	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	258	1646	126	168	885	17	28	296	66	241	153	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	258	1646	126	168	885	17	28	296	66	241	153	109
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	1750	3800	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.29	0.07	0.05	0.12	0.01	0.02	0.08	0.04	0.08	0.08	0.06
Crit Moves:		****		****				****		****		
Green Time:	47.8	97.7	97.7	18.0	68.0	68.0	17.0	26.4	26.4	25.9	35.2	35.2
Volume/Cap:	0.31	0.53	0.13	0.53	0.31	0.03	0.17	0.53	0.26	0.53	0.41	0.32
Delay/Veh:	53.8	27.1	20.6	83.3	39.7	35.3	77.2	74.7	70.6	75.9	66.7	64.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.8	27.1	20.6	83.3	39.7	35.3	77.2	74.7	70.6	75.9	66.7	64.5
LOS by Move:	D-	C	C+	F	D	D+	E-	E	E	E-	E	E
HCM2kAvgQ:	7	20	4	5	8	1	2	8	3	8	7	6

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #19: Montague Expy / River Oaks



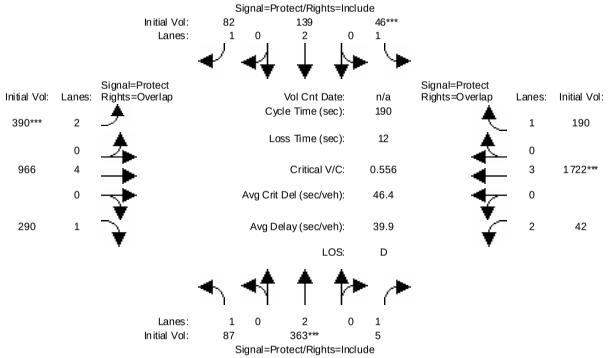
Street Name:	Montague Expy						River Oaks - E Pulmeria					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	258	1809	126	168	885	17	28	296	66	241	153	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	258	1809	126	168	885	17	28	296	66	241	153	109
Added Vol:	0	47	2	0	12	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	258	1856	128	168	897	17	28	296	66	242	153	109
User Adj:	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	258	1689	128	168	897	17	28	296	66	242	153	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	258	1689	128	168	897	17	28	296	66	242	153	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	258	1689	128	168	897	17	28	296	66	242	153	109
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	1750	3800	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.30	0.07	0.05	0.12	0.01	0.02	0.08	0.04	0.08	0.08	0.06
Crit Moves:		****		****				****		****		
Green Time:	47.7	98.7	124.3	17.8	68.8	85.5	16.8	25.9	73.7	25.6	34.8	52.5
Volume/Cap:	0.31	0.54	0.11	0.54	0.31	0.02	0.17	0.54	0.09	0.54	0.42	0.21
Delay/Veh:	53.9	26.8	9.5	83.8	39.3	25.1	77.5	75.3	32.9	76.4	67.2	49.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.9	26.8	9.5	83.8	39.3	25.1	77.5	75.3	32.9	76.4	67.2	49.1
LOS by Move:	D-	C	A	F	D	C	E-	E-	C-	E-	E	D
HCM2kAvgQ:	7	20	3	5	8	1	2	8	2	8	7	5

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #20: Zanker Rd / Montague Expy [CMP]



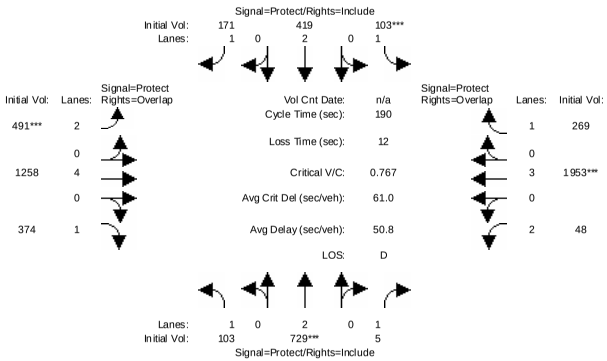
Street Name:	Zanker Rd						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	87	363	5	46	139	82	390	966	290	42	1722	190
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	87	363	5	46	139	82	390	966	290	42	1722	190
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	87	363	5	46	139	82	390	966	290	42	1722	190
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	87	363	5	46	139	82	390	966	290	42	1567	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	87	363	5	46	139	82	390	966	290	42	1567	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	87	363	5	46	139	82	390	966	290	42	1567	190
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.10	0.00	0.03	0.04	0.05	0.12	0.13	0.17	0.01	0.27	0.11
Crit Moves:		****		****			****				****	
Green Time:	20.2	32.7	32.7	9.0	21.4	21.4	42.3	106	125.9	30.6	94.0	103.0
Volume/Cap:	0.47	0.56	0.02	0.56	0.32	0.42	0.56	0.23	0.25	0.08	0.56	0.20
Delay/Veh:	81.7	73.1	65.4	96.6	78.1	79.9	66.5	21.4	13.1	67.8	33.7	22.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	81.7	73.1	65.4	96.6	78.1	79.9	66.5	21.4	13.1	67.8	33.7	22.5
LOS by Move:	F	E	E	F	E-	E-	E	C+	B	E	C-	C+
HCM2kAvgQ:	6	10	0	4	4	5	12	7	7	1	20	6

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #20: Zanker Rd / Montague Expy [CMP]



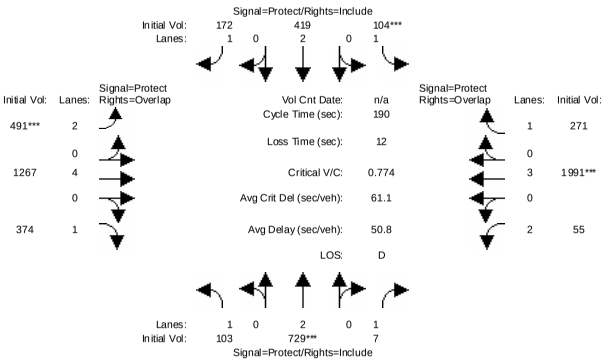
Street Name:	Zanker Rd						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	87	363	5	46	139	82	390	966	290	42	1722	190
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	87	363	5	46	139	82	390	966	290	42	1722	190
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	16	366	0	57	280	89	101	292	84	6	231	79
Initial Fut:	103	729	5	103	419	171	491	1258	374	48	1953	269
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	103	729	5	103	419	171	491	1258	374	48	1777	269
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	729	5	103	419	171	491	1258	374	48	1777	269
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	729	5	103	419	171	491	1258	374	48	1777	269
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.00	0.06	0.11	0.10	0.16	0.17	0.21	0.02	0.31	0.15
Crit Moves:		****		****			****				****	
Green Time:	21.6	47.5	47.5	14.6	40.5	40.5	38.6	94.8	116.4	21.1	77.3	91.8
Volume/Cap:	0.52	0.77	0.01	0.77	0.52	0.46	0.77	0.33	0.35	0.14	0.77	0.32
Delay/Veh:	81.7	69.9	53.6	109.0	66.7	66.1	77.0	28.6	18.3	76.4	50.2	30.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	81.7	69.9	53.6	109.0	66.7	66.1	77.0	28.6	18.3	76.4	50.2	30.2
LOS by Move:	F	E	D-	F	E	E	E-	C	B-	E-	D	C
HCM2kAvgQ:	7	21	0	8	11	9	16	10	11	1	29	10

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #20: Zanker Rd / Montague Expy [CMP]



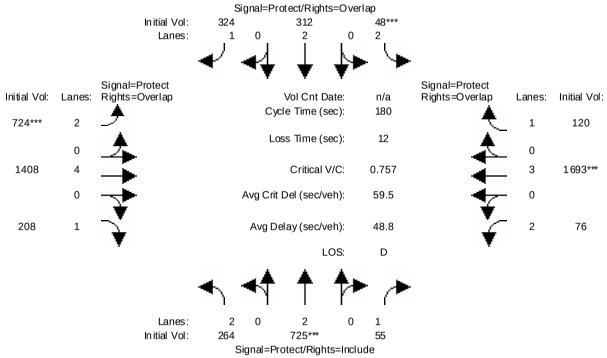
Street Name:	Zanker Rd						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	103	729	5	103	419	171	491	1258	374	48	1953	269
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	103	729	5	103	419	171	491	1258	374	48	1953	269
Added Vol:	0	0	2	1	0	1	0	9	0	7	38	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	103	729	7	104	419	172	491	1267	374	55	1991	271
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	103	729	7	104	419	172	491	1267	374	55	1812	271
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	729	7	104	419	172	491	1267	374	55	1812	271
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	729	7	104	419	172	491	1267	374	55	1812	271
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.00	0.06	0.11	0.10	0.16	0.17	0.21	0.02	0.32	0.15
Crit Moves:		****		****			****				****	
Green Time:	21.5	47.1	47.1	14.6	40.2	40.2	38.3	95.3	116.7	21.1	78.0	92.6
Volume/Cap:	0.52	0.77	0.02	0.77	0.52	0.46	0.77	0.33	0.35	0.16	0.77	0.32
Delay/Veh:	81.9	70.5	54.0	110.0	67.0	66.4	77.7	28.4	18.2	76.7	50.0	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	81.9	70.5	54.0	110.0	67.0	66.4	77.7	28.4	18.2	76.7	50.0	29.7
LOS by Move:	F	E	D-	F	E	E	E-	C	B-	E-	D	C
HCM2kAvgQ:	7	21	0	8	11	9	16	10	11	2	30	10

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #21: N 1st St / Montague Expy [CMP]



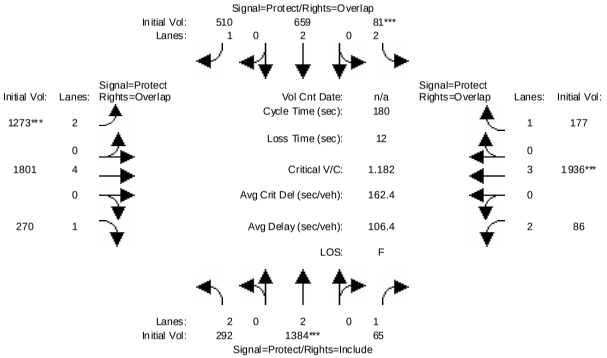
Street Name:	N 1st St						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	264	725	55	48	312	324	724	1408	208	76	1693	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	264	725	55	48	312	324	724	1408	208	76	1693	120
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	264	725	55	48	312	324	724	1408	208	76	1693	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	264	725	55	48	312	324	724	1408	208	76	1541	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	264	725	55	48	312	324	724	1408	208	76	1541	120
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	264	725	55	48	312	324	724	1408	208	76	1541	120
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.03	0.02	0.08	0.19	0.23	0.19	0.12	0.02	0.27	0.07
Crit Moves:		****		****			****				****	
Green Time:	26.0	44.5	44.5	7.0	25.5	79.0	53.6	96.3	122.3	20.2	63.0	70.0
Volume/Cap:	0.58	0.77	0.13	0.39	0.58	0.42	0.77	0.35	0.17	0.21	0.77	0.18
Delay/Veh:	73.8	67.1	52.8	86.5	73.9	35.1	61.7	23.9	10.6	73.0	54.1	36.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	73.8	67.1	52.8	86.5	73.9	35.1	61.7	23.9	10.6	73.0	54.1	36.2
LOS by Move:	E	E	D-	F	E	D+	E	C	B+	E	D-	D+
HCM2kAvgQ:	9	20	2	2	9	13	22	10	4	2	25	4

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #21: N 1st St / Montague Expy [CMP]



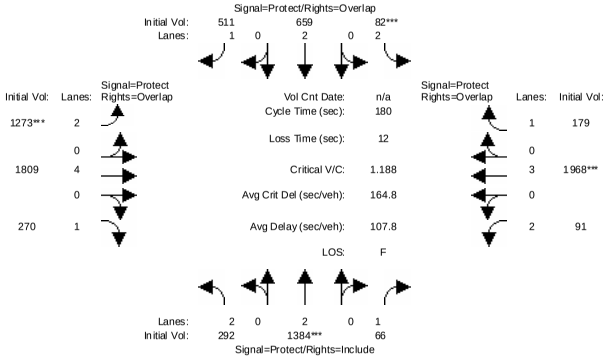
Street Name:	N 1st St						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	264	725	55	48	312	324	724	1408	208	76	1693	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	264	725	55	48	312	324	724	1408	208	76	1693	120
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	28	659	10	33	347	186	549	393	62	10	243	57
Initial Fut:	292	1384	65	81	659	510	1273	1801	270	86	1936	177
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	292	1384	65	81	659	510	1273	1801	270	86	1762	177
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	292	1384	65	81	659	510	1273	1801	270	86	1762	177
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	292	1384	65	81	659	510	1273	1801	270	86	1762	177
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.36	0.04	0.03	0.17	0.29	0.40	0.24	0.15	0.03	0.31	0.10
Crit Moves:		****		****			****				****	
Green Time:	21.4	54.4	54.4	7.0	40.0	100.4	60.4	91.6	112.9	15.0	46.2	53.2
Volume/Cap:	0.78	1.20	0.12	0.66	0.78	0.52	1.20	0.47	0.25	0.33	1.20	0.34
Delay/Veh:	87.1	163	45.6	98.0	70.5	25.3	161.0	28.6	14.9	78.5	166	50.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	87.1	163	45.6	98.0	70.5	25.3	161.0	28.6	14.9	78.5	166	50.1
LOS by Move:	F	F	D	F	E	C	F	C	B	E-	F	D
HCM2kAvgQ:	11	54	3	4	18	18	57	15	7	3	44	8

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #21: N 1st St / Montague Expy [CMP]

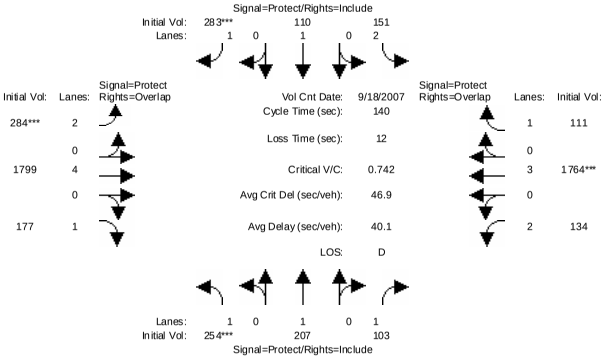



```
Street Name:            N 1st St                        Montague Expy
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     292 1384   65    81  659  510  1273 1801  270    86 1936  177
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  292 1384   65    81  659  510  1273 1801  270    86 1936  177
Added Vol:      0    0    1     1    0    1     0    8    0     5   32    2
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  292 1384   66    82  659  511  1273 1809  270    91 1968  179
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.91 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   292 1384   66    82  659  511  1273 1809  270    91 1791  179
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  292 1384   66    82  659  511  1273 1809  270    91 1791  179
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  292 1384   66    82  659  511  1273 1809  270    91 1791  179
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       2.00 2.00 1.00  2.00 2.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  3150 3800 1750  3150 3800 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.09 0.36 0.04  0.03 0.17 0.29  0.40 0.24 0.15  0.03 0.31 0.10
Crit Moves:       ****            ****            ****            ****
Green Time:  21.3 54.2 54.2   7.0 39.9 100.0  60.1 91.8 113.1  15.0 46.7 53.7
Volume/Cap:  0.78 1.21 0.13  0.67 0.78 0.53  1.21 0.47 0.25  0.35 1.21 0.34
Delay/Veh:   87.4  166 45.8  98.8 70.8 25.7  163.6 28.4 14.8  78.7  168 49.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  87.4  166 45.8  98.8 70.8 25.7  163.6 28.4 14.8  78.7  168 49.7
LOS by Move:    F    F    D     F    E    C     F    C    B    E-    F    D
HCM2kAvgQ:     11   54    3     4   18   19    58   15    7     3   45    8
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #22: Montague Expy / De la Cruz [CMP]

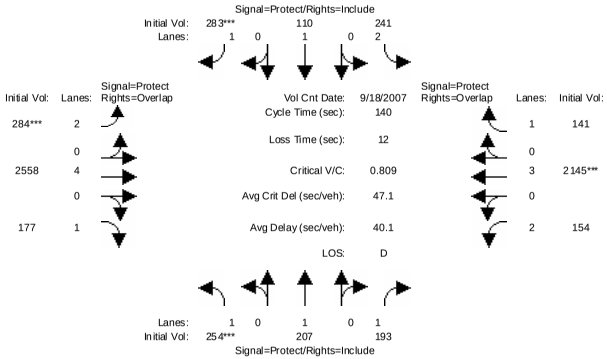



```
Street Name:            De la Cruz                      Montague Expy
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 18 Sep 2007 <<
Base Vol:     254  207  103   151  110  283   284 1799  177   134 1764  111
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  254  207  103   151  110  283   284 1799  177   134 1764  111
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  254  207  103   151  110  283   284 1799  177   134 1764  111
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.91 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   254  207  103   151  110  283   284 1799  177   134 1605  111
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  254  207  103   151  110  283   284 1799  177   134 1605  111
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  254  207  103   151  110  283   284 1799  177   134 1605  111
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       1.00 1.00 1.00  2.00 1.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  1750 1900 1750  3150 1900 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.15 0.11 0.06  0.05 0.06 0.16  0.09 0.24 0.10  0.04 0.28 0.06
Crit Moves:  ****                       ****  ****                 ****
Green Time:  27.4 39.7 39.7  18.2 30.5 30.5  17.0 57.9 85.3  12.2 53.1 71.3
Volume/Cap:  0.74 0.38 0.21  0.37 0.27 0.74  0.74 0.57 0.17  0.49 0.74 0.12
Delay/Veh:   61.5 40.8 38.4  56.2 45.8 58.7  67.0 31.8 12.0  62.3 38.9 18.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  61.5 40.8 38.4  56.2 45.8 58.7  67.0 31.8 12.0  62.3 38.9 18.0
LOS by Move:    E    D   D+    E+    D   E+     E    C   B+     E   D+    B-
HCM2kAvgQ:     12    7    4     4    4   14     9   15    3     3   19     3
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #22: Montague Expy / De la Cruz [CMP]

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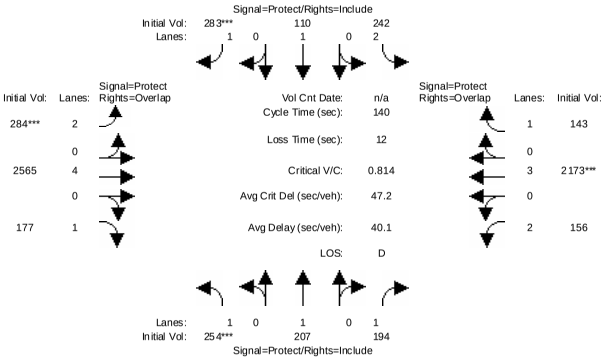
Street Name:            De la Cruz                    Montague Expy
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 18 Sep 2007 <<
Base Vol:     254  207  103   151  110  283   284 1799  177   134 1764  111
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  254  207  103   151  110  283   284 1799  177   134 1764  111
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            0    0   90    90    0    0     0  759    0    20  381   30
Initial Fut:  254  207  193   241  110  283   284 2558  177   154 2145  141
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.91 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   254  207  193   241  110  283   284 2558  177   154 1952  141
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  254  207  193   241  110  283   284 2558  177   154 1952  141
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  254  207  193   241  110  283   284 2558  177   154 1952  141
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       1.00 1.00 1.00  2.00 1.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  1750 1900 1750  3150 1900 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.15 0.11 0.11  0.08 0.06 0.16  0.09 0.34 0.10  0.05 0.34 0.08
Crit Moves:  ****                 ****  ****                    ****
Green Time:  25.1 31.4 31.4  21.8 28.0 28.0  15.6 65.2 90.3   9.7 59.3 81.0
Volume/Cap:  0.81 0.49 0.49  0.49 0.29 0.81  0.81 0.72 0.16  0.71 0.81 0.14
Delay/Veh:   69.5 48.2 48.4  54.9 48.0 66.6  73.8 30.9  9.9  73.9 37.5 13.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  69.5 48.2 48.4  54.9 48.0 66.6  73.8 30.9  9.9  73.9 37.5 13.6
LOS by Move:    E    D    D    D-    D    E     E    C    A     E   D+    B
HCM2kAvgQ:     13    8    8     6    4   15     9   22    3     4   22    3
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #22: Montague Expy / De la Cruz [CMP]

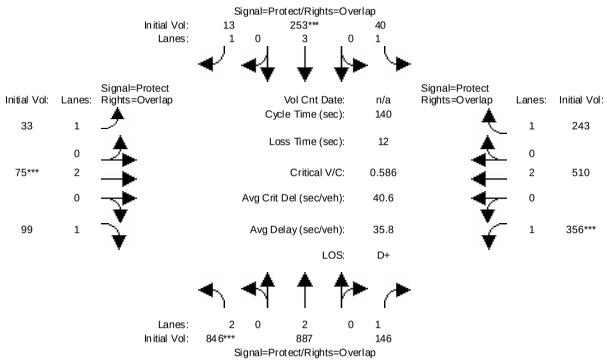



```
Street Name:            De la Cruz                    Montague Expy
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     254  207  193   241  110  283   284 2558  177   154 2145  141
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  254  207  193   241  110  283   284 2558  177   154 2145  141
Added Vol:      0    0    1     1    0    0     0    7    0     2   28    2
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  254  207  194   242  110  283   284 2565  177   156 2173  143
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.91 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   254  207  194   242  110  283   284 2565  177   156 1977  143
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  254  207  194   242  110  283   284 2565  177   156 1977  143
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  254  207  194   242  110  283   284 2565  177   156 1977  143
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       1.00 1.00 1.00  2.00 1.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  1750 1900 1750  3150 1900 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.15 0.11 0.11  0.08 0.06 0.16  0.09 0.34 0.10  0.05 0.35 0.08
Crit Moves:  ****                 ****  ****                    ****
Green Time:  25.0 31.2 31.2  21.6 27.8 27.8  15.5 65.5 90.5   9.7 59.7 81.3
Volume/Cap:  0.81 0.49 0.50  0.50 0.29 0.81  0.81 0.72 0.16  0.71 0.81 0.14
Delay/Veh:   70.3 48.4 48.6  55.0 48.1 67.3  74.4 30.7  9.8  74.5 37.5 13.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  70.3 48.4 48.6  55.0 48.1 67.3  74.4 30.7  9.8  74.5 37.5 13.5
LOS by Move:    E    D    D    E+    D    E     E    C    A     E   D+    B
HCM2kAvgQ:     13    8    8     6    4   15     9   22    3     4   23    3
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #23: Capitol/Cropley



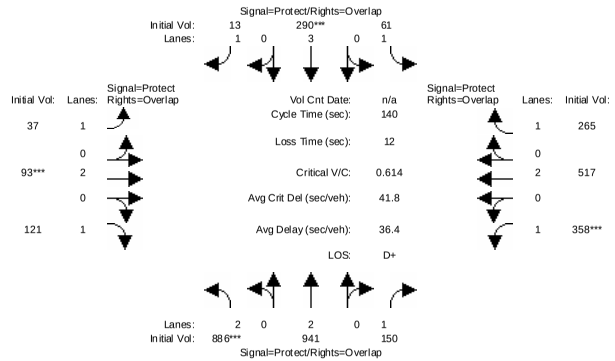
Street Name:	Capitol									Cropley					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	846	887	146	40	253	13	33	75	99	356	510	243
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	846	887	146	40	253	13	33	75	99	356	510	243
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	846	887	146	40	253	13	33	75	99	356	510	243
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	846	887	146	40	253	13	33	75	99	356	510	243
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	846	887	146	40	253	13	33	75	99	356	510	243
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	846	887	146	40	253	13	33	75	99	356	510	243
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.27	0.23	0.08	0.02	0.04	0.01	0.02	0.02	0.06	0.20	0.13	0.14
Crit Moves:	****				****			****		****		
Green Time:	61.4	58.9	105.4	12.6	10.1	25.5	15.3	10.0	71.4	46.5	41.2	53.8
Volume/Cap:	0.61	0.55	0.11	0.25	0.61	0.04	0.17	0.28	0.11	0.61	0.46	0.36
Delay/Veh:	31.0	31.1	4.7	60.2	65.7	47.2	57.0	62.1	17.9	41.1	40.6	31.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.0	31.1	4.7	60.2	65.7	47.2	57.0	62.1	17.9	41.1	40.6	31.2
LOS by Move:	C	C	A	E	E	D	E+	E	B	D	D	C
HCM2kAvgQ:	17	14	2	2	4	0	1	2	2	14	9	8

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #23: Capitol/Cropley



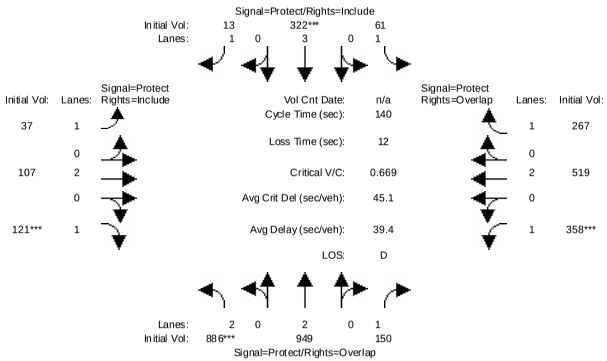
Street Name:	Capitol									Cropley					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	846	887	146	40	253	13	33	75	99	356	510	243
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	846	887	146	40	253	13	33	75	99	356	510	243
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	40	54	4	21	37	0	4	18	22	2	7	22
Initial Fut:	886	941	150	61	290	13	37	93	121	358	517	265
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	886	941	150	61	290	13	37	93	121	358	517	265
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	886	941	150	61	290	13	37	93	121	358	517	265
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	886	941	150	61	290	13	37	93	121	358	517	265
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.28	0.25	0.09	0.03	0.05	0.01	0.02	0.02	0.07	0.20	0.14	0.15
Crit Moves:	****				****			****		****		
Green Time:	61.8	60.8	105.7	12.3	11.2	26.0	14.8	10.0	71.8	45.0	40.2	52.5
Volume/Cap:	0.64	0.57	0.11	0.40	0.64	0.04	0.20	0.34	0.13	0.64	0.47	0.40
Delay/Veh:	31.3	30.3	4.6	62.1	65.4	46.8	57.8	62.6	17.9	43.0	41.5	32.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.3	30.3	4.6	62.1	65.4	46.8	57.8	62.6	17.9	43.0	41.5	32.7
LOS by Move:	C	C	A	E	E	D	E+	E	B	D	D	C-
HCM2kAvgQ:	18	15	2	3	4	0	2	2	3	15	9	9

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #23: Capitol/Cropley



Street Name:	Capitol						Cropley					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	886	941	150	61	290	13	37	93	121	358	517	265
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	886	941	150	61	290	13	37	93	121	358	517	265
Added Vol:	0	8	0	0	32	0	0	14	0	0	2	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	886	949	150	61	322	13	37	107	121	358	519	267
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	886	949	150	61	322	13	37	107	121	358	519	267
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	886	949	150	61	322	13	37	107	121	358	519	267
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	886	949	150	61	322	13	37	107	121	358	519	267
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.28	0.25	0.09	0.03	0.06	0.01	0.02	0.03	0.07	0.20	0.14	0.15
Crit Moves:	****				****				****	****		
Green Time:	58.9	58.9	101.7	11.8	11.8	11.8	15.4	14.5	14.5	42.8	41.9	53.7
Volume/Cap:	0.67	0.59	0.12	0.41	0.67	0.09	0.19	0.27	0.67	0.67	0.46	0.40
Delay/Veh:	34.0	31.9	5.8	62.7	65.8	59.4	57.2	58.3	69.7	45.7	40.1	31.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.0	31.9	5.8	62.7	65.8	59.4	57.2	58.3	69.7	45.7	40.1	31.7
LOS by Move:	C-	C	A	E	E	E+	E+	E+	E	D	D	C
HCM2kAvgQ:	19	16	2	3	5	1	2	2	7	15	9	9

Note: Queue reported is the number of cars per lane.

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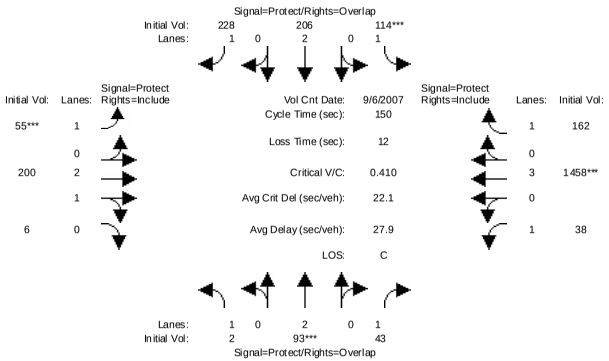
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #24: Great Mall Pkwy. & Main St.



Street Name:	Main St.						Great Mall Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 6 Sep 2007 <<												
Base Vol:	2	93	43	114	206	228	55	200	6	38	1458	162
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	93	43	114	206	228	55	200	6	38	1458	162
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	93	43	114	206	228	55	200	6	38	1458	162
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	93	43	114	206	228	55	200	6	38	1458	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	93	43	114	206	228	55	200	6	38	1458	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	93	43	114	206	228	55	200	6	38	1458	162
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.91	0.09	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	5437	163	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.02	0.07	0.05	0.13	0.03	0.04	0.04	0.02	0.26	0.09
Crit Moves:		****		****			****				****	
Green Time:	10.8	10.0	53.0	23.7	22.9	34.3	11.4	61.4	61.4	43.0	92.9	92.9
Volume/Cap:	0.02	0.37	0.07	0.41	0.36	0.57	0.41	0.09	0.09	0.08	0.41	0.15
Delay/Veh:	64.7	67.9	32.2	57.9	57.3	53.3	68.2	27.2	27.2	39.1	14.7	12.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.7	67.9	32.2	57.9	57.3	53.3	68.2	27.2	27.2	39.1	14.7	12.0
LOS by Move:	E	E	C-	E+	E+	D-	E	C	C	D	B	B
HCM2kAvgQ:	0	2	1	5	4	10	3	2	2	1	11	3

Note: Queue reported is the number of cars per lane.

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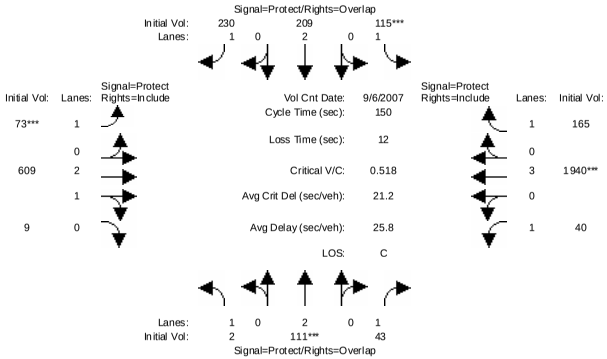
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #24: Great Mall Pkwy. & Main St.

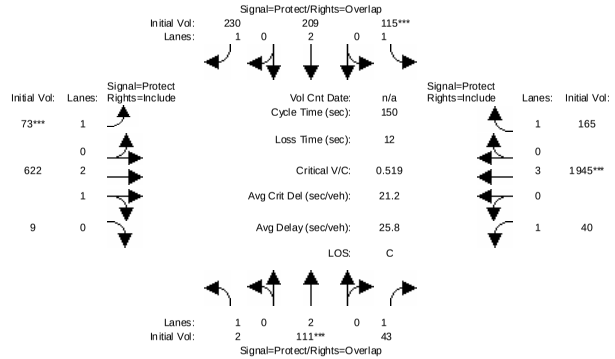



```
Street Name:            Main St.                    Great Mall Pkwy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Sep 2007 <<
Base Vol:       2   93   43   114  206  228    55  200    6    38 1458  162
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    2   93   43   114  206  228    55  200    6    38 1458  162
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            0   18    0     1    3    2    18  409    3     2  482    3
Initial Fut:    2  111   43   115  209  230    73  609    9    40 1940  165
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     2  111   43   115  209  230    73  609    9    40 1940  165
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    2  111   43   115  209  230    73  609    9    40 1940  165
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    2  111   43   115  209  230    73  609    9    40 1940  165
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 1.00 0.92  0.92 0.98 0.95  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  1.00 2.00 1.00  1.00 2.95 0.05  1.00 3.00 1.00
Final Sat.:  1750 3800 1750  1750 3800 1750  1750 5518   82  1750 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.03 0.02  0.07 0.06 0.13  0.04 0.11 0.11  0.02 0.34 0.09
Crit Moves:          ****         ****         ****                 ****
Green Time:   9.8 10.0 42.5  18.8 18.9 30.9  11.9 76.8 76.8  32.5 97.3 97.3
Volume/Cap:  0.02 0.44 0.09  0.52 0.44 0.64  0.52 0.22 0.22  0.11 0.52 0.15
Delay/Veh:   65.6 68.5 39.6  63.8 61.2 58.3  70.0 20.1 20.1  47.3 14.2 10.3
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  65.6 68.5 39.6  63.8 61.2 58.3  70.0 20.1 20.1  47.3 14.2 10.3
LOS by Move:    E    E    D     E    E   E+     E   C+   C+     D    B   B+
HCM2kAvgQ:      0    3    2     6    5   11     3    5    5     2   16    3
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #24: Great Mall Pkwy. & Main St.

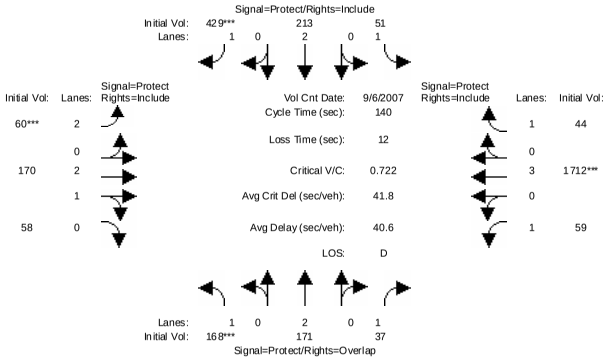



```
Street Name:            Main St.                    Great Mall Pkwy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       2  111   43   115  209  230    73  609    9    40 1940  165
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    2  111   43   115  209  230    73  609    9    40 1940  165
Added Vol:      0    0    0     0    0    0     0   13    0     0    5    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    2  111   43   115  209  230    73  622    9    40 1945  165
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     2  111   43   115  209  230    73  622    9    40 1945  165
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    2  111   43   115  209  230    73  622    9    40 1945  165
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    2  111   43   115  209  230    73  622    9    40 1945  165
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 1.00 0.92  0.92 0.98 0.95  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  1.00 2.00 1.00  1.00 2.96 0.04  1.00 3.00 1.00
Final Sat.:  1750 3800 1750  1750 3800 1750  1750 5520   80  1750 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.03 0.02  0.07 0.06 0.13  0.04 0.11 0.11  0.02 0.34 0.09
Crit Moves:          ****         ****         ****                 ****
Green Time:   9.8 10.0 42.0  18.7 18.9 30.8  11.9 77.3 77.3  32.0 97.4 97.4
Volume/Cap:  0.02 0.44 0.09  0.53 0.44 0.64  0.53 0.22 0.22  0.11 0.53 0.15
Delay/Veh:   65.6 68.5 39.9  63.8 61.3 58.4  70.0 19.9 19.9  47.6 14.2 10.3
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  65.6 68.5 39.9  63.8 61.3 58.4  70.0 19.9 19.9  47.6 14.2 10.3
LOS by Move:    E    E    D     E    E   E+     E   B-   B-     D    B   B+
HCM2kAvgQ:      0    3    2     6    5   11     3    5    5     2   16    3
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #25: Great Mall Pkwy. & Abel St.

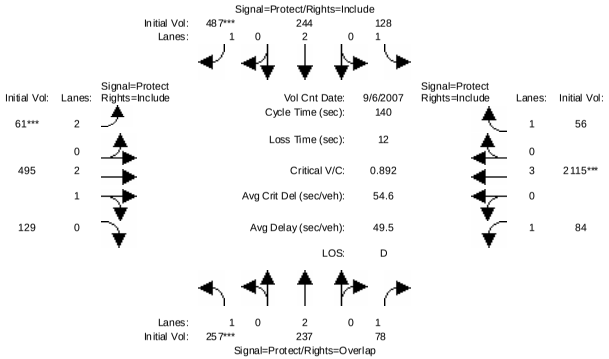



```
Street Name:            Abel St.                    Great Mall Pkwy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Sep 2007 <<
Base Vol:     168  171   37    51  213  429    60  170   58    59 1712   44
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  168  171   37    51  213  429    60  170   58    59 1712   44
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  168  171   37    51  213  429    60  170   58    59 1712   44
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   168  171   37    51  213  429    60  170   58    59 1712   44
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  168  171   37    51  213  429    60  170   58    59 1712   44
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  168  171   37    51  213  429    60  170   58    59 1712   44
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 1.00 0.92  0.83 0.99 0.95  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  1.00 2.00 1.00  2.00 2.21 0.79  1.00 3.00 1.00
Final Sat.:  1750 3800 1750  1750 3800 1750  3150 4174 1424  1750 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.05 0.02  0.03 0.06 0.25  0.02 0.04 0.04  0.03 0.30 0.03
Crit Moves:  ****                 ****  ****                    ****
Green Time:  18.1 37.9 64.1  26.5 46.2 46.2   7.0 37.4 37.4  26.2 56.7 56.7
Volume/Cap:  0.74 0.17 0.05  0.15 0.17 0.74  0.38 0.15 0.15  0.18 0.74 0.06
Delay/Veh:   71.1 39.1 21.1  47.6 33.3 46.7  65.9 39.2 39.2  48.1 36.8 25.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  71.1 39.1 21.1  47.6 33.3 46.7  65.9 39.2 39.2  48.1 36.8 25.5
LOS by Move:    E    D   C+     D   C-    D     E    D    D     D   D+    C
HCM2kAvgQ:      9    3    1     2    3   19     1    2    2     2   21    1
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #25: Great Mall Pkwy. & Abel St.

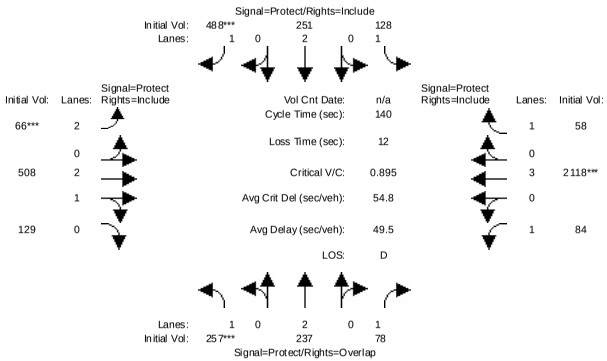



```
Street Name:            Abel St.                    Great Mall Pkwy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 6 Sep 2007 <<
Base Vol:     168  171   37    51  213  429    60  170   58    59 1712   44
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  168  171   37    51  213  429    60  170   58    59 1712   44
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:           89   66   41    77   31   58     1  325   71    25  403   12
Initial Fut:  257  237   78   128  244  487    61  495  129    84 2115   56
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   257  237   78   128  244  487    61  495  129    84 2115   56
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  257  237   78   128  244  487    61  495  129    84 2115   56
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  257  237   78   128  244  487    61  495  129    84 2115   56
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 1.00 0.92  0.83 0.99 0.95  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  1.00 2.00 1.00  2.00 2.36 0.64  1.00 3.00 1.00
Final Sat.:  1750 3800 1750  1750 3800 1750  3150 4441 1157  1750 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.15 0.06 0.04  0.07 0.06 0.28  0.02 0.11 0.11  0.05 0.37 0.03
Crit Moves:  ****                 ****  ****                    ****
Green Time:  22.3 31.9 51.6  32.7 42.3 42.3   7.0 43.8 43.8  19.6 56.4 56.4
Volume/Cap:  0.92 0.27 0.12  0.31 0.21 0.92  0.39 0.36 0.36  0.34 0.92 0.08
Delay/Veh:   91.7 44.7 29.3  44.8 36.5 68.9  66.0 37.4 37.4  55.2 46.4 25.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  91.7 44.7 29.3  44.8 36.5 68.9  66.0 37.4 37.4  55.2 46.4 25.8
LOS by Move:    F    D    C     D   D+    E     E   D+   D+    E+    D    C
HCM2kAvgQ:     15    4    2     5    4   26     2    7    7     3   31    2
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #25: Great Mall Pkwy. & Abel St.



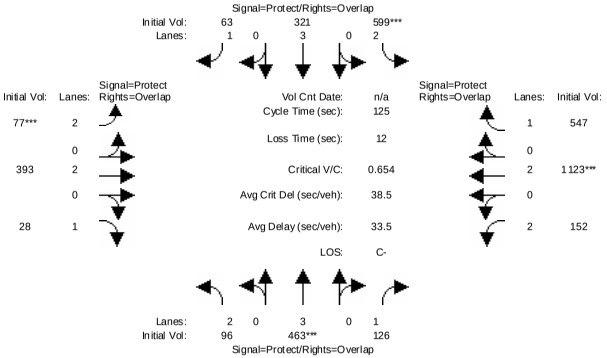
Street Name:	Abel St.						Great Mall Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	257	237	78	128	244	487	61	495	129	84	2115	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	257	237	78	128	244	487	61	495	129	84	2115	56
Added Vol:	0	0	0	0	7	1	5	13	0	0	3	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	257	237	78	128	251	488	66	508	129	84	2118	58
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	257	237	78	128	251	488	66	508	129	84	2118	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	257	237	78	128	251	488	66	508	129	84	2118	58
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	257	237	78	128	251	488	66	508	129	84	2118	58
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.37	0.63	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	4464	1134	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.06	0.04	0.07	0.07	0.28	0.02	0.11	0.11	0.05	0.37	0.03
Crit Moves:	****					****	****				****	
Green Time:	22.3	31.9	51.3	32.7	42.3	42.3	7.0	44.0	44.0	19.4	56.4	56.4
Volume/Cap:	0.92	0.27	0.12	0.31	0.22	0.92	0.42	0.36	0.36	0.35	0.92	0.08
Delay/Veh:	92.1	44.7	29.5	44.8	36.6	69.1	66.3	37.2	37.2	55.5	46.6	25.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	92.1	44.7	29.5	44.8	36.6	69.1	66.3	37.2	37.2	55.5	46.6	25.9
LOS by Move:	F	D	C	D	D+	E	E	D+	D+	E+	D	C
HCM2kAvgQ:	15	4	2	5	4	26	2	7	7	3	31	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #26: Zanker Rd / Tasman Dr



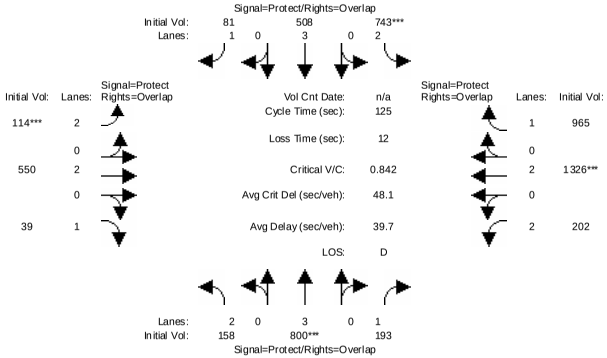
Street Name:	Zanker Rd						Tasman Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	96	463	126	599	321	63	77	393	28	152	1123	547
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	96	463	126	599	321	63	77	393	28	152	1123	547
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	96	463	126	599	321	63	77	393	28	152	1123	547
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	96	463	126	599	321	63	77	393	28	152	1123	547
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	96	463	126	599	321	63	77	393	28	152	1123	547
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	96	463	126	599	321	63	77	393	28	152	1123	547
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.08	0.07	0.19	0.06	0.04	0.02	0.10	0.02	0.05	0.30	0.31
Crit Moves:		****		****			****				****	
Green Time:	20.9	15.2	37.1	35.6	29.8	36.8	7.0	40.4	61.3	21.9	55.3	90.8
Volume/Cap:	0.18	0.67	0.24	0.67	0.24	0.12	0.44	0.32	0.03	0.28	0.67	0.43
Delay/Veh:	44.9	55.0	33.6	41.5	38.5	32.3	58.8	32.1	16.5	45.0	28.7	7.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.9	55.0	33.6	41.5	38.5	32.3	58.8	32.1	16.5	45.0	28.7	7.0
LOS by Move:	D	E+	C-	D	D+	C-	E+	C-	B	D	C	A
HCM2kAvgQ:	2	7	4	13	3	2	2	5	1	3	16	9

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #26: Zanker Rd / Tasman Dr



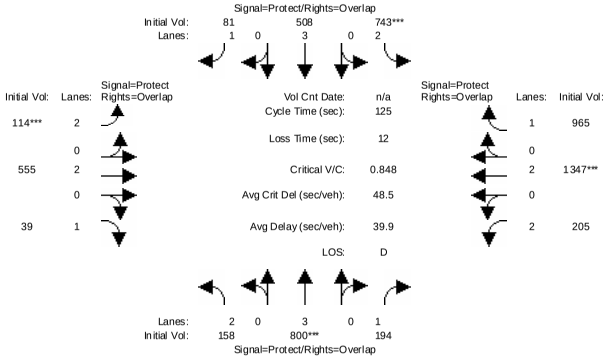
Street Name:	Zanker Rd									Tasman Dr								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10		10	7		10		10	7		10		10	7		10		10
Volume Module:																				
Base Vol:	96		463		126	599		321		63	77		393		28	152		1123		547
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	96		463		126	599		321		63	77		393		28	152		1123		547
Added Vol:	0		0		0	0		0		0	0		0		0	0		0		0
ATI:	62		337		67	144		187		18	37		157		11	50		203		418
Initial Fut:	158		800		193	743		508		81	114		550		39	202		1326		965
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	158		800		193	743		508		81	114		550		39	202		1326		965
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	158		800		193	743		508		81	114		550		39	202		1326		965
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	158		800		193	743		508		81	114		550		39	202		1326		965
Saturation Flow Module:																				
Sat/Lane:	1900		1900		1900	1900		1900		1900	1900		1900		1900	1900		1900		1900
Adjustment:	0.83		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92
Lanes:	2.00		3.00		1.00	2.00		3.00		1.00	2.00		2.00		1.00	2.00		2.00		1.00
Final Sat.:	3150		5700		1750	3150		5700		1750	3150		3800		1750	3150		3800		1750
Capacity Analysis Module:																				
Vol/Sat:	0.05		0.14		0.11	0.24		0.09		0.05	0.04		0.14		0.02	0.06		0.35		0.55
Crit Moves:			****			****					****							****		
Green Time:	21.2		20.5		38.3	34.5		33.8		40.8	7.0		40.2		61.4	17.8		51.0		85.5
Volume/Cap:	0.30		0.86		0.36	0.86		0.33		0.14	0.65		0.45		0.05	0.45		0.86		0.81
Delay/Veh:	45.7		58.6		34.2	51.2		36.7		29.9	65.8		33.9		16.6	49.8		38.5		18.0
User DelAdj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
AdjDel/Veh:	45.7		58.6		34.2	51.2		36.7		29.9	65.8		33.9		16.6	49.8		38.5		18.0
LOS by Move:	D		E+		C-	D-		D+		C	E		C-		B	D		D+		B-
HCM2kAvgQ:	3		13		6	19		5		2	3		8		1	4		21		26

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #26: Zanker Rd / Tasman Dr



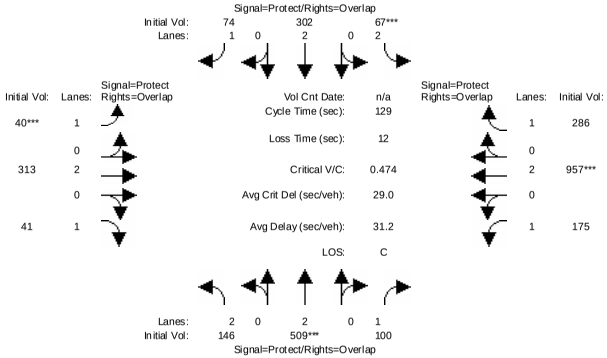
Street Name:	Zanker Rd									Tasman Dr								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10		10	7		10		10	7		10		10	7		10		10
Volume Module:																				
Base Vol:	158		800		193	743		508		81	114		550		39	202		1326		965
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	158		800		193	743		508		81	114		550		39	202		1326		965
Added Vol:	0		0		1	0		0		0	0		5		0	3		21		0
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	158		800		194	743		508		81	114		555		39	205		1347		965
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	158		800		194	743		508		81	114		555		39	205		1347		965
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	158		800		194	743		508		81	114		555		39	205		1347		965
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	158		800		194	743		508		81	114		555		39	205		1347		965
Saturation Flow Module:																				
Sat/Lane:	1900		1900		1900	1900		1900		1900	1900		1900		1900	1900		1900		1900
Adjustment:	0.83		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92
Lanes:	2.00		3.00		1.00	2.00		3.00		1.00	2.00		2.00		1.00	2.00		2.00		1.00
Final Sat.:	3150		5700		1750	3150		5700		1750	3150		3800		1750	3150		3800		1750
Capacity Analysis Module:																				
Vol/Sat:	0.05		0.14		0.11	0.24		0.09		0.05	0.04		0.15		0.02	0.07		0.35		0.55
Crit Moves:			****			****					****							****		
Green Time:	21.1		20.4		38.4	34.2		33.5		40.5	7.0		40.4		61.5	18.0		51.4		85.6
Volume/Cap:	0.30		0.86		0.36	0.86		0.33		0.14	0.65		0.45		0.05	0.45		0.86		0.80
Delay/Veh:	45.8		59.2		34.2	52.0		36.9		30.1	65.8		33.8		16.5	49.7		38.7		17.9
User DelAdj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
AdjDel/Veh:	45.8		59.2		34.2	52.0		36.9		30.1	65.8		33.8		16.5	49.7		38.7		17.9
LOS by Move:	D		E+		C-	D-		D+		C	E		C-		B	D		D+		B
HCM2kAvgQ:	3		13		6	19		5		2	3		8		1	4		22		26

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #27: N. 1st St / Tasman Dr



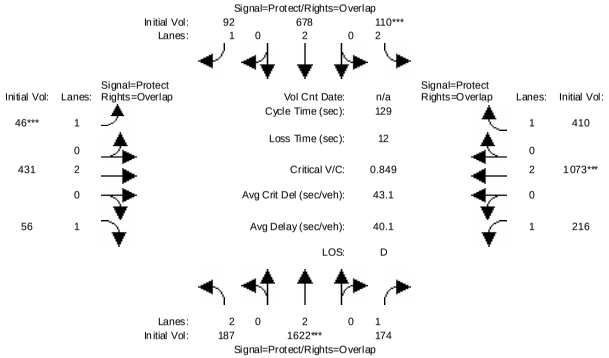
Street Name:	N 1st Street						Tasman Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	146	509	100	67	302	74	40	313	41	175	957	286
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	509	100	67	302	74	40	313	41	175	957	286
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	146	509	100	67	302	74	40	313	41	175	957	286
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	146	509	100	67	302	74	40	313	41	175	957	286
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	146	509	100	67	302	74	40	313	41	175	957	286
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	146	509	100	67	302	74	40	313	41	175	957	286
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.13	0.06	0.02	0.08	0.04	0.02	0.08	0.02	0.10	0.25	0.16
Crit Moves:		****		****			****				****	
Green Time:	17.4	35.8	76.5	7.0	25.4	32.4	7.0	33.5	50.9	40.7	67.2	74.2
Volume/Cap:	0.34	0.48	0.10	0.39	0.40	0.17	0.42	0.32	0.06	0.32	0.48	0.28
Delay/Veh:	51.2	39.3	11.4	60.4	45.5	37.9	62.0	38.7	24.3	33.9	19.9	14.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.2	39.3	11.4	60.4	45.5	37.9	62.0	38.7	24.3	33.9	19.9	14.1
LOS by Move:	D-	D	B+	E	D	D+	E	D+	C	C-	B-	B
HCM2kAvgQ:	3	9	2	2	5	2	2	5	1	5	12	6

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #27: N. 1st St / Tasman Dr



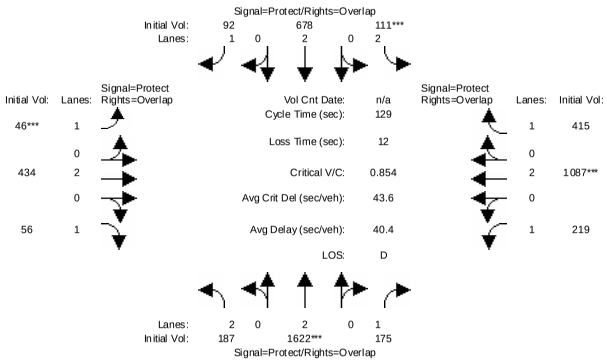
Street Name:	N 1st Street						Tasman Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	146	509	100	67	302	74	40	313	41	175	957	286
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	146	509	100	67	302	74	40	313	41	175	957	286
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	41	1113	74	43	376	18	6	118	15	41	116	124
Initial Fut:	187	1622	174	110	678	92	46	431	56	216	1073	410
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	187	1622	174	110	678	92	46	431	56	216	1073	410
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	1622	174	110	678	92	46	431	56	216	1073	410
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	187	1622	174	110	678	92	46	431	56	216	1073	410
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.43	0.10	0.03	0.18	0.05	0.03	0.11	0.03	0.12	0.28	0.23
Crit Moves:		****		****			****				****	
Green Time:	17.2	62.0	87.0	7.0	51.8	58.8	7.0	23.0	40.2	25.0	41.0	48.0
Volume/Cap:	0.44	0.89	0.15	0.64	0.44	0.12	0.48	0.64	0.10	0.64	0.89	0.63
Delay/Veh:	52.2	36.1	7.6	67.9	28.3	20.2	63.1	51.1	31.6	51.8	50.2	35.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.2	36.1	7.6	67.9	28.3	20.2	63.1	51.1	31.6	51.8	50.2	35.2
LOS by Move:	D-	D+	A	E	C	C+	E	D-	C	D-	D	D+
HCM2kAvgQ:	4	32	3	4	10	2	3	9	2	8	20	14

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #27: N. 1st St / Tasman Dr

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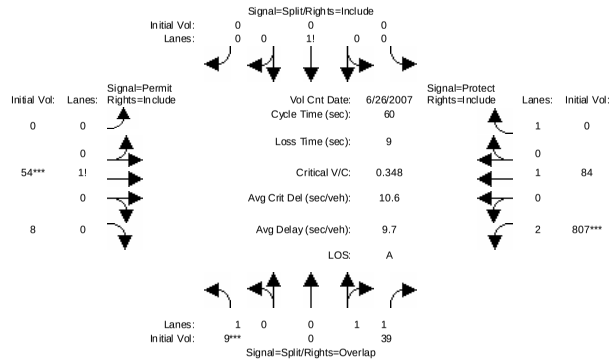
Street Name:          N 1st Street                    Tasman Dr.
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     187 1622  174   110  678   92    46  431   56   216 1073  410
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  187 1622  174   110  678   92    46  431   56   216 1073  410
Added Vol:      0    0    1     1    0    0     0    3    0     3   14    5
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  187 1622  175   111  678   92    46  434   56   219 1087  415
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   187 1622  175   111  678   92    46  434   56   219 1087  415
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  187 1622  175   111  678   92    46  434   56   219 1087  415
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  187 1622  175   111  678   92    46  434   56   219 1087  415
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       2.00 2.00 1.00  2.00 2.00 1.00  1.00 2.00 1.00  1.00 2.00 1.00
Final Sat.:  3150 3800 1750  3150 3800 1750  1750 3800 1750  1750 3800 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.43 0.10  0.04 0.18 0.05  0.03 0.11 0.03  0.13 0.29 0.24
Crit Moves:       ****            ****            ****            ****
Green Time:  17.1 61.7 86.9   7.0 51.5 58.5   7.0 23.1 40.2  25.3 41.3 48.3
Volume/Cap:  0.45 0.89 0.15  0.65 0.45 0.12  0.48 0.64 0.10  0.64 0.89 0.63
Delay/Veh:   52.3 36.7  7.7  68.3 28.5 20.4  63.1 51.2 31.7  51.7 50.4 35.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  52.3 36.7  7.7  68.3 28.5 20.4  63.1 51.2 31.7  51.7 50.4 35.1
LOS by Move:   D-   D+    A     E    C    C+     E   D-    C    D-    D   D+
HCM2kAvgQ:      4   32    3     4   10     2     3    9    2     8   20   14
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #101: Dixon Landing Rd. & McCarthy Blvd.

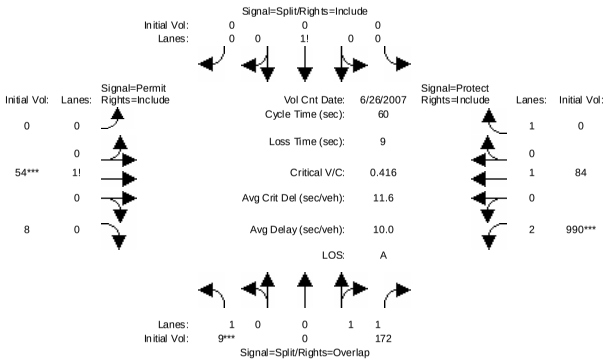



```
Street Name:          McCarthy Blvd.                  Dixon Landing Rd.
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10    0   10    10   10   10    10   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 26 Jun 2007 << 7:00AM-9:00AM
Base Vol:       9    0   39     0    0    0     0   54    8   807   84    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    9    0   39     0    0    0     0   54    8   807   84    0
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    9    0   39     0    0    0     0   54    8   807   84    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     9    0   39     0    0    0     0   54    8   807   84    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    9    0   39     0    0    0     0   54    8   807   84    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    9    0   39     0    0    0     0   54    8   807   84    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.95  0.92 0.92 0.92  0.92 0.95 0.95  0.83 1.00 0.92
Lanes:       1.00 0.00 2.00  0.00 1.00 0.00  0.00 0.87 0.13  2.00 1.00 1.00
Final Sat.:  1750    0 3600     0 1750    0     0 1568  232  3150 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.00 0.01  0.00 0.00 0.00  0.00 0.03 0.03  0.26 0.04 0.00
Crit Moves:  ****                                 ****       ****
Green Time:  10.0  0.0 41.0   0.0  0.0  0.0   0.0 10.0 10.0  31.0 41.0  0.0
Volume/Cap:  0.03 0.00 0.02  0.00 0.00 0.00  0.00 0.21 0.21  0.50 0.06 0.00
Delay/Veh:   21.0  0.0  3.0   0.0  0.0  0.0   0.0 21.9 21.9   9.7  3.2  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  21.0  0.0  3.0   0.0  0.0  0.0   0.0 21.9 21.9   9.7  3.2  0.0
LOS by Move:   C+    A    A     A    A    A     A   C+   C+     A    A    A
HCM2kAvgQ:      0    0    0     0    0    0     0    1    1     6    1    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #101: Dixon Landing Rd. & McCarthy Blvd.



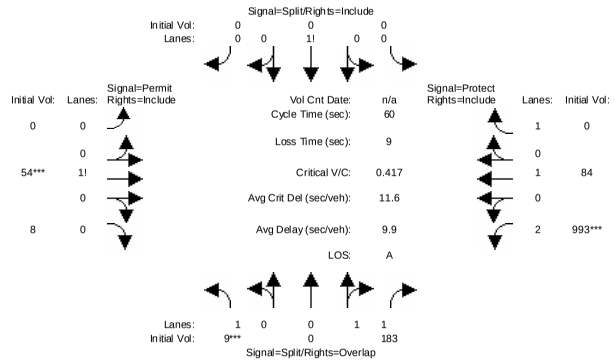
Street Name:	McCarthy Blvd.						Dixon Landing Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	10	10	10	10	10	10	7	10	10
Volume Module: >> Count Date: 26 Jun 2007 << 7:00AM-9:00AM												
Base Vol:	9	0	39	0	0	0	0	54	8	807	84	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	0	39	0	0	0	0	54	8	807	84	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	133	0	0	0	0	0	0	183	0	0
Initial Fut:	9	0	172	0	0	0	0	54	8	990	84	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	0	172	0	0	0	0	54	8	990	84	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	0	172	0	0	0	0	54	8	990	84	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	9	0	172	0	0	0	0	54	8	990	84	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	0.92	0.92	0.92	0.95	0.95	0.83	1.00	0.92
Lanes:	1.00	0.00	2.00	0.00	1.00	0.00	0.00	0.87	0.13	2.00	1.00	1.00
Final Sat.:	1750	0	3600	0	1750	0	0	1568	232	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.03	0.03	0.31	0.04	0.00
Crit Moves:	****							****		****		
Green Time:	10.0	0.0	41.0	0.0	0.0	0.0	0.0	10.0	10.0	31.0	41.0	0.0
Volume/Cap:	0.03	0.00	0.07	0.00	0.00	0.00	0.00	0.21	0.21	0.61	0.06	0.00
Delay/Veh:	21.0	0.0	3.2	0.0	0.0	0.0	0.0	21.9	21.9	10.9	3.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.0	0.0	3.2	0.0	0.0	0.0	0.0	21.9	21.9	10.9	3.2	0.0
LOS by Move:	C+	A	A	A	A	A	A	C+	C+	B+	A	A
HCM2kAvgQ:	0	0	1	0	0	0	0	1	1	8	1	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #101: Dixon Landing Rd. & McCarthy Blvd.



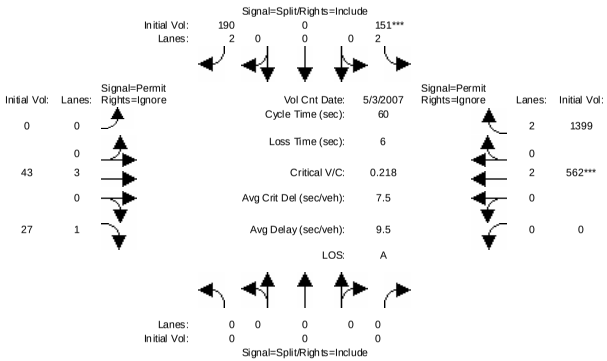
Street Name:	McCarthy Blvd.						Dixon Landing Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	10	10	10	10	10	10	7	10	10
Volume Module:												
Base Vol:	9	0	172	0	0	0	0	54	8	990	84	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	0	172	0	0	0	0	54	8	990	84	0
Added Vol:	0	0	11	0	0	0	0	0	0	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	0	183	0	0	0	0	54	8	993	84	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	0	183	0	0	0	0	54	8	993	84	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	0	183	0	0	0	0	54	8	993	84	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	9	0	183	0	0	0	0	54	8	993	84	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	0.92	0.92	0.92	0.95	0.95	0.83	1.00	0.92
Lanes:	1.00	0.00	2.00	0.00	1.00	0.00	0.00	0.87	0.13	2.00	1.00	1.00
Final Sat.:	1750	0	3600	0	1750	0	0	1568	232	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.03	0.03	0.32	0.04	0.00
Crit Moves:	****							****		****		
Green Time:	10.0	0.0	41.0	0.0	0.0	0.0	0.0	10.0	10.0	31.0	41.0	0.0
Volume/Cap:	0.03	0.00	0.07	0.00	0.00	0.00	0.00	0.21	0.21	0.61	0.06	0.00
Delay/Veh:	21.0	0.0	3.2	0.0	0.0	0.0	0.0	21.9	21.9	10.9	3.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.0	0.0	3.2	0.0	0.0	0.0	0.0	21.9	21.9	10.9	3.2	0.0
LOS by Move:	C+	A	A	A	A	A	A	C+	C+	B+	A	A
HCM2kAvgQ:	0	0	1	0	0	0	0	1	1	8	1	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #102: Dixon Landing Rd. & I-880 SB Ramps

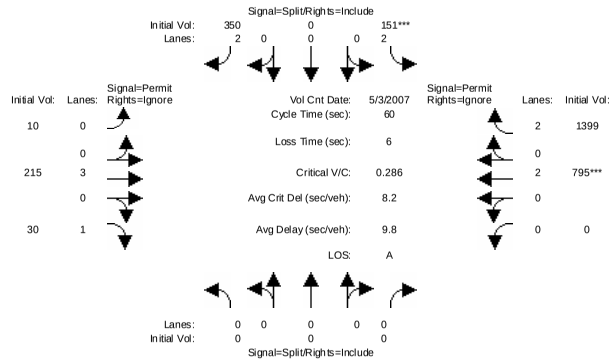



```
Street Name:          I-880 SB Ramps                    Dixon Landing Rd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     0    10     0     0    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 3 May 2007 << 7-9am
Base Vol:       0     0     0   151     0   190     0    43    27     0   562  1399
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   151     0   190     0    43    27     0   562  1399
Added Vol:      0     0     0     0     0     0     0     0     0     0     0     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:    0     0     0   151     0   190     0    43    27     0   562  1399
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:     0     0     0   151     0   190     0    43     0     0   562     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   151     0   190     0    43     0     0   562     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:    0     0     0   151     0   190     0    43     0     0   562     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.83  1.00  0.83  0.92  1.00  0.92  0.92  1.00  0.83
Lanes:       0.00  0.00  0.00  2.00  0.00  2.00  0.00  3.00  1.00  0.00  2.00  2.00
Final Sat.:     0     0     0  3150     0  3150     0  5700  1750     0  3800  3150
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.05  0.00  0.06  0.00  0.01  0.00  0.00  0.15  0.00
Crit Moves:                    ****                                      ****
Green Time:   0.0   0.0   0.0  15.6   0.0  15.6   0.0  38.4   0.0   0.0  38.4   0.0
Volume/Cap:  0.00  0.00  0.00  0.18  0.00  0.23  0.00  0.01  0.00  0.00  0.23  0.00
Delay/Veh:    0.0   0.0   0.0  17.7   0.0  18.1   0.0   3.9   0.0   0.0   4.8   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0  17.7   0.0  18.1   0.0   3.9   0.0   0.0   4.8   0.0
LOS by Move:    A     A     A     B     A    B-     A     A     A     A     A     A
HCM2kAvgQ:      0     0     0     1     0     2     0     0     0     0     2     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #102: Dixon Landing Rd. & I-880 SB Ramps

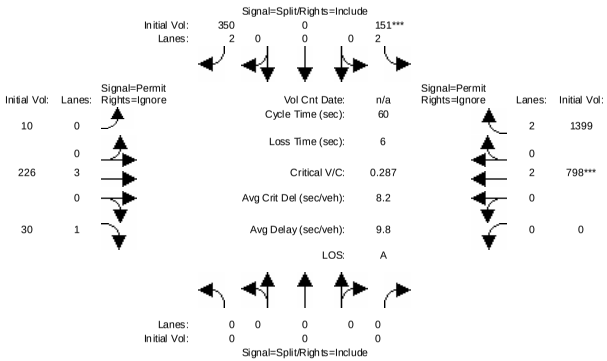



```
Street Name:          I-880 SB Ramps                    Dixon Landing Rd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     0    10     0     0    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 3 May 2007 << 7-9am
Base Vol:       0     0     0   151     0   190     0    43    27     0   562  1399
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   151     0   190     0    43    27     0   562  1399
Added Vol:      0     0     0     0     0     0     0     0     0     0     0     0
ATI:            0     0     0     0     0   160    10   172     3     0   233     0
Initial Fut:    0     0     0   151     0   350    10   215    30     0   795  1399
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:     0     0     0   151     0   350    10   215     0     0   795     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   151     0   350    10   215     0     0   795     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:    0     0     0   151     0   350    10   215     0     0   795     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.83  1.00  0.83  0.95  0.98  0.92  0.92  1.00  0.83
Lanes:       0.00  0.00  0.00  2.00  0.00  2.00  0.14  2.86  1.00  0.00  2.00  2.00
Final Sat.:     0     0     0  3150     0  3150   249  5351  1750     0  3800  3150
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.05  0.00  0.11  0.04  0.04  0.00  0.00  0.21  0.00
Crit Moves:                    ****                                      ****
Green Time:   0.0   0.0   0.0  18.7   0.0  18.7  35.3  35.3   0.0   0.0  35.3   0.0
Volume/Cap:  0.00  0.00  0.00  0.15  0.00  0.36  0.07  0.07  0.00  0.00  0.36  0.00
Delay/Veh:    0.0   0.0   0.0  15.2   0.0  17.0   5.4   5.4   0.0   0.0   6.9   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0  15.2   0.0  17.0   5.4   5.4   0.0   0.0   6.9   0.0
LOS by Move:    A     A     A     B     A     B     A     A     A     A     A     A
HCM2kAvgQ:      0     0     0     1     0     3     1     1     0     0     4     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #102: Dixon Landing Rd. & I-880 SB Ramps

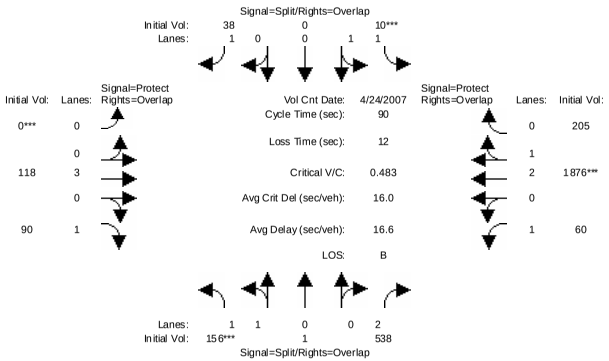



```
Street Name:          I-880 SB Ramps                    Dixon Landing Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     0    10     0     0    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0     0     0   151     0   350    10   215    30     0   795  1399
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   151     0   350    10   215    30     0   795  1399
Added Vol:      0     0     0     0     0     0     0    11     0     0     3     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:    0     0     0   151     0   350    10   226    30     0   798  1399
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:     0     0     0   151     0   350    10   226     0     0   798     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   151     0   350    10   226     0     0   798     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:    0     0     0   151     0   350    10   226     0     0   798     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.83  1.00  0.83  0.95  0.98  0.92  0.92  1.00  0.83
Lanes:       0.00  0.00  0.00  2.00  0.00  2.00  0.13  2.87  1.00  0.00  2.00  2.00
Final Sat.:     0     0     0  3150     0  3150   237  5362  1750     0  3800  3150
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.05  0.00  0.11  0.04  0.04  0.00  0.00  0.21  0.00
Crit Moves:                    ****                                      ****
Green Time:   0.0   0.0   0.0  18.7   0.0  18.7  35.3  35.3   0.0   0.0  35.3   0.0
Volume/Cap:  0.00  0.00  0.00  0.15  0.00  0.36  0.07  0.07  0.00  0.00  0.36  0.00
Delay/Veh:    0.0   0.0   0.0  15.3   0.0  17.0   5.3   5.3   0.0   0.0   6.9   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0  15.3   0.0  17.0   5.3   5.3   0.0   0.0   6.9   0.0
LOS by Move:    A     A     A     B     A     B     A     A     A     A     A     A
HCM2kAvgQ:      0     0     0     1     0     3     1     1     0     0     4     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #103: Dixon Landing Rd. & I-880 NB Ramps

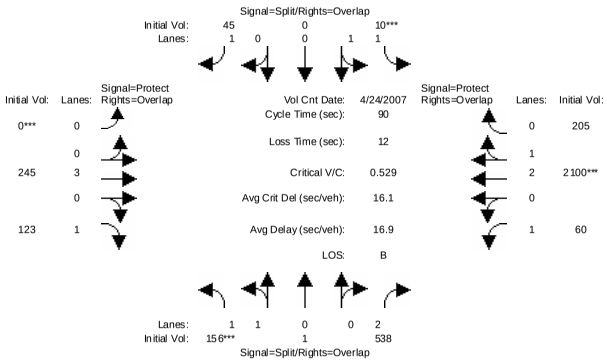



```
Street Name:          I-880 NB Ramps                    Dixon Landing Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10    10    10    10    10    10     0    10    10     7    10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 24 Apr 2007 <<
Base Vol:     156     1   538    10     0    38     0   118    90    60  1876   205
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:  156     1   538    10     0    38     0   118    90    60  1876   205
Added Vol:      0     0     0     0     0     0     0     0     0     0     0     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:  156     1   538    10     0    38     0   118    90    60  1876   205
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:   156     1   538    10     0    38     0   118    90    60  1876   205
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:  156     1   538    10     0    38     0   118    90    60  1876   205
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
FinalVolume:  156     1   538    10     0    38     0   118    90    60  1876   205
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.93  0.95  0.83  0.93  1.00  0.92  0.92  1.00  0.92  0.92  0.99  0.95
Lanes:       1.99  0.01  2.00  2.00  0.00  1.00  0.00  3.00  1.00  1.00  2.69  0.31
Final Sat.:  3527    23  3150  3550     0  1750     0  5700  1750  1750  5048   552
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04  0.04  0.17  0.00  0.00  0.02  0.00  0.02  0.05  0.03  0.37  0.37
Crit Moves:  ****                ****                ****                      ****
Green Time:  17.3  17.3  38.2  10.0   0.0  10.0   0.0  29.8  47.1  20.9  50.7  60.7
Volume/Cap:  0.23  0.23  0.40  0.03  0.00  0.20  0.00  0.06  0.10  0.15  0.66  0.55
Delay/Veh:   31.5  31.5  18.9  35.8   0.0  38.6   0.0  20.6  11.0  28.3  14.8   8.2
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:  31.5  31.5  18.9  35.8   0.0  38.6   0.0  20.6  11.0  28.3  14.8   8.2
LOS by Move:    C     C    B-    D+     A    D+     A    C+    B+     C     B     A
HCM2kAvgQ:      2     2     6     0     0     1     0     1     1     1    14    11
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #103: Dixon Landing Rd. & I-880 NB Ramps

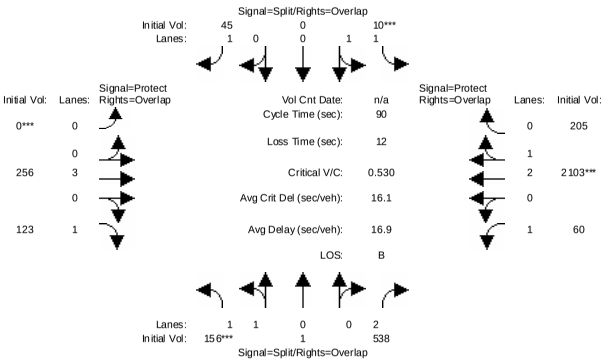



```
Street Name:          I-880 NB Ramps                  Dixon Landing Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10   10    10   10   10     0   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 24 Apr 2007 <<
Base Vol:     156    1  538    10    0   38     0  118   90    60 1876  205
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  156    1  538    10    0   38     0  118   90    60 1876  205
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            0    0    0     0    0    7     0  127   33     0  224    0
Initial Fut:  156    1  538    10    0   45     0  245  123    60 2100  205
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   156    1  538    10    0   45     0  245  123    60 2100  205
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  156    1  538    10    0   45     0  245  123    60 2100  205
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  156    1  538    10    0   45     0  245  123    60 2100  205
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.93 0.95 0.83  0.93 1.00 0.92  0.92 1.00 0.92  0.92 0.99 0.95
Lanes:       1.99 0.01 2.00  2.00 0.00 1.00  0.00 3.00 1.00  1.00 2.72 0.28
Final Sat.:  3527   23 3150  3550    0 1750     0 5700 1750  1750 5101  498
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.04 0.17  0.00 0.00 0.03  0.00 0.04 0.07  0.03 0.41 0.41
Crit Moves:  ****            ****            ****            ****
Green Time:  15.8 15.8 37.3  10.0  0.0 10.0   0.0 30.7 46.5  21.5 52.2 62.2
Volume/Cap:  0.25 0.25 0.41  0.03 0.00 0.23  0.00 0.13 0.14  0.14 0.71 0.60
Delay/Veh:   33.0 33.0 19.6  35.8  0.0 39.3   0.0 20.5 11.6  27.7 14.8  8.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  33.0 33.0 19.6  35.8  0.0 39.3   0.0 20.5 11.6  27.7 14.8  8.0
LOS by Move:   C-   C-   B-    D+    A    D     A   C+   B+    C    B    A
HCM2kAvgQ:      2    2    6     0    0    1     0    2    2    1   17   12
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #103: Dixon Landing Rd. & I-880 NB Ramps

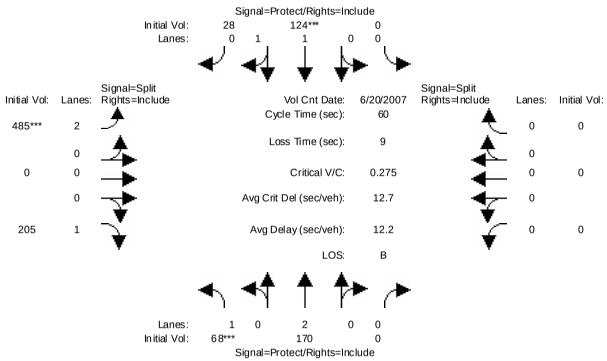



```
Street Name:          I-880 NB Ramps                  Dixon Landing Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10   10    10   10   10     0   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     156    1  538    10    0   45     0  245  123    60 2100  205
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  156    1  538    10    0   45     0  245  123    60 2100  205
Added Vol:      0    0    0     0    0    0     0   11    0     0    3    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  156    1  538    10    0   45     0  256  123    60 2103  205
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   156    1  538    10    0   45     0  256  123    60 2103  205
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  156    1  538    10    0   45     0  256  123    60 2103  205
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  156    1  538    10    0   45     0  256  123    60 2103  205
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.93 0.95 0.83  0.93 1.00 0.92  0.92 1.00 0.92  0.92 0.99 0.95
Lanes:       1.99 0.01 2.00  2.00 0.00 1.00  0.00 3.00 1.00  1.00 2.72 0.28
Final Sat.:  3527   23 3150  3550    0 1750     0 5700 1750  1750 5102  497
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.04 0.17  0.00 0.00 0.03  0.00 0.04 0.07  0.03 0.41 0.41
Crit Moves:  ****            ****            ****            ****
Green Time:  15.8 15.8 37.3  10.0  0.0 10.0   0.0 30.7 46.5  21.5 52.2 62.2
Volume/Cap:  0.25 0.25 0.41  0.03 0.00 0.23  0.00 0.13 0.14  0.14 0.71 0.60
Delay/Veh:   33.0 33.0 19.6  35.8  0.0 39.3   0.0 20.6 11.6  27.7 14.9  8.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  33.0 33.0 19.6  35.8  0.0 39.3   0.0 20.6 11.6  27.7 14.9  8.0
LOS by Move:   C-   C-   B-    D+    A    D     A   C+   B+    C    B    A
HCM2kAvgQ:      2    2    6     0    0    1     0    2    2    1   17   12
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #104: California Circle & I-880 NB Ramps

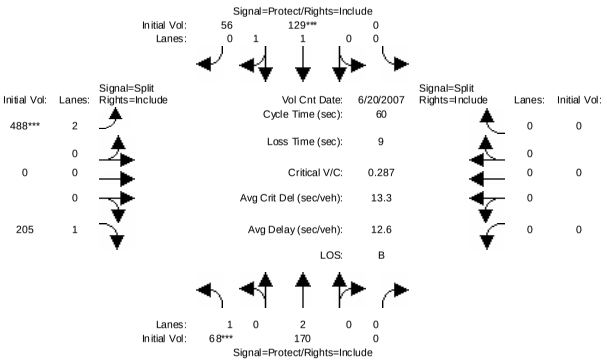



```
Street Name:         California Circle                  I-880 NB Ramps
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10     0     0   10    10    10     0    10     0     0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 7-9am
Base Vol:      68  170     0     0  124    28   485     0   205     0     0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   68  170     0     0  124    28   485     0   205     0     0     0
Added Vol:      0    0     0     0    0     0     0     0     0     0     0     0
PasserByVol:    0    0     0     0    0     0     0     0     0     0     0     0
Initial Fut:   68  170     0     0  124    28   485     0   205     0     0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    68  170     0     0  124    28   485     0   205     0     0     0
Reduct Vol:     0    0     0     0    0     0     0     0     0     0     0     0
Reduced Vol:   68  170     0     0  124    28   485     0   205     0     0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   68  170     0     0  124    28   485     0   205     0     0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 0.98  0.95  0.83 1.00  0.92  0.92 1.00  0.92
Lanes:       1.00 2.00  0.00  0.00 1.62  0.38  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1750 3800     0     0 3018   681  3150    0  1750     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.04  0.00  0.00 0.04  0.04  0.15 0.00  0.12  0.00 0.00  0.00
Crit Moves:  ****                 ****        ****
Green Time:   8.3 18.3   0.0   0.0 10.0  10.0  32.7  0.0  32.7   0.0  0.0   0.0
Volume/Cap:  0.28 0.15  0.00  0.00 0.25  0.25  0.28 0.00  0.21  0.00 0.00  0.00
Delay/Veh:   26.1 15.5   0.0   0.0 22.7  22.7   7.7  0.0   7.5   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  26.1 15.5   0.0   0.0 22.7  22.7   7.7  0.0   7.5   0.0  0.0   0.0
LOS by Move:    C    B     A     A   C+    C+     A    A     A     A    A     A
HCM2kAvgQ:      1    1     0     0    1     1     3    0     2     0    0     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #104: California Circle & I-880 NB Ramps

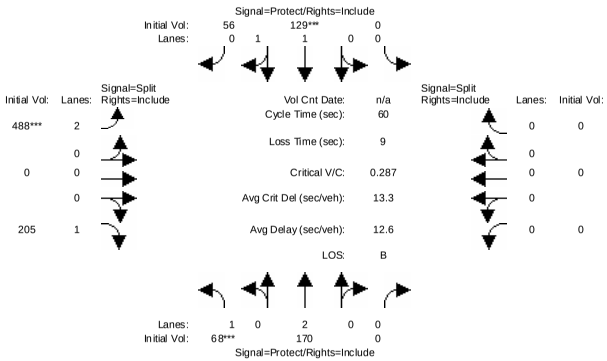



```
Street Name:         California Circle                  I-880 NB Ramps
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10     0     0   10    10    10     0    10     0     0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 7-9am
Base Vol:      68  170     0     0  124    28   485     0   205     0     0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   68  170     0     0  124    28   485     0   205     0     0     0
Added Vol:      0    0     0     0    0     0     0     0     0     0     0     0
ATI:            0    0     0     0    5    28     3     0     0     0     0     0
Initial Fut:   68  170     0     0  129    56   488     0   205     0     0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    68  170     0     0  129    56   488     0   205     0     0     0
Reduct Vol:     0    0     0     0    0     0     0     0     0     0     0     0
Reduced Vol:   68  170     0     0  129    56   488     0   205     0     0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   68  170     0     0  129    56   488     0   205     0     0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 0.99  0.95  0.83 1.00  0.92  0.92 1.00  0.92
Lanes:       1.00 2.00  0.00  0.00 1.38  0.62  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1750 3800     0     0 2579  1120  3150    0  1750     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.04  0.00  0.00 0.05  0.05  0.15 0.00  0.12  0.00 0.00  0.00
Crit Moves:  ****                 ****        ****
Green Time:   8.1 18.6   0.0   0.0 10.5  10.5  32.4  0.0  32.4   0.0  0.0   0.0
Volume/Cap:  0.29 0.14  0.00  0.00 0.29  0.29  0.29 0.00  0.22  0.00 0.00  0.00
Delay/Veh:   26.4 15.2   0.0   0.0 22.6  22.6   7.9  0.0   7.7   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  26.4 15.2   0.0   0.0 22.6  22.6   7.9  0.0   7.7   0.0  0.0   0.0
LOS by Move:    C    B     A     A   C+    C+     A    A     A     A    A     A
HCM2kAvgQ:      2    1     0     0    2     2     3    0     2     0    0     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #104: California Circle & I-880 NB Ramps



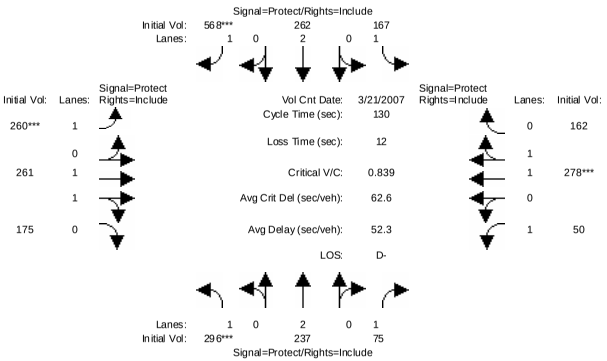
Street Name:	California Circle						I-880 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	10	0	10	0	0	0
Volume Module:												
Base Vol:	68	170	0	0	129	56	488	0	205	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	170	0	0	129	56	488	0	205	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	170	0	0	129	56	488	0	205	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	68	170	0	0	129	56	488	0	205	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	170	0	0	129	56	488	0	205	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	170	0	0	129	56	488	0	205	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	1.38	0.62	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	0	0	2579	1120	3150	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.00	0.00	0.05	0.05	0.15	0.00	0.12	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green Time:	8.1	18.6	0.0	0.0	10.5	10.5	32.4	0.0	32.4	0.0	0.0	0.0
Volume/Cap:	0.29	0.14	0.00	0.00	0.29	0.29	0.29	0.00	0.22	0.00	0.00	0.00
Delay/Veh:	26.4	15.2	0.0	0.0	22.6	22.6	7.9	0.0	7.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.4	15.2	0.0	0.0	22.6	22.6	7.9	0.0	7.7	0.0	0.0	0.0
LOS by Move:	C	B	A	A	C+	C+	A	A	A	A	A	A
HCM2kAvgQ:	2	1	0	0	2	2	3	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #105: Dixon Landing Rd. & N. Milpitas Blvd.



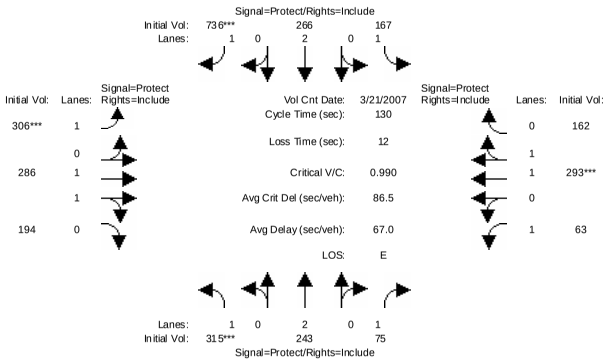
Street Name:	N. Milpitas Blvd.						Dixon Landing Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 21 Mar 2007 <<												
Base Vol:	296	237	75	167	262	568	260	261	175	50	278	162
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	296	237	75	167	262	568	260	261	175	50	278	162
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	296	237	75	167	262	568	260	261	175	50	278	162
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	296	237	75	167	262	568	260	261	175	50	278	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	296	237	75	167	262	568	260	261	175	50	278	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	296	237	75	167	262	568	260	261	175	50	278	162
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.99	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.18	0.82	1.00	1.24	0.76
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	2214	1484	1750	2337	1362
Capacity Analysis Module:												
Vol/Sat:	0.17	0.06	0.04	0.10	0.07	0.32	0.15	0.12	0.12	0.03	0.12	0.12
Crit Moves:	****					****	****				****	
Green Time:	26.2	34.2	34.2	42.4	50.3	50.3	23.0	28.5	28.5	13.0	18.4	18.4
Volume/Cap:	0.84	0.24	0.16	0.29	0.18	0.84	0.84	0.54	0.54	0.29	0.84	0.84
Delay/Veh:	70.5	38.2	37.7	33.9	26.5	48.0	74.6	47.5	47.5	58.3	69.1	69.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.5	38.2	37.7	33.9	26.5	48.0	74.6	47.5	47.5	58.3	69.1	69.1
LOS by Move:	E	D+	D+	C-	C	D	E	D	D	E+	E	E
HCM2kAvgQ:	14	4	2	5	3	24	12	8	8	2	11	11

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #105: Dixon Landing Rd. & N. Milpitas Blvd.



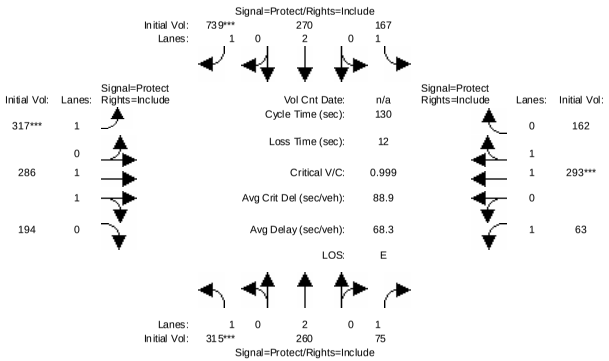
Street Name:	N. Milpitas Blvd.						Dixon Landing Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 21 Mar 2007 <<												
Base Vol:	296	237	75	167	262	568	260	261	175	50	278	162
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	296	237	75	167	262	568	260	261	175	50	278	162
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	19	6	0	0	4	168	46	25	19	13	15	0
Initial Fut:	315	243	75	167	266	736	306	286	194	63	293	162
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	315	243	75	167	266	736	306	286	194	63	293	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	243	75	167	266	736	306	286	194	63	293	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	315	243	75	167	266	736	306	286	194	63	293	162
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.99	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.17	0.83	1.00	1.27	0.73
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	2203	1495	1750	2382	1317
Capacity Analysis Module:												
Vol/Sat:	0.18	0.06	0.04	0.10	0.07	0.42	0.17	0.13	0.13	0.04	0.12	0.12
Crit Moves:	****					****	****				****	
Green Time:	23.6	35.2	35.2	43.7	55.2	55.2	23.0	27.7	27.7	11.5	16.2	16.2
Volume/Cap:	0.99	0.24	0.16	0.28	0.16	0.99	0.99	0.61	0.61	0.41	0.99	0.99
Delay/Veh:	101.0	37.5	36.8	32.9	23.3	67.7	102.1	49.8	49.8	63.9	96.4	96.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	101.0	37.5	36.8	32.9	23.3	67.7	102.1	49.8	49.8	63.9	96.4	96.4
LOS by Move:	F	D+	D+	C-	C	E	F	D	D	E	F	F
HCM2kAvgQ:	18	4	2	5	3	39	17	9	9	3	14	14

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #105: Dixon Landing Rd. & N. Milpitas Blvd.



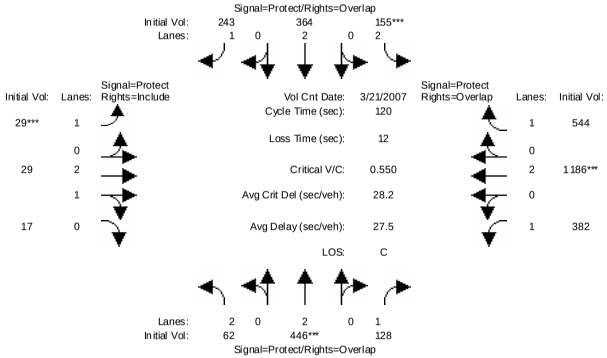
Street Name:	N. Milpitas Blvd.						Dixon Landing Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	315	243	75	167	266	736	306	286	194	63	293	162
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	315	243	75	167	266	736	306	286	194	63	293	162
Added Vol:	0	17	0	0	4	3	11	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	315	260	75	167	270	739	317	286	194	63	293	162
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	315	260	75	167	270	739	317	286	194	63	293	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	260	75	167	270	739	317	286	194	63	293	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	315	260	75	167	270	739	317	286	194	63	293	162
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.99	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.17	0.83	1.00	1.27	0.73
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	2203	1495	1750	2382	1317
Capacity Analysis Module:												
Vol/Sat:	0.18	0.07	0.04	0.10	0.07	0.42	0.18	0.13	0.13	0.04	0.12	0.12
Crit Moves:	****					****	****				****	
Green Time:	23.4	35.0	35.0	43.4	55.0	55.0	23.6	28.0	28.0	11.6	16.0	16.0
Volume/Cap:	1.00	0.25	0.16	0.29	0.17	1.00	1.00	0.60	0.60	0.40	1.00	1.00
Delay/Veh:	103.6	37.9	37.0	33.1	23.5	70.2	103.4	49.4	49.4	63.5	98.8	98.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	103.6	37.9	37.0	33.1	23.5	70.2	103.4	49.4	49.4	63.5	98.8	98.8
LOS by Move:	F	D+	D+	C-	C	E	F	D	D	E	F	F
HCM2kAvgQ:	18	4	2	5	3	39	18	9	9	3	14	14

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #106: Scott Creek Rd. & Warm Springs Blvd.



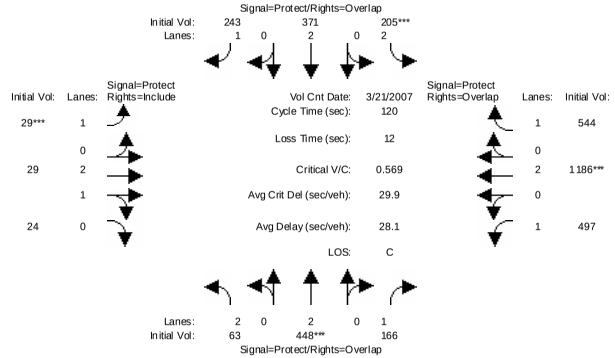
Street Name:	Warm Springs Blvd.						Scott Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 21 Mar 2007 <<												
Base Vol:	62	446	128	155	364	243	29	29	17	382	1186	544
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	62	446	128	155	364	243	29	29	17	382	1186	544
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	446	128	155	364	243	29	29	17	382	1186	544
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	446	128	155	364	243	29	29	17	382	1186	544
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	446	128	155	364	243	29	29	17	382	1186	544
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	446	128	155	364	243	29	29	17	382	1186	544
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.12	0.07	0.05	0.10	0.14	0.02	0.01	0.01	0.22	0.31	0.31
Crit Moves:		****		****			****				****	
Green Time:	11.4	24.8	77.5	10.4	23.8	30.8	7.0	20.1	20.1	52.7	65.9	76.2
Volume/Cap:	0.21	0.57	0.11	0.57	0.48	0.54	0.28	0.05	0.06	0.50	0.57	0.49
Delay/Veh:	50.5	43.8	8.2	55.5	43.1	39.8	55.6	41.9	42.0	24.6	18.1	11.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.5	43.8	8.2	55.5	43.1	39.8	55.6	41.9	42.0	24.6	18.1	11.9
LOS by Move:	D	D	A	E+	D	D	E+	D	D	C	B-	B+
HCM2kAvgQ:	1	7	2	4	6	9	1	0	1	11	14	11

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #106: Scott Creek Rd. & Warm Springs Blvd.



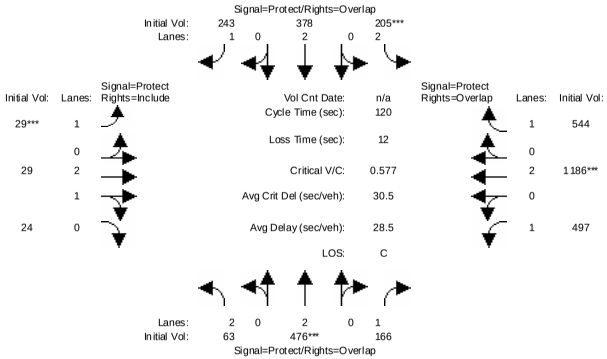
Street Name:	Warm Springs Blvd.						Scott Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 21 Mar 2007 <<												
Base Vol:	62	446	128	155	364	243	29	29	17	382	1186	544
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	62	446	128	155	364	243	29	29	17	382	1186	544
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	1	2	38	50	7	0	0	0	7	115	0	0
Initial Fut:	63	448	166	205	371	243	29	29	24	497	1186	544
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	63	448	166	205	371	243	29	29	24	497	1186	544
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	448	166	205	371	243	29	29	24	497	1186	544
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	63	448	166	205	371	243	29	29	24	497	1186	544
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.12	0.09	0.07	0.10	0.14	0.02	0.01	0.01	0.28	0.31	0.31
Crit Moves:		****		****			****				****	
Green Time:	12.1	24.1	78.7	13.3	25.3	32.3	7.0	16.0	16.0	54.6	63.7	76.9
Volume/Cap:	0.20	0.59	0.14	0.59	0.46	0.52	0.28	0.06	0.10	0.62	0.59	0.48
Delay/Veh:	49.9	44.7	7.9	53.4	41.9	38.2	55.6	45.4	45.8	26.4	19.7	11.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.9	44.7	7.9	53.4	41.9	38.2	55.6	45.4	45.8	26.4	19.7	11.5
LOS by Move:	D	D	A	D-	D	D+	E+	D	D	C	B-	B+
HCM2kAvgQ:	1	7	2	5	6	8	1	0	1	15	15	11

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #106: Scott Creek Rd. & Warm Springs Blvd.

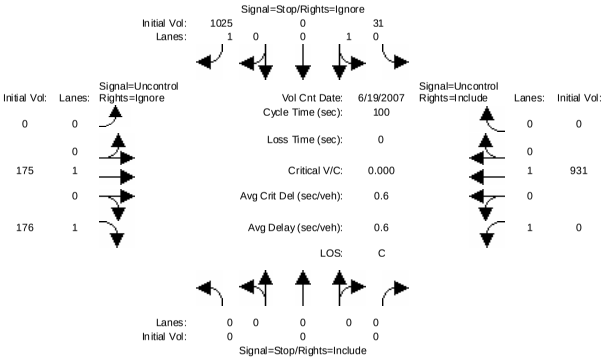



```
Street Name:         Warm Springs Blvd.                  Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10  10     7  10  10     7  10  10     7  10  10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      63 448 166   205 371 243    29  29  24   497 1186 544
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   63 448 166   205 371 243    29  29  24   497 1186 544
Added Vol:      0  28   0     0   7   0     0   0   0     0    0   0
PasserByVol:    0   0   0     0   0   0     0   0   0     0    0   0
Initial Fut:   63 476 166   205 378 243    29  29  24   497 1186 544
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    63 476 166   205 378 243    29  29  24   497 1186 544
Reduct Vol:     0   0   0     0   0   0     0   0   0     0    0   0
Reduced Vol:   63 476 166   205 378 243    29  29  24   497 1186 544
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   63 476 166   205 378 243    29  29  24   497 1186 544
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.83 1.00 0.92 0.83 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
Lanes:       2.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.:  3150 3800 1750 3150 3800 1750 1750 3800 1750 1750 3800 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.13 0.09 0.07 0.10 0.14 0.02 0.01 0.01 0.28 0.31 0.31
Crit Moves:          ****        ****        ****        ****
Green Time:  12.4 25.2 79.1 13.1 25.9 32.9  7.0 15.8 15.8 53.9 62.7 75.8
Volume/Cap:  0.19 0.60 0.14 0.60 0.46 0.51 0.28 0.06 0.10 0.63 0.60 0.49
Delay/Veh:   49.6 44.1  7.8 53.8 41.4 37.6 55.6 45.6 45.9 27.1 20.4 12.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  49.6 44.1  7.8 53.8 41.4 37.6 55.6 45.6 45.9 27.1 20.4 12.1
LOS by Move:    D    D    A   D-    D   D+   E+    D    D    C   C+    B
HCM2kAvgQ:      1    8    2    5    6    8    1    0    1   15   15   11
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #107: Scott Creek Rd. & I-680 SB Ramps

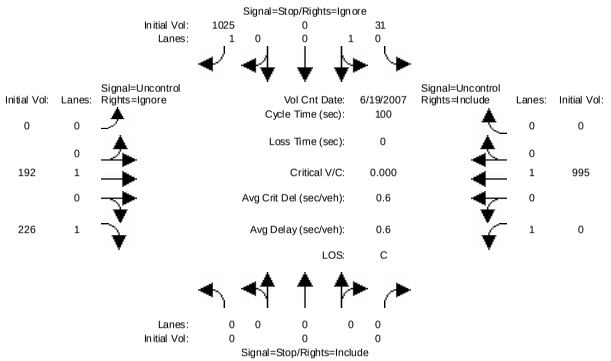



```
Street Name:         I-680 SB Ramps                      Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Jun 2007 <<
Base Vol:       0    0    0    31    0 1025     0 175  176     0 931     0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00  1.00
Initial Bse:    0    0    0    31    0 1025     0 175  176     0 931     0
Added Vol:      0    0    0     0    0    0     0   0    0     0   0     0
PasserByVol:    0    0    0     0    0    0     0   0    0     0   0     0
Initial Fut:    0    0    0    31    0 1025     0 175  176     0 931     0
User Adj:    1.00 1.00 1.00 1.00 1.00 0.00  1.00 0.00 0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 0.00  1.00 1.00 0.00  1.00 1.00  1.00
PHF Volume:     0    0    0    31    0    0     0   0    0     0 931     0
Reduct Vol:     0    0    0     0    0    0     0   0    0     0   0     0
FinalVolume:    0    0    0    31    0    0     0   0    0     0 931     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   931  931   931  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   299  269   326  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   299  269   326  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  0.10 0.00  0.00  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *    *     *    *    *     *    *    *     *    *    *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx   299 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx  18.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *    *     C    *    *     *    *    *     *    *    *
ApproachDel:    xxxxxx             18.4          xxxxxx          xxxxxx
ApproachLOS:         *                C               *               *
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #107: Scott Creek Rd. & I-680 SB Ramps

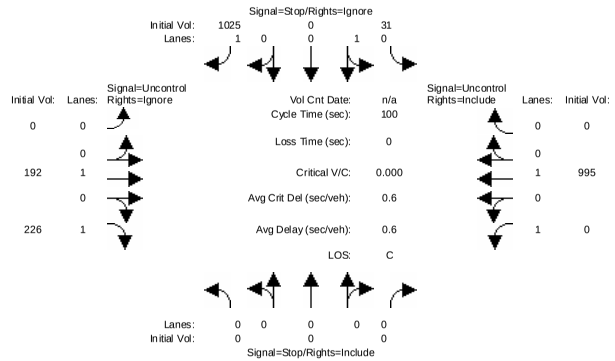



```
Street Name:          I-680 SB Ramps                    Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Jun 2007 <<
Base Vol:       0    0     0    31    0  1025     0  175   176     0  931     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0    31    0  1025     0  175   176     0  931     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
ATI:            0    0     0     0    0     0     0   17    50     0   64     0
Initial Fut:    0    0     0    31    0  1025     0  192   226     0  995     0
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:     0    0     0    31    0     0     0    0     0     0  995     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0    31    0     0     0    0     0     0  995     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   995  995   995  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   274  247   300  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   274  247   300  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  0.11 0.00  0.00  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx   274 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx  19.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     C    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            19.8           xxxxxx           xxxxxx
ApproachLOS:         *              C                *                *
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #107: Scott Creek Rd. & I-680 SB Ramps

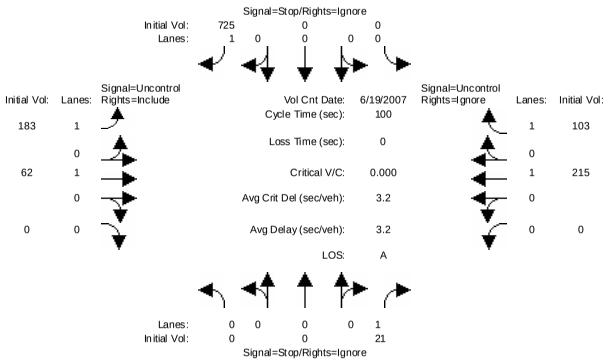



```
Street Name:          I-680 SB Ramps                    Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0    31    0  1025     0  192   226     0  995     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0    31    0  1025     0  192   226     0  995     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0    31    0  1025     0  192   226     0  995     0
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:     0    0     0    31    0     0     0    0     0     0  995     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0    31    0     0     0    0     0     0  995     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   995  995   995  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   274  247   300  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   274  247   300  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  0.11 0.00  0.00  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx   274 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx  19.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     C    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            19.8           xxxxxx           xxxxxx
ApproachLOS:         *              C                *                *
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #108: Scott Creek Rd. & I-680 NB Ramps

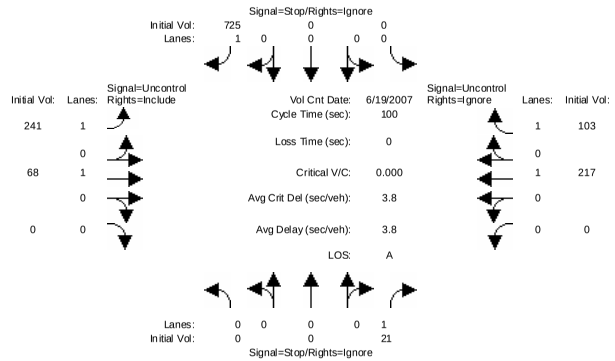



```
Street Name:          I-680 NB Ramps                    Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Jun 2007 <<
Base Vol:       0    0    21     0    0   725   183   62     0     0  215   103
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0    21     0    0   725   183   62     0     0  215   103
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0    21     0    0   725   183   62     0     0  215   103
User Adj:    1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:     0    0     0     0    0     0   183   62     0     0  215     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0   183   62     0     0  215     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx   6.2 xxxxx xxxx   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx   3.3 xxxxx xxxx   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx    62  xxxx xxxx   215   215 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx  1009  xxxx xxxx   830  1367 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx  1009  xxxx xxxx   830  1367 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  0.00  xxxx xxxx  0.00  0.13 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.5 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.0 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A     *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #108: Scott Creek Rd. & I-680 NB Ramps

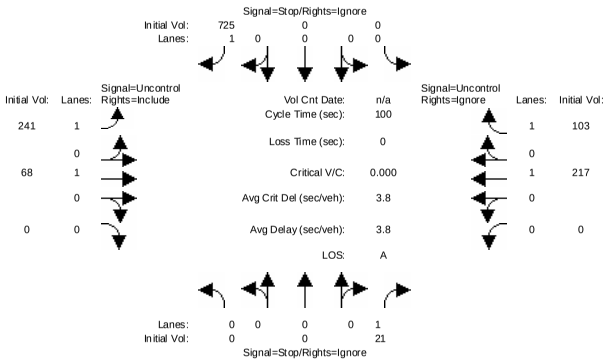



```
Street Name:          I-680 NB Ramps                    Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Jun 2007 <<
Base Vol:       0    0    21     0    0   725   183   62     0     0  215   103
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0    21     0    0   725   183   62     0     0  215   103
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
ATI:            0    0     0     0    0     0    58    6     0     0    2     0
Initial Fut:    0    0    21     0    0   725   241   68     0     0  217   103
User Adj:    1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:     0    0     0     0    0     0   241   68     0     0  217     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0   241   68     0     0  217     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx   6.2 xxxxx xxxx   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx   3.3 xxxxx xxxx   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx    68  xxxx xxxx   217   217 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx  1001  xxxx xxxx   828  1365 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx  1001  xxxx xxxx   828  1365 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  0.00  xxxx xxxx  0.00  0.18 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.6 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.2 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A     *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #108: Scott Creek Rd. & I-680 NB Ramps

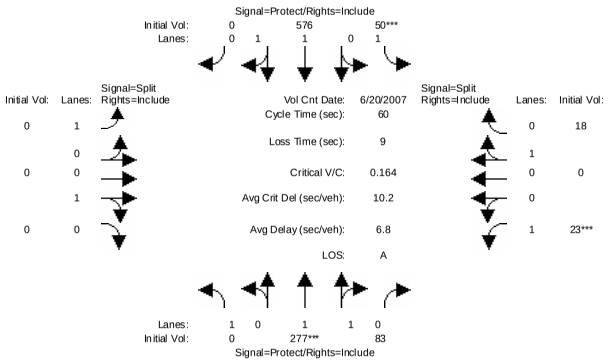



```
Street Name:          I-680 NB Ramps                  Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0    21     0    0   725   241   68     0     0  217   103
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0    21     0    0   725   241   68     0     0  217   103
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0    21     0    0   725   241   68     0     0  217   103
User Adj:    1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:     0    0     0     0    0     0   241   68     0     0  217     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0   241   68     0     0  217     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx   6.2 xxxxx xxxx   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx   3.3 xxxxx xxxx   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx    68  xxxx xxxx   217   217 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx  1001  xxxx xxxx   828  1365 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx  1001  xxxx xxxx   828  1365 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  0.00  xxxx xxxx  0.00  0.18 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.6 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   8.2 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A     *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *     *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #109: McCarthy Blvd. & Ranch Dr. (N)

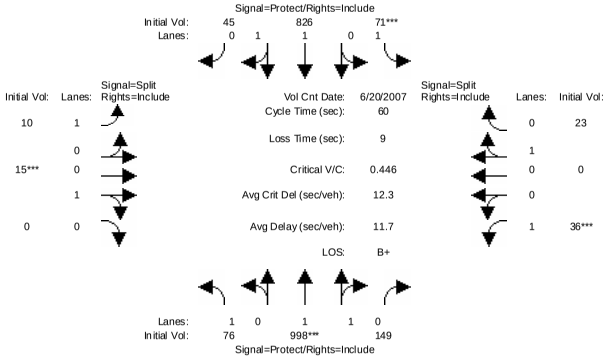



```
Street Name:          McCarthy Blvd.                  Ranch Dr. (N)
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10    10     7   10     0     0    0     0    10     0    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 7-9am
Base Vol:       0  277    83    50  576     0     0    0     0    23     0    18
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0  277    83    50  576     0     0    0     0    23     0    18
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0  277    83    50  576     0     0    0     0    23     0    18
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0  277    83    50  576     0     0    0     0    23     0    18
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0  277    83    50  576     0     0    0     0    23     0    18
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0  277    83    50  576     0     0    0     0    23     0    18
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.98  0.95  0.92 0.97  0.92  0.92 1.00  0.92  0.92 1.00  0.95
Lanes:       1.00 1.53  0.47  1.00 2.00  0.00  1.00 1.00  0.00  1.00 0.00  1.00
Final Sat.:  1750 2846   853  1750 3700     0  1750 1900     0  1750    0  1800
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.10  0.10  0.03 0.16  0.00  0.00 0.00  0.00  0.01 0.00  0.01
Crit Moves:       ****        ****                             ****
Green Time:   0.0 31.7  31.7   9.3 41.0   0.0   0.0  0.0   0.0  10.0  0.0  10.0
Volume/Cap:  0.00 0.18  0.18  0.18 0.23  0.00  0.00 0.00  0.00  0.08 0.00  0.06
Delay/Veh:    0.0  7.6   7.6  23.5  3.8   0.0   0.0  0.0   0.0  21.6  0.0  21.4
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  7.6   7.6  23.5  3.8   0.0   0.0  0.0   0.0  21.6  0.0  21.4
LOS by Move:    A    A     A     C    A     A     A    A     A    C+    A    C+
HCM2kAvgQ:      0    2     2     1    2     0     0    0     0     0    0     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #109: McCarthy Blvd. & Ranch Dr. (N)

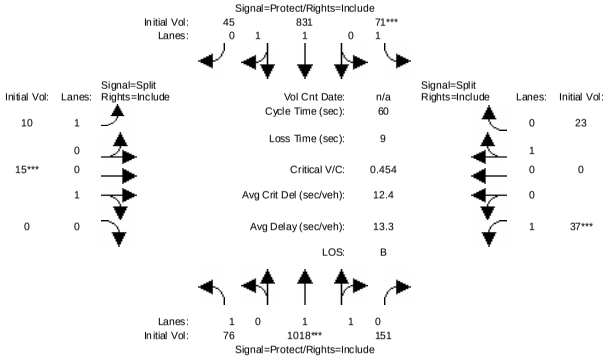



```
Street Name:          McCarthy Blvd.                    Ranch Dr. (N)
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10    0     0    0    0    10    0   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 7-9am
Base Vol:       0  277   83    50  576    0     0    0    0    23    0   18
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0  277   83    50  576    0     0    0    0    23    0   18
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:           76  721   66    21  250   45    10   15    0    13    0    5
Initial Fut:   76  998  149    71  826   45    10   15    0    36    0   23
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    76  998  149    71  826   45    10   15    0    36    0   23
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   76  998  149    71  826   45    10   15    0    36    0   23
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   76  998  149    71  826   45    10   15    0    36    0   23
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.98 0.95  0.92 0.98 0.95  0.92 0.95 0.92  0.92 1.00 0.95
Lanes:       1.00 1.73 0.27  1.00 1.89 0.11  1.00 1.00 0.00  1.00 0.00 1.00
Final Sat.:  1750 3219  481  1750 3509  191  1750 1800    0  1750    0 1800
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.31 0.31  0.04 0.24 0.24  0.01 0.01 0.00  0.02 0.00 0.01
Crit Moves:          ****          ****          ****          ****
Green Time:   6.2 33.1 33.1   7.0 33.9 33.9   0.9  0.9  0.0  10.0  0.0 10.0
Volume/Cap:  0.42 0.56 0.56  0.35 0.42 0.42  0.39 0.56 0.00  0.12 0.00 0.08
Delay/Veh:   32.1  9.9  9.9  29.0  8.1  8.1  67.5 94.4  0.0  22.1  0.0 21.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  32.1  9.9  9.9  29.0  8.1  8.1  67.5 94.4  0.0  22.1  0.0 21.6
LOS by Move:   C-    A    A     C    A    A     E    F    A     C+    A    C+
HCM2kAvgQ:      2    8    8     2    5    5     1    1    0     1    0    0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #109: McCarthy Blvd. & Ranch Dr. (N)

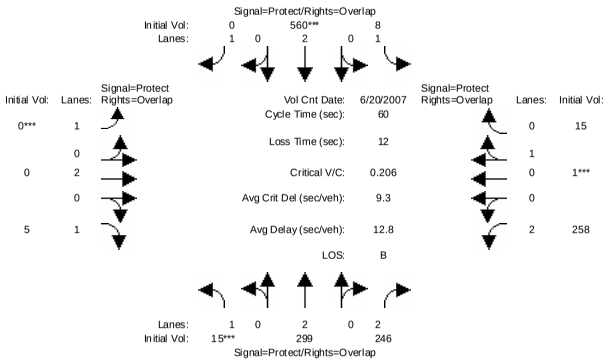



```
Street Name:          McCarthy Blvd.                    Ranch Dr. (N)
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10    0     0    0    0    10    0   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      76  998  149    71  826   45    10   15    0    36    0   23
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   76  998  149    71  826   45    10   15    0    36    0   23
Added Vol:      0   20    2     0    5    0     0    0    0     1    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   76 1018  151    71  831   45    10   15    0    37    0   23
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    76 1018  151    71  831   45    10   15    0    37    0   23
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   76 1018  151    71  831   45    10   15    0    37    0   23
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   76 1018  151    71  831   45    10   15    0    37    0   23
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.98 0.95  0.92 0.98 0.95  0.92 0.95 0.92  0.92 1.00 0.95
Lanes:       1.00 1.73 0.27  1.00 1.89 0.11  1.00 1.00 0.00  1.00 0.00 1.00
Final Sat.:  1750 3222  478  1750 3510  190  1750 1800    0  1750    0 1800
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.32 0.32  0.04 0.24 0.24  0.01 0.01 0.00  0.02 0.00 0.01
Crit Moves:          ****          ****          ****          ****
Green Time:  13.2 33.1 33.1   7.0 26.9 26.9   0.9  0.9  0.0  10.0  0.0 10.0
Volume/Cap:  0.20 0.57 0.57  0.35 0.53 0.53  0.39 0.57 0.00  0.13 0.00 0.08
Delay/Veh:   20.2 10.0 10.0  29.0 13.2 13.2  69.1 97.3  0.0  22.2  0.0 21.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  20.2 10.0 10.0  29.0 13.2 13.2  69.1 97.3  0.0  22.2  0.0 21.6
LOS by Move:   C+    A    A     C    B    B     E    F    A     C+    A    C+
HCM2kAvgQ:      1    8    8     2    7    7     1    1    0     1    0    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #110: McCarthy Blvd. & Ranch Dr. (S)

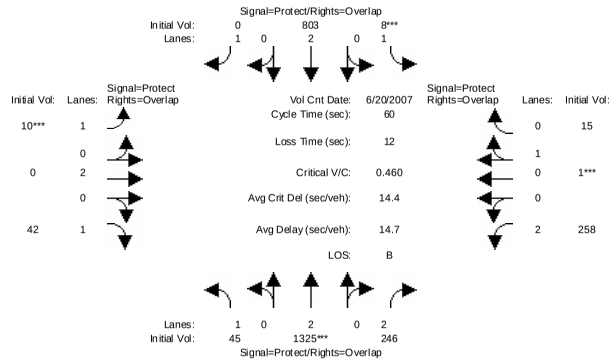



```
Street Name:          McCarthy Blvd.                    Ranch Dr. (S)
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 7-9am
Base Vol:      15  299  246     8  560    0     0    0    5   258    1   15
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   15  299  246     8  560    0     0    0    5   258    1   15
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   15  299  246     8  560    0     0    0    5   258    1   15
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    15  299  246     8  560    0     0    0    5   258    1   15
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   15  299  246     8  560    0     0    0    5   258    1   15
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   15  299  246     8  560    0     0    0    5   258    1   15
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.83  0.92 1.00 0.92  0.92 1.00 0.92  0.83 0.95 0.95
Lanes:       1.00 2.00 2.00  1.00 2.00 1.00  1.00 2.00 1.00  2.00 0.06 0.94
Final Sat.:  1750 3800 3150  1750 3800 1750  1750 3800 1750  3150  112 1687
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.08 0.08  0.00 0.15 0.00  0.00 0.00 0.00  0.08 0.01 0.01
Crit Moves:  ****             ****      ****                    ****
Green Time:   7.0 22.4 32.4  15.6 31.0  0.0   0.0  0.0  7.0  10.0 10.0 25.6
Volume/Cap:  0.07 0.21 0.14  0.02 0.29 0.00  0.00 0.00 0.02  0.49 0.05 0.02
Delay/Veh:   24.3 13.2  7.1  16.5  8.6  0.0   0.0  0.0 23.7  26.0 21.4 10.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  24.3 13.2  7.1  16.5  8.6  0.0   0.0  0.0 23.7  26.0 21.4 10.0
LOS by Move:    C    B    A     B    A    A     A    A    C     C   C+    A
HCM2kAvgQ:      0    2    1     0    3    0     0    0    0     3    0    0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #110: McCarthy Blvd. & Ranch Dr. (S)

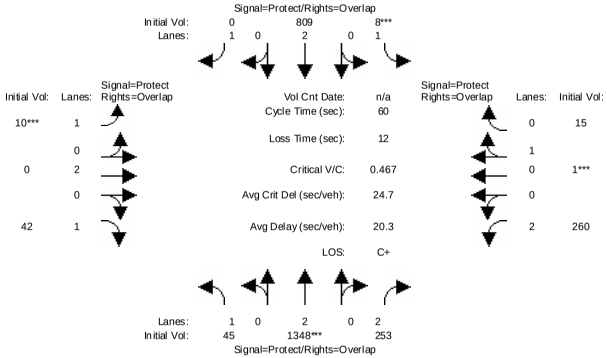



```
Street Name:          McCarthy Blvd.                    Ranch Dr. (S)
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 7-9am
Base Vol:      15  299  246     8  560    0     0    0    5   258    1   15
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   15  299  246     8  560    0     0    0    5   258    1   15
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:           30 1026    0     0  243    0    10    0   37     0    0    0
Initial Fut:   45 1325  246     8  803    0    10    0   42   258    1   15
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    45 1325  246     8  803    0    10    0   42   258    1   15
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   45 1325  246     8  803    0    10    0   42   258    1   15
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   45 1325  246     8  803    0    10    0   42   258    1   15
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.83  0.92 1.00 0.92  0.92 1.00 0.92  0.83 0.95 0.95
Lanes:       1.00 2.00 2.00  1.00 2.00 1.00  1.00 2.00 1.00  2.00 0.06 0.94
Final Sat.:  1750 3800 3150  1750 3800 1750  1750 3800 1750  3150  112 1687
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.35 0.08  0.00 0.21 0.00  0.01 0.00 0.02  0.08 0.01 0.01
Crit Moves:       ****             ****      ****                    ****
Green Time:  13.3 30.5 41.0   7.0 24.2  0.0   0.5  0.0 13.8  10.5 10.0 17.0
Volume/Cap:  0.12 0.69 0.11  0.04 0.52 0.00  0.69 0.00 0.10  0.47 0.05 0.03
Delay/Veh:   19.2 13.1  3.4  23.9 14.9  0.0 166.6  0.0 18.7  25.1 21.4 15.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  19.2 13.1  3.4  23.9 14.9  0.0 166.6  0.0 18.7  25.1 21.4 15.7
LOS by Move:   B-    B    A     C    B    A     F    A   B-     C   C+    B
HCM2kAvgQ:      1   10    1     0    6    0     1    0    1     3    0    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #110: McCarthy Blvd. & Ranch Dr. (S)



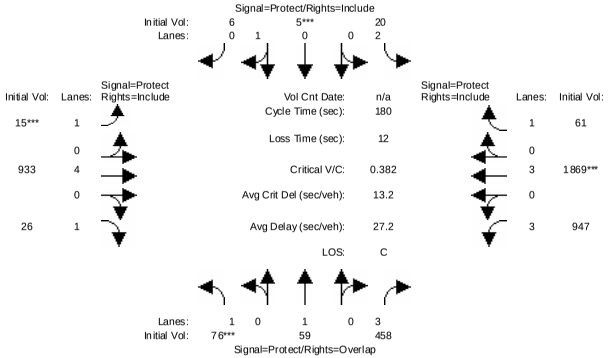
Street Name:	McCarthy Blvd.						Ranch Dr. (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	45	1325	246	8	803	0	10	0	42	258	1	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	45	1325	246	8	803	0	10	0	42	258	1	15
Added Vol:	0	23	7	0	6	0	0	0	0	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	45	1348	253	8	809	0	10	0	42	260	1	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	1348	253	8	809	0	10	0	42	260	1	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1348	253	8	809	0	10	0	42	260	1	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1348	253	8	809	0	10	0	42	260	1	15
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.95	0.95
Lanes:	1.00	2.00	2.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	0.06	0.94
Final Sat.:	1750	3800	3150	1750	3800	1750	1750	3800	1750	3150	112	1687
Capacity Analysis Module:												
Vol/Sat:	0.03	0.35	0.08	0.00	0.21	0.00	0.01	0.00	0.02	0.08	0.01	0.01
Crit Moves:		****		****			****				****	
Green Time:	11.0	24.0	41.0	7.0	20.0	0.0	7.0	0.0	18.0	17.0	10.0	17.0
Volume/Cap:	0.14	0.89	0.12	0.04	0.64	0.00	0.05	0.00	0.08	0.29	0.05	0.03
Delay/Veh:	21.5	24.8	3.4	23.9	19.4	0.0	24.0	0.0	15.4	17.6	21.4	15.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.5	24.8	3.4	23.9	19.4	0.0	24.0	0.0	15.4	17.6	21.4	15.7
LOS by Move:	C+	C	A	C	B-	A	C	A	B	B	C+	B
HCM2kAvgQ:	1	14	1	0	7	0	0	0	1	2	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1801: Trimble / Montague Expy [CMP]



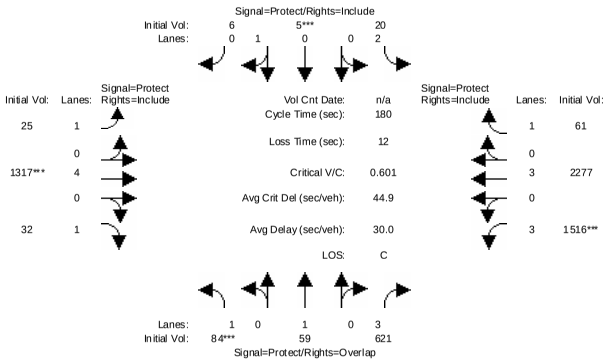
Street Name:	Trimble						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	76	59	458	20	5	6	15	933	26	947	1869	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	76	59	458	20	5	6	15	933	26	947	1869	61
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	59	458	20	5	6	15	933	26	947	1869	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	76	59	458	20	5	6	15	933	26	947	1701	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	59	458	20	5	6	15	933	26	947	1701	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	76	59	458	20	5	6	15	933	26	947	1701	61
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.80	0.83	0.95	0.95	0.92	1.00	0.92	0.80	1.00	0.92
Lanes:	1.00	1.00	3.00	2.00	0.45	0.55	1.00	4.00	1.00	3.00	3.00	1.00
Final Sat.:	1750	1900	4551	3150	818	982	1750	7600	1750	4551	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.03	0.10	0.01	0.01	0.01	0.01	0.12	0.01	0.21	0.30	0.03
Crit Moves:	****				****		****				****	
Green Time:	19.2	17.2	104.5	12.0	10.0	10.0	7.0	51.5	51.5	87.3	132	131.8
Volume/Cap:	0.41	0.33	0.17	0.10	0.11	0.11	0.22	0.43	0.05	0.43	0.41	0.05
Delay/Veh:	76.6	77.1	17.6	79.1	81.3	81.3	85.5	52.4	46.6	30.3	9.3	6.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.6	77.1	17.6	79.1	81.3	81.3	85.5	52.4	46.6	30.3	9.3	6.7
LOS by Move:	E-	E-	B	E-	F	F	F	D-	D	C	A	A
HCM2kAvgQ:	5	3	5	1	1	1	1	10	1	14	11	1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1801: Trimble / Montague Expy [CMP]



Street Name:	Trimble						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	76	59	458	20	5	6	15	933	26	947	1869	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	76	59	458	20	5	6	15	933	26	947	1869	61
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	8	0	163	0	0	0	10	384	6	569	408	0
Initial Fut:	84	59	621	20	5	6	25	1317	32	1516	2277	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	59	621	20	5	6	25	1317	32	1516	2072	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	59	621	20	5	6	25	1317	32	1516	2072	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	59	621	20	5	6	25	1317	32	1516	2072	61
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.80	0.83	0.95	0.95	0.92	1.00	0.92	0.80	1.00	0.92
Lanes:	1.00	1.00	3.00	2.00	0.45	0.55	1.00	4.00	1.00	3.00	3.00	1.00
Final Sat.:	1750	1900	4551	3150	818	982	1750	7600	1750	4551	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.03	0.14	0.01	0.01	0.01	0.01	0.17	0.02	0.33	0.36	0.03
Crit Moves:	****				****			****		****		
Green Time:	13.7	13.9	108.9	9.8	10.0	10.0	13.9	49.4	49.4	94.9	130	130.4
Volume/Cap:	0.63	0.40	0.23	0.12	0.11	0.11	0.18	0.63	0.07	0.63	0.50	0.05
Delay/Veh:	90.2	80.9	16.3	81.3	81.3	81.3	78.4	58.0	48.3	30.7	10.8	7.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	90.2	80.9	16.3	81.3	81.3	81.3	78.4	58.0	48.3	30.7	10.8	7.1
LOS by Move:	F	F	B	F	F	F	E-	E+	D	C	B+	A
HCM2kAvgQ:	6	3	6	1	1	1	1	16	1	24	16	1

Note: Queue reported is the number of cars per lane.

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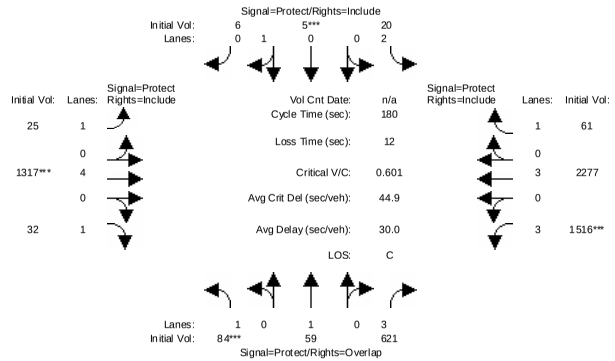
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1801: Trimble / Montague Expy [CMP]



Street Name:	Trimble						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	84	59	621	20	5	6	25	1317	32	1516	2277	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	59	621	20	5	6	25	1317	32	1516	2277	61
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	59	621	20	5	6	25	1317	32	1516	2277	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	59	621	20	5	6	25	1317	32	1516	2072	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	59	621	20	5	6	25	1317	32	1516	2072	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	59	621	20	5	6	25	1317	32	1516	2072	61
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.80	0.83	0.95	0.95	0.92	1.00	0.92	0.80	1.00	0.92
Lanes:	1.00	1.00	3.00	2.00	0.45	0.55	1.00	4.00	1.00	3.00	3.00	1.00
Final Sat.:	1750	1900	4551	3150	818	982	1750	7600	1750	4551	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.03	0.14	0.01	0.01	0.01	0.01	0.17	0.02	0.33	0.36	0.03
Crit Moves:	****				****			****		****		
Green Time:	13.7	13.9	108.9	9.8	10.0	10.0	13.9	49.4	49.4	94.9	130	130.4
Volume/Cap:	0.63	0.40	0.23	0.12	0.11	0.11	0.18	0.63	0.07	0.63	0.50	0.05
Delay/Veh:	90.2	80.9	16.3	81.3	81.3	81.3	78.4	58.0	48.3	30.7	10.8	7.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	90.2	80.9	16.3	81.3	81.3	81.3	78.4	58.0	48.3	30.7	10.8	7.1
LOS by Move:	F	F	B	F	F	F	E-	E+	D	C	B+	A
HCM2kAvgQ:	6	3	6	1	1	1	1	16	1	24	16	1

Note: Queue reported is the number of cars per lane.

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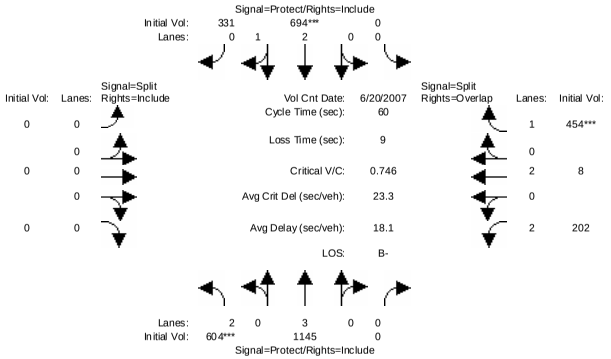
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1: McCarthy Blvd. & SR 237 WB Ramps



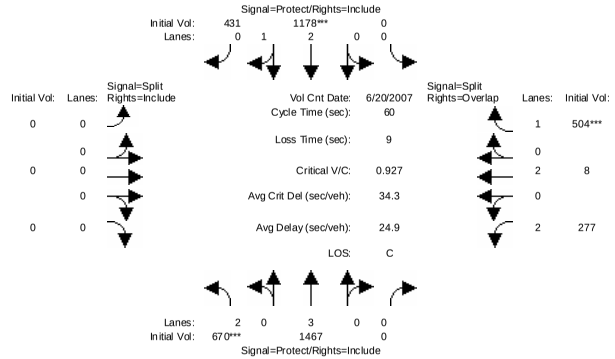
Street Name:	McCarthy Blvd.						SR 237 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Volume Module: >> Count Date: 20 Jun 2007 <<												
Base Vol:	604	1145	0	0	694	331	0	0	0	202	8	454
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	604	1145	0	0	694	331	0	0	0	202	8	454
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	604	1145	0	0	694	331	0	0	0	202	8	454
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	604	1145	0	0	694	331	0	0	0	202	8	454
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	604	1145	0	0	694	331	0	0	0	202	8	454
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	604	1145	0	0	694	331	0	0	0	202	8	454
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	2.00	2.00	1.00
Final Sat.:	3150	5700	0	0	3797	1800	0	0	0	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.20	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.06	0.00	0.26
Crit Moves:	****				****							****
Green Time:	15.4	30.1	0.0	0.0	14.7	14.7	0.0	0.0	0.0	20.9	20.9	20.9
Volume/Cap:	0.75	0.40	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.18	0.01	0.75
Delay/Veh:	24.3	9.4	0.0	0.0	23.2	23.3	0.0	0.0	0.0	13.7	12.8	22.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.3	9.4	0.0	0.0	23.2	23.3	0.0	0.0	0.0	13.7	12.8	22.3
LOS by Move:	C	A	A	A	C	C	A	A	A	B	B	C+
HCM2kAvgQ:	6	4	0	0	6	6	0	0	0	2	0	10

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1: McCarthy Blvd. & SR 237 WB Ramps



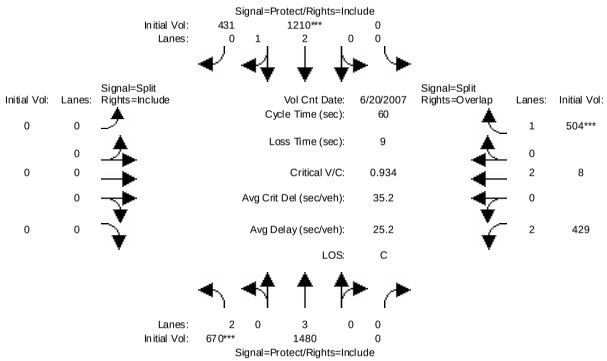
Street Name:	McCarthy Blvd.						SR 237 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Volume Module: >> Count Date: 20 Jun 2007 <<												
Base Vol:	604	1145	0	0	694	331	0	0	0	202	8	454
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	604	1145	0	0	694	331	0	0	0	202	8	454
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	66	322	0	0	484	100	0	0	0	75	0	50
Initial Fut:	670	1467	0	0	1178	431	0	0	0	277	8	504
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	670	1467	0	0	1178	431	0	0	0	277	8	504
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	670	1467	0	0	1178	431	0	0	0	277	8	504
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	670	1467	0	0	1178	431	0	0	0	277	8	504
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	0.00	0.00	2.17	0.83	0.00	0.00	0.00	2.00	2.00	1.00
Final Sat.:	3150	5700	0	0	4098	1499	0	0	0	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.21	0.26	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.09	0.00	0.29
Crit Moves:	****				****							****
Green Time:	13.8	32.4	0.0	0.0	18.6	18.6	0.0	0.0	0.0	18.6	18.6	18.6
Volume/Cap:	0.93	0.48	0.00	0.00	0.93	0.93	0.00	0.00	0.00	0.28	0.01	0.93
Delay/Veh:	40.7	8.7	0.0	0.0	29.2	29.2	0.0	0.0	0.0	15.8	14.3	42.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.7	8.7	0.0	0.0	29.2	29.2	0.0	0.0	0.0	15.8	14.3	42.2
LOS by Move:	D	A	A	A	C	C	A	A	A	B	B	D
HCM2kAvgQ:	8	5	0	0	10	10	0	0	0	2	0	15

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1: McCarthy Blvd. & SR 237 WB Ramps

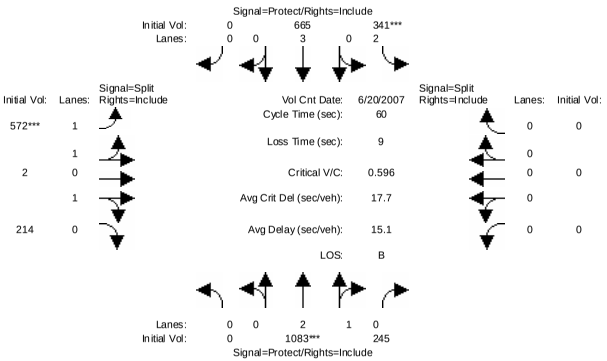



```
Street Name:          McCarthy Blvd.                    SR 237 WB Ramps
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10     0     0   10    10     0     0     0    10   10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 <<
Base Vol:     670 1467     0     0 1178   431     0     0     0   277    8   504
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  670 1467     0     0 1178   431     0     0     0   277    8   504
Added Vol:      0   13     0     0   32     0     0     0     0   152    0     0
PasserByVol:    0    0     0     0    0     0     0     0     0     0    0     0
Initial Fut:  670 1480     0     0 1210   431     0     0     0   429    8   504
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   670 1480     0     0 1210   431     0     0     0   429    8   504
Reduct Vol:     0    0     0     0    0     0     0     0     0     0    0     0
Reduced Vol:  670 1480     0     0 1210   431     0     0     0   429    8   504
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  670 1480     0     0 1210   431     0     0     0   429    8   504
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.83 1.00  0.92  0.92 0.99  0.95  0.92 1.00  0.92  0.83 1.00  0.92
Lanes:       2.00 3.00  0.00  0.00 2.18  0.82  0.00 0.00  0.00  2.00 2.00  1.00
Final Sat.:  3150 5700     0     0 4127  1470     0     0     0  3150 3800  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.21 0.26  0.00  0.00 0.29  0.29  0.00 0.00  0.00  0.14 0.00  0.29
Crit Moves:  ****                  ****                                    ****
Green Time:  13.7 32.5   0.0   0.0 18.8  18.8   0.0  0.0   0.0  18.5 18.5  18.5
Volume/Cap:  0.93 0.48  0.00  0.00 0.93  0.93  0.00 0.00  0.00  0.44 0.01  0.93
Delay/Veh:   42.0  8.6   0.0   0.0 29.7  29.7   0.0  0.0   0.0  16.9 14.4  43.7
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  42.0  8.6   0.0   0.0 29.7  29.7   0.0  0.0   0.0  16.9 14.4  43.7
LOS by Move:    D    A     A     A     C     C     A    A     A     B    B     D
HCM2kAvgQ:      8    5     0     0    11    11     0    0     0     4    0    15
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #2: McCarthy Blvd. & SR 237 EB Ramps

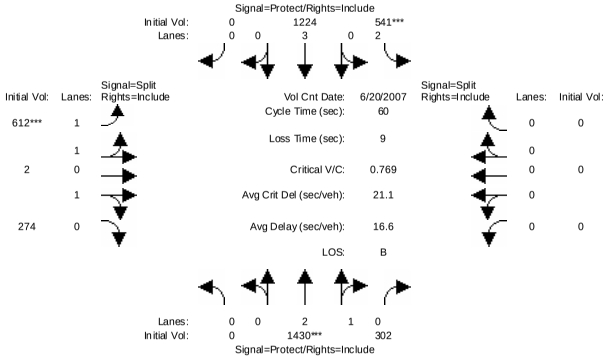



```
Street Name:          McCarthy Blvd.                    SR 237 EB Ramps
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0   10    10     7   10     0    10   10    10     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 6-9p
Base Vol:       0 1083   245   341  665     0   572    2   214     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0 1083   245   341  665     0   572    2   214     0    0     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0 1083   245   341  665     0   572    2   214     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0 1083   245   341  665     0   572    2   214     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0 1083   245   341  665     0   572    2   214     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0 1083   245   341  665     0   572    2   214     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.99  0.95  0.83 1.00  0.92  0.94 0.95  0.95  0.92 1.00  0.92
Lanes:       0.00 2.43  0.57  2.00 3.00  0.00  2.00 0.01  0.99  0.00 0.00  0.00
Final Sat.:     0 4566  1033  3150 5700     0  3554   17  1783     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.24  0.24  0.11 0.12  0.00  0.16 0.12  0.12  0.00 0.00  0.00
Crit Moves:       ****        ****        ****
Green Time:   0.0 23.9  23.9  10.9 34.8   0.0  16.2 16.2  16.2   0.0  0.0   0.0
Volume/Cap:  0.00 0.60  0.60  0.60 0.20  0.00  0.60 0.44  0.44  0.00 0.00  0.00
Delay/Veh:    0.0 14.7  14.7  24.2  6.0   0.0  19.8 18.3  18.3   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 14.7  14.7  24.2  6.0   0.0  19.8 18.3  18.3   0.0  0.0   0.0
LOS by Move:    A    B     B     C    A     A    B-   B-    B-     A    A     A
HCM2kAvgQ:      0    6     6     3    2     0     6    4     4     0    0     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #2: McCarthy Blvd. & SR 237 EB Ramps

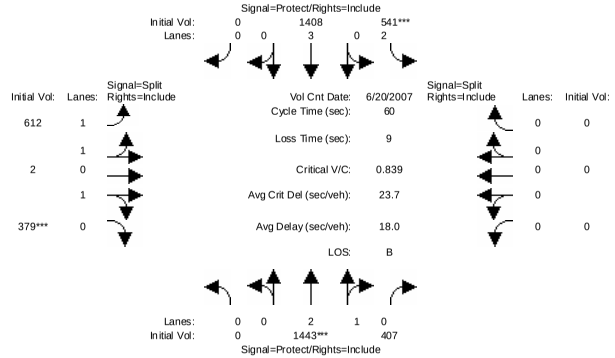



```
Street Name:          McCarthy Blvd.                    SR 237 EB Ramps
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0   10   10     7   10    0   10   10   10     0    0    0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 6-9p
Base Vol:       0 1083  245   341  665    0  572    2  214     0    0    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0 1083  245   341  665    0  572    2  214     0    0    0
Added Vol:      0    0    0     0    0    0    0    0    0     0    0    0
ATI:            0  347   57   200  559    0   40    0   60     0    0    0
Initial Fut:    0 1430  302   541 1224    0  612    2  274     0    0    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0 1430  302   541 1224    0  612    2  274     0    0    0
Reduct Vol:     0    0    0     0    0    0    0    0    0     0    0    0
Reduced Vol:    0 1430  302   541 1224    0  612    2  274     0    0    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    0 1430  302   541 1224    0  612    2  274     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900 1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.99 0.95  0.83 1.00 0.92 0.93 0.95 0.95  0.92 1.00 0.92
Lanes:       0.00 2.46 0.54  2.00 3.00 0.00 2.00 0.01 0.99  0.00 0.00 0.00
Final Sat.:     0 4622  976  3150 5700    0 3552   13 1787     0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.31 0.31  0.17 0.21 0.00 0.17 0.15 0.15  0.00 0.00 0.00
Crit Moves:          ****          ****          ****
Green Time:   0.0 24.1 24.1  13.4 37.6  0.0 13.4 13.4 13.4   0.0  0.0  0.0
Volume/Cap:  0.00 0.77 0.77  0.77 0.34 0.00 0.77 0.68 0.68  0.00 0.00 0.00
Delay/Veh:    0.0 17.2 17.2  27.0  5.4  0.0 25.0 22.9 22.9   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 17.2 17.2  27.0  5.4  0.0 25.0 22.9 22.9   0.0  0.0  0.0
LOS by Move:    A    B    B     C    A    A    C   C+   C+     A    A    A
HCM2kAvgQ:      0    9    9     5    3    0    8    6    6     0    0    0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #2: McCarthy Blvd. & SR 237 EB Ramps

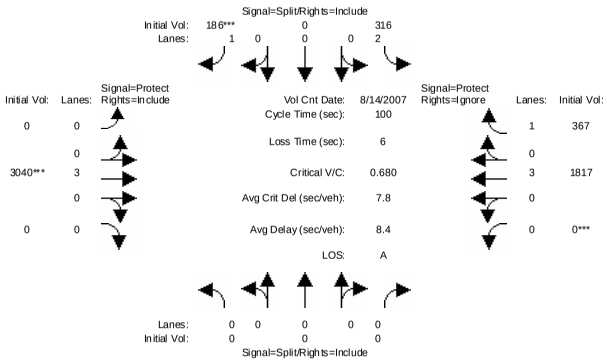



```
Street Name:          McCarthy Blvd.                    SR 237 EB Ramps
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0   10   10     7   10    0   10   10   10     0    0    0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 6-9p
Base Vol:       0 1430  302   541 1224    0  612    2  274     0    0    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0 1430  302   541 1224    0  612    2  274     0    0    0
Added Vol:      0   13  105     0  184    0    0    0  105     0    0    0
PasserByVol:    0    0    0     0    0    0    0    0    0     0    0    0
Initial Fut:    0 1443  407   541 1408    0  612    2  379     0    0    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0 1443  407   541 1408    0  612    2  379     0    0    0
Reduct Vol:     0    0    0     0    0    0    0    0    0     0    0    0
Reduced Vol:    0 1443  407   541 1408    0  612    2  379     0    0    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    0 1443  407   541 1408    0  612    2  379     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900 1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.99 0.95  0.83 1.00 0.92 0.93 0.95 0.95  0.92 1.00 0.92
Lanes:       0.00 2.32 0.68  2.00 3.00 0.00 1.99 0.01 1.00  0.00 0.00 0.00
Final Sat.:     0 4366 1232  3150 5700    0 3535   12 1800     0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.33 0.33  0.17 0.25 0.00 0.17 0.17 0.21  0.00 0.00 0.00
Crit Moves:          ****          ****          ****
Green Time:   0.0 23.6 23.6  12.3 35.9  0.0 15.1 15.1 15.1   0.0  0.0  0.0
Volume/Cap:  0.00 0.84 0.84  0.84 0.41 0.00 0.69 0.69 0.84  0.00 0.00 0.00
Delay/Veh:    0.0 19.5 19.5  32.4  6.5  0.0 21.8 21.8 26.8   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 19.5 19.5  32.4  6.5  0.0 21.8 21.8 26.8   0.0  0.0  0.0
LOS by Move:    A   B-   B-    C-    A    A   C+   C+    C     A    A    A
HCM2kAvgQ:      0   10   10     6    4    0    7    7   10     0    0    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #3: SR 237 & I-880 SB Ramps

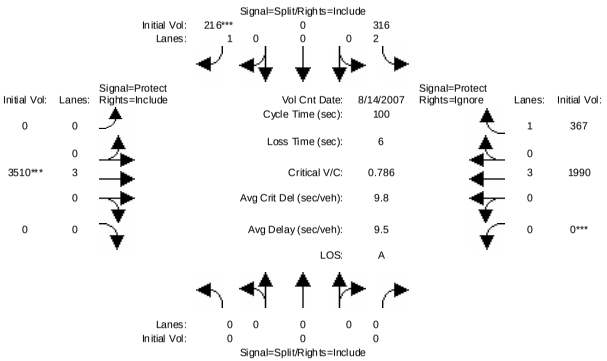



```
Street Name:          I-880 SB Ramps                          SR 237
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0    10    0    10     0   10     0     0   10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 5:00-6:00PM
Base Vol:       0    0     0   316    0   186     0 3040     0     0 1817   367
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0   316    0   186     0 3040     0     0 1817   367
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0   316    0   186     0 3040     0     0 1817   367
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:     0    0     0   316    0   186     0 3040     0     0 1817     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   316    0   186     0 3040     0     0 1817     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:    0    0     0   316    0   186     0 3040     0     0 1817     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.83 1.00  0.92  0.92 1.00  0.92  0.92 1.00  0.92
Lanes:       0.00 0.00  0.00  2.00 0.00  1.00  0.00 3.00  0.00  0.00 3.00  1.00
Final Sat.:     0    0     0  3150    0  1750     0 5700     0     0 5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.10 0.00  0.11  0.00 0.53  0.00  0.00 0.32  0.00
Crit Moves:                                ****       ****       ****
Green Time:   0.0  0.0   0.0  15.6  0.0  15.6   0.0 78.4   0.0   0.0 78.4   0.0
Volume/Cap:  0.00 0.00  0.00  0.64 0.00  0.68  0.00 0.68  0.00  0.00 0.41  0.00
Delay/Veh:    0.0  0.0   0.0  42.5  0.0  46.6   0.0  5.4   0.0   0.0  3.5   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  42.5  0.0  46.6   0.0  5.4   0.0   0.0  3.5   0.0
LOS by Move:    A    A     A     D    A     D     A    A     A     A    A     A
HCM2kAvgQ:      0    0     0     7    0     7     0   15     0     0    6     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #3: SR 237 & I-880 SB Ramps

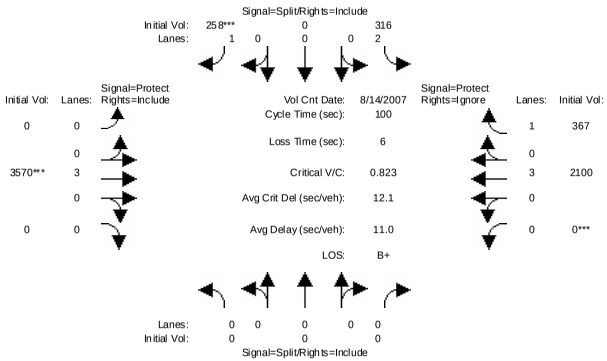



```
Street Name:          I-880 SB Ramps                          SR 237
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0    10    0    10     0   10     0     0   10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 5:00-6:00PM
Base Vol:       0    0     0   316    0   186     0 3040     0     0 1817   367
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0   316    0   186     0 3040     0     0 1817   367
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
ATI:            0    0     0     0    0    30     0  470     0     0  173     0
Initial Fut:    0    0     0   316    0   216     0 3510     0     0 1990   367
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:     0    0     0   316    0   216     0 3510     0     0 1990     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0   316    0   216     0 3510     0     0 1990     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:    0    0     0   316    0   216     0 3510     0     0 1990     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.83 1.00  0.92  0.92 1.00  0.92  0.92 1.00  0.92
Lanes:       0.00 0.00  0.00  2.00 0.00  1.00  0.00 3.00  0.00  0.00 3.00  1.00
Final Sat.:     0    0     0  3150    0  1750     0 5700     0     0 5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.10 0.00  0.12  0.00 0.62  0.00  0.00 0.35  0.00
Crit Moves:                                ****       ****       ****
Green Time:   0.0  0.0   0.0  15.7  0.0  15.7   0.0 78.3   0.0   0.0 78.3   0.0
Volume/Cap:  0.00 0.00  0.00  0.64 0.00  0.79  0.00 0.79  0.00  0.00 0.45  0.00
Delay/Veh:    0.0  0.0   0.0  42.3  0.0  54.5   0.0  7.1   0.0   0.0  3.7   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  42.3  0.0  54.5   0.0  7.1   0.0   0.0  3.7   0.0
LOS by Move:    A    A     A     D    A    D-     A    A     A     A    A     A
HCM2kAvgQ:      0    0     0     7    0     9     0   22     0     0    7     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #3: SR 237 & I-880 SB Ramps

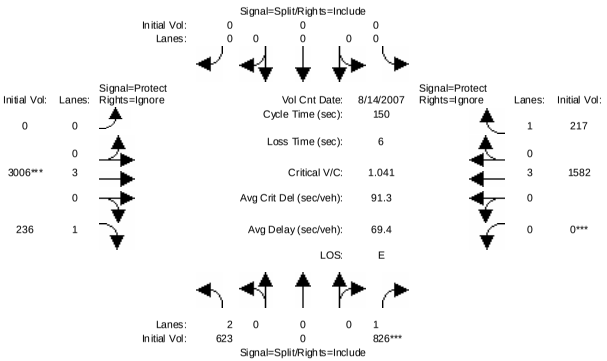



```
Street Name:          I-880 SB Ramps                    SR 237
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     0    10     0     0    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 5:00-6:00PM
Base Vol:       0     0     0   316     0   216     0  3510     0     0  1990   367
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   316     0   216     0  3510     0     0  1990   367
Added Vol:      0     0     0     0     0    42     0    60     0     0   110     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:    0     0     0   316     0   258     0  3570     0     0  2100   367
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
PHF Volume:     0     0     0   316     0   258     0  3570     0     0  2100     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   316     0   258     0  3570     0     0  2100     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
FinalVolume:    0     0     0   316     0   258     0  3570     0     0  2100     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.83  1.00  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       0.00  0.00  0.00  2.00  0.00  1.00  0.00  3.00  0.00  0.00  3.00  1.00
Final Sat.:     0     0     0  3150     0  1750     0  5700     0     0  5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.10  0.00  0.15  0.00  0.63  0.00  0.00  0.37  0.00
Crit Moves:                                 ****        ****        ****
Green Time:   0.0   0.0   0.0  17.9   0.0  17.9   0.0  76.1   0.0   0.0  76.1   0.0
Volume/Cap:  0.00  0.00  0.00  0.56  0.00  0.82  0.00  0.82  0.00  0.00  0.48  0.00
Delay/Veh:    0.0   0.0   0.0  38.7   0.0  55.5   0.0   9.0   0.0   0.0   4.6   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0  38.7   0.0  55.5   0.0   9.0   0.0   0.0   4.6   0.0
LOS by Move:    A     A     A    D+     A    E+     A     A     A     A     A     A
HCM2kAvgQ:      0     0     0     6     0    11     0    25     0     0     8     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #4: Calaveras Blvd. & I-880 NB Ramps

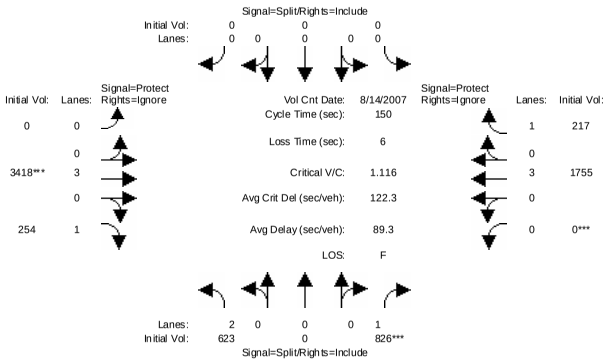



```
Street Name:          I-880 NB Ramps                    Calaveras Blvd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7    10    10     7    10    10     7    10    10     7    10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 4:30-5:30PM
Base Vol:     623     0   826     0     0     0     0  3006   236     0  1582   217
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:  623     0   826     0     0     0     0  3006   236     0  1582   217
Added Vol:      0     0     0     0     0     0     0     0     0     0     0     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:  623     0   826     0     0     0     0  3006   236     0  1582   217
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:   623     0   826     0     0     0     0  3006     0     0  1582     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:  623     0   826     0     0     0     0  3006     0     0  1582     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:  623     0   826     0     0     0     0  3006     0     0  1582     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.83  1.00  0.92  0.92  1.00  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       2.00  0.00  1.00  0.00  0.00  0.00  0.00  3.00  1.00  0.00  3.00  1.00
Final Sat.:  3150     0  1750     0     0     0     0  5700  1750     0  5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.20  0.00  0.47  0.00  0.00  0.00  0.00  0.53  0.00  0.00  0.28  0.00
Crit Moves:                 ****                          ****        ****
Green Time:  64.7   0.0  64.7   0.0   0.0   0.0   0.0  72.3   0.0   0.0  67.9   0.0
Volume/Cap:  0.46  0.00  1.09  0.00  0.00  0.00  0.00  1.09  0.00  0.00  0.61  0.00
Delay/Veh:   30.5   0.0 104.1   0.0   0.0   0.0   0.0  87.8   0.0   0.0  31.6   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:  30.5   0.0 104.1   0.0   0.0   0.0   0.0  87.8   0.0   0.0  31.6   0.0
LOS by Move:    C     A     F     A     A     A     A     F     A     A     C     A
HCM2kAvgQ:     12     0    54     0     0     0     0    57     0     0    18     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #4: Calaveras Blvd. & I-880 NB Ramps

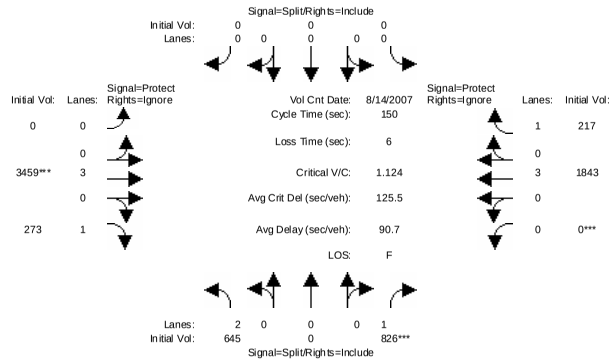



```
Street Name:          I-880 NB Ramps                    Calaveras Blvd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 4:30-5:30PM
Base Vol:     623    0  826     0    0    0     0 3006  236     0 1582  217
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  623    0  826     0    0    0     0 3006  236     0 1582  217
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            0    0    0     0    0    0     0  412   18     0  173    0
Initial Fut:  623    0  826     0    0    0     0 3418  254     0 1755  217
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Volume:   623    0  826     0    0    0     0 3418    0     0 1755    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  623    0  826     0    0    0     0 3418    0     0 1755    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
FinalVolume:  623    0  826     0    0    0     0 3418    0     0 1755    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       2.00 0.00 1.00  0.00 0.00 0.00  0.00 3.00 1.00  0.00 3.00 1.00
Final Sat.:  3150    0 1750     0    0    0     0 5700 1750     0 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.20 0.00 0.47  0.00 0.00 0.00  0.00 0.60 0.00  0.00 0.31 0.00
Crit Moves:             ****                    ****      ****
Green Time:  60.3  0.0 60.3   0.0  0.0  0.0   0.0 76.7  0.0   0.0 72.6  0.0
Volume/Cap:  0.49 0.00 1.17  0.00 0.00 0.00  0.00 1.17 0.00  0.00 0.64 0.00
Delay/Veh:   33.7  0.0 137.4  0.0  0.0  0.0   0.0  119  0.0   0.0 29.3  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  33.7  0.0 137.4  0.0  0.0  0.0   0.0  119  0.0   0.0 29.3  0.0
LOS by Move:   C-    A     F    A    A    A     A    F    A     A    C    A
HCM2kAvgQ:     13    0    59    0    0    0     0   71    0     0   20    0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #4: Calaveras Blvd. & I-880 NB Ramps

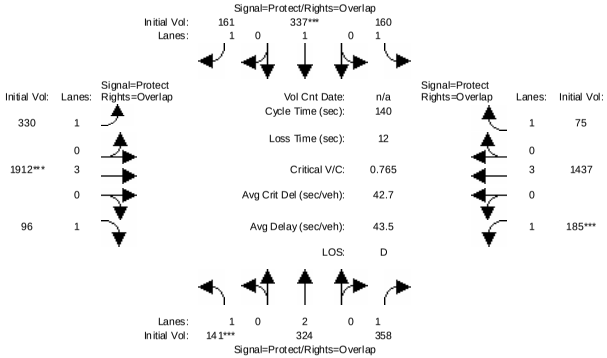



```
Street Name:          I-880 NB Ramps                    Calaveras Blvd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 4:30-5:30PM
Base Vol:     623    0  826     0    0    0     0 3418  254     0 1755  217
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  623    0  826     0    0    0     0 3418  254     0 1755  217
Added Vol:     22    0    0     0    0    0     0   41   19     0   88    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  645    0  826     0    0    0     0 3459  273     0 1843  217
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
PHF Volume:   645    0  826     0    0    0     0 3459    0     0 1843    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  645    0  826     0    0    0     0 3459    0     0 1843    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 0.00
FinalVolume:  645    0  826     0    0    0     0 3459    0     0 1843    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       2.00 0.00 1.00  0.00 0.00 0.00  0.00 3.00 1.00  0.00 3.00 1.00
Final Sat.:  3150    0 1750     0    0    0     0 5700 1750     0 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.20 0.00 0.47  0.00 0.00 0.00  0.00 0.61 0.00  0.00 0.32 0.00
Crit Moves:             ****                    ****      ****
Green Time:  59.9  0.0 59.9   0.0  0.0  0.0   0.0 77.1  0.0   0.0 73.5  0.0
Volume/Cap:  0.51 0.00 1.18  0.00 0.00 0.00  0.00 1.18 0.00  0.00 0.66 0.00
Delay/Veh:   34.4  0.0 140.9  0.0  0.0  0.0   0.0  122  0.0   0.0 29.5  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  34.4  0.0 140.9  0.0  0.0  0.0   0.0  122  0.0   0.0 29.5  0.0
LOS by Move:   C-    A     F    A    A    A     A    F    A     A    C    A
HCM2kAvgQ:     13    0    60    0    0    0     0   73    0     0   21    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #5: Calaveras Blvd. / Abel St. [CMP]



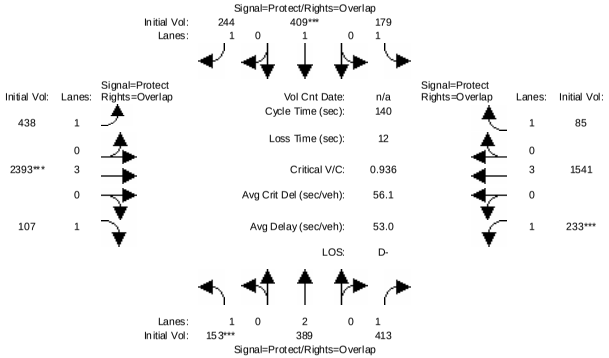
Street Name:	Abel St.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	141	324	358	160	337	161	330	1912	96	185	1437	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	141	324	358	160	337	161	330	1912	96	185	1437	75
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	141	324	358	160	337	161	330	1912	96	185	1437	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	141	324	358	160	337	161	330	1912	96	185	1437	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	141	324	358	160	337	161	330	1912	96	185	1437	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	141	324	358	160	337	161	330	1912	96	185	1437	75
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.09	0.20	0.09	0.18	0.09	0.19	0.34	0.05	0.11	0.25	0.04
Crit Moves:	****				****			****		****		
Green Time:	14.8	24.5	43.9	22.7	32.5	67.0	34.6	61.4	76.2	19.4	46.2	68.9
Volume/Cap:	0.76	0.49	0.65	0.56	0.76	0.19	0.76	0.76	0.10	0.76	0.76	0.09
Delay/Veh:	78.1	52.6	44.3	56.7	58.0	21.1	56.8	34.6	15.4	71.6	43.9	18.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	78.1	52.6	44.3	56.7	58.0	21.1	56.8	34.6	15.4	71.6	43.9	18.9
LOS by Move:	E-	D-	D	E+	E+	C+	E+	C-	B	E	D	B-
HCM2kAvgQ:	8	7	15	7	15	4	15	23	2	8	18	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #5: Calaveras Blvd. / Abel St. [CMP]



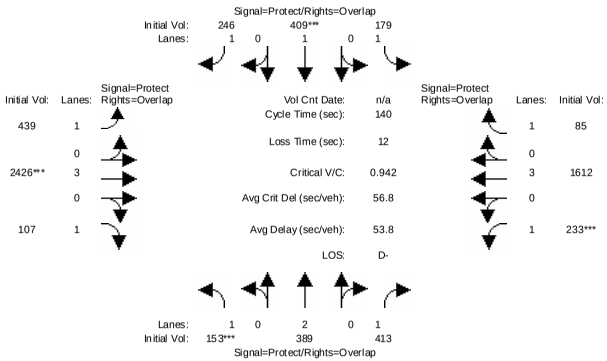
Street Name:	Abel St.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	141	324	358	160	337	161	330	1912	96	185	1437	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	141	324	358	160	337	161	330	1912	96	185	1437	75
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	12	65	55	19	72	83	108	481	11	48	104	10
Initial Fut:	153	389	413	179	409	244	438	2393	107	233	1541	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	153	389	413	179	409	244	438	2393	107	233	1541	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	153	389	413	179	409	244	438	2393	107	233	1541	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	153	389	413	179	409	244	438	2393	107	233	1541	85
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.10	0.24	0.10	0.22	0.14	0.25	0.42	0.06	0.13	0.27	0.05
Crit Moves:	****				****			****		****		
Green Time:	13.1	22.7	42.6	22.6	32.2	72.0	39.8	62.8	75.9	19.9	43.0	65.5
Volume/Cap:	0.94	0.63	0.78	0.63	0.94	0.27	0.88	0.94	0.11	0.94	0.88	0.10
Delay/Veh:	114.7	56.9	51.4	59.5	80.5	19.4	64.5	44.0	15.7	99.2	51.7	20.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	114.7	56.9	51.4	59.5	80.5	19.4	64.5	44.0	15.7	99.2	51.7	20.9
LOS by Move:	F	E+	D-	E+	F	B-	E	D	B	F	D-	C+
HCM2kAvgQ:	10	9	19	9	21	6	21	36	2	11	20	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #5: Calaveras Blvd. / Abel St. [CMP]



Street Name:	Abel St.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	153	389	413	179	409	244	438	2393	107	233	1541	85
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	153	389	413	179	409	244	438	2393	107	233	1541	85
Added Vol:	0	0	0	0	0	2	1	33	0	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	153	389	413	179	409	246	439	2426	107	233	1612	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	153	389	413	179	409	246	439	2426	107	233	1612	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	153	389	413	179	409	246	439	2426	107	233	1612	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	153	389	413	179	409	246	439	2426	107	233	1612	85
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.10	0.24	0.10	0.22	0.14	0.25	0.43	0.06	0.13	0.28	0.05
Crit Moves:	****				****			****		****		
Green Time:	13.0	22.6	42.3	22.4	32.0	71.0	39.0	63.2	76.2	19.8	44.0	66.4
Volume/Cap:	0.94	0.64	0.78	0.64	0.94	0.28	0.90	0.94	0.11	0.94	0.90	0.10
Delay/Veh:	116.7	57.1	51.9	59.9	82.1	19.9	68.1	44.6	15.5	101.0	52.5	20.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	116.7	57.1	51.9	59.9	82.1	19.9	68.1	44.6	15.5	101.0	52.5	20.4
LOS by Move:	F	E+	D-	E+	F	B-	E	D	B	F	D-	C+
HCM2kAvgQ:	10	9	19	9	21	6	21	37	2	11	22	2

Note: Queue reported is the number of cars per lane.

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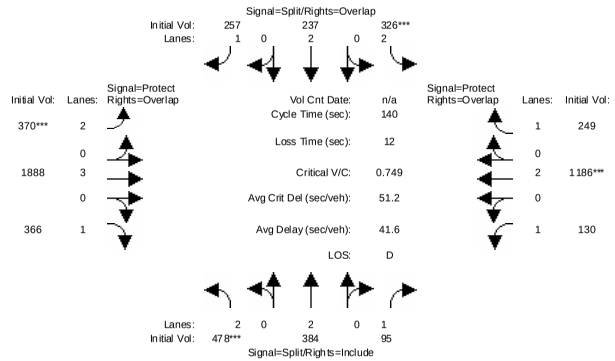
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #6: Milpitas Blvd. / Calaveras Blvd. [CMP]



Street Name:	Milpitas Blvd.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	478	384	95	326	237	257	370	1888	366	130	1186	249
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	478	384	95	326	237	257	370	1888	366	130	1186	249
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	478	384	95	326	237	257	370	1888	366	130	1186	249
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	478	384	95	326	237	257	370	1888	366	130	1186	249
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	478	384	95	326	237	257	370	1888	366	130	1186	249
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	478	384	95	326	237	257	370	1888	366	130	1186	249
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.10	0.05	0.10	0.06	0.15	0.12	0.33	0.21	0.07	0.31	0.14
Crit Moves:	****			****			****				****	
Green Time:	28.4	28.4	28.4	19.3	19.3	41.3	22.0	65.6	93.9	14.7	58.3	77.7
Volume/Cap:	0.75	0.50	0.27	0.75	0.45	0.50	0.75	0.71	0.31	0.71	0.75	0.26
Delay/Veh:	60.3	51.8	48.9	69.2	58.2	44.2	66.4	31.2	10.3	81.0	37.9	16.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.3	51.8	48.9	69.2	58.2	44.2	66.4	31.2	10.3	81.0	37.9	16.8
LOS by Move:	E	D-	D	E	E+	D	E	C	B+	F	D+	B
HCM2kAvgQ:	13	8	4	9	5	10	9	21	7	6	23	6

Note: Queue reported is the number of cars per lane.

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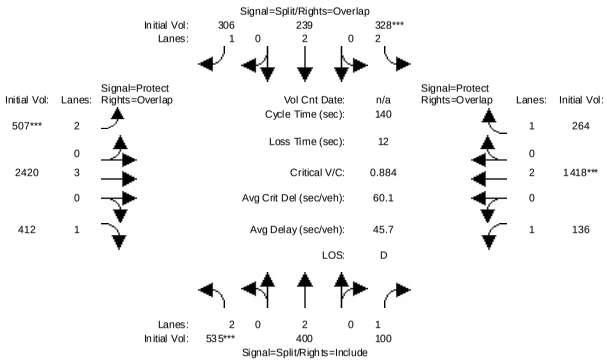
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #6: Milpitas Blvd. / Calaveras Blvd. [CMP]



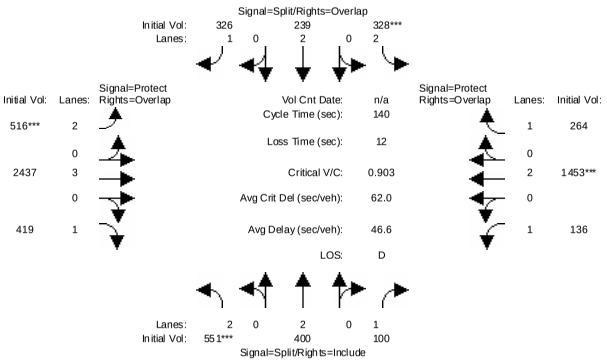
Street Name:	Milpitas Blvd.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	478	384	95	326	237	257	370	1888	366	130	1186	249
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	478	384	95	326	237	257	370	1888	366	130	1186	249
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	57	16	5	2	2	49	137	532	46	6	232	15
Initial Fut:	535	400	100	328	239	306	507	2420	412	136	1418	264
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	535	400	100	328	239	306	507	2420	412	136	1418	264
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	535	400	100	328	239	306	507	2420	412	136	1418	264
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	535	400	100	328	239	306	507	2420	412	136	1418	264
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.17	0.11	0.06	0.10	0.06	0.17	0.16	0.42	0.24	0.08	0.37	0.15
Crit Moves:	****			****			****				****	
Green Time:	26.9	26.9	26.9	16.5	16.5	42.0	25.5	71.5	98.4	13.1	59.1	75.6
Volume/Cap:	0.88	0.55	0.30	0.88	0.53	0.58	0.88	0.83	0.33	0.83	0.88	0.28
Delay/Veh:	72.1	54.0	50.7	85.8	62.6	46.3	73.6	32.0	8.8	98.9	44.8	18.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.1	54.0	50.7	85.8	62.6	46.3	73.6	32.0	8.8	98.9	44.8	18.2
LOS by Move:	E	D-	D	F	E	D	E	C-	A	F	D	B-
HCM2kAvgQ:	16	8	4	10	5	12	13	28	7	7	32	7

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #6: Milpitas Blvd. / Calaveras Blvd. [CMP]



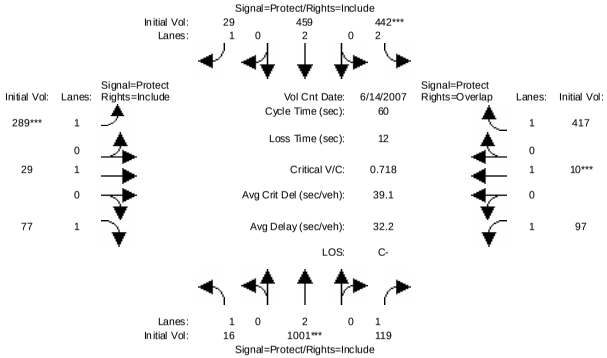
Street Name:	Milpitas Blvd.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	535	400	100	328	239	306	507	2420	412	136	1418	264
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	535	400	100	328	239	306	507	2420	412	136	1418	264
Added Vol:	16	0	0	0	0	20	9	17	7	0	35	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	551	400	100	328	239	326	516	2437	419	136	1453	264
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	551	400	100	328	239	326	516	2437	419	136	1453	264
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	551	400	100	328	239	326	516	2437	419	136	1453	264
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	551	400	100	328	239	326	516	2437	419	136	1453	264
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.17	0.11	0.06	0.10	0.06	0.19	0.16	0.43	0.24	0.08	0.38	0.15
Crit Moves:	****			****			****				****	
Green Time:	27.1	27.1	27.1	16.2	16.2	41.6	25.4	71.7	98.8	13.0	59.3	75.5
Volume/Cap:	0.90	0.54	0.29	0.90	0.55	0.63	0.90	0.83	0.34	0.83	0.90	0.28
Delay/Veh:	74.2	53.7	50.5	89.2	63.3	48.2	76.1	32.1	8.7	99.7	46.3	18.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	74.2	53.7	50.5	89.2	63.3	48.2	76.1	32.1	8.7	99.7	46.3	18.3
LOS by Move:	E	D-	D	F	E	D	E-	C-	A	F	D	B-
HCM2kAvgQ:	17	8	4	10	5	14	13	29	7	7	34	7

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #7: McCarthy Blvd. & Bellew Dr.

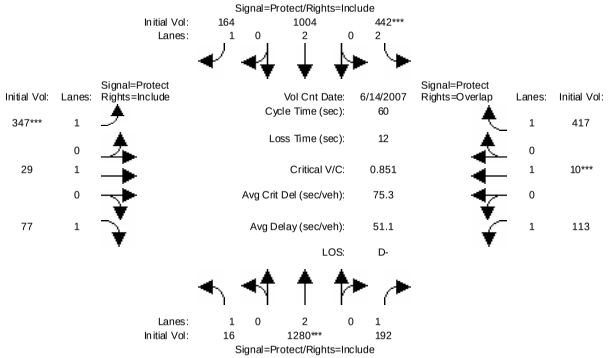



```
Street Name:          McCarthy Blvd.                    Bellew Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:      16 1001  119   442  459   29   289   29   77    97   10  417
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   16 1001  119   442  459   29   289   29   77    97   10  417
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   16 1001  119   442  459   29   289   29   77    97   10  417
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    16 1001  119   442  459   29   289   29   77    97   10  417
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   16 1001  119   442  459   29   289   29   77    97   10  417
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   16 1001  119   442  459   29   289   29   77    97   10  417
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  2.00 2.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:  1750 3800 1750  3150 3800 1750  1750 1900 1750  1750 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.26 0.07  0.14 0.12 0.02  0.17 0.02 0.04  0.06 0.01 0.24
Crit Moves:       ****       ****            ****            ****
Green Time:  11.1 17.6 17.6   9.4 15.9 15.9  11.0 12.4 12.4   8.7 10.0 19.4
Volume/Cap:  0.05 0.90 0.23  0.90 0.46 0.06  0.90 0.07 0.21  0.38 0.03 0.74
Delay/Veh:   20.4 31.8 17.1  46.7 20.0 16.8  53.8 19.6 21.1  27.6 21.1 26.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  20.4 31.8 17.1  46.7 20.0 16.8  53.8 19.6 21.1  27.6 21.1 26.4
LOS by Move:   C+    C    B     D   B-    B    D-   B-   C+     C   C+    C
HCM2kAvgQ:      0   13    2     6    4    0    10    0    1     2    0    8
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #7: McCarthy Blvd. & Bellew Dr.

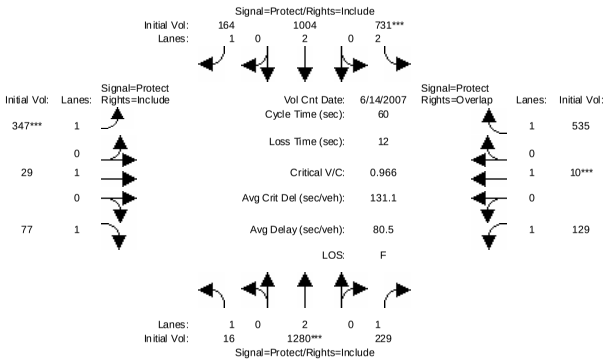



```
Street Name:          McCarthy Blvd.                    Bellew Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:      16 1001  119   442  459   29   289   29   77    97   10  417
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   16 1001  119   442  459   29   289   29   77    97   10  417
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            0  279   73     0  545  135    58    0    0    16    0    0
Initial Fut:   16 1280  192   442 1004  164   347   29   77   113   10  417
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    16 1280  192   442 1004  164   347   29   77   113   10  417
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   16 1280  192   442 1004  164   347   29   77   113   10  417
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   16 1280  192   442 1004  164   347   29   77   113   10  417
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  2.00 2.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:  1750 3800 1750  3150 3800 1750  1750 1900 1750  1750 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.34 0.11  0.14 0.26 0.09  0.20 0.02 0.04  0.06 0.01 0.24
Crit Moves:       ****       ****            ****            ****
Green Time:   8.2 19.0 19.0   7.9 18.6 18.6  11.2 12.4 12.4   8.7 10.0 17.9
Volume/Cap:  0.07 1.07 0.35  1.07 0.85 0.30  1.07 0.07 0.21  0.44 0.03 0.80
Delay/Veh:   23.1 66.2 17.5  89.1 27.2 17.2  93.0 19.5 21.0  29.0 21.1 31.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  23.1 66.2 17.5  89.1 27.2 17.2  93.0 19.5 21.0  29.0 21.1 31.5
LOS by Move:    C    E    B     F    C    B     F   B-   C+     C   C+    C
HCM2kAvgQ:      0   22    3     9   10    3    15    0    1     2    0    9
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #7: McCarthy Blvd. & Bellew Dr.

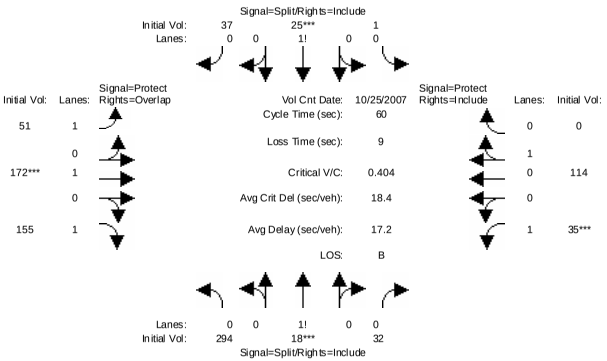



```
Street Name:          McCarthy Blvd.                    Bellew Dr.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:      16 1280  192   442 1004  164   347   29   77   113   10  417
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   16 1280  192   442 1004  164   347   29   77   113   10  417
Added Vol:      0    0   37   289    0    0     0    0    0    16    0  118
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   16 1280  229   731 1004  164   347   29   77   129   10  535
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    16 1280  229   731 1004  164   347   29   77   129   10  535
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   16 1280  229   731 1004  164   347   29   77   129   10  535
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   16 1280  229   731 1004  164   347   29   77   129   10  535
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  2.00 2.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:  1750 3800 1750  3150 3800 1750  1750 1900 1750  1750 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.34 0.13  0.23 0.26 0.09  0.20 0.02 0.04  0.07 0.01 0.31
Crit Moves:       ****       ****            ****            ****
Green Time:   8.6 16.7 16.7  11.5 19.5 19.5   9.8 11.7 11.7   8.2 10.0 21.5
Volume/Cap:  0.06 1.21 0.47  1.21 0.81 0.29  1.21 0.08 0.23  0.54 0.03 0.85
Delay/Veh:   22.7  126 21.2 134.2 24.4 16.3 148.1 20.2 21.9  32.8 21.1 31.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  22.7  126 21.2 134.2 24.4 16.3 148.1 20.2 21.9  32.8 21.1 31.6
LOS by Move:   C+    F   C+     F    C    B     F   C+   C+   C-   C+    C
HCM2kAvgQ:      0   29    4    19   10    2    18    0    1    2    0   11
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #8: Barber Ln & Bellew Dr

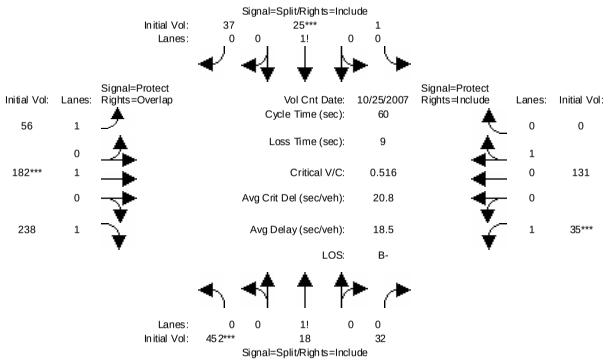



```
Street Name:          Barber Ln                         Bellew Dr
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10   10    10   10   10    10   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Oct 2007 <<
Base Vol:     294   18   32     1   25   37    51  172  155    35  114    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  294   18   32     1   25   37    51  172  155    35  114    0
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  294   18   32     1   25   37    51  172  155    35  114    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   294   18   32     1   25   37    51  172  155    35  114    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  294   18   32     1   25   37    51  172  155    35  114    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  294   18   32     1   25   37    51  172  155    35  114    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.92 0.92  0.92 0.92 0.92  0.92 1.00 0.92  0.92 0.95 0.92
Lanes:       0.86 0.05 0.09  0.01 0.40 0.59  1.00 1.00 1.00  1.00 1.00 0.00
Final Sat.:  1496   92  163    28  694 1028  1750 1900 1750  1750 1800    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.20 0.20 0.20  0.04 0.04 0.04  0.03 0.09 0.09  0.02 0.06 0.00
Crit Moves:       ****            ****            ****            ****
Green Time:  23.3 23.3 23.3  10.0 10.0 10.0   7.3 10.7 34.0   7.0 10.4  0.0
Volume/Cap:  0.51 0.51 0.51  0.22 0.22 0.22  0.24 0.51 0.16  0.17 0.36 0.00
Delay/Veh:   14.6 14.6 14.6  22.0 22.0 22.0  24.4 23.5  6.3  24.3 22.6  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  14.6 14.6 14.6  22.0 22.0 22.0  24.4 23.5  6.3  24.3 22.6  0.0
LOS by Move:    B    B    B    C+   C+   C+    C    C    A    C   C+    A
HCM2kAvgQ:      6    6    6     1    1    1     1    3    1    1    2    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #8: Barber Ln & Bellew Dr



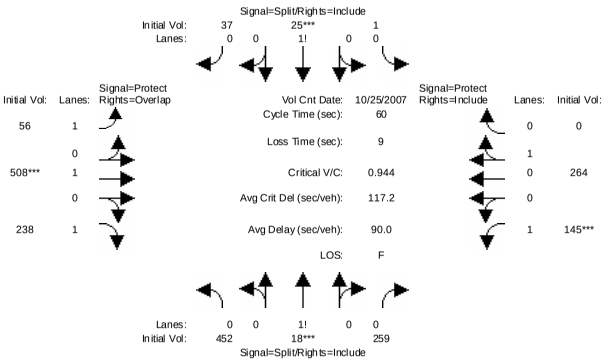
Street Name:	Barber Ln									Bellew Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 25 Oct 2007 <<												
Base Vol:	294	18	32	1	25	37	51	172	155	35	114	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	294	18	32	1	25	37	51	172	155	35	114	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	158	0	0	0	0	0	5	10	83	0	17	0
Initial Fut:	452	18	32	1	25	37	56	182	238	35	131	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	452	18	32	1	25	37	56	182	238	35	131	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	452	18	32	1	25	37	56	182	238	35	131	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	452	18	32	1	25	37	56	182	238	35	131	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.95	0.92
Lanes:	0.90	0.04	0.06	0.01	0.40	0.59	1.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1576	63	112	28	694	1028	1750	1900	1750	1750	1800	0
Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.29	0.04	0.04	0.04	0.03	0.10	0.14	0.02	0.07	0.00
Crit Moves:	****				****			****		****		
Green Time:	24.0	24.0	24.0	10.0	10.0	10.0	7.0	10.0	34.0	7.0	10.0	0.0
Volume/Cap:	0.72	0.72	0.72	0.22	0.22	0.22	0.27	0.57	0.24	0.17	0.44	0.00
Delay/Veh:	18.7	18.7	18.7	22.0	22.0	22.0	24.9	25.6	6.6	24.3	23.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.7	18.7	18.7	22.0	22.0	22.0	24.9	25.6	6.6	24.3	23.5	0.0
LOS by Move:	B-	B-	B-	C+	C+	C+	C	C	A	C	C	A
HCM2kAvgQ:	10	10	10	1	1	1	1	3	2	1	3	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #8: Barber Ln & Bellew Dr



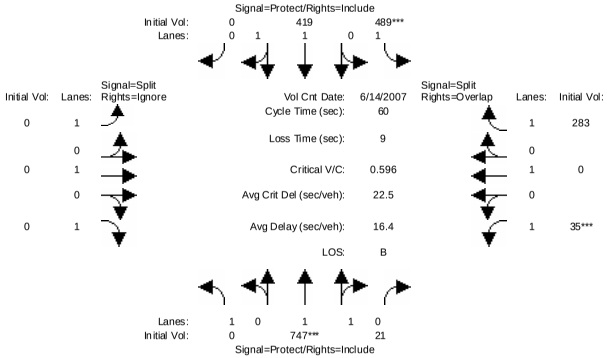
Street Name:	Barber Ln									Bellew Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 25 Oct 2007 <<												
Base Vol:	452	18	32	1	25	37	56	182	238	35	131	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	452	18	32	1	25	37	56	182	238	35	131	0
Added Vol:	0	0	227	0	0	0	0	326	0	110	133	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	452	18	259	1	25	37	56	508	238	145	264	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	452	18	259	1	25	37	56	508	238	145	264	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	452	18	259	1	25	37	56	508	238	145	264	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	452	18	259	1	25	37	56	508	238	145	264	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92	0.95	0.92
Lanes:	0.62	0.02	0.36	0.01	0.40	0.59	1.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1085	43	622	28	694	1028	1750	1900	1750	1750	1800	0
Capacity Analysis Module:												
Vol/Sat:	0.42	0.42	0.42	0.04	0.04	0.04	0.03	0.27	0.14	0.08	0.15	0.00
Crit Moves:		****			****			****		****		
Green Time:	20.7	20.7	20.7	10.0	10.0	10.0	8.4	13.3	34.0	7.0	11.9	0.0
Volume/Cap:	1.21	1.21	1.21	0.22	0.22	0.22	0.23	1.21	0.24	0.71	0.74	0.00
Delay/Veh:	127.7	128	127.7	22.0	22.0	22.0	23.4	137	6.6	36.6	30.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	127.7	128	127.7	22.0	22.0	22.0	23.4	137	6.6	36.6	30.4	0.0
LOS by Move:	F	F	F	C+	C+	C+	C	F	A	D+	C	A
HCM2kAvgQ:	35	35	35	1	1	1	1	21	2	4	7	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #9: McCarthy Blvd. & Alder Dr.

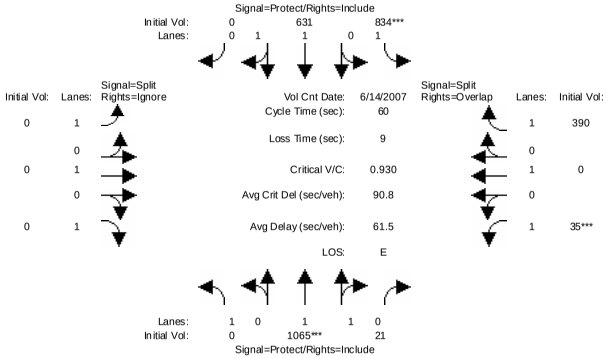



```
Street Name:          McCarthy Blvd.                    Alder Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0   10   10     7   10    0     0    0    0    10    0   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:       0  747   21   489  419    0     0    0    0    35    0  283
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0  747   21   489  419    0     0    0    0    35    0  283
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    0  747   21   489  419    0     0    0    0    35    0  283
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Volume:     0  747   21   489  419    0     0    0    0    35    0  283
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0  747   21   489  419    0     0    0    0    35    0  283
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
FinalVolume:    0  747   21   489  419    0     0    0    0    35    0  283
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.97 0.95  0.92 0.97 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 1.94 0.06  1.00 2.00 0.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:  1750 3599  101  1750 3700    0  1750 1900 1750  1750 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.21 0.21  0.28 0.11 0.00  0.00 0.00 0.00  0.02 0.00 0.16
Crit Moves:          ****          ****                     ****
Green Time:   0.0 17.5 17.5  23.5 41.0  0.0   0.0  0.0  0.0  10.0  0.0 33.5
Volume/Cap:  0.00 0.71 0.71  0.71 0.17 0.00  0.00 0.00 0.00  0.12 0.00 0.29
Delay/Veh:    0.0 23.0 23.0  21.6  3.5  0.0   0.0  0.0  0.0  22.1  0.0  7.7
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 23.0 23.0  21.6  3.5  0.0   0.0  0.0  0.0  22.1  0.0  7.7
LOS by Move:    A    C    C    C+    A    A     A    A    A    C+    A    A
HCM2kAvgQ:      0    8    8    10    1    0     0    0    0     1    0    3
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #9: McCarthy Blvd. & Alder Dr.

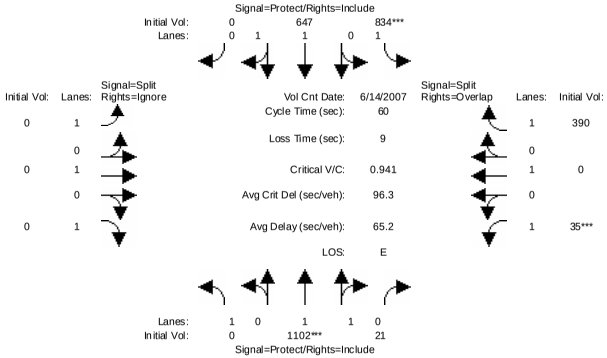



```
Street Name:          McCarthy Blvd.                    Alder Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0   10   10     7   10    0     0    0    0    10    0   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:       0  747   21   489  419    0     0    0    0    35    0  283
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0  747   21   489  419    0     0    0    0    35    0  283
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            0  318    0   345  212    0     0    0    0     0    0  107
Initial Fut:    0 1065   21   834  631    0     0    0    0    35    0  390
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Volume:     0 1065   21   834  631    0     0    0    0    35    0  390
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0 1065   21   834  631    0     0    0    0    35    0  390
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
FinalVolume:    0 1065   21   834  631    0     0    0    0    35    0  390
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.97 0.95  0.92 0.97 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 1.96 0.04  1.00 2.00 0.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:  1750 3628   72  1750 3700    0  1750 1900 1750  1750 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.29 0.29  0.48 0.17 0.00  0.00 0.00 0.00  0.02 0.00 0.22
Crit Moves:          ****          ****                     ****
Green Time:   0.0 15.6 15.6  25.4 41.0  0.0   0.0  0.0  0.0  10.0  0.0 35.4
Volume/Cap:  0.00 1.13 1.13  1.13 0.25 0.00  0.00 0.00 0.00  0.12 0.00 0.38
Delay/Veh:    0.0 92.7 92.7  91.2  3.9  0.0   0.0  0.0  0.0  22.1  0.0  7.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 92.7 92.7  91.2  3.9  0.0   0.0  0.0  0.0  22.1  0.0  7.6
LOS by Move:    A    F    F    F    A    A     A    A    A    C+    A    A
HCM2kAvgQ:      0   22   22   34    2    0     0    0    0     1    0    4
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #9: McCarthy Blvd. & Alder Dr.

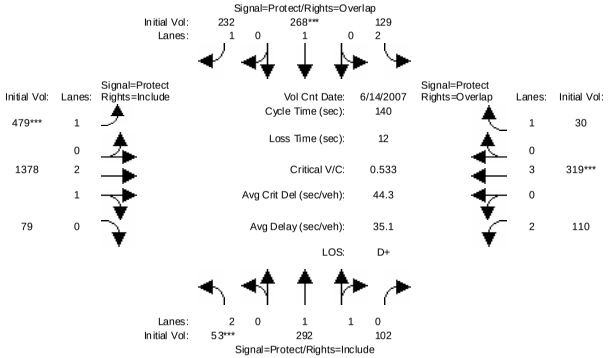



```
Street Name:          McCarthy Blvd.                    Alder Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0   10   10     7   10    0     0    0    0    10    0   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:       0 1065   21   834  631    0     0    0    0    35    0  390
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0 1065   21   834  631    0     0    0    0    35    0  390
Added Vol:      0   37    0     0   16    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    0 1102   21   834  647    0     0    0    0    35    0  390
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Volume:     0 1102   21   834  647    0     0    0    0    35    0  390
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0 1102   21   834  647    0     0    0    0    35    0  390
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
FinalVolume:    0 1102   21   834  647    0     0    0    0    35    0  390
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.97 0.95  0.92 0.97 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 1.96 0.04  1.00 2.00 0.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:  1750 3631   69  1750 3700    0  1750 1900 1750  1750 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.30 0.30  0.48 0.17 0.00  0.00 0.00 0.00  0.02 0.00 0.22
Crit Moves:          ****          ****                          ****
Green Time:   0.0 16.0 16.0  25.0 41.0  0.0   0.0  0.0  0.0  10.0  0.0 35.0
Volume/Cap:  0.00 1.14 1.14  1.14 0.26 0.00  0.00 0.00 0.00  0.12 0.00 0.38
Delay/Veh:    0.0 98.1 98.1  97.1  3.9  0.0   0.0  0.0  0.0  22.1  0.0  7.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0 98.1 98.1  97.1  3.9  0.0   0.0  0.0  0.0  22.1  0.0  7.8
LOS by Move:    A    F    F     F    A    A     A    A    A    C+    A    A
HCM2kAvgQ:      0   24   24    35    2    0     0    0    0     1    0    4
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #10: McCarthy Blvd. & Tasman Dr.

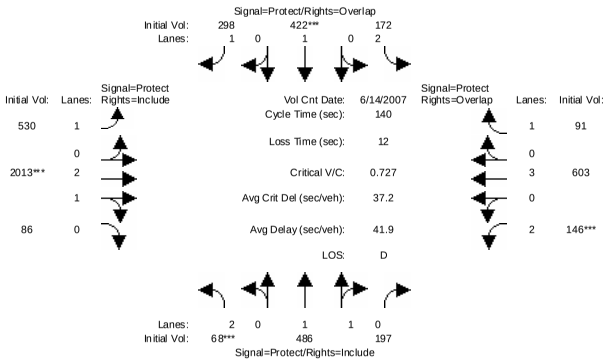



```
Street Name:          McCarthy Blvd.                    Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:      53  292  102   129  268  232   479 1378   79   110  319   30
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   53  292  102   129  268  232   479 1378   79   110  319   30
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   53  292  102   129  268  232   479 1378   79   110  319   30
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    53  292  102   129  268  232   479 1378   79   110  319   30
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   53  292  102   129  268  232   479 1378   79   110  319   30
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   53  292  102   129  268  232   479 1378   79   110  319   30
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 0.98 0.95  0.83 1.00 0.92  0.92 0.98 0.95  0.83 1.00 0.92
Lanes:       2.00 1.47 0.53  2.00 1.00 1.00  1.00 2.83 0.17  2.00 3.00 1.00
Final Sat.:  3150 2741  958  3150 1900 1750  1750 5296  304  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.11 0.11  0.04 0.14 0.13  0.27 0.26 0.26  0.03 0.06 0.02
Crit Moves:  ****                ****        ****                    ****
Green Time:   7.0 29.4 29.4  13.8 36.3 106.6 70.4 71.1 71.1  13.7 14.4 28.2
Volume/Cap:  0.34 0.51 0.51  0.41 0.54 0.17  0.54 0.51 0.51  0.36 0.54 0.09
Delay/Veh:   69.9 51.2 51.2  63.3 49.0  4.9  26.3 23.6 23.6  62.3 63.3 45.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  69.9 51.2 51.2  63.3 49.0  4.9  26.3 23.6 23.6  62.3 63.3 45.9
LOS by Move:    E   D-   D-     E    D    A     C    C    C     E    E    D
HCM2kAvgQ:      1    8    8     4   10    3    15   14   14     3    4    1
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #10: McCarthy Blvd. & Tasman Dr.

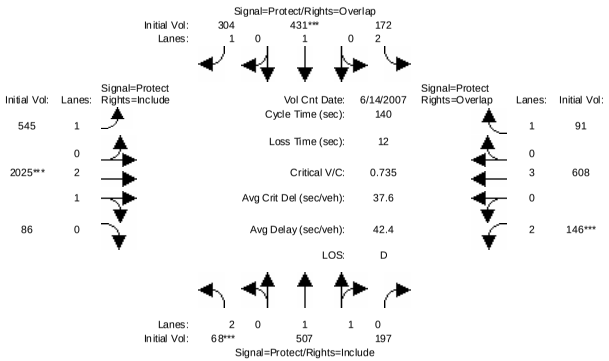



```
Street Name:          McCarthy Blvd.                          Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10  10     7  10  10     7  10  10     7  10  10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:      53 292 102   129 268 232   479 1378  79   110 319  30
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   53 292 102   129 268 232   479 1378  79   110 319  30
Added Vol:      0   0   0     0   0   0     0    0   0     0   0   0
ATI:           15 194  95    43 154  66    51  635   7    36 284  61
Initial Fut:   68 486 197   172 422 298   530 2013  86   146 603  91
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    68 486 197   172 422 298   530 2013  86   146 603  91
Reduct Vol:     0   0   0     0   0   0     0    0   0     0   0   0
Reduced Vol:   68 486 197   172 422 298   530 2013  86   146 603  91
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   68 486 197   172 422 298   530 2013  86   146 603  91
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900  1900 1900 1900
Adjustment:  0.83 0.98 0.95 0.83 1.00 0.92 0.92 0.98 0.95  0.83 1.00 0.92
Lanes:       2.00 1.41 0.59 2.00 1.00 1.00 1.00 2.87 0.13  2.00 3.00 1.00
Final Sat.:  3150 2632 1067 3150 1900 1750 1750 5370  229  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.18 0.18 0.05 0.22 0.17 0.30 0.37 0.37  0.05 0.11 0.05
Crit Moves:  ****              ****           ****          ****
Green Time:   7.0 37.6 37.6 11.1 41.8 100.5 58.7 70.5 70.5   8.7 20.5 31.6
Volume/Cap:  0.43 0.69 0.69 0.69 0.74 0.24 0.72 0.74 0.74  0.74 0.72 0.23
Delay/Veh:   73.0 49.8 49.8 77.0 52.9  7.2 39.9 29.4 29.4  86.9 62.4 45.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  73.0 49.8 49.8 77.0 52.9  7.2 39.9 29.4 29.4  86.9 62.4 45.6
LOS by Move:    E    D    D    E-   D-    A    D    C    C     F    E    D
HCM2kAvgQ:      2   14   14    6   17    5   20   24   24     4    9    3
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #10: McCarthy Blvd. & Tasman Dr.

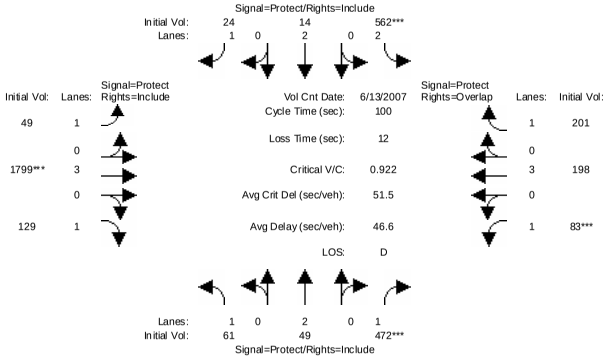



```
Street Name:          McCarthy Blvd.                          Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10  10     7  10  10     7  10  10     7  10  10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:      68 486 197   172 422 298   530 2013  86   146 603  91
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   68 486 197   172 422 298   530 2013  86   146 603  91
Added Vol:      0  21   0     0   9   6    15   12   0     0   5   0
PasserByVol:    0   0   0     0   0   0     0    0   0     0   0   0
Initial Fut:   68 507 197   172 431 304   545 2025  86   146 608  91
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    68 507 197   172 431 304   545 2025  86   146 608  91
Reduct Vol:     0   0   0     0   0   0     0    0   0     0   0   0
Reduced Vol:   68 507 197   172 431 304   545 2025  86   146 608  91
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   68 507 197   172 431 304   545 2025  86   146 608  91
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900  1900 1900 1900
Adjustment:  0.83 0.98 0.95 0.83 1.00 0.92 0.92 0.98 0.95  0.83 1.00 0.92
Lanes:       2.00 1.42 0.58 2.00 1.00 1.00 1.00 2.87 0.13  2.00 3.00 1.00
Final Sat.:  3150 2664 1035 3150 1900 1750 1750 5372  228  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.19 0.19 0.05 0.23 0.17 0.31 0.38 0.38  0.05 0.11 0.05
Crit Moves:  ****              ****           ****          ****
Green Time:   7.0 38.2 38.2 11.0 42.2 100.9 58.7 70.2 70.2   8.6 20.1 31.1
Volume/Cap:  0.43 0.70 0.70 0.70 0.75 0.24 0.74 0.75 0.75  0.75 0.74 0.23
Delay/Veh:   73.0 49.6 49.6 78.0 53.0  7.1 41.0 29.9 29.9  87.9 63.5 46.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  73.0 49.6 49.6 78.0 53.0  7.1 41.0 29.9 29.9  87.9 63.5 46.1
LOS by Move:    E    D    D    E-   D-    A    D    C    C     F    E    D
HCM2kAvgQ:      2   15   15    6   18    5   21   25   25     4    9    3
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #11: Tasman Dr. & Alder Dr.

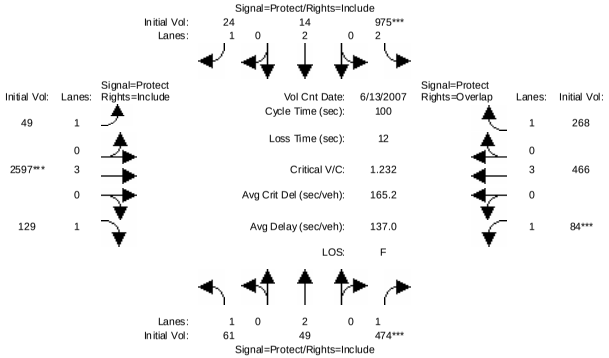



```
Street Name:            Alder Dr.                          Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10  10     7  10  10     7  10  10     7  10  10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:      61  49 472    562  14  24    49 1799 129    83 198 201
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   61  49 472    562  14  24    49 1799 129    83 198 201
Added Vol:      0   0   0      0   0   0     0    0   0     0   0   0
PasserByVol:    0   0   0      0   0   0     0    0   0     0   0   0
Initial Fut:   61  49 472    562  14  24    49 1799 129    83 198 201
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    61  49 472    562  14  24    49 1799 129    83 198 201
Reduct Vol:     0   0   0      0   0   0     0    0   0     0   0   0
Reduced Vol:   61  49 472    562  14  24    49 1799 129    83 198 201
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   61  49 472    562  14  24    49 1799 129    83 198 201
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  2.00 2.00 1.00  1.00 3.00 1.00  1.00 3.00 1.00
Final Sat.:  1750 3800 1750  3150 3800 1750  1750 5700 1750  1750 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.01 0.27  0.18 0.00 0.01  0.03 0.32 0.07  0.05 0.03 0.11
Crit Moves:                  ****  ****                ****        ****
Green Time:  19.6 28.6 28.6  18.9 28.0 28.0  16.7 33.5 33.5   7.0 23.8 42.7
Volume/Cap:  0.18 0.05 0.94  0.94 0.01 0.05  0.17 0.94 0.22  0.68 0.15 0.27
Delay/Veh:   34.6 25.9 63.2  65.2 26.1 26.5  37.0 43.3 24.8  71.6 30.3 19.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  34.6 25.9 63.2  65.2 26.1 26.5  37.0 43.3 24.8  71.6 30.3 19.4
LOS by Move:   C-    C    E    E    C    C    D+   D    C    E    C   B-
HCM2kAvgQ:      2    1   19   13    0    1     1   22    3    3    2    4
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #11: Tasman Dr. & Alder Dr.

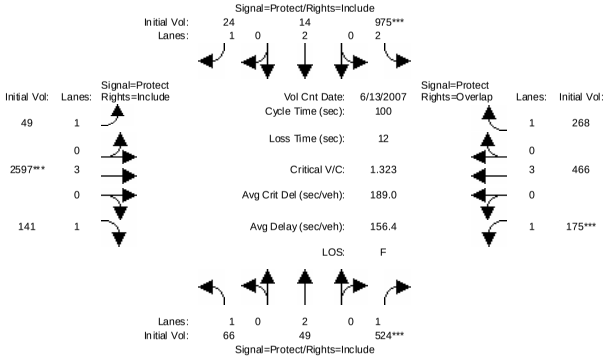



```
Street Name:            Alder Dr.                          Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10  10     7  10  10     7  10  10     7  10  10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:      61  49 472    562  14  24    49 1799 129    83 198 201
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   61  49 472    562  14  24    49 1799 129    83 198 201
Added Vol:      0   0   0      0   0   0     0    0   0     0   0   0
ATI:            0   0   2    413   0   0     0  798   0     1 268  67
Initial Fut:   61  49 474    975  14  24    49 2597 129    84 466 268
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    61  49 474    975  14  24    49 2597 129    84 466 268
Reduct Vol:     0   0   0      0   0   0     0    0   0     0   0   0
Reduced Vol:   61  49 474    975  14  24    49 2597 129    84 466 268
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   61  49 474    975  14  24    49 2597 129    84 466 268
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  2.00 2.00 1.00  1.00 3.00 1.00  1.00 3.00 1.00
Final Sat.:  1750 3800 1750  3150 3800 1750  1750 5700 1750  1750 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.01 0.27  0.31 0.00 0.01  0.03 0.46 0.07  0.05 0.08 0.15
Crit Moves:                  ****  ****                ****        ****
Green Time:  18.7 21.2 21.2  24.2 26.7 26.7  17.6 35.6 35.6   7.0 25.1 49.3
Volume/Cap:  0.19 0.06 1.28  1.28 0.01 0.05  0.16 1.28 0.21  0.69 0.33 0.31
Delay/Veh:   35.5 31.6 184.3 173.5 27.0 27.5  36.1  162 23.1  72.4 31.2 16.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  35.5 31.6 184.3 173.5 27.0 27.5  36.1  162 23.1  72.4 31.2 16.1
LOS by Move:   D+    C    F    F    C    C    D+    F    C    E    C    B
HCM2kAvgQ:      2    1   31   35    0    1     1   50    3    3    4    5
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #11: Tasman Dr. & Alder Dr.

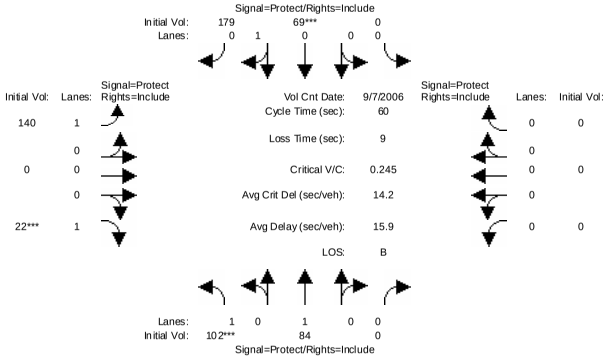



```
Street Name:            Alder Dr.                       Tasman Dr.
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10  10     7  10  10     7  10  10     7  10  10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:      61  49 474   975  14  24    49 2597 129    84 466 268
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   61  49 474   975  14  24    49 2597 129    84 466 268
Added Vol:      5   0  50     0   0   0     0    0  12    91   0   0
PasserByVol:    0   0   0     0   0   0     0    0   0     0   0   0
Initial Fut:   66  49 524   975  14  24    49 2597 141   175 466 268
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    66  49 524   975  14  24    49 2597 141   175 466 268
Reduct Vol:     0   0   0     0   0   0     0    0   0     0   0   0
Reduced Vol:   66  49 524   975  14  24    49 2597 141   175 466 268
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   66  49 524   975  14  24    49 2597 141   175 466 268
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.92 1.00 0.92 0.83 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
Lanes:       1.00 2.00 1.00 2.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00
Final Sat.:  1750 3800 1750 3150 3800 1750 1750 5700 1750 1750 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.01 0.30 0.31 0.00 0.01 0.03 0.46 0.08 0.10 0.08 0.15
Crit Moves:                ****  ****            ****        ****
Green Time:  18.9 22.6 22.6 23.4 27.1 27.1 17.3 34.4 34.4  7.6 24.7 48.1
Volume/Cap:  0.20 0.06 1.32 1.32 0.01 0.05 0.16 1.32 0.23 1.32 0.33 0.32
Delay/Veh:   35.5 30.5 200.9 193.2 26.7 27.2 36.3 182 24.3 234.7 31.5 16.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  35.5 30.5 200.9 193.2 26.7 27.2 36.3 182 24.3 234.7 31.5 16.9
LOS by Move:   D+   C    F    F    C    C   D+   F    C    F    C    B
HCM2kAvgQ:      2   1   36   37    0    1    1  52    3   12    4    5
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #12: Barber Ln / Alder Dr

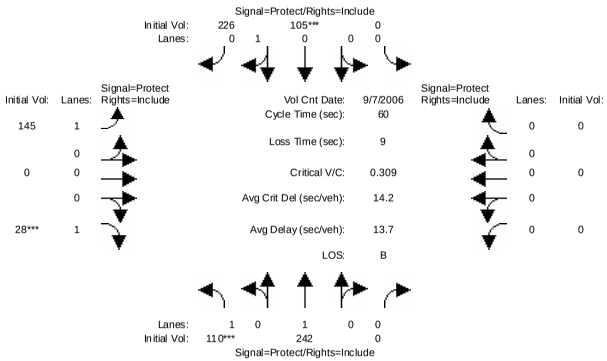



```
Street Name:            Barber Ln                       Alder Dr
Approach:       North Bound     South Bound     East Bound      West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10   0     0  10  10     7   0  10     0   0   0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 7 Sep 2006 <<
Base Vol:     102  84   0     0  69 179   140   0  22     0   0   0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  102  84   0     0  69 179   140   0  22     0   0   0
Added Vol:      0   0   0     0   0   0     0   0   0     0   0   0
PasserByVol:    0   0   0     0   0   0     0   0   0     0   0   0
Initial Fut:  102  84   0     0  69 179   140   0  22     0   0   0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   102  84   0     0  69 179   140   0  22     0   0   0
Reduct Vol:     0   0   0     0   0   0     0   0   0     0   0   0
Reduced Vol:  102  84   0     0  69 179   140   0  22     0   0   0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:  102  84   0     0  69 179   140   0  22     0   0   0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.92 1.00 0.92 0.92 0.95 0.95 0.92 1.00 0.92 0.92 1.00 0.92
Lanes:       1.00 1.00 0.00 0.00 0.28 0.72 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.:  1750 1900    0    0  501 1299 1750    0 1750    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.04 0.00 0.00 0.14 0.14 0.08 0.00 0.01 0.00 0.00 0.00
Crit Moves:  ****                ****                ****
Green Time:  12.2 41.0  0.0  0.0 28.8 28.8 10.0  0.0 10.0  0.0  0.0  0.0
Volume/Cap:  0.29 0.06 0.00 0.00 0.29 0.29 0.48 0.00 0.08 0.00 0.00 0.00
Delay/Veh:   22.3  3.2  0.0  0.0 10.2 10.2 28.2  0.0 21.6  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  22.3  3.2  0.0  0.0 10.2 10.2 28.2  0.0 21.6  0.0  0.0  0.0
LOS by Move:   C+    A    A    A   B+   B+    C    A   C+    A    A    A
HCM2kAvgQ:      2    1    0    0    3    3    2    0    0    0    0    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #12: Barber Ln / Alder Dr

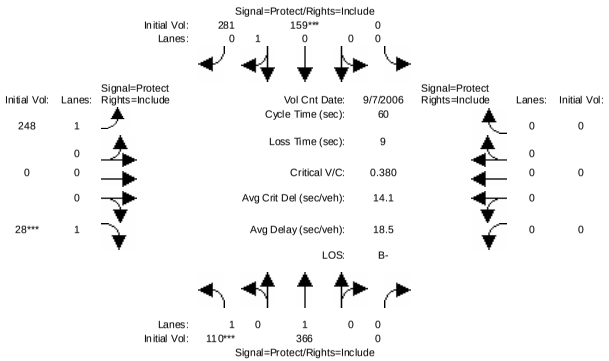



```
Street Name:            Barber Ln                         Alder Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10     0     0   10    10     7    0    10     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 7 Sep 2006 <<
Base Vol:     102   84     0     0   69   179   140    0    22     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  102   84     0     0   69   179   140    0    22     0    0     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
ATI:            8  158     0     0   36    47     5    0     6     0    0     0
Initial Fut:  110  242     0     0  105   226   145    0    28     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   110  242     0     0  105   226   145    0    28     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  110  242     0     0  105   226   145    0    28     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  110  242     0     0  105   226   145    0    28     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 0.95  0.95  0.92 1.00  0.92  0.92 1.00  0.92
Lanes:       1.00 1.00  0.00  0.00 0.32  0.68  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1750 1900     0     0  571  1229  1750    0  1750     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.13  0.00  0.00 0.18  0.18  0.08 0.00  0.02  0.00 0.00  0.00
Crit Moves:  ****                 ****                    ****
Green Time:  10.4 41.0   0.0   0.0 30.6  30.6  10.0  0.0  10.0   0.0  0.0   0.0
Volume/Cap:  0.36 0.19  0.00  0.00 0.36  0.36  0.50 0.00  0.10  0.00 0.00  0.00
Delay/Veh:   25.1  3.8   0.0   0.0 10.0  10.0  28.7  0.0  21.8   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  25.1  3.8   0.0   0.0 10.0  10.0  28.7  0.0  21.8   0.0  0.0   0.0
LOS by Move:    C    A     A     A    A     A     C    A    C+     A    A     A
HCM2kAvgQ:      2    2     0     0    4     4     2    0     0     0    0     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #12: Barber Ln / Alder Dr

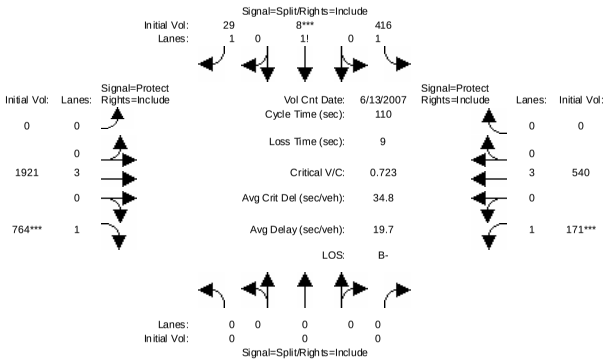



```
Street Name:            Barber Ln                         Alder Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10     0     0   10    10     7    0    10     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 7 Sep 2006 <<
Base Vol:     110  242     0     0  105   226   145    0    28     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  110  242     0     0  105   226   145    0    28     0    0     0
Added Vol:      0  124     0     0   54    55   103    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  110  366     0     0  159   281   248    0    28     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   110  366     0     0  159   281   248    0    28     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  110  366     0     0  159   281   248    0    28     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  110  366     0     0  159   281   248    0    28     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 0.95  0.95  0.92 1.00  0.92  0.92 1.00  0.92
Lanes:       1.00 1.00  0.00  0.00 0.36  0.64  1.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1750 1900     0     0  650  1150  1750    0  1750     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.19  0.00  0.00 0.24  0.24  0.14 0.00  0.02  0.00 0.00  0.00
Crit Moves:  ****                 ****                    ****
Green Time:   8.4 41.0   0.0   0.0 32.6  32.6  10.0  0.0  10.0   0.0  0.0   0.0
Volume/Cap:  0.45 0.28  0.00  0.00 0.45  0.45  0.85 0.00  0.10  0.00 0.00  0.00
Delay/Veh:   29.6  4.3   0.0   0.0  9.8   9.8  49.7  0.0  21.8   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  29.6  4.3   0.0   0.0  9.8   9.8  49.7  0.0  21.8   0.0  0.0   0.0
LOS by Move:    C    A     A     A    A     A     D    A    C+     A    A     A
HCM2kAvgQ:      2    3     0     0    5     5     5    0     0     0    0     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #13: Tasman Dr. & I-880 SB Ramps

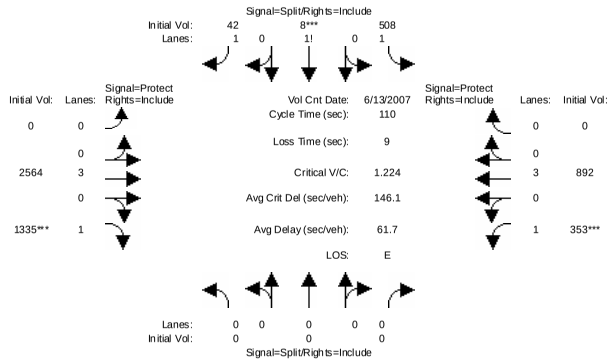



```
Street Name:          I-880 SB Ramps                    Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     7    10     0     7    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:       0     0     0   416     8    29     0  1921   764   171   540     0
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   416     8    29     0  1921   764   171   540     0
Added Vol:      0     0     0     0     0     0     0     0     0     0     0     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:    0     0     0   416     8    29     0  1921   764   171   540     0
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:     0     0     0   416     8    29     0  1921   764   171   540     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   416     8    29     0  1921   764   171   540     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
FinalVolume:    0     0     0   416     8    29     0  1921   764   171   540     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.93  0.95  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       0.00  0.00  0.00  1.91  0.03  1.06  0.00  3.00  1.00  1.00  3.00  0.00
Final Sat.:     0     0     0  3375    62  1862     0  5700  1750  1750  5700     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.12  0.13  0.02  0.00  0.34  0.44  0.10  0.09  0.00
Crit Moves:                          ****                    ****  ****
Green Time:   0.0   0.0   0.0  19.8  19.8  19.8   0.0  66.4  66.4  14.9  81.2   0.0
Volume/Cap:  0.00  0.00  0.00  0.69  0.72  0.09  0.00  0.56  0.72  0.72  0.13  0.00
Delay/Veh:    0.0   0.0   0.0  47.9  49.7  37.6   0.0  13.7  19.7  63.1   4.2   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0  47.9  49.7  37.6   0.0  13.7  19.7  63.1   4.2   0.0
LOS by Move:    A     A     A     D     D    D+     A     B    B-     E     A     A
HCM2kAvgQ:      0     0     0     9     9     1     0    12    19     7     2     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #13: Tasman Dr. & I-880 SB Ramps

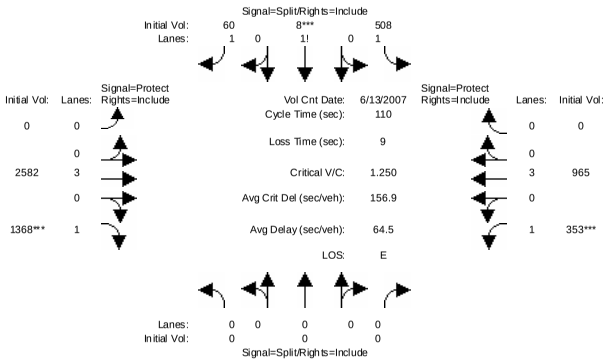



```
Street Name:          I-880 SB Ramps                    Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     7    10     0     7    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:       0     0     0   416     8    29     0  1921   764   171   540     0
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   416     8    29     0  1921   764   171   540     0
Added Vol:      0     0     0     0     0     0     0     0     0     0     0     0
ATI:            0     0     0    92     0    13     0   643   571   182   352     0
Initial Fut:    0     0     0   508     8    42     0  2564  1335   353   892     0
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:     0     0     0   508     8    42     0  2564  1335   353   892     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   508     8    42     0  2564  1335   353   892     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
FinalVolume:    0     0     0   508     8    42     0  2564  1335   353   892     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.93  0.95  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       0.00  0.00  0.00  1.90  0.03  1.07  0.00  3.00  1.00  1.00  3.00  0.00
Final Sat.:     0     0     0  3366    50  1882     0  5700  1750  1750  5700     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.15  0.16  0.02  0.00  0.45  0.76  0.20  0.16  0.00
Crit Moves:                          ****                    ****  ****
Green Time:   0.0   0.0   0.0  14.3  14.3  14.3   0.0  68.5  68.5  18.1  86.7   0.0
Volume/Cap:  0.00  0.00  0.00  1.16  1.22  0.17  0.00  0.72  1.22  1.22  0.20  0.00
Delay/Veh:    0.0   0.0   0.0 140.0   167  42.7   0.0  15.5 130.0 173.8   3.0   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0 140.0   167  42.7   0.0  15.5 130.0 173.8   3.0   0.0
LOS by Move:    A     A     A     F     F     D     A     B     F     F     A     A
HCM2kAvgQ:      0     0     0    18    20     1     0    18    78    23     3     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #13: Tasman Dr. & I-880 SB Ramps

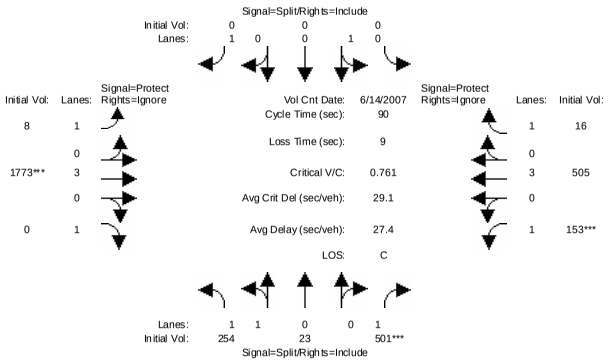



```
Street Name:          I-880 SB Ramps                    Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     7    10     0     7    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:       0     0     0   508     8    42     0  2564  1335   353   892     0
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   508     8    42     0  2564  1335   353   892     0
Added Vol:      0     0     0     0     0    18     0    18    33     0    73     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:    0     0     0   508     8    60     0  2582  1368   353   965     0
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:     0     0     0   508     8    60     0  2582  1368   353   965     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   508     8    60     0  2582  1368   353   965     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
FinalVolume:    0     0     0   508     8    60     0  2582  1368   353   965     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.93  0.95  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       0.00  0.00  0.00  1.87  0.03  1.10  0.00  3.00  1.00  1.00  3.00  0.00
Final Sat.:     0     0     0  3317    49  1932     0  5700  1750  1750  5700     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.15  0.16  0.03  0.00  0.45  0.78  0.20  0.17  0.00
Crit Moves:                          ****                    ****  ****
Green Time:   0.0   0.0   0.0  14.5  14.5  14.5   0.0  68.8  68.8  17.7  86.5   0.0
Volume/Cap:  0.00  0.00  0.00  1.16  1.25  0.24  0.00  0.72  1.25  1.25  0.22  0.00
Delay/Veh:    0.0   0.0   0.0 141.3   177  43.0   0.0  15.4 141.0 184.7   3.1   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0 141.3   177  43.0   0.0  15.4 141.0 184.7   3.1   0.0
LOS by Move:    A     A     A     F     F     D     A     B     F     F     A     A
HCM2kAvgQ:      0     0     0    18    21     2     0    18    83    23     3     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #14: Great Mall Pkwy. & I-880 NB Ramps

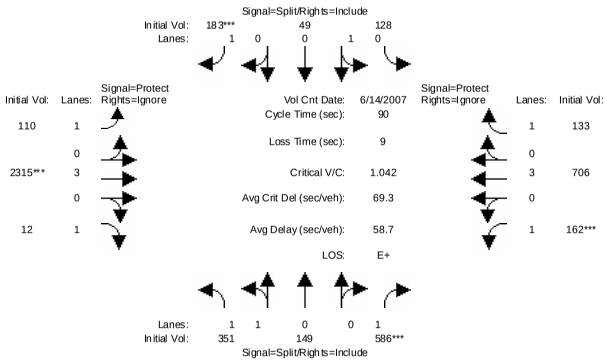



```
Street Name:          I-880 NB Ramps                    Great Mall Pkwy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10    10    10    10    10    10     7    10    10     7    10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:     254    23   501     0     0     0     8  1773     0   153   505    16
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:  254    23   501     0     0     0     8  1773     0   153   505    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     0     0     0
Initial Fut:  254    23   501     0     0     0     8  1773     0   153   505    16
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:   254    23   501     0     0     0     8  1773     0   153   505     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:  254    23   501     0     0     0     8  1773     0   153   505     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:  254    23   501     0     0     0     8  1773     0   153   505     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.93  0.95  0.92  0.95  0.95  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       1.84  0.16  1.00  0.00  1.00  1.00  1.00  3.00  1.00  1.00  3.00  1.00
Final Sat.:  3255   295  1750     0  1800  1750  1750  5700  1750  1750  5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08  0.08  0.29  0.00  0.00  0.00  0.00  0.31  0.00  0.09  0.09  0.00
Crit Moves:                ****                          ****        ****
Green Time:  33.9  33.9  33.9   0.0   0.0   0.0  19.4  36.8   0.0  10.3  27.7   0.0
Volume/Cap:  0.21  0.21  0.76  0.00  0.00  0.00  0.02  0.76  0.00  0.76  0.29  0.00
Delay/Veh:   19.3  19.3  32.6   0.0   0.0   0.0  27.9  25.2   0.0  62.0  24.1   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:  19.3  19.3  32.6   0.0   0.0   0.0  27.9  25.2   0.0  62.0  24.1   0.0
LOS by Move:   B-    B-    C-     A     A     A     C     C     A     E     C     A
HCM2kAvgQ:      3     3    15     0     0     0     0    15     0     5     3     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #14: Great Mall Pkwy. & I-880 NB Ramps



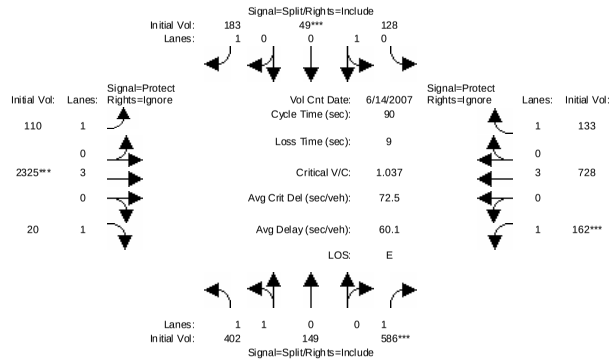
Street Name:	I-880 NB Ramps									Great Mall Pkwy.							
Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	7	10	10	7	10	10	7	10	10	10
Volume Module: >> Count Date: 14 Jun 2007 <<																				
Base Vol:	254	23	501	0	0	0	8	1773	0	153	505	16								
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Initial Bse:	254	23	501	0	0	0	8	1773	0	153	505	16								
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
ATI:	97	126	85	128	49	183	102	542	12	9	201	117								
Initial Fut:	351	149	586	128	49	183	110	2315	12	162	706	133								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00								
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00								
PHF Volume:	351	149	586	128	49	183	110	2315	0	162	706	0								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
Reduced Vol:	351	149	586	128	49	183	110	2315	0	162	706	0								
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00								
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00								
FinalVolume:	351	149	586	128	49	183	110	2315	0	162	706	0								
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900								
Adjustment:	0.93	0.95	0.92	0.95	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92								
Lanes:	1.41	0.59	1.00	0.72	0.28	1.00	1.00	3.00	1.00	1.00	3.00	1.00								
Final Sat.:	2492	1058	1750	1302	498	1750	1750	5700	1750	1750	5700	1750								
Capacity Analysis Module:																				
Vol/Sat:	0.14	0.14	0.33	0.10	0.10	0.10	0.06	0.41	0.00	0.09	0.12	0.00								
Crit Moves:			****			****		****		****										
Green Time:	28.9	28.9	28.9	9.0	9.0	9.0	16.6	35.1	0.0	8.0	26.4	0.0								
Volume/Cap:	0.44	0.44	1.04	0.98	0.98	1.04	0.34	1.04	0.00	1.04	0.42	0.00								
Delay/Veh:	25.4	25.4	80.0	102.4	102	120.0	34.8	58.7	0.0	124.9	26.4	0.0								
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
AdjDel/Veh:	25.4	25.4	80.0	102.4	102	120.0	34.8	58.7	0.0	124.9	26.4	0.0								
LOS by Move:	C	C	E-	F	F	F	C-	E+	A	F	C	A								
HCM2kAvgQ:	6	6	27	9	9	10	3	29	0	7	5	0								

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #14: Great Mall Pkwy. & I-880 NB Ramps



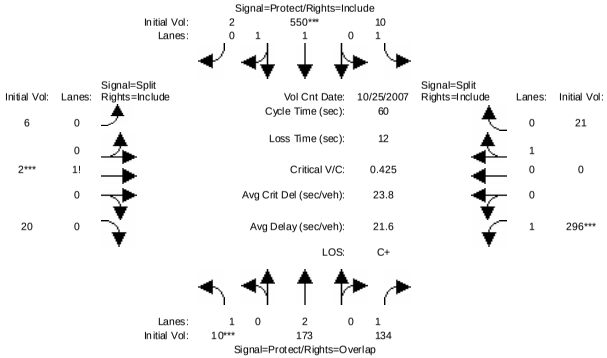
Street Name:	I-880 NB Ramps									Great Mall Pkwy.							
Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	10	10	10	10	10	10	10	10	10	10	7	10	10	7	10	10	7	10	10	10
Volume Module: >> Count Date: 14 Jun 2007 <<																				
Base Vol:	351	149	586	128	49	183	110	2315	12	162	706	133								
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Initial Bse:	351	149	586	128	49	183	110	2315	12	162	706	133								
Added Vol:	51	0	0	0	0	0	0	10	8	0	22	0								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	402	149	586	128	49	183	110	2325	20	162	728	133								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00								
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00								
PHF Volume:	402	149	586	128	49	183	110	2325	0	162	728	0								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
Reduced Vol:	402	149	586	128	49	183	110	2325	0	162	728	0								
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00								
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00								
FinalVolume:	402	149	586	128	49	183	110	2325	0	162	728	0								
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900								
Adjustment:	0.93	0.95	0.92	0.95	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92								
Lanes:	1.47	0.53	1.00	0.72	0.28	1.00	1.00	3.00	1.00	1.00	3.00	1.00								
Final Sat.:	2590	960	1750	1302	498	1750	1750	5700	1750	1750	5700	1750								
Capacity Analysis Module:																				
Vol/Sat:	0.16	0.16	0.33	0.10	0.10	0.10	0.06	0.41	0.00	0.09	0.13	0.00								
Crit Moves:			****		****			****		****										
Green Time:	28.5	28.5	28.5	10.0	10.0	10.0	16.1	34.7	0.0	7.9	26.4	0.0								
Volume/Cap:	0.49	0.49	1.06	0.89	0.89	0.94	0.35	1.06	0.00	1.06	0.43	0.00								
Delay/Veh:	26.4	26.4	85.5	78.8	78.8	90.5	35.5	64.7	0.0	130.3	26.6	0.0								
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
AdjDel/Veh:	26.4	26.4	85.5	78.8	78.8	90.5	35.5	64.7	0.0	130.3	26.6	0.0								
LOS by Move:	C	C	F	E-	E-	F	D+	E	A	F	C	A								
HCM2kAvgQ:	7	7	27	8	8	9	3	30	0	7	5	0								

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #15: McCarthy Blvd / Barber Ln

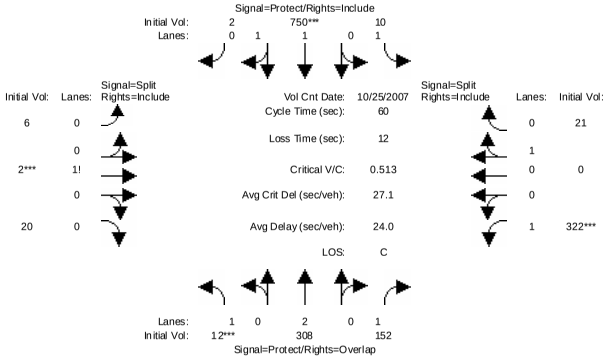



```
Street Name:          McCarthy Blvd                          Barber Ln.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10    10   10   10    10   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Oct 2007 <<
Base Vol:      10  173  134    10  550    2     6    2   20   296    0   21
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   10  173  134    10  550    2     6    2   20   296    0   21
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   10  173  134    10  550    2     6    2   20   296    0   21
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    10  173  134    10  550    2     6    2   20   296    0   21
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   10  173  134    10  550    2     6    2   20   296    0   21
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   10  173  134    10  550    2     6    2   20   296    0   21
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 0.97 0.95  0.92 0.92 0.92  0.92 1.00 0.95
Lanes:       1.00 2.00 1.00  1.00 1.99 0.01  0.21 0.07 0.72  1.00 0.00 1.00
Final Sat.:  1750 3800 1750  1750 3687   13   375  125 1250  1750    0 1800
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.05 0.08  0.01 0.15 0.15  0.02 0.02 0.02  0.17 0.00 0.01
Crit Moves:  ****               ****            ****            ****
Green Time:   7.0 12.7 29.1   8.9 14.5 14.5  10.0 10.0 10.0  16.5  0.0 16.5
Volume/Cap:  0.05 0.22 0.16  0.04 0.62 0.62  0.10 0.10 0.10  0.62 0.00 0.04
Delay/Veh:   24.0 20.2  9.0  22.2 23.4 23.4  21.8 21.8 21.8  24.8  0.0 16.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  24.0 20.2  9.0  22.2 23.4 23.4  21.8 21.8 21.8  24.8  0.0 16.1
LOS by Move:    C   C+    A    C+    C    C    C+   C+   C+    C    A    B
HCM2kAvgQ:      0    1    1     0    5    5     1    1    1     6    0    0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #15: McCarthy Blvd / Barber Ln

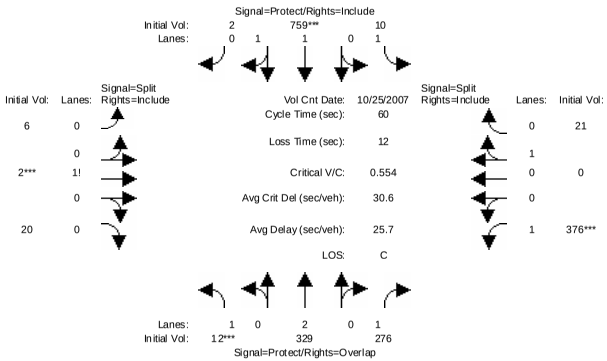



```
Street Name:          McCarthy Blvd                          Barber Ln.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10    10   10   10    10   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Oct 2007 <<
Base Vol:      10  173  134    10  550    2     6    2   20   296    0   21
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   10  173  134    10  550    2     6    2   20   296    0   21
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            2  135   18     0  200    0     0    0    0    26    0    0
Initial Fut:   12  308  152    10  750    2     6    2   20   322    0   21
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    12  308  152    10  750    2     6    2   20   322    0   21
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   12  308  152    10  750    2     6    2   20   322    0   21
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   12  308  152    10  750    2     6    2   20   322    0   21
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 0.97 0.95  0.92 0.92 0.92  0.92 1.00 0.95
Lanes:       1.00 2.00 1.00  1.00 1.99 0.01  0.21 0.07 0.72  1.00 0.00 1.00
Final Sat.:  1750 3800 1750  1750 3690   10   375  125 1250  1750    0 1800
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.08 0.09  0.01 0.20 0.20  0.02 0.02 0.02  0.18 0.00 0.01
Crit Moves:  ****               ****            ****            ****
Green Time:   7.0 13.7 28.4   9.6 16.3 16.3  10.0 10.0 10.0  14.7  0.0 14.7
Volume/Cap:  0.06 0.36 0.18  0.04 0.75 0.75  0.10 0.10 0.10  0.75 0.00 0.05
Delay/Veh:   24.1 20.6  9.6  21.5 25.1 25.1  21.8 21.8 21.8  32.3  0.0 17.5
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  24.1 20.6  9.6  21.5 25.1 25.1  21.8 21.8 21.8  32.3  0.0 17.5
LOS by Move:    C   C+    A    C+    C    C    C+   C+   C+    C-    A    B
HCM2kAvgQ:      0    2    2     0    7    7     1    1    1     7    0    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #15: McCarthy Blvd / Barber Ln



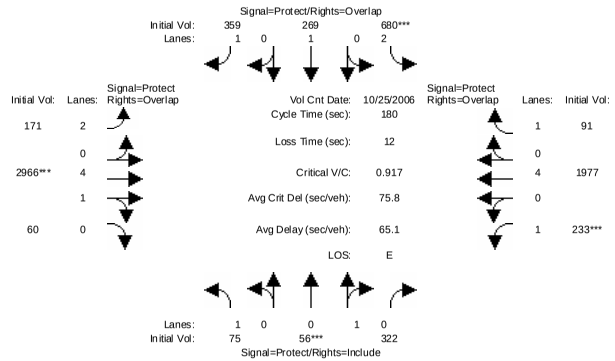
Street Name:	McCarthy Blvd						Barber Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Volume Module: >> Count Date: 25 Oct 2007 <<												
Base Vol:	12	308	152	10	750	2	6	2	20	322	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	308	152	10	750	2	6	2	20	322	0	21
Added Vol:	0	21	124	0	9	0	0	0	0	54	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	329	276	10	759	2	6	2	20	376	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	329	276	10	759	2	6	2	20	376	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	329	276	10	759	2	6	2	20	376	0	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	329	276	10	759	2	6	2	20	376	0	21
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.97	0.95	0.92	0.92	0.92	0.92	1.00	0.95
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.21	0.07	0.72	1.00	0.00	1.00
Final Sat.:	1750	3800	1750	1750	3690	10	375	125	1250	1750	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.16	0.01	0.21	0.21	0.02	0.02	0.02	0.21	0.00	0.01
Crit Moves:	****				****			****		****		
Green Time:	7.0	13.0	28.9	9.1	15.2	15.2	10.0	10.0	10.0	15.8	0.0	15.8
Volume/Cap:	0.06	0.40	0.33	0.04	0.81	0.81	0.10	0.10	0.10	0.81	0.00	0.04
Delay/Veh:	24.1	21.6	10.6	22.0	28.8	28.8	21.8	21.8	21.8	35.2	0.0	16.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.1	21.6	10.6	22.0	28.8	28.8	21.8	21.8	21.8	35.2	0.0	16.6
LOS by Move:	C	C+	B+	C+	C	C	C+	C+	C+	D+	A	B
HCM2kAvgQ:	0	2	3	0	7	7	1	1	1	8	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #16: McCarthy Blvd. / Montague Expy. [CMP]



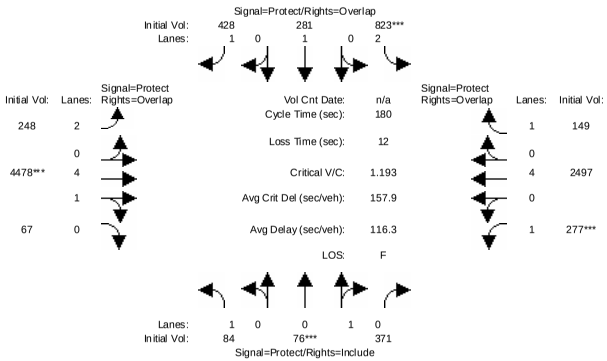
Street Name:	McCarthy Blvd.						Montague Expy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 25 Oct 2006 <<												
Base Vol:	75	56	322	680	269	359	171	2966	60	233	1977	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	75	56	322	680	269	359	171	2966	60	233	1977	91
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	75	56	322	680	269	359	171	2966	60	233	1977	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	75	56	322	680	269	359	171	2729	60	233	1977	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	75	56	322	680	269	359	171	2729	60	233	1977	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	75	56	322	680	269	359	171	2729	60	233	1977	91
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	0.15	0.85	2.00	1.00	1.00	2.00	4.89	0.11	1.00	4.00	1.00
Final Sat.:	1750	267	1533	3150	1900	1750	3150	9197	202	1750	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.21	0.21	0.22	0.14	0.21	0.05	0.30	0.30	0.13	0.26	0.05
Crit Moves:		****		****				****		****		
Green Time:	18.5	41.2	41.2	42.4	65.1	79.7	14.6	58.2	76.7	26.1	69.8	112.2
Volume/Cap:	0.42	0.92	0.92	0.92	0.39	0.46	0.67	0.92	0.70	0.92	0.67	0.08
Delay/Veh:	83.0	106	106.1	97.1	59.2	54.2	87.2	63.5	42.7	110.8	46.2	13.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	83.0	106	106.1	97.1	59.2	54.2	87.2	63.5	42.7	110.8	46.2	13.5
LOS by Move:	F	F	F	F	E+	D-	F	E	D	F	D	B
HCM2kAvgQ:	5	25	25	24	13	18	6	32	27	15	22	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #16: McCarthy Blvd. / Montague Expy. [CMP]



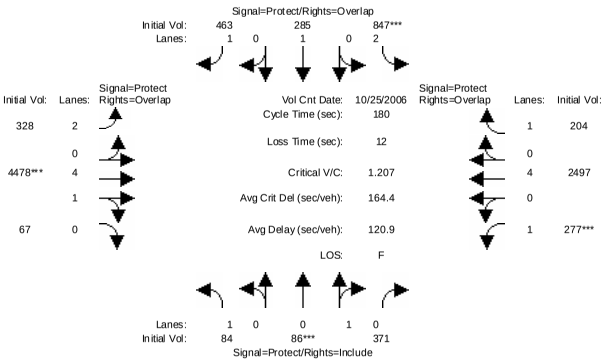
Street Name:	McCarthy Blvd.						Montague Expy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	75	56	322	680	269	359	171	2966	60	233	1977	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	75	56	322	680	269	359	171	2966	60	233	1977	91
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	9	20	49	143	12	69	77	1512	7	44	520	58
Initial Fut:	84	76	371	823	281	428	248	4478	67	277	2497	149
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	76	371	823	281	428	248	4120	67	277	2497	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	76	371	823	281	428	248	4120	67	277	2497	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	76	371	823	281	428	248	4120	67	277	2497	149
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	0.17	0.83	2.00	1.00	1.00	2.00	4.92	0.08	1.00	4.00	1.00
Final Sat.:	1750	306	1494	3150	1900	1750	3150	9249	150	1750	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.25	0.25	0.26	0.15	0.24	0.08	0.45	0.45	0.16	0.33	0.09
Crit Moves:		****		****				****		****		
Green Time:	17.3	37.5	37.5	39.4	59.6	77.2	17.6	67.2	84.5	23.9	73.5	112.9
Volume/Cap:	0.50	1.19	1.19	1.19	0.45	0.57	0.80	1.19	0.95	1.19	0.80	0.14
Delay/Veh:	85.1	194	193.9	184.1	63.3	59.3	93.8	146	51.3	199.2	48.5	13.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	85.1	194	193.9	184.1	63.3	59.3	93.8	146	51.3	199.2	48.5	13.7
LOS by Move:	F	F	F	F	E	E+	F	F	D-	F	D	B
HCM2kAvgQ:	5	37	37	37	14	22	8	62	47	23	30	3

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #16: McCarthy Blvd. / Montague Expy. [CMP]



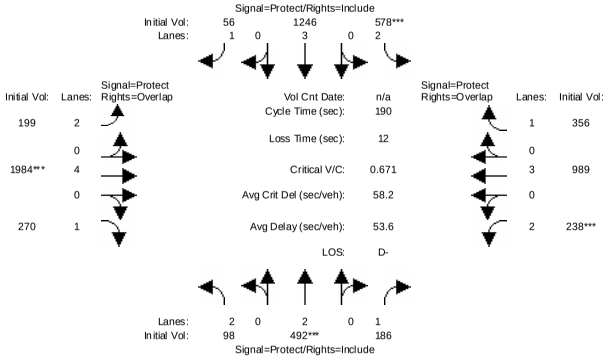
Street Name:	McCarthy Blvd.						Montague Expy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 25 Oct 2006 <<												
Base Vol:	84	76	371	823	281	428	248	4478	67	277	2497	149
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	76	371	823	281	428	248	4478	67	277	2497	149
Added Vol:	0	10	0	24	4	35	80	0	0	0	0	55
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	86	371	847	285	463	328	4478	67	277	2497	204
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	86	371	847	285	463	328	4120	67	277	2497	204
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	86	371	847	285	463	328	4120	67	277	2497	204
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	86	371	847	285	463	328	4120	67	277	2497	204
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	0.19	0.81	2.00	1.00	1.00	2.00	4.92	0.08	1.00	4.00	1.00
Final Sat.:	1750	339	1461	3150	1900	1750	3150	9249	150	1750	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.25	0.25	0.27	0.15	0.26	0.10	0.45	0.45	0.16	0.33	0.12
Crit Moves:		****		****				****		****		
Green Time:	18.0	37.9	37.9	40.1	60.0	81.7	21.7	66.4	84.4	23.6	68.4	108.5
Volume/Cap:	0.48	1.21	1.21	1.21	0.45	0.58	0.87	1.21	0.95	1.21	0.87	0.19
Delay/Veh:	84.4	199	199.2	189.6	63.2	57.8	96.1	153	51.5	204.9	54.5	16.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	84.4	199	199.2	189.6	63.2	57.8	96.1	153	51.5	204.9	54.5	16.2
LOS by Move:	F	F	F	F	E	E+	F	F	D-	F	D-	B
HCM2kAvgQ:	5	39	39	38	14	24	11	63	47	23	33	5

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #17: Montague Expy. / Great Mall Pkwy./Capitol Ave. [CMP]

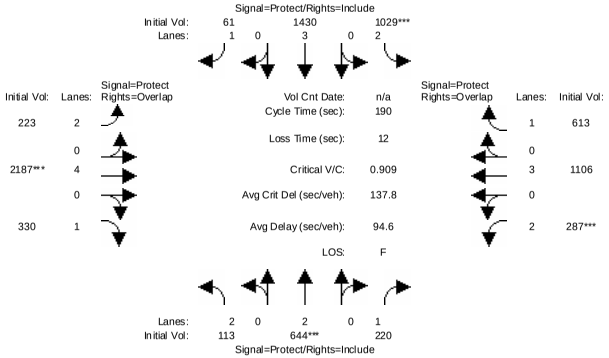



```
Street Name:  Great Mall Pkwy./Capitol Ave.            Montague Expy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   95   10     7   95   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      98  492  186   578 1246   56   199 1984  270   238  989  356
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   98  492  186   578 1246   56   199 1984  270   238  989  356
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   98  492  186   578 1246   56   199 1984  270   238  989  356
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.92 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    98  492  186   578 1246   56   199 1825  270   238  989  356
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   98  492  186   578 1246   56   199 1825  270   238  989  356
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   98  492  186   578 1246   56   199 1825  270   238  989  356
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       2.00 2.00 1.00  2.00 3.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  3150 3800 1750  3150 5700 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.13 0.11  0.18 0.22 0.03  0.06 0.24 0.15  0.08 0.17 0.20
Crit Moves:       ****            ****            ****            ****
Green Time:   9.6 27.7 27.7  39.2 57.2 57.2  12.5 95.0 104.6  16.1 98.7 137.9
Volume/Cap:  0.61 0.89 0.73  0.89 0.73 0.11  0.96 0.48 0.28  0.89 0.33 0.28
Delay/Veh:   95.2 95.9 87.9  87.5 61.0 48.0 140.3 31.4 22.8 114.4 26.6  9.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  95.2 95.9 87.9  87.5 61.0 48.0 140.3 31.4 22.8 114.4 26.6  9.1
LOS by Move:    F    F    F     F    E    D     F    C   C+     F    C    A
HCM2kAvgQ:      3   15   11    21   21    2     7   16    8     9   11    8
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #17: Montague Expy. / Great Mall Pkwy./Capitol Ave. [CMP]

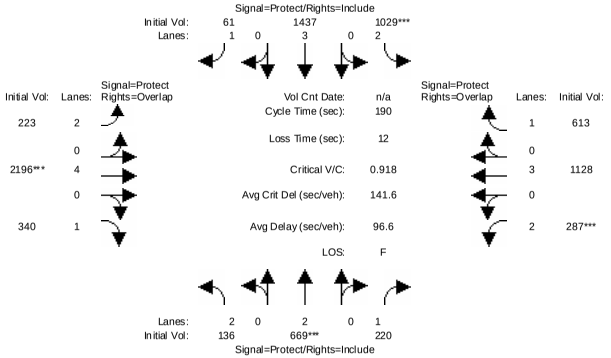



```
Street Name:  Great Mall Pkwy./Capitol Ave.            Montague Expy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   95   10     7   95   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      98  492  186   578 1246   56   199 1984  270   238  989  356
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   98  492  186   578 1246   56   199 1984  270   238  989  356
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:           15  152   34   451  184    5    24  203   60    49  117  257
Initial Fut:  113  644  220  1029 1430   61   223 2187  330   287 1106  613
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.92 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  113  644  220  1029 1430   61   223 2012  330   287 1106  613
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  113  644  220  1029 1430   61   223 2012  330   287 1106  613
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  113  644  220  1029 1430   61   223 2012  330   287 1106  613
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       2.00 2.00 1.00  2.00 3.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  3150 3800 1750  3150 5700 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.17 0.13  0.33 0.25 0.03  0.07 0.26 0.19  0.09 0.19 0.35
Crit Moves:       ****            ****            ****            ****
Green Time:   9.0 24.0 24.0  46.2 61.1 61.1  12.9 95.0 104.0  12.9 95.0 141.2
Volume/Cap:  0.76 1.34 1.00  1.34 0.78 0.11  1.04 0.53 0.34  1.34 0.39 0.47
Delay/Veh:  109.5  251 142.7 235.5 60.5 45.4 162.3 32.4 24.2 271.4 29.6  9.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 109.5  251 142.7 235.5 60.5 45.4 162.3 32.4 24.2 271.4 29.6  9.9
LOS by Move:    F    F    F     F    E    D     F   C-    C     F    C    A
HCM2kAvgQ:      4   28   15    55   25    3     8   18   11    16   13   15
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #17: Montague Expy. / Great Mall Pkwy./Capitol Ave. [CMP]

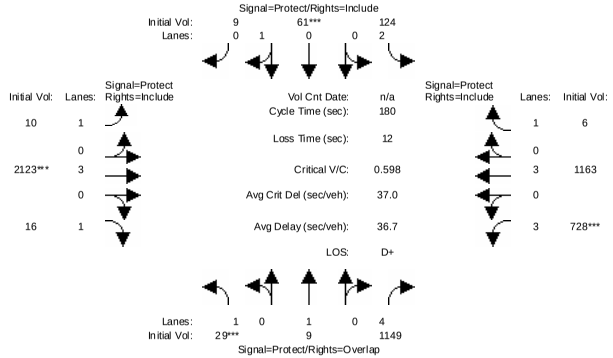



```
Street Name:  Great Mall Pkwy./Capitol Ave.            Montague Expy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   95   10     7   95   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     113  644  220  1029 1430   61   223 2187  330   287 1106  613
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  113  644  220  1029 1430   61   223 2187  330   287 1106  613
Added Vol:     23   25    0     0    7    0     0    9   10     0   22    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  136  669  220  1029 1437   61   223 2196  340   287 1128  613
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.92 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   136  669  220  1029 1437   61   223 2020  340   287 1128  613
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  136  669  220  1029 1437   61   223 2020  340   287 1128  613
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  136  669  220  1029 1437   61   223 2020  340   287 1128  613
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       2.00 2.00 1.00  2.00 3.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  3150 3800 1750  3150 5700 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.18 0.13  0.33 0.25 0.03  0.07 0.27 0.19  0.09 0.20 0.35
Crit Moves:       ****            ****            ****            ****
Green Time:  10.3 24.6 24.6  45.7 60.0 60.0  12.7 95.0 105.3  12.7 95.0 140.7
Volume/Cap:  0.80 1.36 0.97  1.36 0.80 0.11  1.06 0.53 0.35  1.36 0.40 0.47
Delay/Veh:  111.5  257 133.6 242.4 62.1 46.2 166.2 32.5 23.7 277.9 29.7 10.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 111.5  257 133.6 242.4 62.1 46.2 166.2 32.5 23.7 277.9 29.7 10.1
LOS by Move:    F    F    F     F    E    D     F   C-    C     F    C   B+
HCM2kAvgQ:      5   29   14    56   26    3     8   18   11    16   13   15
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #18: Trimble / Montague Expy [CMP]

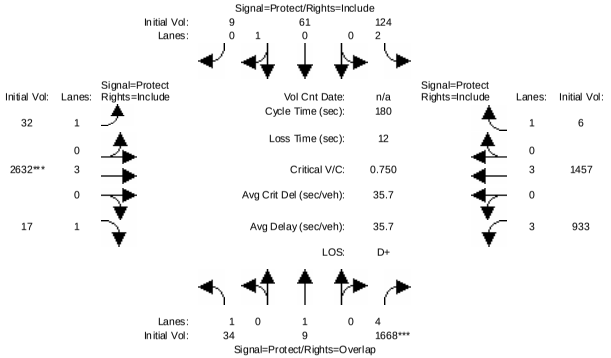



```
Street Name:            Trimble                        Montague Expy
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      29    9 1149   124   61    9    10 2123   16   728 1163    6
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   29    9 1149   124   61    9    10 2123   16   728 1163    6
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   29    9 1149   124   61    9    10 2123   16   728 1163    6
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.92 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    29    9 1149   124   61    9    10 1953   16   728 1163    6
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   29    9 1149   124   61    9    10 1953   16   728 1163    6
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   29    9 1149   124   61    9    10 1953   16   728 1163    6
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.80  0.83 0.95 0.95  0.92 1.00 0.92  0.80 1.00 0.92
Lanes:       1.00 1.00 4.00  2.00 0.87 0.13  1.00 3.00 1.00  3.00 3.00 1.00
Final Sat.:  1750 1900 6068  3150 1569  231  1750 5700 1750  4551 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00 0.19  0.04 0.04 0.04  0.01 0.34 0.01  0.16 0.20 0.00
Crit Moves:  ****            ****            ****            ****
Green Time:   7.0 10.9 58.4   7.7 11.6 11.6  23.9  102 101.9  47.6  126 125.5
Volume/Cap:  0.43 0.08 0.58  0.92 0.61 0.61  0.04 0.61 0.02  0.61 0.29 0.00
Delay/Veh:   88.8 80.1 51.1 139.7 90.8 90.8  68.1 26.1 17.1  58.9 10.4  8.3
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  88.8 80.1 51.1 139.7 90.8 90.8  68.1 26.1 17.1  58.9 10.4  8.3
LOS by Move:    F    F   D-     F    F    F     E    C    B    E+   B+    A
HCM2kAvgQ:      2    0   16     6    5    5     0   23    0    14    8    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #18: Trimble / Montague Expy [CMP]



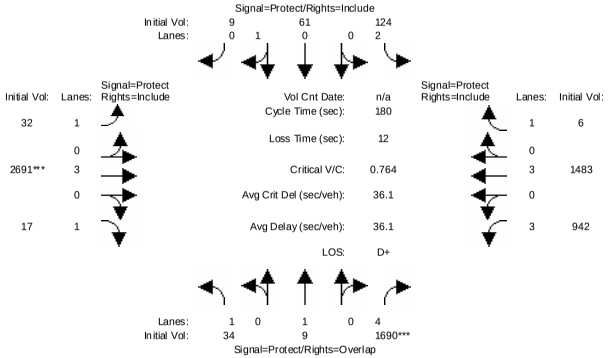
Street Name:	Trimble									Montague Expy								
Approach:	North Bound				South Bound					East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10		10	7		10		10	7		10		10	7		10		10
Volume Module:																				
Base Vol:	29		9		1149	124		61		9	10		2123		16	728		1163		6
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	29		9		1149	124		61		9	10		2123		16	728		1163		6
Added Vol:	0		0		0	0		0		0	0		0		0	0		0		0
ATI:	5		0		519	0		0		0	22		509		1	205		294		0
Initial Fut:	34		9		1668	124		61		9	32		2632		17	933		1457		6
User Adj:	0.00		0.00		1.00	0.00		0.00		0.00	0.00		0.92		0.00	0.00		0.00		0.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	0		0		1668	0		0		0	0		2421		0	0		0		0
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	0		0		1668	0		0		0	0		2421		0	0		0		0
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	0		0		1668	0		0		0	0		2421		0	0		0		0
Saturation Flow Module:																				
Sat/Lane:	1900		1900		1900	1900		1900		1900	1900		1900		1900	1900		1900		1900
Adjustment:	0.92		1.00		0.80	0.83		1.00		0.92	0.92		1.00		0.92	0.80		1.00		0.92
Lanes:	1.00		1.00		4.00	2.00		1.00		0.00	1.00		3.00		1.00	3.00		3.00		1.00
Final Sat.:	1750		1900		6068	3150		1900		0	1750		5700		1750	4551		5700		1750
Capacity Analysis Module:																				
Vol/Sat:	0.00		0.00		0.27	0.00		0.00		0.00	0.00		0.42		0.00	0.00		0.00		0.00
Crit Moves:					****								****							
Green Time:	0.0		0.0		67.0	0.0		0.0		0.0	0.0		108		0.0	0.0		0.0		0.0
Volume/Cap:	0.00		0.00		0.74	0.00		0.00		0.00	0.00		0.71		0.00	0.00		0.00		0.00
Delay/Veh:	0.0		0.0		50.2	0.0		0.0		0.0	0.0		25.7		0.0	0.0		0.0		0.0
User DelAdj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
AdjDel/Veh:	0.0		0.0		50.2	0.0		0.0		0.0	0.0		25.7		0.0	0.0		0.0		0.0
LOS by Move:	A		A		D	A		A		A	A		C		A	A		A		A
HCM2kAvgQ:	0		0		25	0		0		0	0		31		0	0		0		0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #18: Trimble / Montague Expy [CMP]



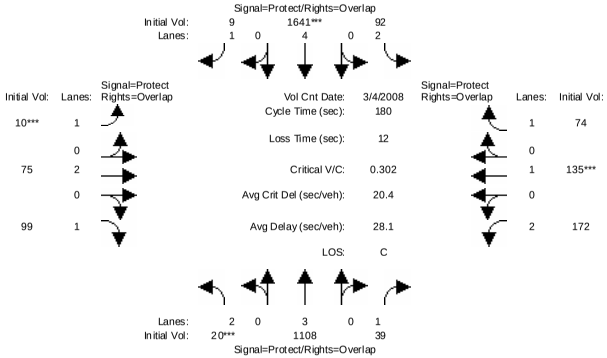
Street Name:	Trimble									Montague Expy								
Approach:	North Bound				South Bound					East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10		10	7		10		10	7		10		10	7		10		10
Volume Module:																				
Base Vol:	34		9		1668	124		61		9	32		2632		17	933		1457		6
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	34		9		1668	124		61		9	32		2632		17	933		1457		6
Added Vol:	0		0		22	0		0		0	0		59		0	9		26		0
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	34		9		1690	124		61		9	32		2691		17	942		1483		6
User Adj:	0.00		0.00		1.00	0.00		0.00		0.00	0.00		0.92		0.00	0.00		0.00		0.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	0		0		1690	0		0		0	0		2476		0	0		0		0
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	0		0		1690	0		0		0	0		2476		0	0		0		0
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	0		0		1690	0		0		0	0		2476		0	0		0		0
Saturation Flow Module:																				
Sat/Lane:	1900		1900		1900	1900		1900		1900	1900		1900		1900	1900		1900		1900
Adjustment:	0.92		1.00		0.80	0.83		1.00		0.92	0.92		1.00		0.92	0.80		1.00		0.92
Lanes:	1.00		1.00		4.00	2.00		1.00		0.00	1.00		3.00		1.00	3.00		3.00		1.00
Final Sat.:	1750		1900		6068	3150		1900		0	1750		5700		1750	4551		5700		1750
Capacity Analysis Module:																				
Vol/Sat:	0.00		0.00		0.28	0.00		0.00		0.00	0.00		0.43		0.00	0.00		0.00		0.00
Crit Moves:					****								****							
Green Time:	0.0		0.0		66.7	0.0		0.0		0.0	0.0		108		0.0	0.0		0.0		0.0
Volume/Cap:	0.00		0.00		0.75	0.00		0.00		0.00	0.00		0.72		0.00	0.00		0.00		0.00
Delay/Veh:	0.0		0.0		50.9	0.0		0.0		0.0	0.0		26.0		0.0	0.0		0.0		0.0
User DelAdj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
AdjDel/Veh:	0.0		0.0		50.9	0.0		0.0		0.0	0.0		26.0		0.0	0.0		0.0		0.0
LOS by Move:	A		A		D	A		A		A	A		C		A	A		A		A
HCM2kAvgQ:	0		0		25	0		0		0	0		32		0	0		0		0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #19: Montague Expy / River Oaks



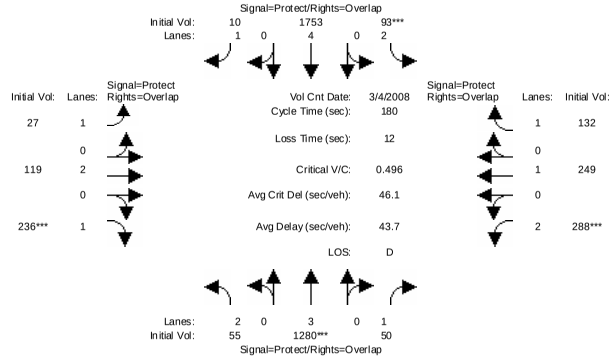
Street Name:	Montague Expy						River Oaks - E Pulmeria					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 4 Mar 2008 << 5-6												
Base Vol:	20	1108	39	92	1641	9	10	75	99	172	135	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	1108	39	92	1641	9	10	75	99	172	135	74
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	1108	39	92	1641	9	10	75	99	172	135	74
User Adj:	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	20	1108	39	92	1510	9	10	75	99	172	135	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	1108	39	92	1510	9	10	75	99	172	135	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	1108	39	92	1510	9	10	75	99	172	135	74
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	1750	3800	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.19	0.02	0.03	0.20	0.01	0.01	0.02	0.06	0.05	0.07	0.04
Crit Moves:	****				****		****				****	
Green Time:	7.0	100	123.9	20.1	113	120.4	7.0	24.0	31.0	23.6	40.6	60.6
Volume/Cap:	0.16	0.35	0.03	0.26	0.32	0.01	0.15	0.15	0.33	0.42	0.32	0.13
Delay/Veh:	86.5	22.2	9.0	75.0	15.5	9.9	88.1	69.6	68.3	75.0	60.1	41.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	86.5	22.2	9.0	75.0	15.5	9.9	88.1	69.6	68.3	75.0	60.1	41.8
LOS by Move:	F	C+	A	E	B	A	F	E	E	E	E	D
HCM2kAvgQ:	1	11	1	3	10	0	1	2	5	5	6	3

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #19: Montague Expy / River Oaks



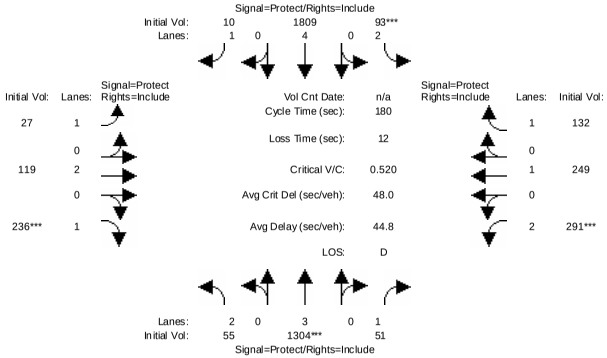
Street Name:	Montague Expy						River Oaks - E Pulmeria					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 4 Mar 2008 << 5-6												
Base Vol:	20	1108	39	92	1641	9	10	75	99	172	135	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	1108	39	92	1641	9	10	75	99	172	135	74
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	35	172	11	1	112	1	17	44	137	116	114	58
Initial Fut:	55	1280	50	93	1753	10	27	119	236	288	249	132
User Adj:	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	1280	50	93	1613	10	27	119	236	288	249	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	1280	50	93	1613	10	27	119	236	288	249	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	1280	50	93	1613	10	27	119	236	288	249	132
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	1750	3800	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.22	0.03	0.03	0.21	0.01	0.02	0.03	0.13	0.09	0.13	0.08
Crit Moves:		****		****					****	****		
Green Time:	14.3	81.5	114.7	10.7	77.9	93.5	15.6	34.8	49.1	33.2	52.4	63.2
Volume/Cap:	0.22	0.50	0.04	0.50	0.49	0.01	0.18	0.16	0.49	0.50	0.45	0.21
Delay/Veh:	79.7	35.4	12.3	91.1	37.3	20.9	78.9	60.9	58.6	68.9	54.6	41.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	79.7	35.4	12.3	91.1	37.3	20.9	78.9	60.9	58.6	68.9	54.6	41.8
LOS by Move:	E-	D+	B	F	D+	C+	E-	E	E+	E	D-	D
HCM2kAvgQ:	2	17	1	3	16	0	1	3	12	9	11	5

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #19: Montague Expy / River Oaks



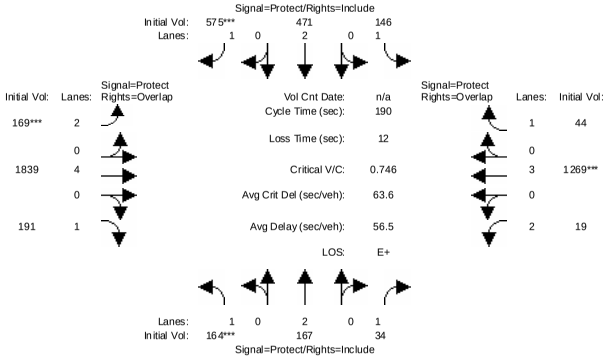
Street Name:	Montague Expy						River Oaks - E Pulmeria					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	55	1280	50	93	1753	10	27	119	236	288	249	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	1280	50	93	1753	10	27	119	236	288	249	132
Added Vol:	0	24	1	0	56	0	0	0	0	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	1304	51	93	1809	10	27	119	236	291	249	132
User Adj:	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	1304	51	93	1664	10	27	119	236	291	249	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	1304	51	93	1664	10	27	119	236	291	249	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	1304	51	93	1664	10	27	119	236	291	249	132
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	1750	3800	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.23	0.03	0.03	0.22	0.01	0.02	0.03	0.13	0.09	0.13	0.08
Crit Moves:		****		****					****	****		
Green Time:	13.5	79.2	79.2	10.2	75.9	75.9	18.0	46.7	46.7	32.0	60.6	60.6
Volume/Cap:	0.23	0.52	0.07	0.52	0.52	0.01	0.15	0.12	0.52	0.52	0.39	0.22
Delay/Veh:	80.7	37.4	29.3	92.9	39.2	30.3	75.9	51.2	61.3	70.5	47.3	43.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	80.7	37.4	29.3	92.9	39.2	30.3	75.9	51.2	61.3	70.5	47.3	43.7
LOS by Move:	F	D+	C	F	D	C	E-	D-	E	E	D	D
HCM2kAvgQ:	2	18	2	3	17	0	1	2	12	9	10	5

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #20: Zanker Rd / Montague Expy [CMP]



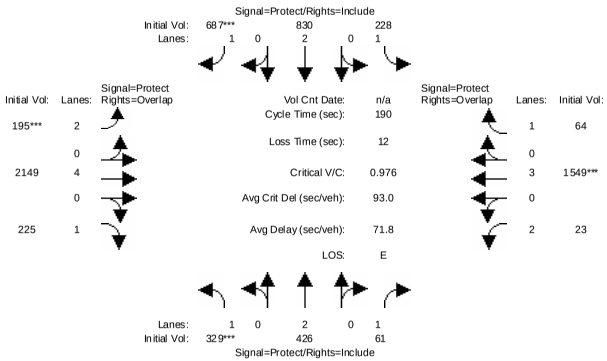
Street Name:	Zanker Rd						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	164	167	34	146	471	575	169	1839	191	19	1269	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	164	167	34	146	471	575	169	1839	191	19	1269	44
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	164	167	34	146	471	575	169	1839	191	19	1269	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	164	167	34	146	471	575	169	1692	191	19	1269	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	167	34	146	471	575	169	1692	191	19	1269	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	164	167	34	146	471	575	169	1692	191	19	1269	44
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.04	0.02	0.08	0.12	0.33	0.05	0.22	0.11	0.01	0.22	0.03
Crit Moves:	****					****	****				****	
Green Time:	23.9	41.6	41.6	66.0	83.7	83.7	13.7	60.4	84.3	10.0	56.7	122.7
Volume/Cap:	0.75	0.20	0.09	0.24	0.28	0.75	0.75	0.70	0.25	0.11	0.75	0.04
Delay/Veh:	93.1	60.7	59.2	44.4	34.0	48.3	99.1	57.8	33.2	86.1	62.0	12.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	93.1	60.7	59.2	44.4	34.0	48.3	99.1	57.8	33.2	86.1	62.0	12.2
LOS by Move:	F	E	E+	D	C-	D	F	E+	C-	F	E	B
HCM2kAvgQ:	11	4	2	6	8	30	6	21	7	1	22	1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #20: Zanker Rd / Montague Expy [CMP]



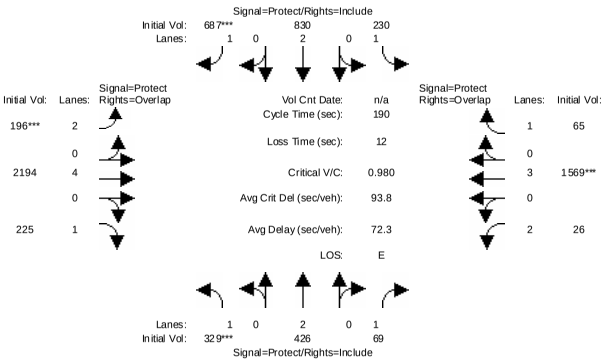
Street Name:	Zanker Rd						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	164	167	34	146	471	575	169	1839	191	19	1269	44
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	164	167	34	146	471	575	169	1839	191	19	1269	44
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	165	259	27	82	359	112	26	310	34	4	280	20
Initial Fut:	329	426	61	228	830	687	195	2149	225	23	1549	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	329	426	61	228	830	687	195	1977	225	23	1549	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	329	426	61	228	830	687	195	1977	225	23	1549	64
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	329	426	61	228	830	687	195	1977	225	23	1549	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.11	0.03	0.13	0.22	0.39	0.06	0.26	0.13	0.01	0.27	0.04
Crit Moves:	****					****	****				****	
Green Time:	36.6	52.3	52.3	60.8	76.4	76.4	12.1	56.9	93.5	8.1	52.9	113.7
Volume/Cap:	0.98	0.41	0.13	0.41	0.54	0.98	0.98	0.87	0.26	0.17	0.98	0.06
Delay/Veh:	118.6	56.5	51.8	51.0	43.8	83.7	145.3	66.9	28.3	88.4	85.0	15.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	118.6	56.5	51.8	51.0	43.8	83.7	145.3	66.9	28.3	88.4	85.0	15.9
LOS by Move:	F	E+	D-	D-	D	F	F	E	C	F	F	B
HCM2kAvgQ:	25	10	3	11	18	47	7	25	8	1	33	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #20: Zanker Rd / Montague Expy [CMP]



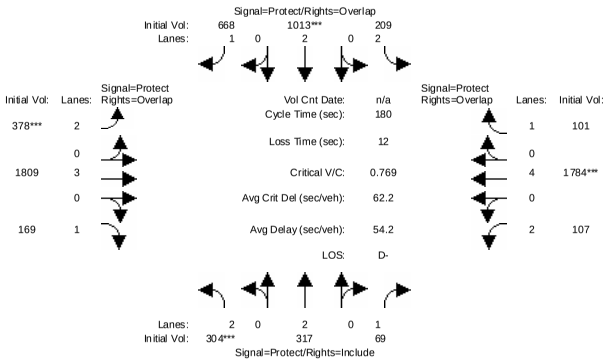
Street Name:	Zanker Rd						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	329	426	61	228	830	687	195	2149	225	23	1549	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	329	426	61	228	830	687	195	2149	225	23	1549	64
Added Vol:	0	0	8	2	0	0	1	45	0	3	20	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	329	426	69	230	830	687	196	2194	225	26	1569	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	329	426	69	230	830	687	196	2018	225	26	1569	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	329	426	69	230	830	687	196	2018	225	26	1569	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	329	426	69	230	830	687	196	2018	225	26	1569	65
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.11	0.04	0.13	0.22	0.39	0.06	0.27	0.13	0.01	0.28	0.04
Crit Moves:	****					****	****				****	
Green Time:	36.5	51.8	51.8	60.7	76.1	76.1	12.1	57.5	93.9	8.0	53.4	114.1
Volume/Cap:	0.98	0.41	0.14	0.41	0.55	0.98	0.98	0.88	0.26	0.20	0.98	0.06
Delay/Veh:	119.9	56.9	52.5	51.1	44.1	85.1	146.5	67.2	28.0	88.7	85.6	15.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	119.9	56.9	52.5	51.1	44.1	85.1	146.5	67.2	28.0	88.7	85.6	15.8
LOS by Move:	F	E+	D-	D-	D	F	F	E	C	F	F	B
HCM2kAvgQ:	25	10	3	11	18	48	7	26	8	1	33	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #21: N 1st St / Montague Expy [CMP]



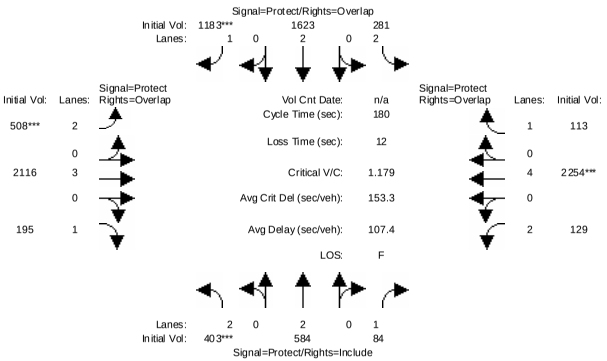
Street Name:	N 1st St						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	304	317	69	209	1013	668	378	1809	169	107	1784	101
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	304	317	69	209	1013	668	378	1809	169	107	1784	101
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	304	317	69	209	1013	668	378	1809	169	107	1784	101
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	304	317	69	209	1013	668	378	1664	169	107	1784	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	304	317	69	209	1013	668	378	1664	169	107	1784	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	304	317	69	209	1013	668	378	1664	169	107	1784	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	4.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	3150	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.08	0.04	0.07	0.27	0.38	0.12	0.29	0.10	0.03	0.23	0.06
Crit Moves:	****				****		****				****	
Green Time:	22.6	47.3	47.3	37.6	62.4	90.5	28.1	73.3	95.9	9.8	54.9	92.6
Volume/Cap:	0.77	0.32	0.15	0.32	0.77	0.76	0.77	0.72	0.18	0.63	0.77	0.11
Delay/Veh:	85.1	53.5	51.0	60.6	55.2	39.9	80.1	45.8	21.9	90.5	58.4	22.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	85.1	53.5	51.0	60.6	55.2	39.9	80.1	45.8	21.9	90.5	58.4	22.6
LOS by Move:	F	D-	D-	E	E+	D	F	D	C+	F	E+	C+
HCM2kAvgQ:	11	7	3	6	25	32	12	25	5	3	22	3

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #21: N 1st St / Montague Expy [CMP]



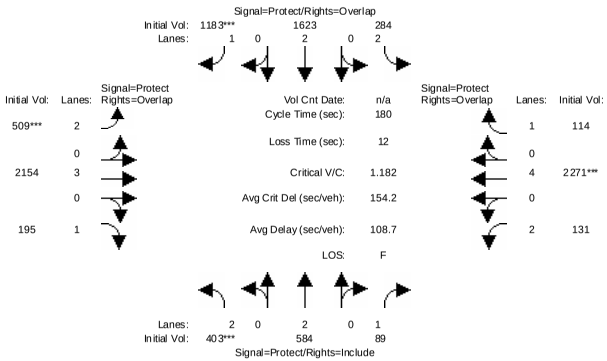
Street Name:	N 1st St						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	304	317	69	209	1013	668	378	1809	169	107	1784	101
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	304	317	69	209	1013	668	378	1809	169	107	1784	101
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	99	267	15	72	610	515	130	307	26	22	470	12
Initial Fut:	403	584	84	281	1623	1183	508	2116	195	129	2254	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	403	584	84	281	1623	1183	508	1947	195	129	2254	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	403	584	84	281	1623	1183	508	1947	195	129	2254	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	403	584	84	281	1623	1183	508	1947	195	129	2254	113
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	4.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	3150	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.13	0.15	0.05	0.09	0.43	0.68	0.16	0.34	0.11	0.04	0.30	0.06
Crit Moves:	****					****	****				****	
Green Time:	19.5	62.1	62.1	36.0	78.6	103.2	24.6	62.4	81.9	7.5	45.3	81.3
Volume/Cap:	1.18	0.45	0.14	0.45	0.98	1.18	1.18	0.99	0.24	0.99	1.18	0.14
Delay/Veh:	187.0	45.9	40.7	63.7	67.0	129.5	180.0	75.1	30.2	160.0	154	29.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	187.0	45.9	40.7	63.7	67.0	129.5	180.0	75.1	30.2	160.0	154	29.0
LOS by Move:	F	D	D	E	E	F	F	E-	C	F	F	C
HCM2kAvgQ:	20	12	3	8	49	94	23	39	7	4	39	4

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #21: N 1st St / Montague Expy [CMP]



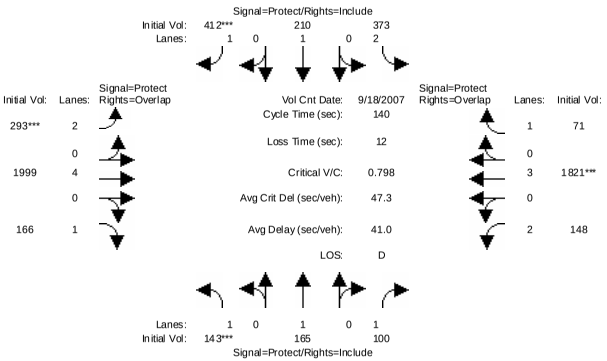
Street Name:	N 1st St									Montague Expy								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10		10	7		10		10	7		10		10	7		10		10
Volume Module:																				
Base Vol:	403		584		84	281		1623		1183	508		2116		195	129		2254		113
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	403		584		84	281		1623		1183	508		2116		195	129		2254		113
Added Vol:	0		0		5	3		0		0	1		38		0	2		17		1
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	403		584		89	284		1623		1183	509		2154		195	131		2271		114
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		0.92		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	403		584		89	284		1623		1183	509		1982		195	131		2271		114
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	403		584		89	284		1623		1183	509		1982		195	131		2271		114
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	403		584		89	284		1623		1183	509		1982		195	131		2271		114
Saturation Flow Module:																				
Sat/Lane:	1900		1900		1900	1900		1900		1900	1900		1900		1900	1900		1900		1900
Adjustment:	0.83		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92
Lanes:	2.00		2.00		1.00	2.00		2.00		1.00	2.00		3.00		1.00	2.00		4.00		1.00
Final Sat.:	3150		3800		1750	3150		3800		1750	3150		5700		1750	3150		7600		1750
Capacity Analysis Module:																				
Vol/Sat:	0.13		0.15		0.05	0.09		0.43		0.68	0.16		0.35		0.11	0.04		0.30		0.07
Crit Moves:	****									****	****							****		
Green Time:	19.5		61.7		61.7	36.2		78.4		103.0	24.6		62.6		82.1	7.5		45.5		81.7
Volume/Cap:	1.18		0.45		0.15	0.45		0.98		1.18	1.18		1.00		0.24	1.00		1.18		0.14
Delay/Veh:	188.0		46.2		41.1	63.7		67.8		130.6	180.9		78.6		30.1	164.5		155		28.8
User DelAdj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
AdjDel/Veh:	188.0		46.2		41.1	63.7		67.8		130.6	180.9		78.6		30.1	164.5		155		28.8
LOS by Move:	F		D		D	E		E		F	F		E-		C	F		F		C
HCM2kAvgQ:	20		12		4	8		49		94	23		40		7	5		40		4

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #22: Montague Expy / De la Cruz [CMP]



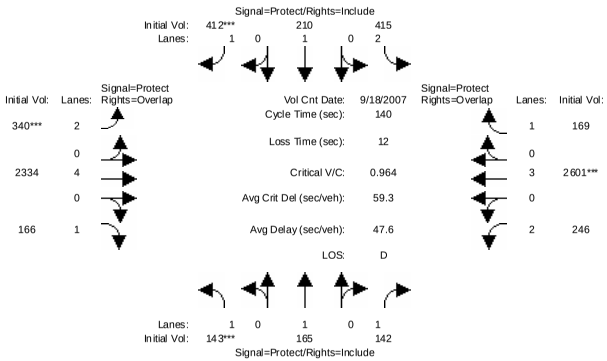
Street Name:	De la Cruz									Montague Expy								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10		10	7		10		10	7		10		10	7		10		10
Volume Module: >> Count Date: 18 Sep 2007 <<																				
Base Vol:	143		165		100	373		210		412	293		1999		166	148		1821		71
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	143		165		100	373		210		412	293		1999		166	148		1821		71
Added Vol:	0		0		0	0		0		0	0		0		0	0		0		0
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	143		165		100	373		210		412	293		1999		166	148		1821		71
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		0.92		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	143		165		100	373		210		412	293		1839		166	148		1821		71
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	143		165		100	373		210		412	293		1839		166	148		1821		71
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	143		165		100	373		210		412	293		1839		166	148		1821		71
Saturation Flow Module:																				
Sat/Lane:	1900		1900		1900	1900		1900		1900	1900		1900		1900	1900		1900		1900
Adjustment:	0.92		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92
Lanes:	1.00		1.00		1.00	2.00		1.00		1.00	2.00		4.00		1.00	2.00		3.00		1.00
Final Sat.:	1750		1900		1750	3150		1900		1750	3150		7600		1750	3150		5700		1750
Capacity Analysis Module:																				
Vol/Sat:	0.08		0.09		0.06	0.12		0.11		0.24	0.09		0.24		0.09	0.05		0.32		0.04
Crit Moves:	****									****	****							****		
Green Time:	14.3		23.5		23.5	32.1		41.3		41.3	16.3		60.0		74.3	12.4		56.0		88.1
Volume/Cap:	0.80		0.52		0.34	0.52		0.37		0.80	0.80		0.56		0.18	0.53		0.80		0.06
Delay/Veh:	83.1		54.5		52.1	47.8		39.5		54.0	71.9		30.4		17.1	63.0		39.1		10.0
User DelAdj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
AdjDel/Veh:	83.1		54.5		52.1	47.8		39.5		54.0	71.9		30.4		17.1	63.0		39.1		10.0
LOS by Move:	F		D-		D-	D		D		D-	E		C		B	E		D		B+
HCM2kAvgQ:	8		7		4	9		7		19	9		15		4	4		22		1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #22: Montague Expy / De la Cruz [CMP]




```
Street Name:            De la Cruz                    Montague Expy
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 18 Sep 2007 <<
Base Vol:     143  165  100   373  210  412   293 1999  166   148 1821   71
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  143  165  100   373  210  412   293 1999  166   148 1821   71
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:            0    0   42    42    0    0    47  335    0    98  780   98
Initial Fut:  143  165  142   415  210  412   340 2334  166   246 2601  169
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.92 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   143  165  142   415  210  412   340 2147  166   246 2601  169
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  143  165  142   415  210  412   340 2147  166   246 2601  169
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  143  165  142   415  210  412   340 2147  166   246 2601  169
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       1.00 1.00 1.00  2.00 1.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  1750 1900 1750  3150 1900 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.09 0.08  0.13 0.11 0.24  0.11 0.28 0.09  0.08 0.46 0.10
Crit Moves:  ****                 ****  ****                    ****
Green Time:  11.9 18.3 18.3  27.8 34.2 34.2  15.7 64.2 76.1  17.7 66.3 94.0
Volume/Cap:  0.96 0.66 0.62  0.66 0.45 0.96  0.96 0.62 0.17  0.62 0.96 0.14
Delay/Veh:  126.7 64.6 62.7  54.5 45.7 86.5 100.2 28.9 16.2  60.8 46.0  8.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 126.7 64.6 62.7  54.5 45.7 86.5 100.2 28.9 16.2  60.8 46.0  8.4
LOS by Move:    F    E    E    D-    D    F     F    C    B     E    D    A
HCM2kAvgQ:     10    8    7   11    8   24    13   17    4     6   34    3
Note: Queue reported is the number of cars per lane.
```

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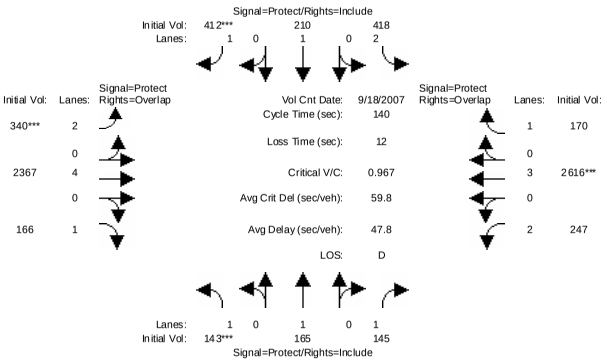
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #22: Montague Expy / De la Cruz [CMP]




```
Street Name:            De la Cruz                    Montague Expy
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 18 Sep 2007 <<
Base Vol:     143  165  142   415  210  412   340 2334  166   246 2601  169
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  143  165  142   415  210  412   340 2334  166   246 2601  169
Added Vol:      0    0    3     3    0    0     0   33    0     1   15    1
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  143  165  145   418  210  412   340 2367  166   247 2616  170
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.92 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   143  165  145   418  210  412   340 2178  166   247 2616  170
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  143  165  145   418  210  412   340 2178  166   247 2616  170
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  143  165  145   418  210  412   340 2178  166   247 2616  170
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       1.00 1.00 1.00  2.00 1.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  1750 1900 1750  3150 1900 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.09 0.08  0.13 0.11 0.24  0.11 0.29 0.09  0.08 0.46 0.10
Crit Moves:  ****                 ****  ****                    ****
Green Time:  11.8 18.2 18.2  27.8 34.1 34.1  15.6 64.4 76.3  17.6 66.5 94.2
Volume/Cap:  0.97 0.67 0.64  0.67 0.45 0.97  0.97 0.62 0.17  0.62 0.97 0.14
Delay/Veh:  127.7 65.0 63.8  54.7 45.7 87.3 101.0 28.9 16.1  61.1 46.4  8.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 127.7 65.0 63.8  54.7 45.7 87.3 101.0 28.9 16.1  61.1 46.4  8.4
LOS by Move:    F    E    E    D-    D    F     F    C    B     E    D    A
HCM2kAvgQ:     10    8    7   11    8   24    13   18    4     6   34    3
Note: Queue reported is the number of cars per lane.
```

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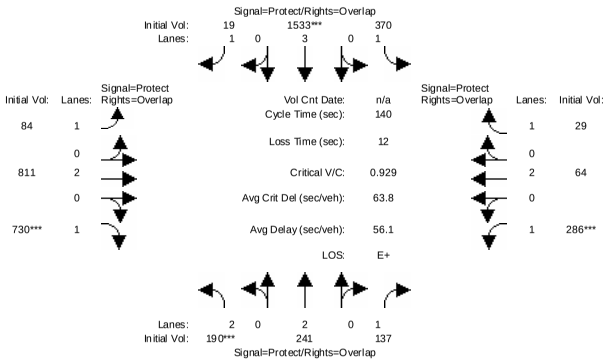
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #23: Capitol/Cropley



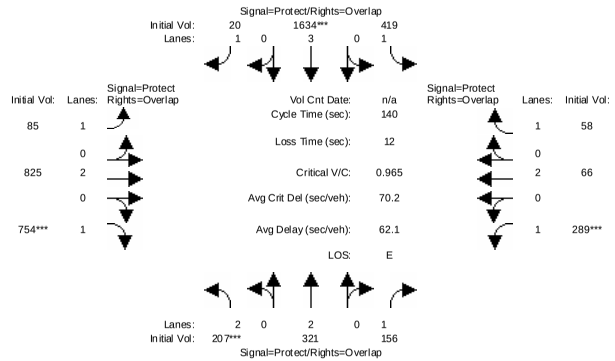
Street Name:	Capitol						Cropley					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	190	241	137	370	1533	19	84	811	730	286	64	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	190	241	137	370	1533	19	84	811	730	286	64	29
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	190	241	137	370	1533	19	84	811	730	286	64	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	190	241	137	370	1533	19	84	811	730	286	64	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	190	241	137	370	1533	19	84	811	730	286	64	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	190	241	137	370	1533	19	84	811	730	286	64	29
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.08	0.21	0.27	0.01	0.05	0.21	0.42	0.16	0.02	0.02
Crit Moves:	****				****				****	****		
Green Time:	9.1	12.5	37.2	37.1	40.5	72.8	32.3	53.8	62.9	24.6	46.1	83.2
Volume/Cap:	0.93	0.71	0.30	0.80	0.93	0.02	0.21	0.56	0.93	0.93	0.05	0.03
Delay/Veh:	108.5	68.7	41.3	57.4	58.1	16.3	43.8	34.2	53.7	90.1	32.0	11.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	108.5	68.7	41.3	57.4	58.1	16.3	43.8	34.2	53.7	90.1	32.0	11.7
LOS by Move:	F	E	D	E+	E+	B	D	C-	D-	F	C-	B+
HCM2kAvgQ:	8	6	5	16	22	0	3	14	36	17	1	1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #23: Capitol/Cropley



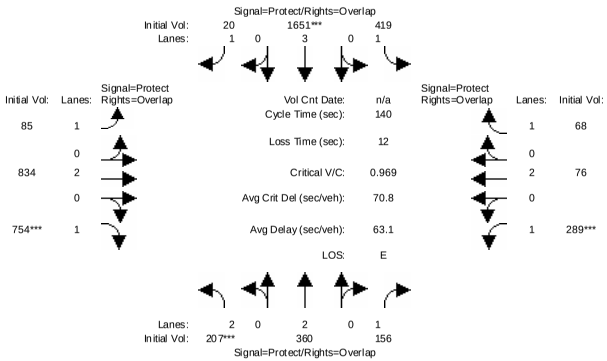
Street Name:	Capitol						Cropley					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	190	241	137	370	1533	19	84	811	730	286	64	29
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	190	241	137	370	1533	19	84	811	730	286	64	29
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	17	80	19	49	101	1	1	14	24	3	2	29
Initial Fut:	207	321	156	419	1634	20	85	825	754	289	66	58
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	207	321	156	419	1634	20	85	825	754	289	66	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	207	321	156	419	1634	20	85	825	754	289	66	58
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	207	321	156	419	1634	20	85	825	754	289	66	58
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.08	0.09	0.24	0.29	0.01	0.05	0.22	0.43	0.17	0.02	0.03
Crit Moves:	****				****				****	****		
Green Time:	9.5	13.3	37.3	37.8	41.6	73.2	31.7	53.0	62.5	23.9	45.2	83.0
Volume/Cap:	0.97	0.89	0.33	0.89	0.97	0.02	0.21	0.57	0.97	0.97	0.05	0.06
Delay/Veh:	116.5	84.9	41.8	67.2	63.0	16.1	44.3	35.1	61.7	100.1	32.7	12.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	116.5	84.9	41.8	67.2	63.0	16.1	44.3	35.1	61.7	100.1	32.7	12.0
LOS by Move:	F	F	D	E	E	B	D	D+	E	F	C-	B
HCM2kAvgQ:	9	10	6	19	25	0	3	14	39	18	1	1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #23: Capitol/Cropley



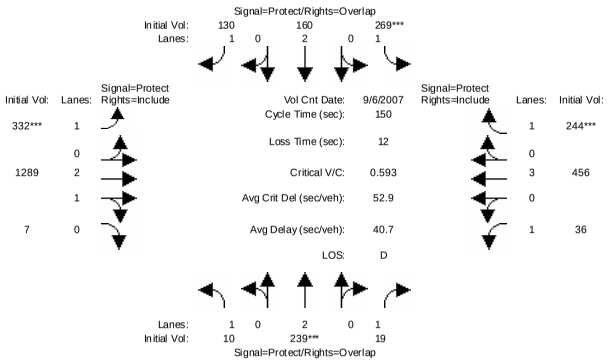
Street Name:	Capitol						Cropley					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	207	321	156	419	1634	20	85	825	754	289	66	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	207	321	156	419	1634	20	85	825	754	289	66	58
Added Vol:	0	39	0	0	17	0	0	9	0	0	10	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	207	360	156	419	1651	20	85	834	754	289	76	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	207	360	156	419	1651	20	85	834	754	289	76	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	207	360	156	419	1651	20	85	834	754	289	76	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	207	360	156	419	1651	20	85	834	754	289	76	68
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.09	0.09	0.24	0.29	0.01	0.05	0.22	0.43	0.17	0.02	0.04
Crit Moves:	****				****				****	****		
Green Time:	9.5	14.6	38.4	36.8	41.9	73.4	31.6	52.8	62.3	23.9	45.1	81.9
Volume/Cap:	0.97	0.91	0.32	0.91	0.97	0.02	0.22	0.58	0.97	0.97	0.06	0.07
Delay/Veh:	117.5	86.8	40.8	72.1	63.4	16.0	44.4	35.4	62.6	101.1	32.9	12.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	117.5	86.8	40.8	72.1	63.4	16.0	44.4	35.4	62.6	101.1	32.9	12.6
LOS by Move:	F	F	D	E	E	B	D	D+	E	F	C-	B
HCM2kAvgQ:	9	11	6	19	25	0	3	14	40	18	1	1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #24: Great Mall Pkwy. & Main St.



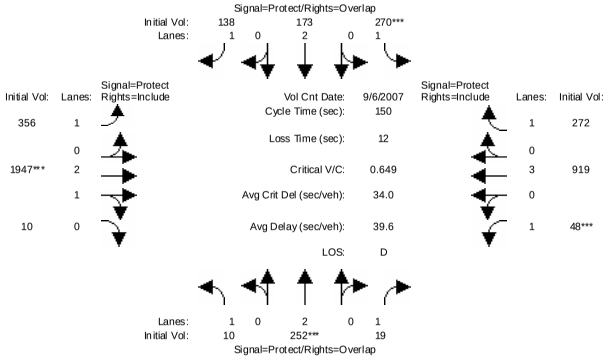
Street Name:	Main St.						Great Mall Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 6 Sep 2007 <<												
Base Vol:	10	239	19	269	160	130	332	1289	7	36	456	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	239	19	269	160	130	332	1289	7	36	456	244
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	239	19	269	160	130	332	1289	7	36	456	244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	239	19	269	160	130	332	1289	7	36	456	244
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	239	19	269	160	130	332	1289	7	36	456	244
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	239	19	269	160	130	332	1289	7	36	456	244
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.98	0.02	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	5570	30	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.06	0.01	0.15	0.04	0.07	0.19	0.23	0.23	0.02	0.08	0.14
Crit Moves:		****		****			****					****
Green Time:	22.6	15.9	29.9	38.9	32.2	80.2	48.0	69.3	69.3	14.0	35.3	35.3
Volume/Cap:	0.04	0.59	0.05	0.59	0.20	0.14	0.59	0.50	0.50	0.22	0.34	0.59
Delay/Veh:	54.5	66.3	48.7	50.8	48.4	17.6	44.5	28.4	28.4	63.7	47.9	53.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.5	66.3	48.7	50.8	48.4	17.6	44.5	28.4	28.4	63.7	47.9	53.3
LOS by Move:	D-	E	D	D	D	B	D	C	C	E	D	D-
HCM2kAvgQ:	0	6	1	12	3	3	13	13	13	2	6	11

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #24: Great Mall Pkwy. & Main St.



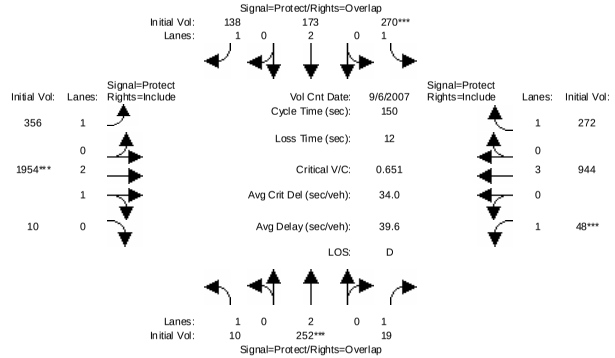
Street Name:	Main St.									Great Mall Pkwy.								
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Volume Module: >> Count Date: 6 Sep 2007 <<																
Base Vol:	10	239	19		269	160	130		332	1289	7		36	456	244	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	10	239	19		269	160	130		332	1289	7		36	456	244	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
ATI:	0	13	0		1	13	8		24	658	3		12	463	28	
Initial Fut:	10	252	19		270	173	138		356	1947	10		48	919	272	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	10	252	19		270	173	138		356	1947	10		48	919	272	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	10	252	19		270	173	138		356	1947	10		48	919	272	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	10	252	19		270	173	138		356	1947	10		48	919	272	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	1.00	0.92		0.92	1.00	0.92		0.92	0.98	0.95		0.92	1.00	0.92	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.98	0.02		1.00	3.00	1.00	
Final Sat.:	1750	3800	1750		1750	3800	1750		1750	5571	29		1750	5700	1750	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.07	0.01		0.15	0.05	0.08		0.20	0.35	0.35		0.03	0.16	0.16	
Crit Moves:		****			****					****			****			
Green Time:	20.9	15.2	22.2		35.5	29.8	78.5		48.7	80.3	80.3		7.0	38.6	38.6	
Volume/Cap:	0.04	0.65	0.07		0.65	0.23	0.15		0.63	0.65	0.65		0.59	0.63	0.60	
Delay/Veh:	56.0	68.8	55.1		55.4	50.6	18.6		45.2	25.4	25.4		80.8	50.2	51.3	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	56.0	68.8	55.1		55.4	50.6	18.6		45.2	25.4	25.4		80.8	50.2	51.3	
LOS by Move:	E+	E	E+		E+	D	B-		D	C	C		F	D	D-	
HCM2kAvgQ:	0	7	1		13	3	3		14	21	21		2	12	12	

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #24: Great Mall Pkwy. & Main St.



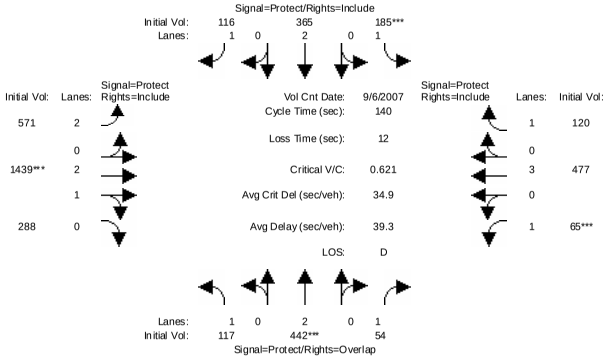
Street Name:	Main St.									Great Mall Pkwy.								
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Volume Module: >> Count Date: 6 Sep 2007 <<																
Base Vol:	10	252	19		270	173	138		356	1947	10		48	919	272	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	10	252	19		270	173	138		356	1947	10		48	919	272	
Added Vol:	0	0	0		0	0	0		0	7	0		0	25	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	10	252	19		270	173	138		356	1954	10		48	944	272	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	10	252	19		270	173	138		356	1954	10		48	944	272	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	10	252	19		270	173	138		356	1954	10		48	944	272	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	10	252	19		270	173	138		356	1954	10		48	944	272	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	1.00	0.92		0.92	1.00	0.92		0.92	0.98	0.95		0.92	1.00	0.92	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.98	0.02		1.00	3.00	1.00	
Final Sat.:	1750	3800	1750		1750	3800	1750		1750	5571	29		1750	5700	1750	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.07	0.01		0.15	0.05	0.08		0.20	0.35	0.35		0.03	0.17	0.16	
Crit Moves:		****			****					****			****			
Green Time:	20.8	15.2	22.2		35.4	29.8	77.9		48.2	80.4	80.4		7.0	39.2	39.2	
Volume/Cap:	0.04	0.65	0.07		0.65	0.23	0.15		0.63	0.65	0.65		0.59	0.63	0.59	
Delay/Veh:	56.0	68.9	55.2		55.5	50.7	18.9		45.7	25.4	25.4		80.8	49.9	50.5	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	56.0	68.9	55.2		55.5	50.7	18.9		45.7	25.4	25.4		80.8	49.9	50.5	
LOS by Move:	E+	E	E+		E+	D	B-		D	C	C		F	D	D	
HCM2kAvgQ:	0	7	1		13	3	3		14	21	21		2	13	12	

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #25: Great Mall Pkwy. & Abel St.



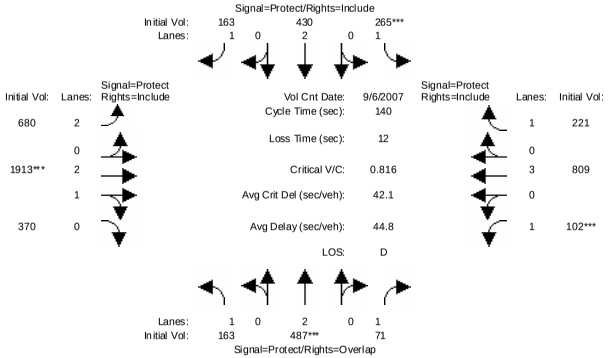
Street Name:	Abel St.						Great Mall Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 6 Sep 2007 <<												
Base Vol:	117	442	54	185	365	116	571	1439	288	65	477	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	442	54	185	365	116	571	1439	288	65	477	120
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	442	54	185	365	116	571	1439	288	65	477	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	442	54	185	365	116	571	1439	288	65	477	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	442	54	185	365	116	571	1439	288	65	477	120
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	117	442	54	185	365	116	571	1439	288	65	477	120
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.48	0.52	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	4665	934	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.12	0.03	0.11	0.10	0.07	0.18	0.31	0.31	0.04	0.08	0.07
Crit Moves:		****		****				****		****		
Green Time:	20.5	26.2	34.6	23.8	29.5	29.5	53.3	69.6	69.6	8.4	24.6	24.6
Volume/Cap:	0.46	0.62	0.12	0.62	0.46	0.31	0.48	0.62	0.62	0.62	0.48	0.39
Delay/Veh:	55.9	54.0	41.1	57.9	48.6	47.2	33.1	26.1	26.1	75.2	52.2	51.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.9	54.0	41.1	57.9	48.6	47.2	33.1	26.1	26.1	75.2	52.2	51.9
LOS by Move:	E+	D-	D	E+	D	D	C-	C	C	E-	D-	D-
HCM2kAvgQ:	5	9	2	9	7	5	11	17	17	3	6	5

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #25: Great Mall Pkwy. & Abel St.



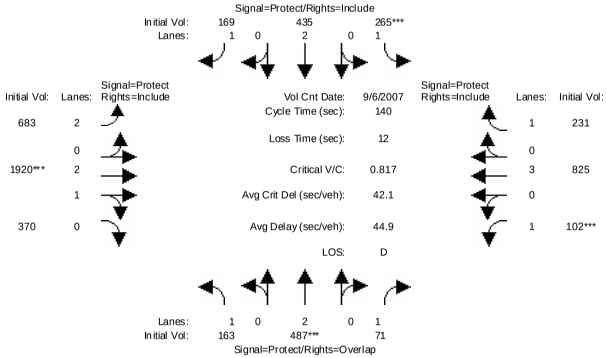
Street Name:	Abel St.						Great Mall Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 6 Sep 2007 <<												
Base Vol:	117	442	54	185	365	116	571	1439	288	65	477	120
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	442	54	185	365	116	571	1439	288	65	477	120
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	46	45	17	80	65	47	109	474	82	37	332	101
Initial Fut:	163	487	71	265	430	163	680	1913	370	102	809	221
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	487	71	265	430	163	680	1913	370	102	809	221
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	487	71	265	430	163	680	1913	370	102	809	221
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	163	487	71	265	430	163	680	1913	370	102	809	221
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.50	0.50	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	4691	907	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.13	0.04	0.15	0.11	0.09	0.22	0.41	0.41	0.06	0.14	0.13
Crit Moves:		****		****				****		****		
Green Time:	21.7	22.0	32.0	26.0	26.3	26.3	48.3	70.0	70.0	10.0	31.7	31.7
Volume/Cap:	0.60	0.82	0.18	0.82	0.60	0.50	0.63	0.82	0.82	0.82	0.63	0.56
Delay/Veh:	58.9	65.6	43.6	69.4	53.5	52.1	39.5	31.5	31.5	96.4	49.8	49.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.9	65.6	43.6	69.4	53.5	52.1	39.5	31.5	31.5	96.4	49.8	49.7
LOS by Move:	E+	E	D	E	D-	D-	D	C	C	F	D	D
HCM2kAvgQ:	8	12	3	14	9	7	13	26	26	5	10	9

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #25: Great Mall Pkwy. & Abel St.



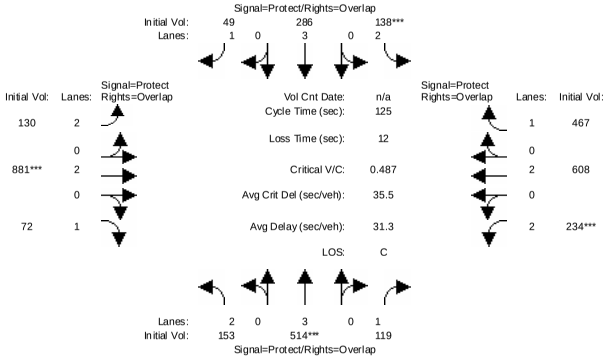
Street Name:	Abel St.						Great Mall Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 6 Sep 2007 <<												
Base Vol:	163	487	71	265	430	163	680	1913	370	102	809	221
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	487	71	265	430	163	680	1913	370	102	809	221
Added Vol:	0	0	0	0	5	6	3	7	0	0	16	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	163	487	71	265	435	169	683	1920	370	102	825	231
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	163	487	71	265	435	169	683	1920	370	102	825	231
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	487	71	265	435	169	683	1920	370	102	825	231
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	163	487	71	265	435	169	683	1920	370	102	825	231
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.50	0.50	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	4694	905	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.13	0.04	0.15	0.11	0.10	0.22	0.41	0.41	0.06	0.14	0.13
Crit Moves:		****		****				****		****		
Green Time:	21.5	22.0	32.0	26.0	26.4	26.4	48.0	70.1	70.1	10.0	32.1	32.1
Volume/Cap:	0.61	0.82	0.18	0.82	0.61	0.51	0.63	0.82	0.82	0.82	0.63	0.58
Delay/Veh:	59.3	65.7	43.7	69.6	53.5	52.4	39.8	31.5	31.5	96.7	49.7	50.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	59.3	65.7	43.7	69.6	53.5	52.4	39.8	31.5	31.5	96.7	49.7	50.0
LOS by Move:	E+	E	D	E	D-	D-	D	C	C	F	D	D
HCM2kAvgQ:	8	12	3	14	9	7	14	26	26	5	10	9

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #26: Zanker Rd / Tasman Dr



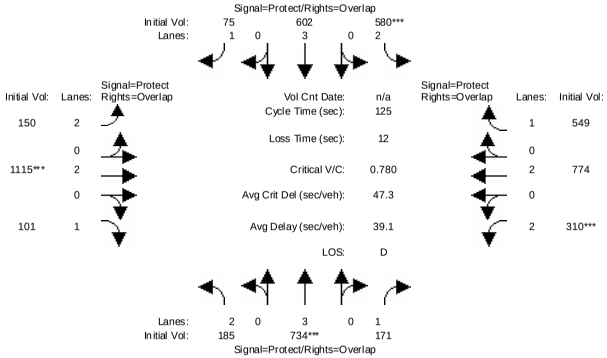
Street Name:	Zanker Rd						Tasman Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	153	514	119	138	286	49	130	881	72	234	608	467
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	153	514	119	138	286	49	130	881	72	234	608	467
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	153	514	119	138	286	49	130	881	72	234	608	467
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	153	514	119	138	286	49	130	881	72	234	608	467
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	153	514	119	138	286	49	130	881	72	234	608	467
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	153	514	119	138	286	49	130	881	72	234	608	467
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.09	0.07	0.04	0.05	0.03	0.04	0.23	0.04	0.07	0.16	0.27
Crit Moves:		****		****				****		****		
Green Time:	14.2	23.2	42.2	11.2	20.2	36.0	15.8	59.5	73.7	19.1	62.8	74.1
Volume/Cap:	0.43	0.49	0.20	0.49	0.31	0.10	0.33	0.49	0.07	0.49	0.32	0.45
Delay/Veh:	52.5	46.0	29.6	55.4	46.4	32.7	50.3	22.5	11.0	49.3	18.5	14.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.5	46.0	29.6	55.4	46.4	32.7	50.3	22.5	11.0	49.3	18.5	14.5
LOS by Move:	D-	D	C	E+	D	C-	D	C+	B+	D	B-	B
HCM2kAvgQ:	4	6	3	4	3	1	3	11	1	5	7	10

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #26: Zanker Rd / Tasman Dr



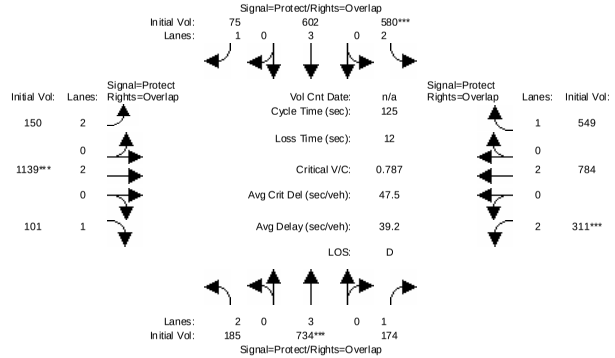
Street Name:	Zanker Rd						Tasman Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	153	514	119	138	286	49	130	881	72	234	608	467
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	153	514	119	138	286	49	130	881	72	234	608	467
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	32	220	52	442	316	26	20	234	29	76	166	82
Initial Fut:	185	734	171	580	602	75	150	1115	101	310	774	549
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	185	734	171	580	602	75	150	1115	101	310	774	549
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	185	734	171	580	602	75	150	1115	101	310	774	549
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	185	734	171	580	602	75	150	1115	101	310	774	549
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.13	0.10	0.18	0.11	0.04	0.05	0.29	0.06	0.10	0.20	0.31
Crit Moves:		****		****				****		****		
Green Time:	17.9	20.6	36.4	29.5	32.2	45.8	13.5	47.0	65.0	15.8	49.3	78.8
Volume/Cap:	0.41	0.78	0.34	0.78	0.41	0.12	0.44	0.78	0.11	0.78	0.52	0.50
Delay/Veh:	49.3	54.2	35.2	50.0	38.7	26.3	53.1	37.2	15.3	62.4	29.1	12.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.3	54.2	35.2	50.0	38.7	26.3	53.1	37.2	15.3	62.4	29.1	12.8
LOS by Move:	D	D-	D+	D	D+	C	D-	D+	B	E	C	B
HCM2kAvgQ:	4	11	6	14	6	2	3	18	2	7	11	12

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #26: Zanker Rd / Tasman Dr



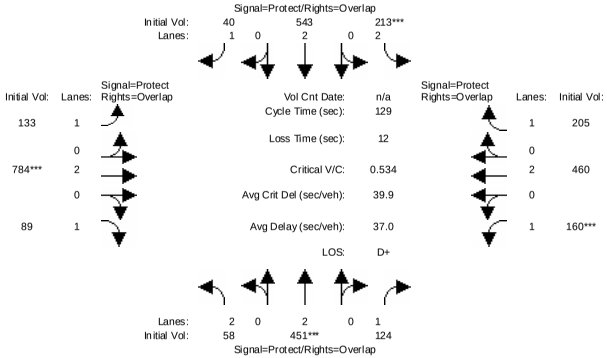
Street Name:	Zanker Rd						Tasman Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	185	734	171	580	602	75	150	1115	101	310	774	549
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	185	734	171	580	602	75	150	1115	101	310	774	549
Added Vol:	0	0	3	0	0	0	0	24	0	1	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	185	734	174	580	602	75	150	1139	101	311	784	549
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	185	734	174	580	602	75	150	1139	101	311	784	549
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	185	734	174	580	602	75	150	1139	101	311	784	549
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	185	734	174	580	602	75	150	1139	101	311	784	549
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.13	0.10	0.18	0.11	0.04	0.05	0.30	0.06	0.10	0.21	0.31
Crit Moves:		****		****				****		****		
Green Time:	17.8	20.5	36.1	29.2	31.9	45.5	13.5	47.6	65.4	15.7	49.8	79.0
Volume/Cap:	0.41	0.79	0.34	0.79	0.41	0.12	0.44	0.79	0.11	0.79	0.52	0.50
Delay/Veh:	49.5	54.7	35.5	50.6	38.9	26.5	53.1	37.2	15.1	63.1	28.8	12.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.5	54.7	35.5	50.6	38.9	26.5	53.1	37.2	15.1	63.1	28.8	12.7
LOS by Move:	D	D-	D+	D	D+	C	D-	D+	B	E	C	B
HCM2kAvgQ:	4	11	6	14	6	2	3	18	2	7	11	12

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #27: N. 1st St / Tasman Dr



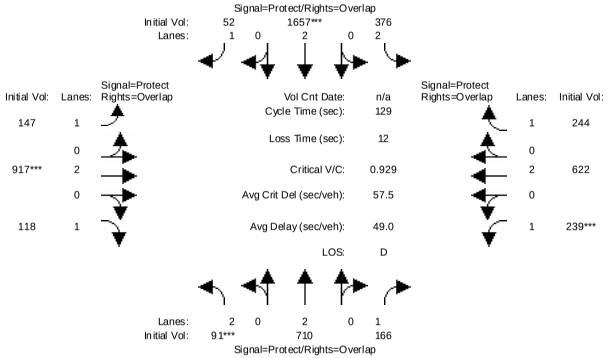
Street Name:	N 1st Street						Tasman Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	58	451	124	213	543	40	133	784	89	160	460	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	451	124	213	543	40	133	784	89	160	460	205
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	451	124	213	543	40	133	784	89	160	460	205
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	58	451	124	213	543	40	133	784	89	160	460	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	451	124	213	543	40	133	784	89	160	460	205
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	451	124	213	543	40	133	784	89	160	460	205
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.12	0.07	0.07	0.14	0.02	0.08	0.21	0.05	0.09	0.12	0.12
Crit Moves:		****		****				****		****		
Green Time:	12.4	28.7	50.8	16.3	32.6	60.4	27.8	49.9	62.3	22.1	44.2	60.6
Volume/Cap:	0.19	0.53	0.18	0.53	0.56	0.05	0.35	0.53	0.11	0.53	0.35	0.25
Delay/Veh:	54.0	44.9	25.6	54.2	42.8	18.7	43.6	31.0	18.2	50.6	31.9	20.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.0	44.9	25.6	54.2	42.8	18.7	43.6	31.0	18.2	50.6	31.9	20.7
LOS by Move:	D-	D	C	D-	D	B-	D	C	B-	D	C	C+
HCM2kAvgQ:	1	8	3	5	10	1	5	12	2	6	7	5

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #27: N. 1st St / Tasman Dr



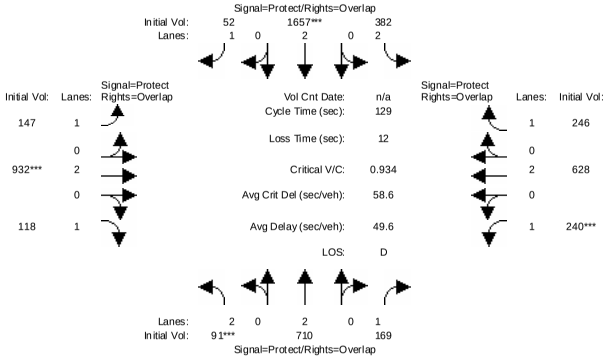
Street Name:	N 1st Street						Tasman Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	58	451	124	213	543	40	133	784	89	160	460	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	451	124	213	543	40	133	784	89	160	460	205
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	33	259	42	163	1114	12	14	133	29	79	162	39
Initial Fut:	91	710	166	376	1657	52	147	917	118	239	622	244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	710	166	376	1657	52	147	917	118	239	622	244
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	710	166	376	1657	52	147	917	118	239	622	244
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	710	166	376	1657	52	147	917	118	239	622	244
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.19	0.09	0.12	0.44	0.03	0.08	0.24	0.07	0.14	0.16	0.14
Crit Moves:	****				****			****		****		
Green Time:	7.0	40.2	58.7	25.7	58.9	76.3	17.3	32.6	39.6	18.5	33.7	59.5
Volume/Cap:	0.53	0.60	0.21	0.60	0.95	0.05	0.63	0.95	0.22	0.95	0.63	0.30
Delay/Veh:	62.6	38.4	21.3	48.6	46.3	11.1	58.0	66.4	33.4	99.1	43.3	22.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.6	38.4	21.3	48.6	46.3	11.1	58.0	66.4	33.4	99.1	43.3	22.0
LOS by Move:	E	D+	C+	D	D	B+	E+	E	C-	F	D	C+
HCM2kAvgQ:	3	12	4	9	37	1	7	23	4	12	11	6

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #27: N. 1st St / Tasman Dr



Street Name:	N 1st Street									Tasman Dr.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10		10	7		10		10	7		10		10	7		10		10
Volume Module:																				
Base Vol:	91		710		166	376		1657		52	147		917		118	239		622		244
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	91		710		166	376		1657		52	147		917		118	239		622		244
Added Vol:	0		0		3	6		0		0	0		15		0	1		6		2
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	91		710		169	382		1657		52	147		932		118	240		628		246
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	91		710		169	382		1657		52	147		932		118	240		628		246
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	91		710		169	382		1657		52	147		932		118	240		628		246
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	91		710		169	382		1657		52	147		932		118	240		628		246
Saturation Flow Module:																				
Sat/Lane:	1900		1900		1900	1900		1900		1900	1900		1900		1900	1900		1900		1900
Adjustment:	0.83		1.00		0.92	0.83		1.00		0.92	0.92		1.00		0.92	0.92		1.00		0.92
Lanes:	2.00		2.00		1.00	2.00		2.00		1.00	1.00		2.00		1.00	1.00		2.00		1.00
Final Sat.:	3150		3800		1750	3150		3800		1750	1750		3800		1750	1750		3800		1750
Capacity Analysis Module:																				
Vol/Sat:	0.03		0.19		0.10	0.12		0.44		0.03	0.08		0.25		0.07	0.14		0.17		0.14
Crit Moves:	****							****					****			****				
Green Time:	7.0		39.8		58.2	25.8		58.6		75.9	17.3		33.0		40.0	18.4		34.1		59.9
Volume/Cap:	0.53		0.61		0.21	0.61		0.96		0.05	0.63		0.96		0.22	0.96		0.63		0.30
Delay/Veh:	62.6		38.9		21.6	48.6		47.4		11.3	58.0		67.2		33.2	100.6		43.1		21.7
User DelAdj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
AdjDel/Veh:	62.6		38.9		21.6	48.6		47.4		11.3	58.0		67.2		33.2	100.6		43.1		21.7
LOS by Move:	E		D+		C+	D		D		B+	E+		E		C-	F		D		C+
HCM2kAvgQ:	3		12		4	9		37		1	7		23		4	12		11		6

Note: Queue reported is the number of cars per lane.

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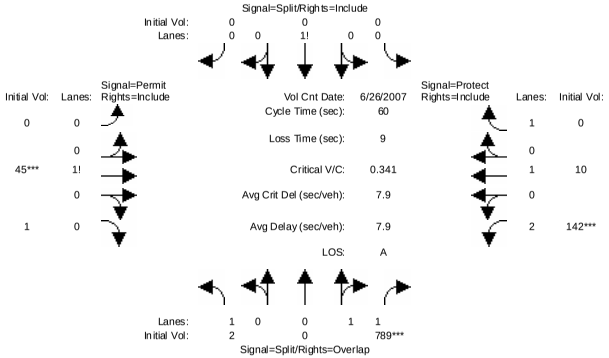
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #101: Dixon Landing Rd. & McCarthy Blvd.



Street Name:	McCarthy Blvd.									Dixon Landing Rd.								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	10		0		10	10		10		10	10		10		10	7		10		10
Volume Module: >> Count Date: 26 Jun 2007 << 4-6pm																				
Base Vol:	2		0		789	0		0		0	0		45		1	142		10		0
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	2		0		789	0		0		0	0		45		1	142		10		0
Added Vol:	0		0		0	0		0		0	0		0		0	0		0		0
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	2		0		789	0		0		0	0		45		1	142		10		0
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	2		0		789	0		0		0	0		45		1	142		10		0
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	2		0		789	0		0		0	0		45		1	142		10		0
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	2		0		789	0		0		0	0		45		1	142		10		0
Saturation Flow Module:																				
Sat/Lane:	1900		1900		1900	1900		1900		1900	1900		1900		1900	1900		1900		1900
Adjustment:	0.92		1.00		0.95	0.92		0.92		0.92	0.92		0.95		0.95	0.83		1.00		0.92
Lanes:	1.00		0.00		2.00	0.00		1.00		0.00	0.00		0.98		0.02	2.00		1.00		1.00
Final Sat.:	1750		0		3600	0		1750		0	0		1761		39	3150		1900		1750
Capacity Analysis Module:																				
Vol/Sat:	0.00		0.00		0.22	0.00		0.00		0.00	0.00		0.03		0.03	0.05		0.01		0.00
Crit Moves:					****								****			****				
Green Time:	34.0		0.0		41.0	0.0		0.0		0.0	0.0		10.0		10.0	7.0		17.0		0.0
Volume/Cap:	0.00		0.00		0.32	0.00		0.00		0.00	0.00		0.15		0.15	0.39		0.02		0.00
Delay/Veh:	5.6		0.0		3.9	0.0		0.0		0.0	0.0		21.6		21.6	25.2		15.5		0.0
User DelAdj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
AdjDel/Veh:	5.6		0.0		3.9	0.0		0.0		0.0	0.0		21.6		21.6	25.2		15.5		0.0
LOS by Move:	A		A		A	A		A		A	A		C+		C+	C		B		A
HCM2kAvgQ:	0		0		3	0		0		0	0		1		1	1		0		0

Note: Queue reported is the number of cars per lane.

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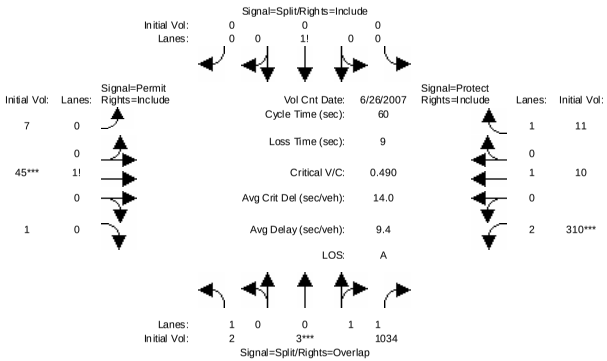
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #101: Dixon Landing Rd. & McCarthy Blvd.



Street Name:	McCarthy Blvd.									Dixon Landing Rd.								
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	10	0	10		10	10	10		10	10	10		10	10	10		7	10		10
Volume Module: >> Count Date: 26 Jun 2007 << 4-6pm																				
Base Vol:	2	0	789		0	0	0		0	45	1		142	10	0					
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
Initial Bse:	2	0	789		0	0	0		0	45	1		142	10	0					
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0					
ATI:	0	3	245		0	0	0		7	0	0		168	0	11					
Initial Fut:	2	3	1034		0	0	0		7	45	1		310	10	11					
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
PHF Volume:	2	3	1034		0	0	0		7	45	1		310	10	11					
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0					
Reduced Vol:	2	3	1034		0	0	0		7	45	1		310	10	11					
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
FinalVolume:	2	3	1034		0	0	0		7	45	1		310	10	11					
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900					
Adjustment:	0.92	0.95	0.95		0.92	0.92	0.92		0.92	0.92	0.92		0.83	1.00	0.92					
Lanes:	1.00	0.01	1.99		0.00	1.00	0.00		0.13	0.85	0.02		2.00	1.00	1.00					
Final Sat.:	1750	10	3590		0	1750	0		231	1486	33		3150	1900	1750					
Capacity Analysis Module:																				
Vol/Sat:	0.00	0.29	0.29		0.00	0.00	0.00		0.03	0.03	0.03		0.10	0.01	0.01					
Crit Moves:		****								****			****							
Green Time:	30.6	30.6	41.0		0.0	0.0	0.0		10.0	10.0	10.0		10.4	20.4	20.4					
Volume/Cap:	0.00	0.57	0.42		0.00	0.00	0.00		0.18	0.18	0.18		0.57	0.02	0.02					
Delay/Veh:	7.2	10.6	4.3		0.0	0.0	0.0		21.8	21.8	21.8		24.1	13.1	13.1					
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
AdjDel/Veh:	7.2	10.6	4.3		0.0	0.0	0.0		21.8	21.8	21.8		24.1	13.1	13.1					
LOS by Move:	A	B+	A		A	A	A		C+	C+	C+		C	B	B					
HCM2kAvgQ:	0	8	5		0	0	0		1	1	1		3	0	0					

Note: Queue reported is the number of cars per lane.

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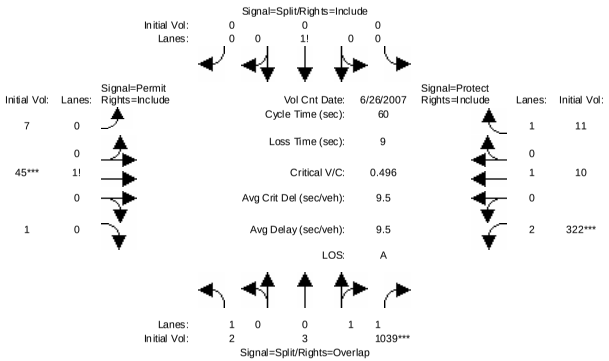
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #101: Dixon Landing Rd. & McCarthy Blvd.



Street Name:	McCarthy Blvd.									Dixon Landing Rd.								
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	10	0	10		10	10	10		10	10	10		10	10	10		7	10		10
Volume Module: >> Count Date: 26 Jun 2007 << 4-6pm																				
Base Vol:	2	3	1034		0	0	0		7	45	1		310	10	11					
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
Initial Bse:	2	3	1034		0	0	0		7	45	1		310	10	11					
Added Vol:	0	0	5		0	0	0		0	0	0		12	0	0					
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0					
Initial Fut:	2	3	1039		0	0	0		7	45	1		322	10	11					
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
PHF Volume:	2	3	1039		0	0	0		7	45	1		322	10	11					
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0					
Reduced Vol:	2	3	1039		0	0	0		7	45	1		322	10	11					
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
FinalVolume:	2	3	1039		0	0	0		7	45	1		322	10	11					
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900					
Adjustment:	0.92	0.95	0.95		0.92	0.92	0.92		0.92	0.92	0.92		0.83	1.00	0.92					
Lanes:	1.00	0.01	1.99		0.00	1.00	0.00		0.13	0.85	0.02		2.00	1.00	1.00					
Final Sat.:	1750	10	3590		0	1750	0		231	1486	33		3150	1900	1750					
Capacity Analysis Module:																				
Vol/Sat:	0.00	0.29	0.29		0.00	0.00	0.00		0.03	0.03	0.03		0.10	0.01	0.01					
Crit Moves:			****							****			****							
Green Time:	30.3	30.3	41.0		0.0	0.0	0.0		10.0	10.0	10.0		10.7	20.7	20.7					
Volume/Cap:	0.00	0.57	0.42		0.00	0.00	0.00		0.18	0.18	0.18		0.57	0.02	0.02					
Delay/Veh:	7.4	10.8	4.4		0.0	0.0	0.0		21.8	21.8	21.8		24.0	12.9	13.0					
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00					
AdjDel/Veh:	7.4	10.8	4.4		0.0	0.0	0.0		21.8	21.8	21.8		24.0	12.9	13.0					
LOS by Move:	A	B+	A		A	A	A		C+	C+	C+		C	B	B					
HCM2kAvgQ:	0	8	5		0	0	0		1	1	1		3	0	0					

Note: Queue reported is the number of cars per lane.

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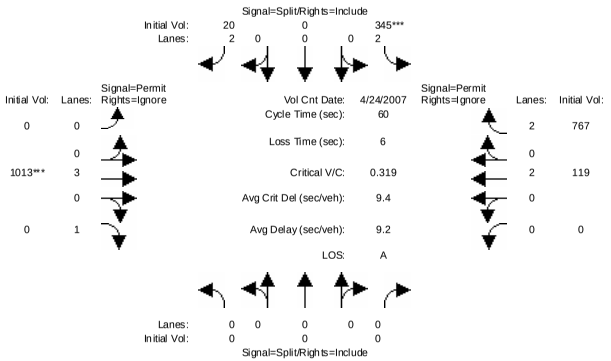
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #102: Dixon Landing Rd. & I-880 SB Ramps

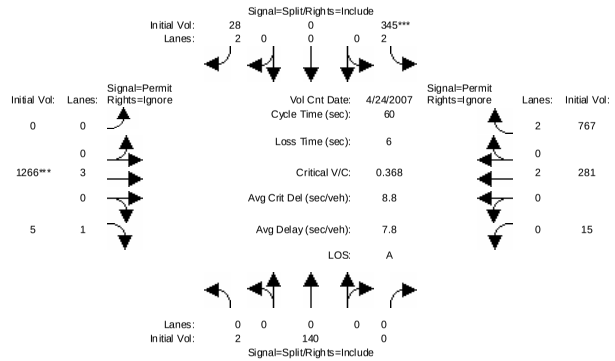



```
Street Name:          I-880 SB Ramps                  Dixon Landing Rd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     0    10     0     0    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 24 Apr 2007 << 4-6pm
Base Vol:       0     0     0   345     0    20     0  1013     0     0   119   767
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   345     0    20     0  1013     0     0   119   767
Added Vol:      0     0     0     0     0     0     0     0     0     0     0     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:    0     0     0   345     0    20     0  1013     0     0   119   767
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:     0     0     0   345     0    20     0  1013     0     0   119     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   345     0    20     0  1013     0     0   119     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:    0     0     0   345     0    20     0  1013     0     0   119     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.83  1.00  0.83  0.92  1.00  0.92  0.92  1.00  0.83
Lanes:       0.00  0.00  0.00  2.00  0.00  2.00  0.00  3.00  1.00  0.00  2.00  2.00
Final Sat.:     0     0     0  3150     0  3150     0  5700  1750     0  3800  3150
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.11  0.00  0.01  0.00  0.18  0.00  0.00  0.03  0.00
Crit Moves:                    ****                    ****
Green Time:   0.0   0.0   0.0  20.6   0.0  20.6   0.0  33.4   0.0   0.0  33.4   0.0
Volume/Cap:  0.00  0.00  0.00  0.32  0.00  0.02  0.00  0.32  0.00  0.00  0.06  0.00
Delay/Veh:    0.0   0.0   0.0  15.3   0.0  13.1   0.0   7.4   0.0   0.0   6.1   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0  15.3   0.0  13.1   0.0   7.4   0.0   0.0   6.1   0.0
LOS by Move:    A     A     A     B     A     B     A     A     A     A     A     A
HCM2kAvgQ:      0     0     0     3     0     0     0     3     0     0     1     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #102: Dixon Landing Rd. & I-880 SB Ramps

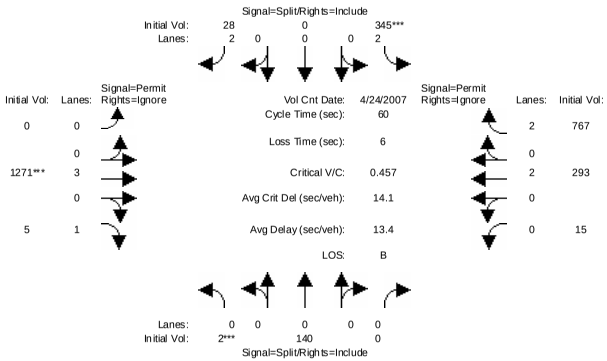



```
Street Name:          I-880 SB Ramps                  Dixon Landing Rd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     0    10     0     0    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 24 Apr 2007 << 4-6pm
Base Vol:       0     0     0   345     0    20     0  1013     0     0   119   767
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   345     0    20     0  1013     0     0   119   767
Added Vol:      0     0     0     0     0     0     0     0     0     0     0     0
ATI:            2   140     0     0     0     8     0   253     5    15   162     0
Initial Fut:    2   140     0   345     0    28     0  1266     5    15   281   767
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:     2   140     0   345     0    28     0  1266     0    15   281     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    2   140     0   345     0    28     0  1266     0    15   281     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:    2   140     0   345     0    28     0  1266     0    15   281     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.83  1.00  0.83  0.92  1.00  0.92  0.95  0.98  0.83
Lanes:       0.00  0.00  0.00  2.00  0.00  2.00  0.00  3.00  1.00  0.10  1.90  2.00
Final Sat.:     0     0     0  3150     0  3150     0  5700  1750   187  3512  3150
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     xxxx  xxxx  0.00  0.11  0.00  0.01  0.00  0.22  0.00  0.08  0.08  0.00
Crit Moves:                    ****                    ****
Green Time:   0.0   0.0   0.0  17.8   0.0  17.8   0.0  36.2   0.0  36.2  36.2   0.0
Volume/Cap:  xxxx  xxxx  0.00  0.37  0.00  0.03  0.00  0.37  0.00  0.13  0.13  0.00
Delay/Veh:    0.0   0.0   0.0  17.8   0.0  15.0   0.0   6.4   0.0   5.3   5.3   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0  17.8   0.0  15.0   0.0   6.4   0.0   5.3   5.3   0.0
LOS by Move:    A     A     A     B     A     B     A     A     A     A     A     A
HCM2kAvgQ:      0     2     0     3     0     0     0     4     0     1     1     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #102: Dixon Landing Rd. & I-880 SB Ramps

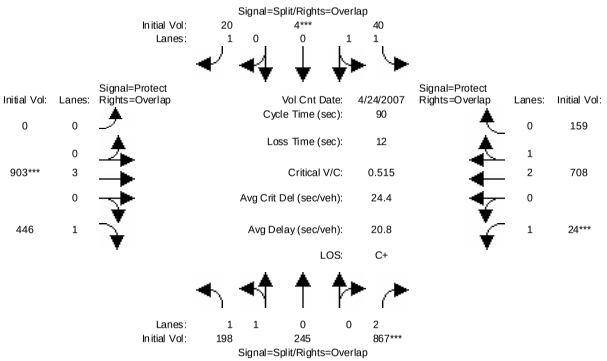



```
Street Name:          I-880 SB Ramps                  Dixon Landing Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0    10    0    10     0   10     0     0   10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 24 Apr 2007 << 4-6pm
Base Vol:       2  140     0   345    0    28     0 1266     5    15  281   767
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    2  140     0   345    0    28     0 1266     5    15  281   767
Added Vol:      0    0     0     0    0     0     0    5     0     0   12     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    2  140     0   345    0    28     0 1271     5    15  293   767
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00
PHF Volume:     2  140     0   345    0    28     0 1271     0    15  293     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    2  140     0   345    0    28     0 1271     0    15  293     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00
FinalVolume:    2  140     0   345    0    28     0 1271     0    15  293     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.95  0.92  0.83 1.00  0.83  0.92 1.00  0.92  0.95 0.98  0.83
Lanes:       0.01 0.99  0.00  2.00 0.00  2.00  0.00 3.00  1.00  0.10 1.90  2.00
Final Sat.:    25 1775     0  3150    0  3150     0 5700  1750   180 3520  3150
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.08  0.00  0.11 0.00  0.01  0.00 0.22  0.00  0.08 0.08  0.00
Crit Moves:  ****            ****               ****
Green Time:  10.4 10.4   0.0  14.4  0.0  14.4   0.0 29.3   0.0  29.3 29.3   0.0
Volume/Cap:  0.46 0.46  0.00  0.46 0.00  0.04  0.00 0.46  0.00  0.17 0.17  0.00
Delay/Veh:   27.1 27.1   0.0  21.5  0.0  17.6   0.0 10.7   0.0   8.8  8.8   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  27.1 27.1   0.0  21.5  0.0  17.6   0.0 10.7   0.0   8.8  8.8   0.0
LOS by Move:    C    C     A    C+    A     B     A   B+     A     A    A     A
HCM2kAvgQ:      3    3     0     4    0     0     0    5     0     2    2     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #103: Dixon Landing Rd. & I-880 NB Ramps

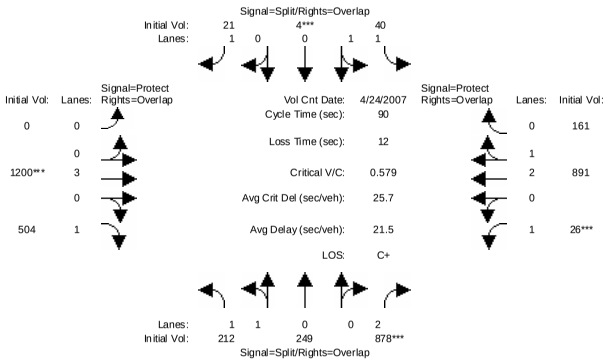



```
Street Name:          I-880 NB Ramps                  Dixon Landing Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10    10    10   10    10    10   10    10     7   10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 24 Apr 2007 <<
Base Vol:     198  245   867    40    4    20     0  903   446    24  708   159
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  198  245   867    40    4    20     0  903   446    24  708   159
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  198  245   867    40    4    20     0  903   446    24  708   159
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   198  245   867    40    4    20     0  903   446    24  708   159
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  198  245   867    40    4    20     0  903   446    24  708   159
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  198  245   867    40    4    20     0  903   446    24  708   159
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.83  0.93 0.95  0.92  0.92 1.00  0.92  0.92 0.99  0.95
Lanes:       1.00 1.00  2.00  1.82 0.18  1.00  0.00 3.00  1.00  1.00 2.43  0.57
Final Sat.:  1750 1900  3150  3227  323  1750     0 5700  1750  1750 4572  1027
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.11 0.13  0.28  0.01 0.01  0.01  0.00 0.16  0.25  0.01 0.15  0.15
Crit Moves:             ****       ****             ****        ****
Green Time:  33.8 33.8  40.8  10.0 10.0  10.0   0.0 27.2  61.0   7.0 34.2  44.2
Volume/Cap:  0.30 0.34  0.61  0.11 0.11  0.10  0.00 0.53  0.38  0.18 0.41  0.32
Delay/Veh:   20.3 20.8  20.4  36.6 36.6  37.0   0.0 27.2   7.2  41.6 21.1  14.1
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  20.3 20.8  20.4  36.6 36.6  37.0   0.0 27.2   7.2  41.6 21.1  14.1
LOS by Move:   C+   C+    C+    D+   D+    D+     A    C     A     D   C+     B
HCM2kAvgQ:      4    5    11     1    1     1     0    7     6     1    6     5
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #103: Dixon Landing Rd. & I-880 NB Ramps

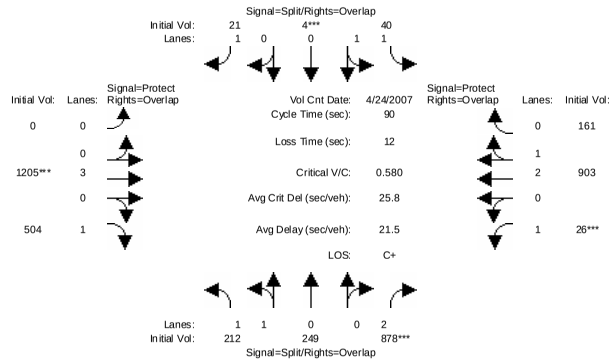



```
Street Name:          I-880 NB Ramps                  Dixon Landing Rd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10    10    10   10    10     0   10    10     7   10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 24 Apr 2007 <<
Base Vol:     198  245   867    40    4    20     0  903   446    24  708   159
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  198  245   867    40    4    20     0  903   446    24  708   159
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
ATI:           14    4    11     0    0     1     0  297    58     2  183     2
Initial Fut:  212  249   878    40    4    21     0 1200   504    26  891   161
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   212  249   878    40    4    21     0 1200   504    26  891   161
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  212  249   878    40    4    21     0 1200   504    26  891   161
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  212  249   878    40    4    21     0 1200   504    26  891   161
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.83  0.93 0.95  0.92  0.92 1.00  0.92  0.92 0.99  0.95
Lanes:       1.00 1.00  2.00  1.82 0.18  1.00  0.00 3.00  1.00  1.00 2.52  0.48
Final Sat.:  1750 1900  3150  3227  323  1750     0 5700  1750  1750 4742   857
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.12 0.13  0.28  0.01 0.01  0.01  0.00 0.21  0.29  0.01 0.19  0.19
Crit Moves:              ****       ****             ****       ****
Green Time:  29.8 29.8  36.8  10.0 10.0  10.0   0.0 31.2  61.0   7.0 38.2  48.2
Volume/Cap:  0.37 0.40  0.68  0.11 0.11  0.11  0.00 0.61  0.42  0.19 0.44  0.35
Delay/Veh:   23.7 24.2  24.7  36.6 36.6  37.1   0.0 25.7   7.7  41.9 18.9  12.3
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  23.7 24.2  24.7  36.6 36.6  37.1   0.0 25.7   7.7  41.9 18.9  12.3
LOS by Move:    C    C     C    D+   D+    D+     A    C     A     D   B-     B
HCM2kAvgQ:      5    5    13     1    1     1     0    9     7     1    7     6
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #103: Dixon Landing Rd. & I-880 NB Ramps

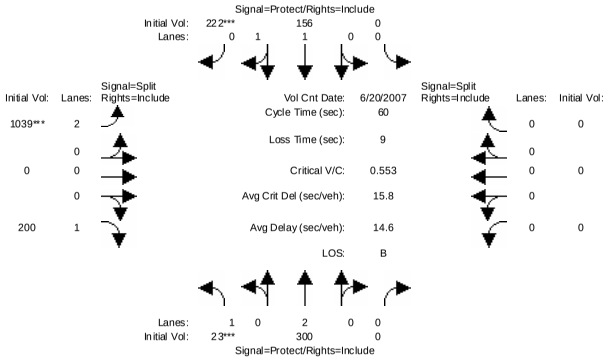



```
Street Name:          I-880 NB Ramps                  Dixon Landing Rd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10    10    10   10    10     0   10    10     7   10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 24 Apr 2007 <<
Base Vol:     212  249   878    40    4    21     0 1200   504    26  891   161
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  212  249   878    40    4    21     0 1200   504    26  891   161
Added Vol:      0    0     0     0    0     0     0    5     0     0   12     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  212  249   878    40    4    21     0 1205   504    26  903   161
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   212  249   878    40    4    21     0 1205   504    26  903   161
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  212  249   878    40    4    21     0 1205   504    26  903   161
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  212  249   878    40    4    21     0 1205   504    26  903   161
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.83  0.93 0.95  0.92  0.92 1.00  0.92  0.92 0.99  0.95
Lanes:       1.00 1.00  2.00  1.82 0.18  1.00  0.00 3.00  1.00  1.00 2.53  0.47
Final Sat.:  1750 1900  3150  3227  323  1750     0 5700  1750  1750 4752   847
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.12 0.13  0.28  0.01 0.01  0.01  0.00 0.21  0.29  0.01 0.19  0.19
Crit Moves:              ****       ****             ****       ****
Green Time:  29.7 29.7  36.7  10.0 10.0  10.0   0.0 31.3  61.0   7.0 38.3  48.3
Volume/Cap:  0.37 0.40  0.68  0.11 0.11  0.11  0.00 0.61  0.42  0.19 0.45  0.35
Delay/Veh:   23.8 24.2  24.8  36.6 36.6  37.1   0.0 25.7   7.7  41.9 19.0  12.3
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  23.8 24.2  24.8  36.6 36.6  37.1   0.0 25.7   7.7  41.9 19.0  12.3
LOS by Move:    C    C     C    D+   D+    D+     A    C     A     D   B-     B
HCM2kAvgQ:      5    5    13     1    1     1     0    9     7     1    7     6
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #104: California Circle & I-880 NB Ramps

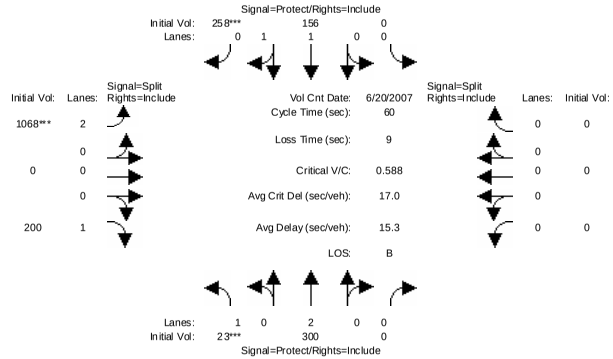



```
Street Name:        California Circle                  I-880 NB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10     0     0   10    10    10     0    10     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 4-6pm
Base Vol:      23  300     0     0  156   222  1039     0   200     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   23  300     0     0  156   222  1039     0   200     0    0     0
Added Vol:      0    0     0     0    0     0     0     0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0     0     0     0    0     0
Initial Fut:   23  300     0     0  156   222  1039     0   200     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    23  300     0     0  156   222  1039     0   200     0    0     0
Reduct Vol:     0    0     0     0    0     0     0     0     0     0    0     0
Reduced Vol:   23  300     0     0  156   222  1039     0   200     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   23  300     0     0  156   222  1039     0   200     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 1.00  0.92  0.83 1.00  0.92  0.92 1.00  0.92
Lanes:       1.00 2.00  0.00  0.00 1.00  1.00  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1750 3800     0     0 1900  1750  3150    0  1750     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.08  0.00  0.00 0.08  0.13  0.33 0.00  0.11  0.00 0.00  0.00
Crit Moves:  ****                          ****  ****
Green Time:   7.0 19.2   0.0   0.0 12.2  12.2  31.8  0.0  31.8   0.0  0.0   0.0
Volume/Cap:  0.11 0.25  0.00  0.00 0.40  0.62  0.62 0.00  0.22  0.00 0.00  0.00
Delay/Veh:   24.8 15.5   0.0   0.0 22.0  26.5  11.7  0.0   8.0   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  24.8 15.5   0.0   0.0 22.0  26.5  11.7  0.0   8.0   0.0  0.0   0.0
LOS by Move:    C    B     A     A   C+     C    B+    A     A     A    A     A
HCM2kAvgQ:      0    2     0     0    3     4     9    0     2     0    0     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #104: California Circle & I-880 NB Ramps

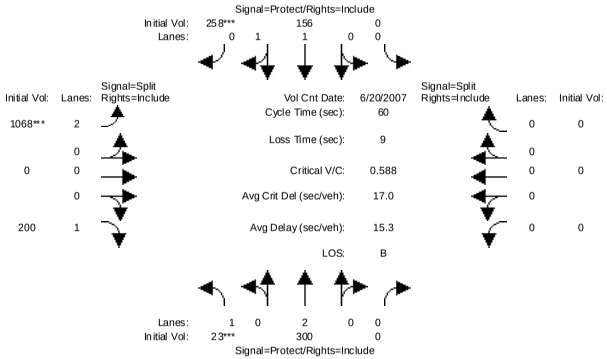



```
Street Name:        California Circle                  I-880 NB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10     0     0   10    10    10     0    10     0    0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 4-6pm
Base Vol:      23  300     0     0  156   222  1039     0   200     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   23  300     0     0  156   222  1039     0   200     0    0     0
Added Vol:      0    0     0     0    0     0     0     0     0     0    0     0
ATI:            0    0     0     0    0    36    29     0     0     0    0     0
Initial Fut:   23  300     0     0  156   258  1068     0   200     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    23  300     0     0  156   258  1068     0   200     0    0     0
Reduct Vol:     0    0     0     0    0     0     0     0     0     0    0     0
Reduced Vol:   23  300     0     0  156   258  1068     0   200     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   23  300     0     0  156   258  1068     0   200     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 1.00  0.92  0.83 1.00  0.92  0.92 1.00  0.92
Lanes:       1.00 2.00  0.00  0.00 1.00  1.00  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1750 3800     0     0 1900  1750  3150    0  1750     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.08  0.00  0.00 0.08  0.15  0.34 0.00  0.11  0.00 0.00  0.00
Crit Moves:  ****                          ****  ****
Green Time:   7.0 20.3   0.0   0.0 13.3  13.3  30.7  0.0  30.7   0.0  0.0   0.0
Volume/Cap:  0.11 0.23  0.00  0.00 0.37  0.66  0.66 0.00  0.22  0.00 0.00  0.00
Delay/Veh:   24.8 14.7   0.0   0.0 20.7  26.8  13.0  0.0   8.7   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  24.8 14.7   0.0   0.0 20.7  26.8  13.0  0.0   8.7   0.0  0.0   0.0
LOS by Move:    C    B     A     A   C+     C     B    A     A     A    A     A
HCM2kAvgQ:      0    2     0     0    2     5     9    0     2     0    0     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #104: California Circle & I-880 NB Ramps

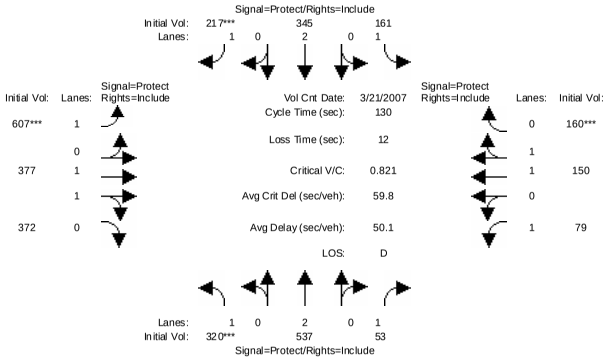



```
Street Name:        California Circle                 I-880 NB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10     0     0   10    10    10     0    10     0     0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 4-6pm
Base Vol:      23  300     0     0  156   258  1068     0   200     0     0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   23  300     0     0  156   258  1068     0   200     0     0     0
Added Vol:      0    0     0     0    0     0     0     0     0     0     0     0
PasserByVol:    0    0     0     0    0     0     0     0     0     0     0     0
Initial Fut:   23  300     0     0  156   258  1068     0   200     0     0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    23  300     0     0  156   258  1068     0   200     0     0     0
Reduct Vol:     0    0     0     0    0     0     0     0     0     0     0     0
Reduced Vol:   23  300     0     0  156   258  1068     0   200     0     0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   23  300     0     0  156   258  1068     0   200     0     0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 1.00  0.92  0.83 1.00  0.92  0.92 1.00  0.92
Lanes:       1.00 2.00  0.00  0.00 1.00  1.00  2.00 0.00  1.00  0.00 0.00  0.00
Final Sat.:  1750 3800     0     0 1900  1750  3150    0  1750     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.08  0.00  0.00 0.08  0.15  0.34 0.00  0.11  0.00 0.00  0.00
Crit Moves:  ****                       ****  ****
Green Time:   7.0 20.3   0.0   0.0 13.3  13.3  30.7  0.0  30.7   0.0  0.0   0.0
Volume/Cap:  0.11 0.23  0.00  0.00 0.37  0.66  0.66 0.00  0.22  0.00 0.00  0.00
Delay/Veh:   24.8 14.7   0.0   0.0 20.7  26.8  13.0  0.0   8.7   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  24.8 14.7   0.0   0.0 20.7  26.8  13.0  0.0   8.7   0.0  0.0   0.0
LOS by Move:    C    B     A     A   C+     C     B    A     A     A    A     A
HCM2kAvgQ:      0    2     0     0    2     5     9    0     2     0    0     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #105: Dixon Landing Rd. & N. Milpitas Blvd.

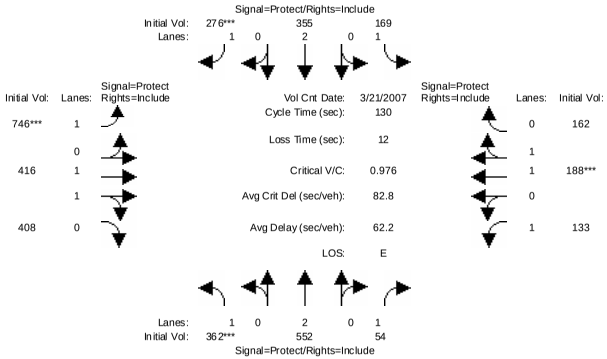



```
Street Name:        N. Milpitas Blvd.                 Dixon Landing Rd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10    10     7   10    10     7   10    10     7   10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Mar 2007 <<
Base Vol:     320  537    53   161  345   217   607  377   372    79  150   160
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  320  537    53   161  345   217   607  377   372    79  150   160
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  320  537    53   161  345   217   607  377   372    79  150   160
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   320  537    53   161  345   217   607  377   372    79  150   160
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  320  537    53   161  345   217   607  377   372    79  150   160
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  320  537    53   161  345   217   607  377   372    79  150   160
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.92 1.00  0.92  0.92 1.00  0.95  0.92 1.00  0.92
Lanes:       1.00 2.00  1.00  1.00 2.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Final Sat.:  1750 3800  1750  1750 3800  1750  1750 1899  1800  1750 1900  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.18 0.14  0.03  0.09 0.09  0.12  0.35 0.20  0.21  0.05 0.08  0.09
Crit Moves:  ****                       ****  ****                       ****
Green Time:  29.0 29.4  29.4  19.2 19.6  19.6  54.9 55.1  55.1  14.3 14.5  14.5
Volume/Cap:  0.82 0.62  0.13  0.62 0.60  0.82  0.82 0.47  0.49  0.41 0.71  0.82
Delay/Veh:   65.5 48.7  40.8  62.9 56.1  77.5  43.1 27.9  28.3  60.2 65.1  74.4
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  65.5 48.7  40.8  62.9 56.1  77.5  43.1 27.9  28.3  60.2 65.1  74.4
LOS by Move:    E    D     D     E   E+    E-     D    C     C     E    E     E
HCM2kAvgQ:     15   10     2     7    7    10    26   11    11     4    7     9
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #105: Dixon Landing Rd. & N. Milpitas Blvd.

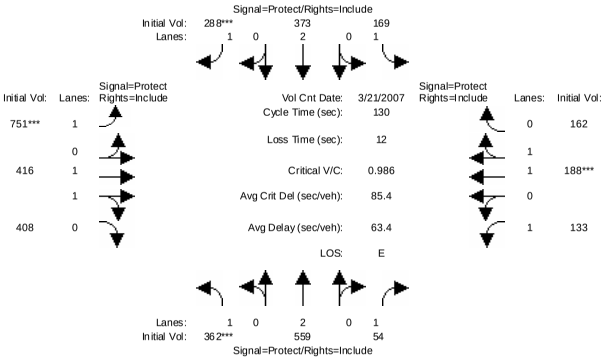



```
Street Name:         N. Milpitas Blvd.                Dixon Landing Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Mar 2007 <<
Base Vol:     320  537   53   161  345  217   607  377  372    79  150  160
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  320  537   53   161  345  217   607  377  372    79  150  160
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:           42   15    1     8   10   59   139   39   36    54   38    2
Initial Fut:  362  552   54   169  355  276   746  416  408   133  188  162
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   362  552   54   169  355  276   746  416  408   133  188  162
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  362  552   54   169  355  276   746  416  408   133  188  162
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  362  552   54   169  355  276   746  416  408   133  188  162
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.95  0.92 1.00 0.95
Lanes:       1.00 2.00 1.00  1.00 2.00 1.00  1.00 1.00 1.00  1.00 1.05 0.95
Final Sat.:  1750 3800 1750  1750 3800 1750  1750 1899 1800  1750 1986 1711
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.21 0.15 0.03  0.10 0.09 0.16  0.43 0.22 0.23  0.08 0.09 0.09
Crit Moves:  ****                 ****  ****                    ****
Green Time:  27.6 29.2 29.2  19.4 21.0 21.0  56.8 52.0 52.0  17.4 12.6 12.6
Volume/Cap:  0.98 0.65 0.14  0.65 0.58 0.98  0.98 0.55 0.57  0.57 0.98 0.98
Delay/Veh:   91.9 49.5 41.1  63.8 54.3 101.9  63.0 31.4 31.9  62.3  100 100.3
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  91.9 49.5 41.1  63.8 54.3 101.9  63.0 31.4 31.9  62.3  100 100.3
LOS by Move:    F    D    D     E   D-    F     E    C    C     E    F    F
HCM2kAvgQ:     20   10    2     7    7   15    39   13   14     6   11   11
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #105: Dixon Landing Rd. & N. Milpitas Blvd.

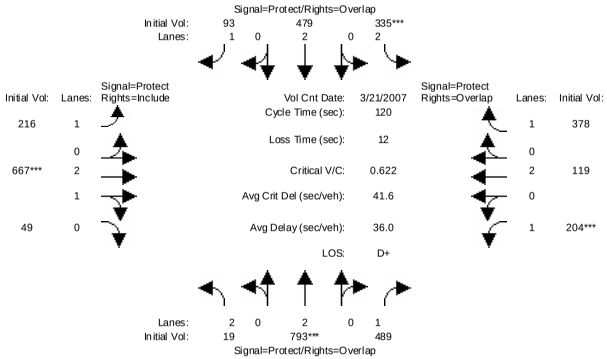



```
Street Name:         N. Milpitas Blvd.                Dixon Landing Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Mar 2007 <<
Base Vol:     362  552   54   169  355  276   746  416  408   133  188  162
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  362  552   54   169  355  276   746  416  408   133  188  162
Added Vol:      0    7    0     0   18   12     5    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  362  559   54   169  373  288   751  416  408   133  188  162
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   362  559   54   169  373  288   751  416  408   133  188  162
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  362  559   54   169  373  288   751  416  408   133  188  162
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  362  559   54   169  373  288   751  416  408   133  188  162
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.95  0.92 1.00 0.95
Lanes:       1.00 2.00 1.00  1.00 2.00 1.00  1.00 1.00 1.00  1.00 1.05 0.95
Final Sat.:  1750 3800 1750  1750 3800 1750  1750 1899 1800  1750 1986 1711
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.21 0.15 0.03  0.10 0.10 0.16  0.43 0.22 0.23  0.08 0.09 0.09
Crit Moves:  ****                 ****  ****                    ****
Green Time:  27.3 29.6 29.6  19.4 21.7 21.7  56.6 51.7 51.7  17.3 12.5 12.5
Volume/Cap:  0.99 0.65 0.14  0.65 0.59 0.99  0.99 0.55 0.57  0.57 0.99 0.99
Delay/Veh:   94.8 49.2 40.7  63.8 54.0 103.3  65.8 31.7 32.1  62.6  103 103.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  94.8 49.2 40.7  63.8 54.0 103.3  65.8 31.7 32.1  62.6  103 103.1
LOS by Move:    F    D    D     E   D-    F     E    C    C-     E    F    F
HCM2kAvgQ:     20   11    2     7    7   16    40   13   14     6   11   11
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #106: Scott Creek Rd. & Warm Springs Blvd.



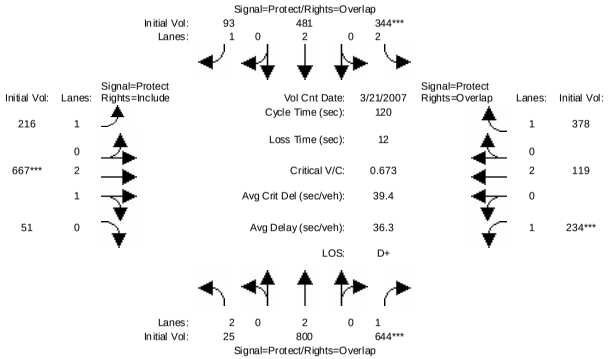
Street Name:	Warm Springs Blvd.						Scott Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 21 Mar 2007 <<												
Base Vol:	19	793	489	335	479	93	216	667	49	204	119	378
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	793	489	335	479	93	216	667	49	204	119	378
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	793	489	335	479	93	216	667	49	204	119	378
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	793	489	335	479	93	216	667	49	204	119	378
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	793	489	335	479	93	216	667	49	204	119	378
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	19	793	489	335	479	93	216	667	49	204	119	378
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.79	0.21	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	5216	383	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.21	0.28	0.11	0.13	0.05	0.12	0.13	0.13	0.12	0.03	0.22
Crit Moves:		****		****				****		****		
Green Time:	19.2	40.3	62.8	20.5	41.6	66.6	25.0	24.7	24.7	22.5	22.2	42.7
Volume/Cap:	0.04	0.62	0.53	0.62	0.36	0.10	0.59	0.62	0.62	0.62	0.17	0.61
Delay/Veh:	42.6	34.4	19.5	48.4	29.5	12.6	45.5	44.5	44.5	48.5	41.3	33.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.6	34.4	19.5	48.4	29.5	12.6	45.5	44.5	44.5	48.5	41.3	33.5
LOS by Move:	D	C-	B-	D	C	B	D	D	D	D	D	C-
HCM2kAvgQ:	0	12	12	8	7	2	8	9	9	8	2	13

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #106: Scott Creek Rd. & Warm Springs Blvd.



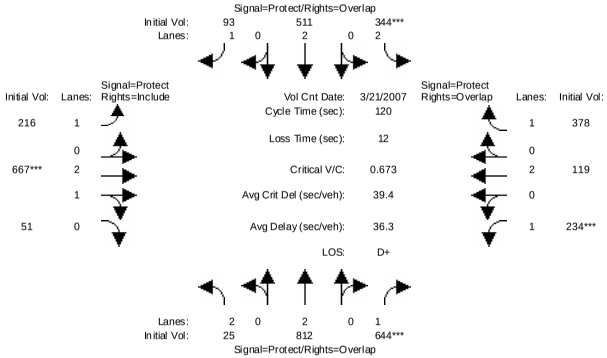
Street Name:	Warm Springs Blvd.						Scott Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 21 Mar 2007 <<												
Base Vol:	19	793	489	335	479	93	216	667	49	204	119	378
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	793	489	335	479	93	216	667	49	204	119	378
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	6	7	155	9	2	0	0	0	2	30	0	0
Initial Fut:	25	800	644	344	481	93	216	667	51	234	119	378
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	25	800	644	344	481	93	216	667	51	234	119	378
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	800	644	344	481	93	216	667	51	234	119	378
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	25	800	644	344	481	93	216	667	51	234	119	378
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.78	0.22	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	5202	398	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.21	0.37	0.11	0.13	0.05	0.12	0.13	0.13	0.13	0.03	0.22
Crit Moves:			****	****				****		****		
Green Time:	19.3	41.8	65.6	19.5	41.9	67.0	25.1	22.9	22.9	23.9	21.7	41.2
Volume/Cap:	0.05	0.60	0.67	0.67	0.36	0.10	0.59	0.67	0.67	0.67	0.17	0.63
Delay/Veh:	42.6	33.1	21.4	50.8	29.2	12.4	45.4	46.8	46.8	49.6	41.7	35.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.6	33.1	21.4	50.8	29.2	12.4	45.4	46.8	46.8	49.6	41.7	35.2
LOS by Move:	D	C-	C+	D	C	B	D	D	D	D	D	D+
HCM2kAvgQ:	0	12	18	8	7	2	8	9	9	10	2	13

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #106: Scott Creek Rd. & Warm Springs Blvd.

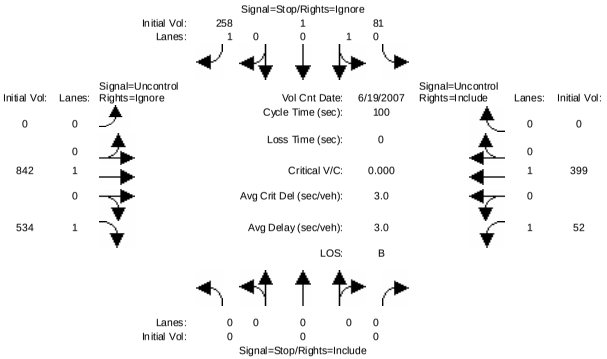



```
Street Name:         Warm Springs Blvd.                  Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10    10     7   10    10     7   10    10     7   10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Mar 2007 <<
Base Vol:      25  800   644   344  481    93   216  667    51   234  119   378
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   25  800   644   344  481    93   216  667    51   234  119   378
Added Vol:      0   12     0     0   30     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   25  812   644   344  511    93   216  667    51   234  119   378
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    25  812   644   344  511    93   216  667    51   234  119   378
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   25  812   644   344  511    93   216  667    51   234  119   378
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   25  812   644   344  511    93   216  667    51   234  119   378
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.83 1.00  0.92  0.83 1.00  0.92  0.92 0.99  0.95  0.92 1.00  0.92
Lanes:       2.00 2.00  1.00  2.00 2.00  1.00  1.00 2.78  0.22  1.00 2.00  1.00
Final Sat.:  3150 3800  1750  3150 3800  1750  1750 5202   398  1750 3800  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.21  0.37  0.11 0.13  0.05  0.12 0.13  0.13  0.13 0.03  0.22
Crit Moves:                ****  ****                ****        ****
Green Time:  18.5 41.8  65.6  19.5 42.7  67.8  25.1 22.9  22.9  23.9 21.7  41.2
Volume/Cap:  0.05 0.61  0.67  0.67 0.38  0.09  0.59 0.67  0.67  0.67 0.17  0.63
Delay/Veh:   43.3 33.3  21.4  50.8 28.9  12.0  45.4 46.8  46.8  49.6 41.7  35.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  43.3 33.3  21.4  50.8 28.9  12.0  45.4 46.8  46.8  49.6 41.7  35.2
LOS by Move:    D   C-    C+     D    C     B     D    D     D     D    D    D+
HCM2kAvgQ:      0   12    18     8    7     2     8    9     9    10    2    13
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #107: Scott Creek Rd. & I-680 SB Ramps

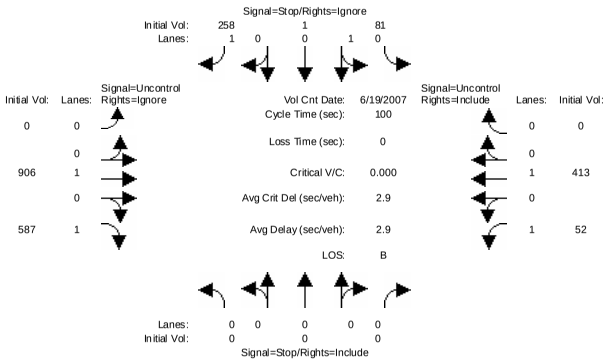



```
Street Name:          I-680 SB Ramps                      Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Jun 2007 <<
Base Vol:       0    0     0    81    1   258     0  842   534    52  399     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0    81    1   258     0  842   534    52  399     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0    81    1   258     0  842   534    52  399     0
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:     0    0     0    81    1     0     0    0     0    52  399     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0    81    1     0     0    0     0    52  399     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   503  503   399  xxxx xxxx xxxxx     0 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   532  474   655  xxxx xxxx xxxxx   900 xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   508  446   655  xxxx xxxx xxxxx   900 xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  0.16 0.00  0.00  xxxx xxxx  xxxx  0.06 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.2 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.2 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A     *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx   507 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx  13.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     B    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx             13.5           xxxxxx           xxxxxx
ApproachLOS:         *                B                *                *
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #107: Scott Creek Rd. & I-680 SB Ramps

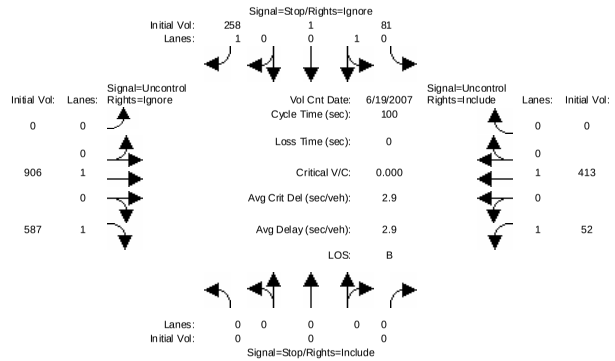



```
Street Name:          I-680 SB Ramps                    Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Jun 2007 <<
Base Vol:       0    0     0    81    1   258     0  842   534    52  399     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0    81    1   258     0  842   534    52  399     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
ATI:            0    0     0     0    0     0     0   64    53     0   14     0
Initial Fut:    0    0     0    81    1   258     0  906   587    52  413     0
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:     0    0     0    81    1     0     0    0     0    52  413     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0    81    1     0     0    0     0    52  413     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   517  517   413  xxxx xxxx xxxxx     0 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   522  465   643  xxxx xxxx xxxxx   900 xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   499  438   643  xxxx xxxx xxxxx   900 xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  0.16 0.00  0.00  xxxx xxxx  xxxx  0.06 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.2 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.2 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx   498 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx  13.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     B    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            13.6           xxxxxx           xxxxxx
ApproachLOS:         *               B                *                *
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #107: Scott Creek Rd. & I-680 SB Ramps

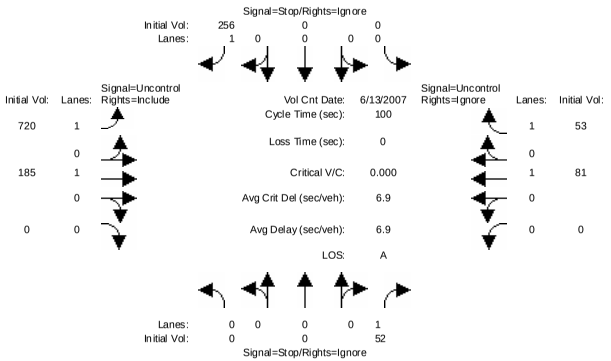



```
Street Name:          I-680 SB Ramps                    Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Jun 2007 <<
Base Vol:       0    0     0    81    1   258     0  906   587    52  413     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0    81    1   258     0  906   587    52  413     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0    81    1   258     0  906   587    52  413     0
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:     0    0     0    81    1     0     0    0     0    52  413     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0    81    1     0     0    0     0    52  413     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   517  517   413  xxxx xxxx xxxxx     0 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   522  465   643  xxxx xxxx xxxxx   900 xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   499  438   643  xxxx xxxx xxxxx   900 xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  0.16 0.00  0.00  xxxx xxxx  xxxx  0.06 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.2 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.2 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx   498 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx  13.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     B    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            13.6           xxxxxx           xxxxxx
ApproachLOS:         *               B                *                *
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #108: Scott Creek Rd. & I-680 NB Ramps

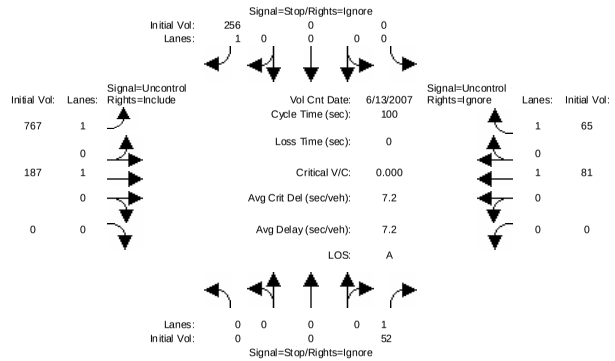



```
Street Name:          I-680 NB Ramps                    Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:       0    0    52     0    0   256   720  185     0     0   81    53
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0    52     0    0   256   720  185     0     0   81    53
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0    52     0    0   256   720  185     0     0   81    53
User Adj:    1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:     0    0     0     0    0     0   720  185     0     0   81     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0   720  185     0     0   81     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx   6.2 xxxxx xxxx   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx   3.3 xxxxx xxxx   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx   185  xxxx xxxx    81    81 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx   862  xxxx xxxx   985  1529 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx   862  xxxx xxxx   985  1529 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  0.00  xxxx xxxx  0.00  0.47 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   2.6 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.4 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A     *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #108: Scott Creek Rd. & I-680 NB Ramps

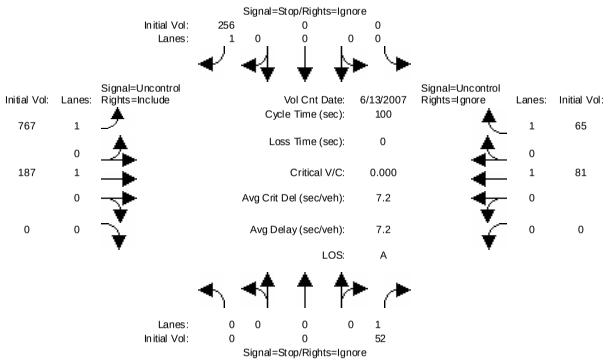



```
Street Name:          I-680 NB Ramps                    Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:       0    0    52     0    0   256   720  185     0     0   81    53
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0    52     0    0   256   720  185     0     0   81    53
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
ATI:            0    0     0     0    0     0    47    2     0     0    0    12
Initial Fut:    0    0    52     0    0   256   767  187     0     0   81    65
User Adj:    1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:     0    0     0     0    0     0   767  187     0     0   81     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0     0   767  187     0     0   81     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx   6.2 xxxxx xxxx   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx   3.3 xxxxx xxxx   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx   187  xxxx xxxx    81    81 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx   860  xxxx xxxx   985  1529 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx   860  xxxx xxxx   985  1529 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  0.00  xxxx xxxx  0.00  0.50 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   2.9 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.7 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A     *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #108: Scott Creek Rd. & I-680 NB Ramps

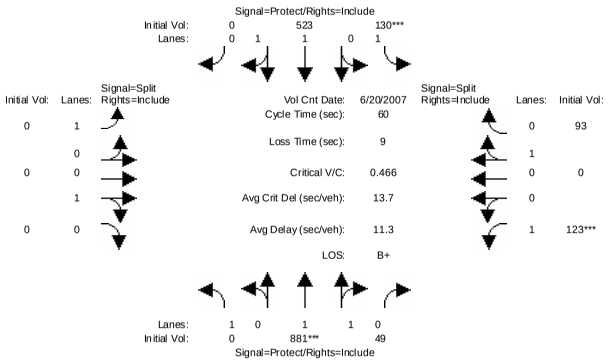



```
Street Name:          I-680 NB Ramps                    Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:       0    0    52     0    0  256   767  187     0     0   81    65
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0    52     0    0  256   767  187     0     0   81    65
Added Vol:      0    0     0     0    0    0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0    0     0    0     0     0    0     0
Initial Fut:    0    0    52     0    0  256   767  187     0     0   81    65
User Adj:    1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:     0    0     0     0    0    0   767  187     0     0   81     0
Reduct Vol:     0    0     0     0    0    0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0    0   767  187     0     0   81     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx   6.2 xxxxx xxxx   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx   3.3 xxxxx xxxx   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx   187  xxxx xxxx    81    81 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx   860  xxxx xxxx   985  1529 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx   860  xxxx xxxx   985  1529 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  0.00  xxxx xxxx  0.00  0.50 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   2.9 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.7 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     A     *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #109: McCarthy Blvd. & Ranch Dr. (N)

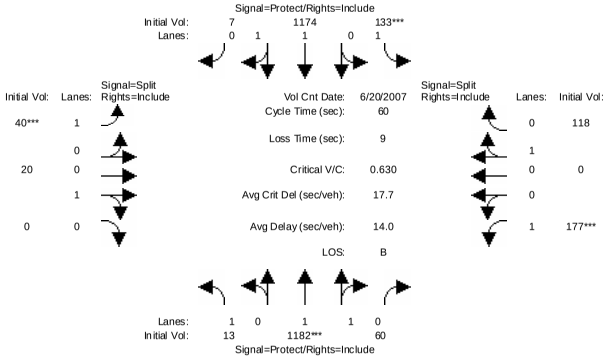



```
Street Name:          McCarthy Blvd.                    Ranch Dr. (N)
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10    0     0    0    0    10    0   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 6-9
Base Vol:       0  881   49   130  523    0     0    0    0   123    0   93
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0  881   49   130  523    0     0    0    0   123    0   93
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    0  881   49   130  523    0     0    0    0   123    0   93
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0  881   49   130  523    0     0    0    0   123    0   93
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0  881   49   130  523    0     0    0    0   123    0   93
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    0  881   49   130  523    0     0    0    0   123    0   93
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.98  0.95  0.92 0.97 0.92  0.92 1.00 0.92  0.92 1.00 0.95
Lanes:       1.00 1.89  0.11  1.00 2.00 0.00  1.00 1.00 0.00  1.00 0.00 1.00
Final Sat.:  1750 3505   195  1750 3700    0  1750 1900    0  1750    0 1800
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.25  0.25  0.07 0.14 0.00  0.00 0.00 0.00  0.07 0.00 0.05
Crit Moves:          ****        ****                        ****
Green Time:   0.0 31.6  31.6   9.4 41.0  0.0   0.0  0.0  0.0  10.0  0.0 10.0
Volume/Cap:  0.00 0.48  0.48  0.48 0.21 0.00  0.00 0.00 0.00  0.42 0.00 0.31
Delay/Veh:    0.0  9.8   9.8  29.0  3.7  0.0   0.0  0.0  0.0  26.8  0.0 24.6
User DelAdj: 1.00 1.00  1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0  9.8   9.8  29.0  3.7  0.0   0.0  0.0  0.0  26.8  0.0 24.6
LOS by Move:    A    A     A     C    A    A     A    A    A     C    A    C
HCM2kAvgQ:      0    6     6     3    2    0     0    0    0     3    0    2
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #109: McCarthy Blvd. & Ranch Dr. (N)

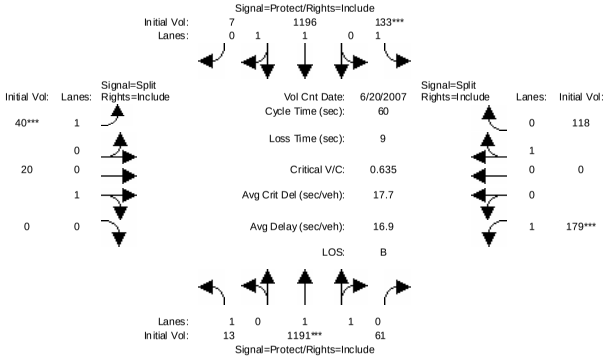



```
Street Name:          McCarthy Blvd.                    Ranch Dr. (N)
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10    0     0    0    0    10    0   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 6-9
Base Vol:       0  881   49   130  523    0     0    0    0   123    0   93
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0  881   49   130  523    0     0    0    0   123    0   93
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
ATI:           13  301   11     3  651    7    40   20    0    54    0   25
Initial Fut:   13 1182   60   133 1174    7    40   20    0   177    0  118
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    13 1182   60   133 1174    7    40   20    0   177    0  118
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   13 1182   60   133 1174    7    40   20    0   177    0  118
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   13 1182   60   133 1174    7    40   20    0   177    0  118
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.98 0.95  0.92 0.97 0.95  0.92 0.95 0.92  0.92 1.00 0.95
Lanes:       1.00 1.90 0.10  1.00 1.99 0.01  1.00 1.00 0.00  1.00 0.00 1.00
Final Sat.:  1750 3521  179  1750 3678   22  1750 1800    0  1750    0 1800
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.34 0.34  0.08 0.32 0.32  0.02 0.01 0.00  0.10 0.00 0.07
Crit Moves:          ****          ****          ****          ****
Green Time:   0.9 31.7 31.7   7.2 38.0 38.0   2.2  2.2  0.0  10.0  0.0 10.0
Volume/Cap:  0.50 0.64 0.64  0.64 0.50 0.50  0.64 0.31 0.00  0.61 0.00 0.39
Delay/Veh:   86.0 11.7 11.7  39.0  6.7  6.7  68.7 40.2  0.0  32.2  0.0 26.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  86.0 11.7 11.7  39.0  6.7  6.7  68.7 40.2  0.0  32.2  0.0 26.1
LOS by Move:    F   B+   B+     D    A    A     E    D    A    C-    A    C
HCM2kAvgQ:      1    9    9     4    6    6     2    1    0     4    0    2
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #109: McCarthy Blvd. & Ranch Dr. (N)

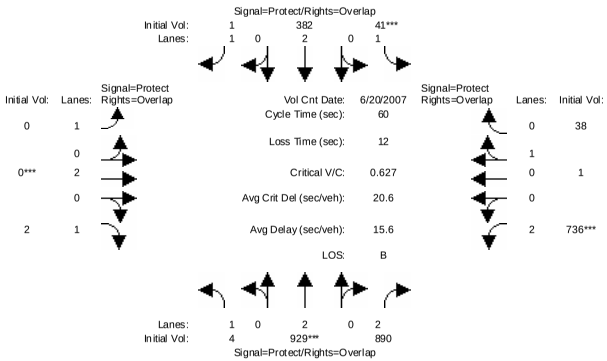



```
Street Name:          McCarthy Blvd.                    Ranch Dr. (N)
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10    0     0    0    0    10    0   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 6-9
Base Vol:      13 1182   60   133 1174    7    40   20    0   177    0  118
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   13 1182   60   133 1174    7    40   20    0   177    0  118
Added Vol:      0    9    1     0   22    0     0    0    0     2    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   13 1191   61   133 1196    7    40   20    0   179    0  118
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    13 1191   61   133 1196    7    40   20    0   179    0  118
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   13 1191   61   133 1196    7    40   20    0   179    0  118
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   13 1191   61   133 1196    7    40   20    0   179    0  118
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.98 0.95  0.92 0.97 0.95  0.92 0.95 0.92  0.92 1.00 0.95
Lanes:       1.00 1.90 0.10  1.00 1.99 0.01  1.00 1.00 0.00  1.00 0.00 1.00
Final Sat.:  1750 3520  180  1750 3678   22  1750 1800    0  1750    0 1800
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.34 0.34  0.08 0.33 0.33  0.02 0.01 0.00  0.10 0.00 0.07
Crit Moves:          ****          ****          ****          ****
Green Time:  10.3 31.7 31.7   7.1 28.6 28.6   2.1  2.1  0.0  10.0  0.0 10.0
Volume/Cap:  0.04 0.64 0.64  0.64 0.68 0.68  0.64 0.31 0.00  0.61 0.00 0.39
Delay/Veh:   21.0 11.7 11.7  39.4 14.3 14.3  69.4 40.4  0.0  32.5  0.0 26.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  21.0 11.7 11.7  39.4 14.3 14.3  69.4 40.4  0.0  32.5  0.0 26.1
LOS by Move:   C+   B+   B+     D    B    B     E    D    A    C-    A    C
HCM2kAvgQ:      0    9    9     4   10   10     2    1    0     4    0    2
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #110: McCarthy Blvd. & Ranch Dr. (S)



Street Name:	McCarthy Blvd.						Ranch Dr. (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 20 Jun 2007 << 6-9pm												
Base Vol:	4	929	890	41	382	1	0	0	2	736	1	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	929	890	41	382	1	0	0	2	736	1	38
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	929	890	41	382	1	0	0	2	736	1	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	929	890	41	382	1	0	0	2	736	1	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	929	890	41	382	1	0	0	2	736	1	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	929	890	41	382	1	0	0	2	736	1	38
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.95	0.95
Lanes:	1.00	2.00	2.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	0.03	0.97
Final Sat.:	1750	3800	3150	1750	3800	1750	1750	3800	1750	3150	46	1754
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.28	0.02	0.10	0.00	0.00	0.00	0.00	0.23	0.02	0.02
Crit Moves:		****		****				****		****		
Green Time:	11.5	21.0	41.0	7.0	16.4	16.4	0.0	0.0	11.5	20.0	20.0	27.0
Volume/Cap:	0.01	0.70	0.41	0.20	0.37	0.00	0.00	0.00	0.01	0.70	0.06	0.05
Delay/Veh:	19.7	19.9	4.8	26.2	18.6	15.8	0.0	0.0	19.6	21.2	13.8	9.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.7	19.9	4.8	26.2	18.6	15.8	0.0	0.0	19.6	21.2	13.8	9.4
LOS by Move:	B-	B-	A	C	B-	B	A	A	B-	C+	B	A
HCM2kAvgQ:	0	8	5	1	3	0	0	0	0	9	1	0

Note: Queue reported is the number of cars per lane.

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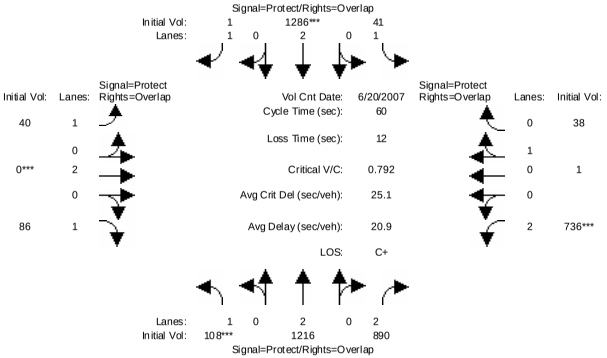
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #110: McCarthy Blvd. & Ranch Dr. (S)



Street Name:	McCarthy Blvd.						Ranch Dr. (S)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 20 Jun 2007 << 6-9pm												
Base Vol:	4	929	890	41	382	1	0	0	2	736	1	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	929	890	41	382	1	0	0	2	736	1	38
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	104	287	0	0	904	0	40	0	84	0	0	0
Initial Fut:	108	1216	890	41	1286	1	40	0	86	736	1	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	108	1216	890	41	1286	1	40	0	86	736	1	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	1216	890	41	1286	1	40	0	86	736	1	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	108	1216	890	41	1286	1	40	0	86	736	1	38
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.95	0.95
Lanes:	1.00	2.00	2.00	1.00	2.00	1.00	1.00	2.00	1.00	2.00	0.03	0.97
Final Sat.:	1750	3800	3150	1750	3800	1750	1750	3800	1750	3150	46	1754
Capacity Analysis Module:												
Vol/Sat:	0.06	0.32	0.28	0.02	0.34	0.00	0.02	0.00	0.05	0.23	0.02	0.02
Crit Moves:	****				****			****		****		
Green Time:	7.0	22.9	39.6	8.4	24.3	26.3	2.0	0.0	9.0	16.7	14.7	23.1
Volume/Cap:	0.53	0.84	0.43	0.17	0.84	0.00	0.68	0.00	0.33	0.84	0.09	0.06
Delay/Veh:	34.4	22.8	5.5	24.3	21.7	9.5	77.1	0.0	26.1	29.7	17.9	11.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.4	22.8	5.5	24.3	21.7	9.5	77.1	0.0	26.1	29.7	17.9	11.8
LOS by Move:	C-	C+	A	C	C+	A	E-	A	C	C	B	B+
HCM2kAvgQ:	2	12	5	1	14	0	2	0	2	11	1	0

Note: Queue reported is the number of cars per lane.

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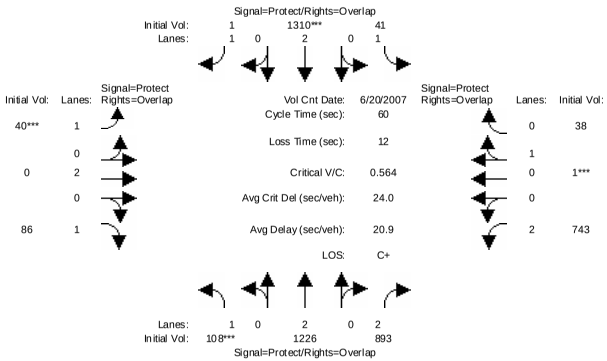
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #110: McCarthy Blvd. & Ranch Dr. (S)

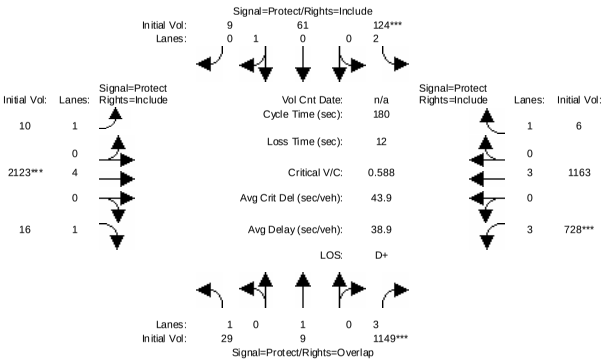



```
Street Name:          McCarthy Blvd.                    Ranch Dr. (S)
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 6-9pm
Base Vol:     108 1216  890    41 1286    1    40    0   86   736    1   38
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  108 1216  890    41 1286    1    40    0   86   736    1   38
Added Vol:      0   10    3     0   24    0     0    0    0     7    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  108 1226  893    41 1310    1    40    0   86   743    1   38
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   108 1226  893    41 1310    1    40    0   86   743    1   38
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  108 1226  893    41 1310    1    40    0   86   743    1   38
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  108 1226  893    41 1310    1    40    0   86   743    1   38
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.83  0.92 1.00 0.92  0.92 1.00 0.92  0.83 0.95 0.95
Lanes:       1.00 2.00 2.00  1.00 2.00 1.00  1.00 2.00 1.00  2.00 0.03 0.97
Final Sat.:  1750 3800 3150  1750 3800 1750  1750 3800 1750  3150   46 1754
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.32 0.28  0.02 0.34 0.00  0.02 0.00 0.05  0.24 0.02 0.02
Crit Moves:  ****             ****      ****             ****
Green Time:   7.0 22.8 39.8   8.2 24.0 31.0   7.0  0.0 14.0  17.0 10.0 18.2
Volume/Cap:  0.53 0.85 0.43  0.17 0.86 0.00  0.20 0.00 0.21  0.83 0.13 0.07
Delay/Veh:   34.4 23.5  5.4  24.4 23.2  7.0  26.1  0.0 19.7  29.1 22.2 15.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  34.4 23.5  5.4  24.4 23.2  7.0  26.1  0.0 19.7  29.1 22.2 15.1
LOS by Move:   C-    C    A    C    C    A    C    A   B-    C   C+    B
HCM2kAvgQ:      2   12    5    1   15    0    1    0    2   11    1    1
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1801: Trimble / Montague Expy [CMP]

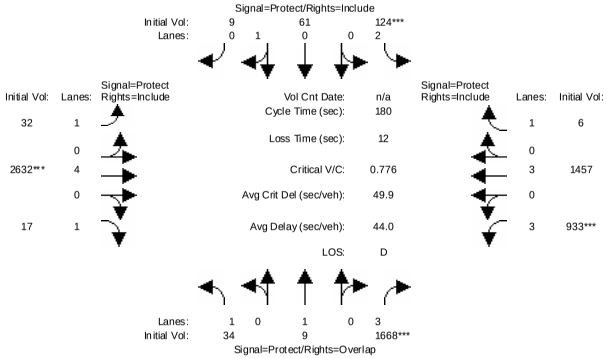



```
Street Name:          Trimble                           Montague Expy
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      29    9 1149   124   61    9    10 2123   16   728 1163    6
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   29    9 1149   124   61    9    10 2123   16   728 1163    6
Added Vol:      0    0    0     0    0    0     0    0    0     0    0    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   29    9 1149   124   61    9    10 2123   16   728 1163    6
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.92 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    29    9 1149   124   61    9    10 1953   16   728 1163    6
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   29    9 1149   124   61    9    10 1953   16   728 1163    6
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   29    9 1149   124   61    9    10 1953   16   728 1163    6
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.80  0.83 0.95 0.95  0.92 1.00 0.92  0.80 1.00 0.92
Lanes:       1.00 1.00 3.00  2.00 0.87 0.13  1.00 4.00 1.00  3.00 3.00 1.00
Final Sat.:  1750 1900 4551  3150 1569  231  1750 7600 1750  4551 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.00 0.25  0.04 0.04 0.04  0.01 0.26 0.01  0.16 0.20 0.00
Crit Moves:               ****  ****             ****       ****
Green Time:  16.6 28.3 77.3  12.0 23.7 23.7  20.4 78.7 78.7  49.0  107 107.2
Volume/Cap:  0.18 0.03 0.59  0.59 0.29 0.29  0.05 0.59 0.02  0.59 0.34 0.01
Delay/Veh:   75.9 64.3 39.7  85.9 71.3 71.3  71.2 38.7 28.8  57.5 18.6 14.8
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  75.9 64.3 39.7  85.9 71.3 71.3  71.2 38.7 28.8  57.5 18.6 14.8
LOS by Move:   E-    E    D    F    E    E    E   D+    C    E+   B-    B
HCM2kAvgQ:      2    0   20    5    4    4    1   20    1    15   10    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1801: Trimble / Montague Expy [CMP]



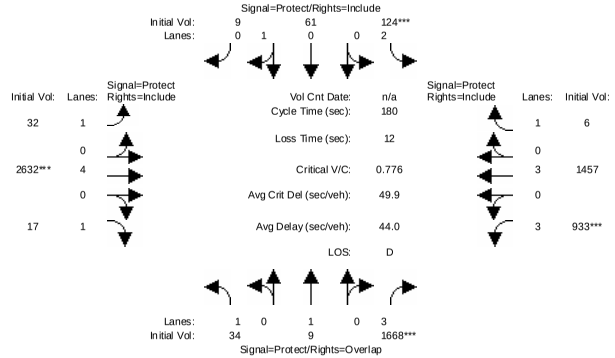
Street Name:	Trimble									Montague Expy								
Approach:	North Bound				South Bound					East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7	10	10			7	10	10			7	10	10			7	10	10		
Volume Module:																				
Base Vol:	29		9	1149		124	61		9		10	2123		16		728	1163		6	
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	29		9	1149		124	61		9		10	2123		16		728	1163		6	
Added Vol:	0		0	0		0	0		0		0	0		0		0	0		0	
ATI:	5		0	519		0	0		0		22	509		1		205	294		0	
Initial Fut:	34		9	1668		124	61		9		32	2632		17		933	1457		6	
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	0.92	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	34		9	1668		124	61		9		32	2421		17		933	1457		6	
Reduct Vol:	0		0	0		0	0		0		0	0		0		0	0		0	
Reduced Vol:	34		9	1668		124	61		9		32	2421		17		933	1457		6	
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	34		9	1668		124	61		9		32	2421		17		933	1457		6	
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900			1900	1900	1900			1900	1900	1900			1900	1900	1900		
Adjustment:	0.92	1.00	0.80			0.83	0.95	0.95			0.92	1.00	0.92			0.80	1.00	0.92		
Lanes:	1.00	1.00	3.00			2.00	0.87	0.13			1.00	4.00	1.00			3.00	3.00	1.00		
Final Sat.:	1750	1900	4551			3150	1569	231			1750	7600	1750			4551	5700	1750		
Capacity Analysis Module:																				
Vol/Sat:	0.02	0.00	0.37			0.04	0.04	0.04			0.02	0.32	0.01			0.21	0.26	0.00		
Crit Moves:				****		****						****				****				
Green Time:	19.2	37.5	85.0			9.1	27.4	27.4			16.0	73.9	73.9			47.5	105	105.4		
Volume/Cap:	0.18	0.02	0.78			0.78	0.26	0.26			0.21	0.78	0.02			0.78	0.44	0.01		
Delay/Veh:	73.7	56.7	41.4			105.4	67.8	67.8			76.7	47.2	31.6			64.6	20.9	15.5		
User DelAdj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
AdjDel/Veh:	73.7	56.7	41.4			105.4	67.8	67.8			76.7	47.2	31.6			64.6	20.9	15.5		
LOS by Move:	E	E+	D			F	E	E			E-	D	C			E	C+	B		
HCM2kAvgQ:	2	0	32			6	4	4			2	29	1			21	14	0		

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1801: Trimble / Montague Expy [CMP]



Street Name:	Trimble									Montague Expy								
Approach:	North Bound				South Bound					East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7	10	10			7	10	10			7	10	10			7	10	10		
Volume Module:																				
Base Vol:	34		9	1668		124	61		9		32	2632		17		933	1457		6	
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	34		9	1668		124	61		9		32	2632		17		933	1457		6	
Added Vol:	0		0	0		0	0		0		0	0		0		0	0		0	
PasserByVol:	0		0	0		0	0		0		0	0		0		0	0		0	
Initial Fut:	34		9	1668		124	61		9		32	2632		17		933	1457		6	
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	0.92	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	34		9	1668		124	61		9		32	2421		17		933	1457		6	
Reduct Vol:	0		0	0		0	0		0		0	0		0		0	0		0	
Reduced Vol:	34		9	1668		124	61		9		32	2421		17		933	1457		6	
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	34		9	1668		124	61		9		32	2421		17		933	1457		6	
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900			1900	1900	1900			1900	1900	1900			1900	1900	1900		
Adjustment:	0.92	1.00	0.80			0.83	0.95	0.95			0.92	1.00	0.92			0.80	1.00	0.92		
Lanes:	1.00	1.00	3.00			2.00	0.87	0.13			1.00	4.00	1.00			3.00	3.00	1.00		
Final Sat.:	1750	1900	4551			3150	1569	231			1750	7600	1750			4551	5700	1750		
Capacity Analysis Module:																				
Vol/Sat:	0.02	0.00	0.37			0.04	0.04	0.04			0.02	0.32	0.01			0.21	0.26	0.00		
Crit Moves:				****		****						****				****				
Green Time:	19.2	37.5	85.0			9.1	27.4	27.4			16.0	73.9	73.9			47.5	105	105.4		
Volume/Cap:	0.18	0.02	0.78			0.78	0.26	0.26			0.21	0.78	0.02			0.78	0.44	0.01		
Delay/Veh:	73.7	56.7	41.4			105.4	67.8	67.8			76.7	47.2	31.6			64.6	20.9	15.5		
User DelAdj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
AdjDel/Veh:	73.7	56.7	41.4			105.4	67.8	67.8			76.7	47.2	31.6			64.6	20.9	15.5		
LOS by Move:	E	E+	D			F	E	E			E-	D	C			E	C+	B		
HCM2kAvgQ:	2	0	32			6	4	4			2	29	1			21	14	0		

Note: Queue reported is the number of cars per lane.

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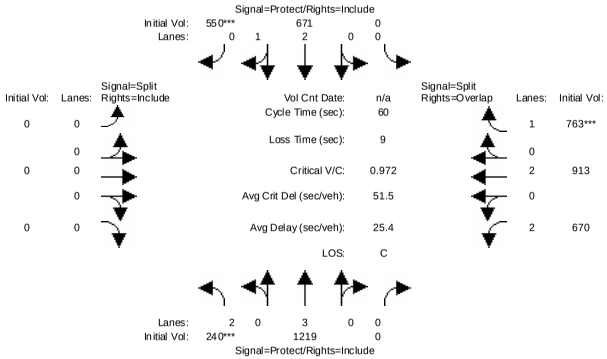
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1: McCarthy Blvd. & SR 237 WB Ramps



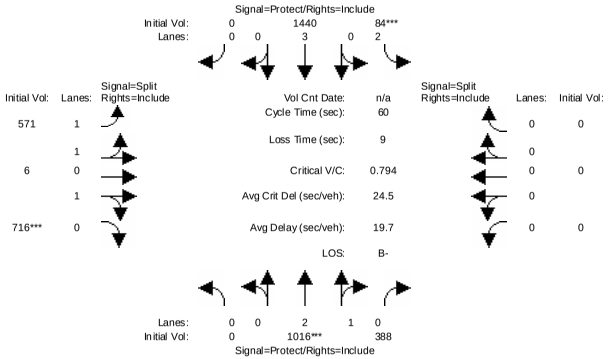
Street Name:	McCarthy Blvd.									SR 237 WB Ramps		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	0	0	0	10	10	10
Volume Module:												
Base Vol:	205	897	0	0	654	550	0	0	0	511	913	572
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	205	897	0	0	654	550	0	0	0	511	913	572
Added Vol:	35	322	0	0	17	0	0	0	0	159	0	191
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	240	1219	0	0	671	550	0	0	0	670	913	763
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	240	1219	0	0	671	550	0	0	0	670	913	763
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	240	1219	0	0	671	550	0	0	0	670	913	763
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	240	1219	0	0	671	550	0	0	0	670	913	763
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	2.00	2.00	1.00
Final Sat.:	3150	5700	0	0	3800	1750	0	0	0	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.21	0.00	0.00	0.18	0.31	0.00	0.00	0.00	0.21	0.24	0.44
Crit Moves:	****					****						****
Green Time:	7.0	25.4	0.0	0.0	18.4	18.4	0.0	0.0	0.0	25.6	25.6	25.6
Volume/Cap:	0.65	0.50	0.00	0.00	0.57	1.02	0.00	0.00	0.00	0.50	0.56	1.02
Delay/Veh:	29.5	12.8	0.0	0.0	17.9	52.8	0.0	0.0	0.0	12.8	13.5	56.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.5	12.8	0.0	0.0	17.9	52.8	0.0	0.0	0.0	12.8	13.5	56.2
LOS by Move:	C	B	A	A	B	D-	A	A	A	B	B	E+
HCM2kAvgQ:	2	5	0	0	5	15	0	0	0	6	7	25

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #2: McCarthy Blvd. & SR 237 EB Ramps



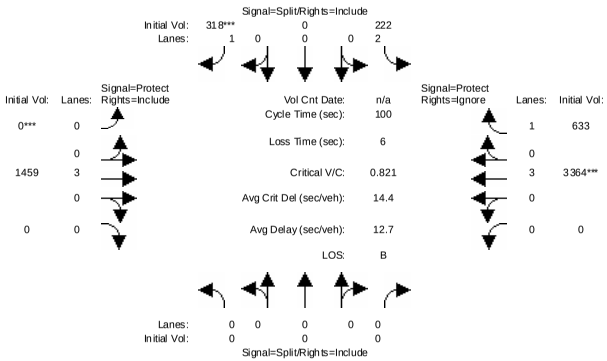
Street Name:	McCarthy Blvd.									SR 237 EB Ramps		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	10	7	10	0	10	10	10	0	0	0
Volume Module:												
Base Vol:	0	826	115	84	1264	0	404	6	535	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	826	115	84	1264	0	404	6	535	0	0	0
Added Vol:	0	190	273	0	176	0	167	0	181	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1016	388	84	1440	0	571	6	716	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1016	388	84	1440	0	571	6	716	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1016	388	84	1440	0	571	6	716	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1016	388	84	1440	0	571	6	716	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.83	1.00	0.92	0.93	0.95	0.95	0.92	1.00	0.92
Lanes:	0.00	2.14	0.86	2.00	3.00	0.00	1.98	0.02	1.00	0.00	0.00	0.00
Final Sat.:	0	4050	1547	3150	5700	0	3489	37	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.03	0.25	0.00	0.16	0.16	0.40	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green Time:	0.0	17.0	17.0	7.0	24.0	0.0	27.0	27.0	27.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.88	0.88	0.23	0.63	0.00	0.36	0.36	0.88	0.00	0.00	0.00
Delay/Veh:	0.0	26.9	26.9	24.4	15.0	0.0	10.9	10.9	21.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	26.9	26.9	24.4	15.0	0.0	10.9	10.9	21.9	0.0	0.0	0.0
LOS by Move:	A	C	C	C	B	A	B+	B+	C+	A	A	A
HCM2kAvgQ:	0	9	9	1	7	0	4	4	17	0	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #3: SR 237 & I-880 SB Ramps

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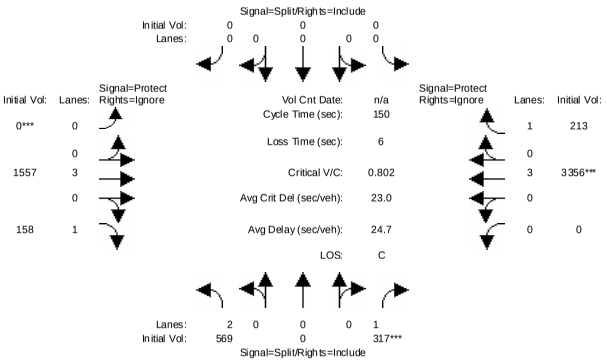
Street Name:          I-880 SB Ramps                    SR 237
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     0    10     0     0    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0     0     0   222     0   286     0  1298     0     0  3046   633
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   222     0   286     0  1298     0     0  3046   633
Added Vol:      0     0     0     0     0    32     0   161     0     0   318     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:    0     0     0   222     0   318     0  1459     0     0  3364   633
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
PHF Volume:     0     0     0   222     0   318     0  1459     0     0  3364     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   222     0   318     0  1459     0     0  3364     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
FinalVolume:    0     0     0   222     0   318     0  1459     0     0  3364     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.83  1.00  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       0.00  0.00  0.00  2.00  0.00  1.00  0.00  3.00  0.00  0.00  3.00  1.00
Final Sat.:     0     0     0  3150     0  1750     0  5700     0     0  5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.07  0.00  0.18  0.00  0.26  0.00  0.00  0.59  0.00
Crit Moves:                                ****  ****                      ****
Green Time:   0.0   0.0   0.0  22.1   0.0  22.1   0.0  71.9   0.0   0.0  71.9   0.0
Volume/Cap:  0.00  0.00  0.00  0.32  0.00  0.82  0.00  0.36  0.00  0.00  0.82  0.00
Delay/Veh:    0.0   0.0   0.0  32.9   0.0  50.2   0.0   5.4   0.0   0.0  11.1   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0  32.9   0.0  50.2   0.0   5.4   0.0   0.0  11.1   0.0
LOS by Move:    A     A     A    C-     A     D     A     A     A     A    B+     A
HCM2kAvgQ:      0     0     0     4     0    13     0     6     0     0    23     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #4: Calaveras Blvd. & I-880 NB Ramps

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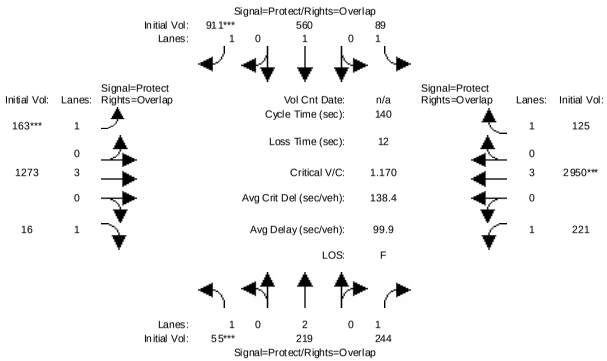
Street Name:          I-880 NB Ramps                    Calaveras Blvd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7    10    10     7    10    10     7    10    10     7    10    10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     438     0   317     0     0     0     0  1462    92     0  3169   213
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:  438     0   317     0     0     0     0  1462    92     0  3169   213
Added Vol:    131     0     0     0     0     0     0    95    66     0   187     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:  569     0   317     0     0     0     0  1557   158     0  3356   213
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:   569     0   317     0     0     0     0  1557     0     0  3356     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:  569     0   317     0     0     0     0  1557     0     0  3356     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:  569     0   317     0     0     0     0  1557     0     0  3356     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.83  1.00  0.92  0.92  1.00  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       2.00  0.00  1.00  0.00  0.00  0.00  0.00  3.00  1.00  0.00  3.00  1.00
Final Sat.:  3150     0  1750     0     0     0     0  5700  1750     0  5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.18  0.00  0.18  0.00  0.00  0.00  0.00  0.27  0.00  0.00  0.59  0.00
Crit Moves:                ****                      ****                      ****
Green Time:  32.2   0.0  32.2   0.0   0.0   0.0   0.0  95.5   0.0   0.0   105   0.0
Volume/Cap:  0.84  0.00  0.84  0.00  0.00  0.00  0.00  0.43  0.00  0.00  0.84  0.00
Delay/Veh:   65.7   0.0  72.2   0.0   0.0   0.0   0.0  13.7   0.0   0.0  18.4   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:  65.7   0.0  72.2   0.0   0.0   0.0   0.0  13.7   0.0   0.0  18.4   0.0
LOS by Move:    E     A     E     A     A     A     A     B     A     A    B-     A
HCM2kAvgQ:     17     0    17     0     0     0     0    12     0     0    39     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #5: Calaveras Blvd. / Abel St. [CMP]



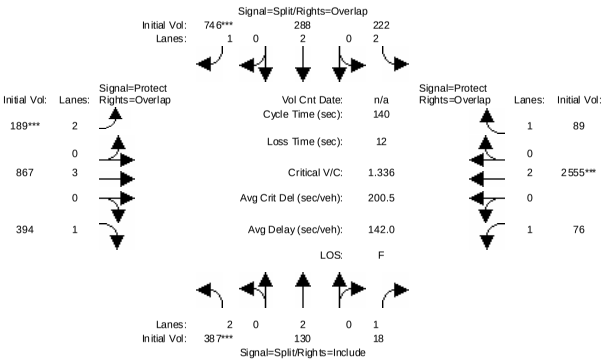
Street Name:	Abel St.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	55	219	244	89	560	897	162	1195	16	221	2786	125
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	219	244	89	560	897	162	1195	16	221	2786	125
Added Vol:	0	0	0	0	0	14	1	78	0	0	164	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	219	244	89	560	911	163	1273	16	221	2950	125
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	55	219	244	89	560	911	163	1273	16	221	2950	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	219	244	89	560	911	163	1273	16	221	2950	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	55	219	244	89	560	911	163	1273	16	221	2950	125
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.14	0.05	0.29	0.52	0.09	0.22	0.01	0.13	0.52	0.07
Crit Moves:	****					****	****				****	
Green Time:	7.0	33.2	58.9	23.6	49.8	60.7	10.9	45.5	52.5	25.7	60.3	84.0
Volume/Cap:	0.63	0.24	0.33	0.30	0.83	1.20	1.20	0.69	0.02	0.69	1.20	0.12
Delay/Veh:	78.9	43.4	27.6	51.5	49.6	142.6	205.8	42.2	27.6	59.5	135	12.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	78.9	43.4	27.6	51.5	49.6	142.6	205.8	42.2	27.6	59.5	135	12.1
LOS by Move:	E-	D	C	D-	D	F	F	D	C	E+	F	B
HCM2kAvgQ:	4	4	7	4	24	64	12	16	0	9	59	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #6: Milpitas Blvd. / Calaveras Blvd. [CMP]



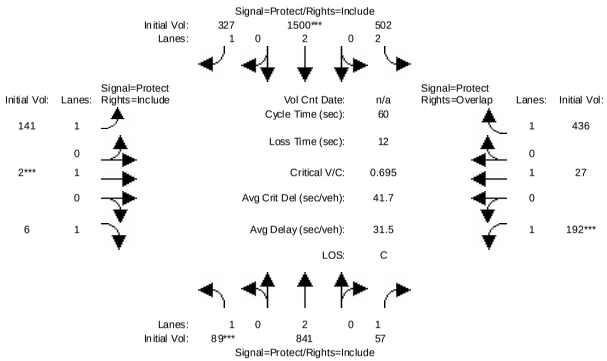
Street Name:	Milpitas Blvd.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	382	130	18	222	288	732	170	822	379	76	2410	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	382	130	18	222	288	732	170	822	379	76	2410	89
Added Vol:	5	0	0	0	0	14	19	45	15	0	145	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	387	130	18	222	288	746	189	867	394	76	2555	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	387	130	18	222	288	746	189	867	394	76	2555	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	387	130	18	222	288	746	189	867	394	76	2555	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	387	130	18	222	288	746	189	867	394	76	2555	89
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.03	0.01	0.07	0.08	0.43	0.06	0.15	0.23	0.04	0.67	0.05
Crit Moves:	****					****	****				****	
Green Time:	12.8	12.8	12.8	38.2	38.2	45.2	7.0	58.0	70.8	19.1	70.0	108.2
Volume/Cap:	1.34	0.37	0.11	0.26	0.28	1.32	1.20	0.37	0.45	0.32	1.34	0.07
Delay/Veh:	239.8	62.9	59.8	40.6	40.7	204.2	202.0	28.8	23.7	58.1	193	3.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	239.8	62.9	59.8	40.6	40.7	204.2	202.0	28.8	23.7	58.1	193	3.9
LOS by Move:	F	E	E+	D	D	F	F	C	C	E+	F	A
HCM2kAvgQ:	19	3	1	4	5	60	8	8	11	3	96	1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #7: McCarthy Blvd. & Bellew Dr.



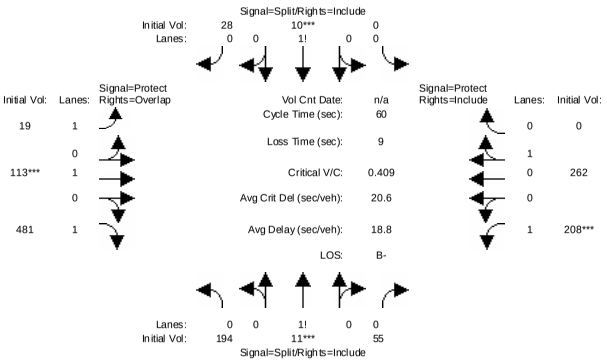
Street Name:	McCarthy Blvd.						Bellew Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	89	715	45	311	1334	327	141	2	6	159	27	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	715	45	311	1334	327	141	2	6	159	27	99
Added Vol:	0	126	12	191	166	0	0	0	0	33	0	337
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	89	841	57	502	1500	327	141	2	6	192	27	436
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	841	57	502	1500	327	141	2	6	192	27	436
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	841	57	502	1500	327	141	2	6	192	27	436
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	89	841	57	502	1500	327	141	2	6	192	27	436
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	1750	1900	1750	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.22	0.03	0.16	0.39	0.19	0.08	0.00	0.00	0.11	0.01	0.25
Crit Moves:	****				****			****		****		
Green Time:	7.0	18.0	18.0	13.0	24.0	24.0	7.0	10.0	10.0	7.0	10.0	23.0
Volume/Cap:	0.44	0.74	0.11	0.74	0.99	0.47	0.69	0.01	0.02	0.94	0.09	0.65
Delay/Veh:	31.3	23.1	15.6	28.9	38.0	15.5	42.9	20.9	21.0	75.4	21.7	20.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.3	23.1	15.6	28.9	38.0	15.5	42.9	20.9	21.0	75.4	21.7	20.1
LOS by Move:	C	C	B	C	D+	B	D	C+	C+	E-	C+	C+
HCM2kAvgQ:	2	9	1	6	19	5	4	0	0	5	0	7

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #8: Barber Ln & Bellew Dr



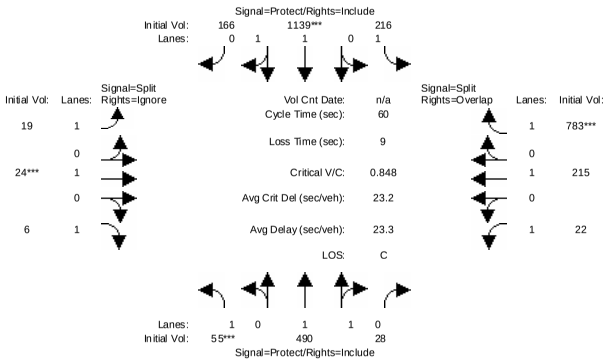
Street Name:	Barber Ln						Bellew Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	78	11	8	0	10	28	19	45	346	1	8	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	78	11	8	0	10	28	19	45	346	1	8	0
Added Vol:	116	0	47	0	0	0	0	68	135	207	254	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	194	11	55	0	10	28	19	113	481	208	262	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	194	11	55	0	10	28	19	113	481	208	262	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	11	55	0	10	28	19	113	481	208	262	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	194	11	55	0	10	28	19	113	481	208	262	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.92	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	0.95	0.92
Lanes:	0.75	0.04	0.21	0.00	0.26	0.74	1.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1306	74	370	0	474	1326	1750	1900	1750	1750	1800	0
Capacity Analysis Module:												
Vol/Sat:	0.15	0.15	0.15	0.00	0.02	0.02	0.01	0.06	0.27	0.12	0.15	0.00
Crit Moves:		****			****			****		****		
Green Time:	17.2	17.2	17.2	0.0	10.0	10.0	9.8	10.0	27.2	13.8	14.0	0.0
Volume/Cap:	0.52	0.52	0.52	0.00	0.13	0.13	0.07	0.36	0.61	0.52	0.62	0.00
Delay/Veh:	18.9	18.9	18.9	0.0	21.5	21.5	21.3	22.8	13.7	21.4	23.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.9	18.9	18.9	0.0	21.5	21.5	21.3	22.8	13.7	21.4	23.6	0.0
LOS by Move:	B-	B-	B-	A	C+	C+	C+	C+	B	C+	C	A
HCM2kAvgQ:	5	5	5	0	1	1	0	2	7	4	6	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #9: McCarthy Blvd. & Alder Dr.



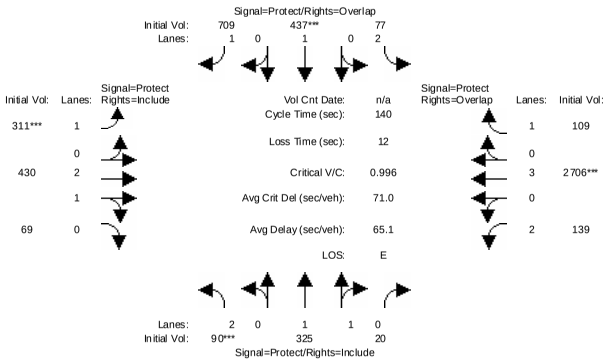
Street Name:	McCarthy Blvd.						Alder Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	10	10	7	10	0	0	0	0	10	0	10
Volume Module:												
Base Vol:	0	439	28	216	1106	0	0	0	0	22	0	714
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	439	28	216	1106	0	0	0	0	22	0	714
Added Vol:	55	51	0	0	33	166	19	24	6	0	215	69
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	490	28	216	1139	166	19	24	6	22	215	783
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	55	490	28	216	1139	166	19	24	0	22	215	783
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	490	28	216	1139	166	19	24	0	22	215	783
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	55	490	28	216	1139	166	19	24	0	22	215	783
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.89	0.11	1.00	1.74	0.26	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1750	3500	200	1750	3229	471	1750	1900	1750	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.14	0.14	0.12	0.35	0.35	0.01	0.01	0.00	0.01	0.11	0.45
Crit Moves:	****				****			****				****
Green Time:	2.2	15.6	15.6	11.6	25.0	25.0	0.9	0.9	0.0	22.9	22.9	34.5
Volume/Cap:	0.85	0.54	0.54	0.64	0.85	0.85	0.73	0.85	0.00	0.03	0.30	0.78
Delay/Veh:	103.0	21.2	21.2	31.3	21.8	21.8	130.8	155	0.0	11.7	14.0	15.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	103.0	21.2	21.2	31.3	21.8	21.8	130.8	155	0.0	11.7	14.0	15.7
LOS by Move:	F	C+	C+	C	C+	C+	F	F	A	B+	B	B
HCM2kAvgQ:	3	5	5	5	14	14	2	2	0	0	3	12

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #10: McCarthy Blvd. & Tasman Dr.



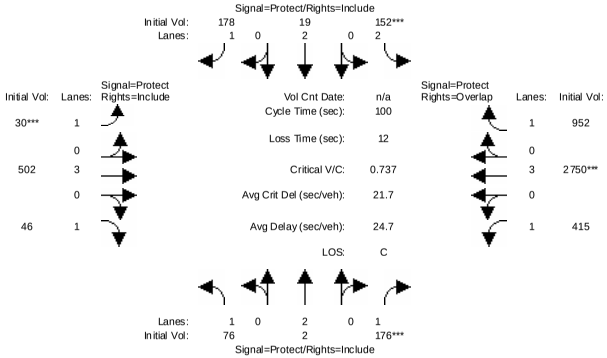
Street Name:	McCarthy Blvd.						Tasman Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	90	252	20	77	413	694	278	423	69	139	2684	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	252	20	77	413	694	278	423	69	139	2684	109
Added Vol:	0	73	0	0	24	15	33	7	0	0	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	325	20	77	437	709	311	430	69	139	2706	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	325	20	77	437	709	311	430	69	139	2706	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	325	20	77	437	709	311	430	69	139	2706	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	325	20	77	437	709	311	430	69	139	2706	109
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.98	0.95	0.83	1.00	0.92	0.92	0.99	0.95	0.83	1.00	0.92
Lanes:	2.00	1.88	0.12	2.00	1.00	1.00	1.00	2.57	0.43	2.00	3.00	1.00
Final Sat.:	3150	3485	214	3150	1900	1750	1750	4825	774	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.09	0.09	0.02	0.23	0.41	0.18	0.09	0.09	0.04	0.47	0.06
Crit Moves:	****				****		****				****	
Green Time:	7.0	25.1	25.1	13.5	31.5	55.9	24.4	57.3	57.3	32.2	65.1	78.5
Volume/Cap:	0.57	0.52	0.52	0.25	1.02	1.01	1.02	0.22	0.22	0.19	1.02	0.11
Delay/Veh:	79.2	54.9	54.9	60.6	103	79.8	114.9	27.0	27.0	44.0	60.5	14.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	79.2	54.9	54.9	60.6	103	79.8	114.9	27.0	27.0	44.0	60.5	14.6
LOS by Move:	E-	D-	D-	E	F	E-	F	C	C	D	E	B
HCM2kAvgQ:	2	7	7	2	25	40	19	5	5	3	45	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #11: Tasman Dr. & Alder Dr.



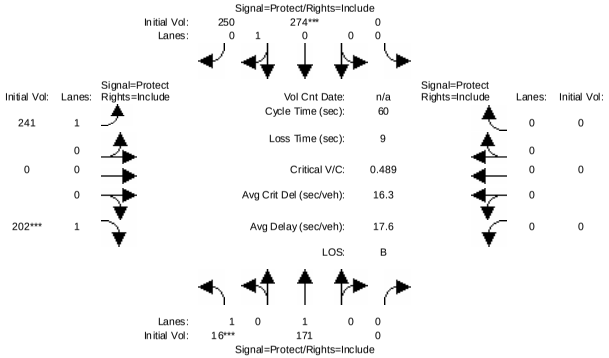
Street Name:	Alder Dr.						Tasman Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	54	2	34	128	19	178	30	502	39	353	2750	668
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	2	34	128	19	178	30	502	39	353	2750	668
Added Vol:	22	0	142	24	0	0	0	0	7	62	0	284
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	2	176	152	19	178	30	502	46	415	2750	952
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	76	2	176	152	19	178	30	502	46	415	2750	952
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	2	176	152	19	178	30	502	46	415	2750	952
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	76	2	176	152	19	178	30	502	46	415	2750	952
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.10	0.05	0.01	0.10	0.02	0.09	0.03	0.24	0.48	0.54
Crit Moves:			****	****			****				****	
Green Time:	8.1	12.8	12.8	7.0	11.7	11.7	7.0	20.2	20.2	48.0	61.2	68.2
Volume/Cap:	0.54	0.00	0.79	0.69	0.04	0.87	0.24	0.44	0.13	0.49	0.79	0.80
Delay/Veh:	58.2	38.1	66.2	61.7	39.4	79.5	48.7	36.1	33.4	19.8	16.4	16.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.2	38.1	66.2	61.7	39.4	79.5	48.7	36.1	33.4	19.8	16.4	16.6
LOS by Move:	E+	D+	E	E	D	E-	D	D+	C-	B-	B	B
HCM2kAvgQ:	3	0	7	3	0	6	1	5	1	9	21	22

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #12: Barber Ln / Alder Dr



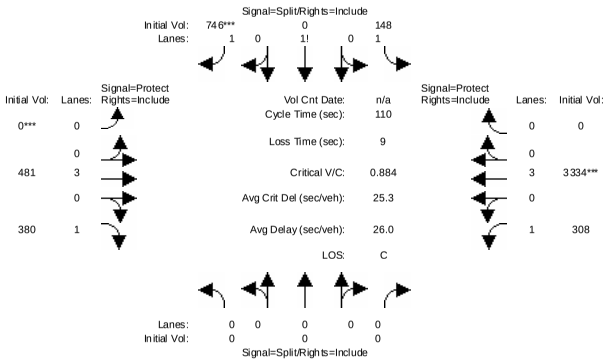
Street Name:	Barber Ln						Alder Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	0	0	10	10	7	0	10	0	0	0
Volume Module:												
Base Vol:	16	108	0	0	123	86	172	0	202	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	108	0	0	123	86	172	0	202	0	0	0
Added Vol:	0	63	0	0	151	164	69	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	171	0	0	274	250	241	0	202	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	171	0	0	274	250	241	0	202	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	171	0	0	274	250	241	0	202	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	171	0	0	274	250	241	0	202	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.00	0.00	0.00	0.52	0.48	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	1900	0	0	941	859	1750	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.00	0.00	0.29	0.29	0.14	0.00	0.12	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green Time:	7.0	38.5	0.0	0.0	31.5	31.5	12.5	0.0	12.5	0.0	0.0	0.0
Volume/Cap:	0.08	0.14	0.00	0.00	0.55	0.55	0.66	0.00	0.55	0.00	0.00	0.00
Delay/Veh:	24.4	4.5	0.0	0.0	11.9	11.9	30.9	0.0	27.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.4	4.5	0.0	0.0	11.9	11.9	30.9	0.0	27.2	0.0	0.0	0.0
LOS by Move:	C	A	A	A	B+	B+	C	A	C	A	A	A
HCM2kAvgQ:	0	1	0	0	7	7	5	0	4	0	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #13: Tasman Dr. & I-880 SB Ramps



Street Name:	I-880 SB Ramps									Tasman Dr.		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	0	10	7	10	0	7	10	0
Volume Module:												
Base Vol:	0	0	0	148	0	660	0	408	287	308	3074	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	148	0	660	0	408	287	308	3074	0
Added Vol:	0	0	0	0	0	86	0	73	93	0	260	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	148	0	746	0	481	380	308	3334	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	148	0	746	0	481	380	308	3334	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	148	0	746	0	481	380	308	3334	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	148	0	746	0	481	380	308	3334	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.17	0.00	1.83	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	0	0	0	2047	0	3295	0	5700	1750	1750	5700	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.07	0.00	0.23	0.00	0.08	0.22	0.18	0.58	0.00
Crit Moves:						****	****				****	
Green Time:	0.0	0.0	0.0	28.2	0.0	28.2	0.0	40.2	40.2	32.6	72.8	0.0
Volume/Cap:	0.00	0.00	0.00	0.28	0.00	0.88	0.00	0.23	0.59	0.59	0.88	0.00
Delay/Veh:	0.0	0.0	0.0	33.0	0.0	50.5	0.0	24.4	32.3	38.0	18.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	33.0	0.0	50.5	0.0	24.4	32.3	38.0	18.5	0.0
LOS by Move:	A	A	A	C-	A	D	A	C	C-	D+	B-	A
HCM2kAvgQ:	0	0	0	4	0	17	0	4	12	9	29	0

Note: Queue reported is the number of cars per lane.

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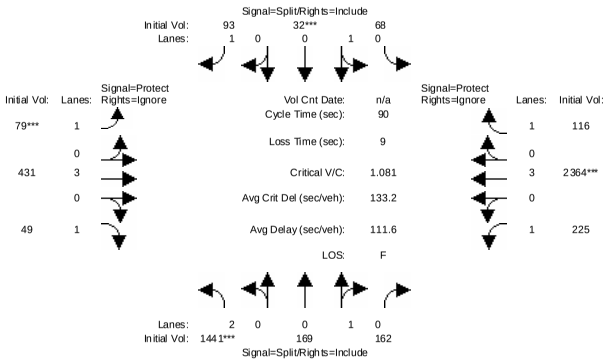
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #14: Great Mall Pkwy. & I-880 NB Ramps



Street Name:	I-880 NB Ramps									Great Mall Pkwy.		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	1326	169	162	68	32	93	79	383	24	225	2218	116
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1326	169	162	68	32	93	79	383	24	225	2218	116
Added Vol:	115	0	0	0	0	0	0	48	25	0	146	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1441	169	162	68	32	93	79	431	49	225	2364	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	1441	169	162	68	32	93	79	431	0	225	2364	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1441	169	162	68	32	93	79	431	0	225	2364	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	1441	169	162	68	32	93	79	431	0	225	2364	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.95	0.95	0.95	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	0.51	0.49	0.68	0.32	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	3150	919	881	1224	576	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.46	0.18	0.18	0.06	0.06	0.05	0.05	0.08	0.00	0.13	0.41	0.00
Crit Moves:	****				****		****				****	
Green Time:	33.6	33.6	33.6	10.0	10.0	10.0	7.0	17.4	0.0	20.1	30.4	0.0
Volume/Cap:	1.23	0.49	0.49	0.50	0.50	0.48	0.58	0.39	0.00	0.58	1.23	0.00
Delay/Veh:	137.9	24.3	24.3	46.3	46.3	45.8	56.9	32.8	0.0	37.2	137	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	137.9	24.3	24.3	46.3	46.3	45.8	56.9	32.8	0.0	37.2	137	0.0
LOS by Move:	F	C	C	D	D	D	E+	C-	A	D+	F	A
HCM2kAvgQ:	46	8	8	3	3	3	2	3	0	6	39	0

Note: Queue reported is the number of cars per lane.

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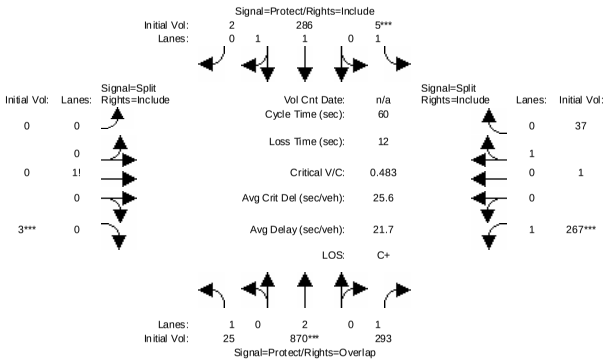
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #15: McCarthy Blvd / Barber Ln



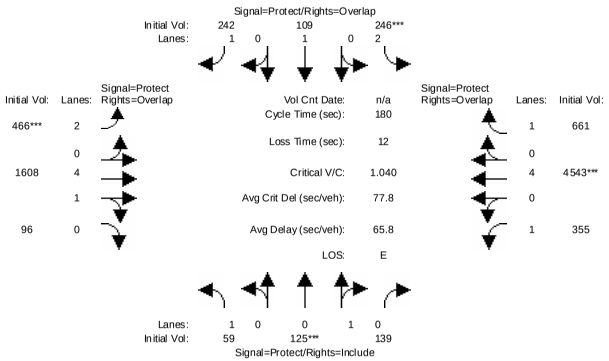
Street Name:	McCarthy Blvd						Barber Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Volume Module:												
Base Vol:	25	797	230	5	262	2	0	0	3	116	1	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	797	230	5	262	2	0	0	3	116	1	37
Added Vol:	0	73	63	0	24	0	0	0	0	151	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	25	870	293	5	286	2	0	0	3	267	1	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	25	870	293	5	286	2	0	0	3	267	1	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	870	293	5	286	2	0	0	3	267	1	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	25	870	293	5	286	2	0	0	3	267	1	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.97	0.95	0.92	1.00	0.92	0.92	0.95	0.95
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.00	0.00	1.00	1.00	0.03	0.97
Final Sat.:	1750	3800	1750	1750	3674	26	0	0	1750	1750	47	1753
Capacity Analysis Module:												
Vol/Sat:	0.01	0.23	0.17	0.00	0.08	0.08	0.00	0.00	0.00	0.15	0.02	0.02
Crit Moves:		****		****					****	****		
Green Time:	10.5	18.6	31.0	7.0	15.1	15.1	0.0	0.0	10.0	12.4	12.4	12.4
Volume/Cap:	0.08	0.74	0.32	0.02	0.31	0.31	0.00	0.00	0.01	0.74	0.10	0.10
Delay/Veh:	21.2	22.7	9.4	23.7	19.1	19.1	0.0	0.0	20.9	35.0	19.8	19.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.2	22.7	9.4	23.7	19.1	19.1	0.0	0.0	20.9	35.0	19.8	19.8
LOS by Move:	C+	C+	A	C	B-	B-	A	A	C+	C-	B-	B-
HCM2kAvgQ:	0	7	3	0	2	2	0	0	0	6	1	1

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #16: McCarthy Blvd. / Montague Expy. [CMP]



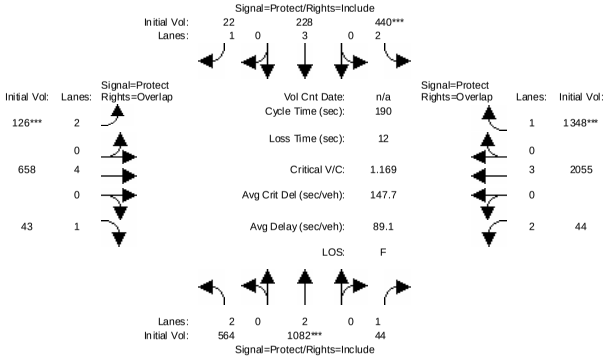
Street Name:	McCarthy Blvd.						Montague Expy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	59	116	139	183	96	143	394	1608	96	355	4543	605
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	116	139	183	96	143	394	1608	96	355	4543	605
Added Vol:	0	9	0	63	13	99	72	0	0	0	0	56
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	125	139	246	109	242	466	1608	96	355	4543	661
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	125	139	246	109	242	466	1608	96	355	4543	661
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	125	139	246	109	242	466	1608	96	355	4543	661
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	125	139	246	109	242	466	1608	96	355	4543	661
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	0.47	0.53	2.00	1.00	1.00	2.00	4.71	0.29	1.00	4.00	1.00
Final Sat.:	1750	852	948	3150	1900	1750	3150	8869	530	1750	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.15	0.15	0.08	0.06	0.14	0.15	0.18	0.18	0.20	0.60	0.38
Crit Moves:		****		****			****				****	
Green Time:	15.7	25.4	25.4	13.5	23.2	48.8	25.6	60.9	76.6	68.2	103	117.0
Volume/Cap:	0.39	1.04	1.04	1.04	0.45	0.51	1.04	0.54	0.43	0.54	1.04	0.58
Delay/Veh:	84.2	153	153.0	157.0	80.9	70.2	130.4	48.3	36.3	44.4	63.7	18.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	84.2	153	153.0	157.0	80.9	70.2	130.4	48.3	36.3	44.4	63.7	18.5
LOS by Move:	F	F	F	F	F	E	F	D	D+	D	E	B-
HCM2kAvgQ:	4	21	21	10	6	13	19	16	15	16	71	21

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #17: Montague Expy. / Great Mall Pkwy./Capitol Ave. [CMP]

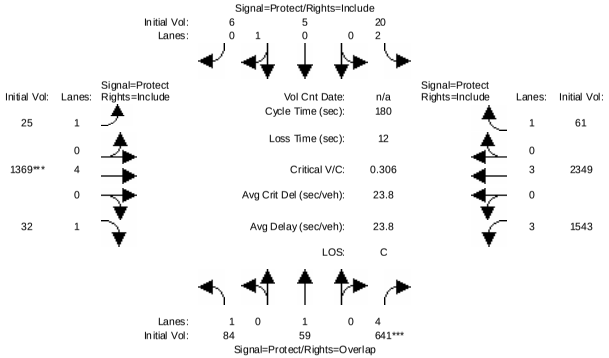



```
Street Name:  Great Mall Pkwy./Capitol Ave.           Montague Expy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   95   10     7   95   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     537 1001   44   428  200   22   126  635   20    44 2041 1309
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  537 1001   44   428  200   22   126  635   20    44 2041 1309
Added Vol:     27   81    0    12   28    0     0   23   23     0   14   39
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  564 1082   44   440  228   22   126  658   43    44 2055 1348
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.91 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   564 1082   44   440  228   22   126  658   43    44 1870 1348
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  564 1082   44   440  228   22   126  658   43    44 1870 1348
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  564 1082   44   440  228   22   126  658   43    44 1870 1348
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       2.00 2.00 1.00  2.00 3.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  3150 3800 1750  3150 5700 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.18 0.28 0.03  0.14 0.04 0.01  0.04 0.09 0.02  0.01 0.33 0.77
Crit Moves:        ****            ****            ****                 ****
Green Time:  53.2 46.2 46.2  22.6 15.6 15.6   7.0  102 154.9   7.5  102 124.8
Volume/Cap:  0.64 1.17 0.10  1.17 0.49 0.15  1.09 0.16 0.03  0.35 0.61 1.17
Delay/Veh:   61.6  161 56.0 185.9 84.1 81.5 199.9 22.5  3.3  90.6 30.5 119.6
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  61.6  161 56.0 185.9 84.1 81.5 199.9 22.5  3.3  90.6 30.5 119.6
LOS by Move:    E    F   E+     F    F    F     F   C+    A     F    C    F
HCM2kAvgQ:     17   41    2    21    4    1     6    5    1     1   24  111
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #18: Trimble / Montague Expy [CMP]

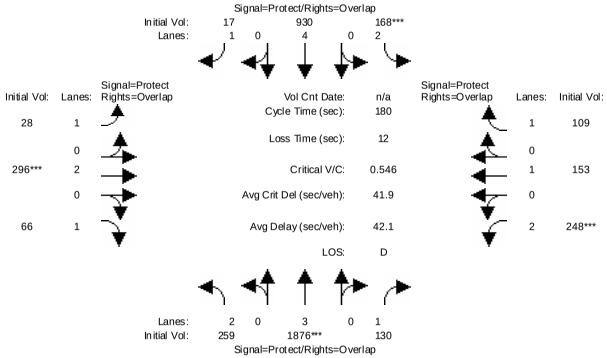



```
Street Name:            Trimble                          Montague Expy
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      84   59  621    20    5    6    25 1317   32  1516 2277   61
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   84   59  621    20    5    6    25 1317   32  1516 2277   61
Added Vol:      0    0   20     0    0    0     0   52    0    27   72    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   84   59  641    20    5    6    25 1369   32  1543 2349   61
User Adj:    0.00 0.00 1.00  0.00 0.00 0.00  0.00 1.00 0.00  0.00 0.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0    0  641     0    0    0     0 1369    0     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0    0  641     0    0    0     0 1369    0     0    0    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    0    0  641     0    0    0     0 1369    0     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.80  0.83 1.00 0.92  0.92 1.00 0.92  0.80 1.00 0.92
Lanes:       1.00 1.00 4.00  2.00 1.00 0.00  1.00 4.00 1.00  3.00 3.00 1.00
Final Sat.:  1750 1900 6068  3150 1900    0  1750 7600 1750  4551 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.11  0.00 0.00 0.00  0.00 0.18 0.00  0.00 0.00 0.00
Crit Moves:             ****                             ****
Green Time:   0.0  0.0 52.4   0.0  0.0  0.0   0.0  123  0.0   0.0  0.0  0.0
Volume/Cap:  0.00 0.00 0.36  0.00 0.00 0.00  0.00 0.26 0.00  0.00 0.00 0.00
Delay/Veh:    0.0  0.0 50.7   0.0  0.0  0.0   0.0 11.2  0.0   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0  0.0 50.7   0.0  0.0  0.0   0.0 11.2  0.0   0.0  0.0  0.0
LOS by Move:    A    A    D     A    A    A     A   B+    A     A    A    A
HCM2kAvgQ:      0    0    8     0    0    0     0    7    0     0    0    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #19: Montague Expy / River Oaks



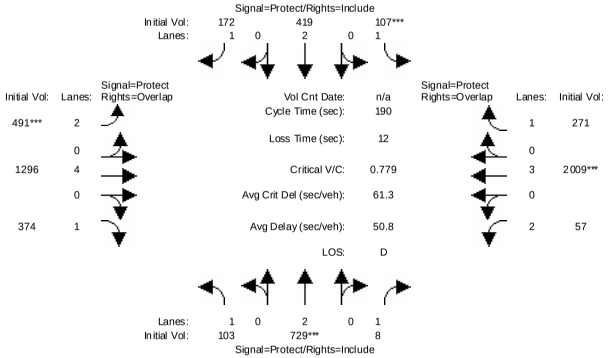
Street Name:	Montague Expy						River Oaks - E Pulmeria					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	258	1809	126	168	885	17	28	296	66	241	153	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	258	1809	126	168	885	17	28	296	66	241	153	109
Added Vol:	1	67	4	0	45	0	0	0	0	7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	259	1876	130	168	930	17	28	296	66	248	153	109
User Adj:	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	259	1707	130	168	930	17	28	296	66	248	153	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	259	1707	130	168	930	17	28	296	66	248	153	109
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	259	1707	130	168	930	17	28	296	66	248	153	109
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	1750	3800	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.30	0.07	0.05	0.12	0.01	0.02	0.08	0.04	0.08	0.08	0.06
Crit Moves:		****		****				****		****		
Green Time:	46.8	98.8	124.7	17.6	69.6	86.4	16.8	25.7	72.4	26.0	34.8	52.4
Volume/Cap:	0.32	0.55	0.11	0.55	0.32	0.02	0.17	0.55	0.09	0.55	0.42	0.21
Delay/Veh:	54.7	26.9	9.3	84.2	38.9	24.6	77.4	75.6	33.7	76.2	67.1	49.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.7	26.9	9.3	84.2	38.9	24.6	77.4	75.6	33.7	76.2	67.1	49.2
LOS by Move:	D-	C	A	F	D+	C	E-	E-	C-	E-	E	D
HCM2kAvgQ:	7	21	3	5	9	1	2	8	2	8	7	5

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #20: Zanker Rd / Montague Expy [CMP]



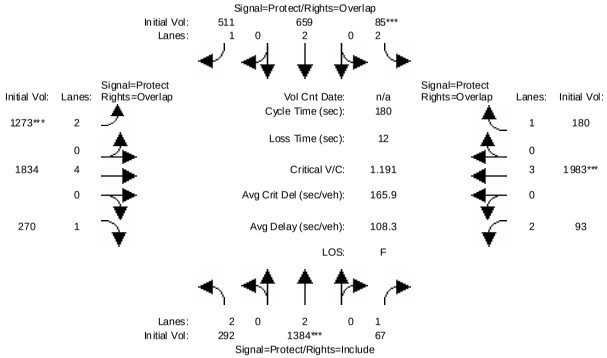
Street Name:	Zanker Rd						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	103	729	5	103	419	171	491	1258	374	48	1953	269
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	103	729	5	103	419	171	491	1258	374	48	1953	269
Added Vol:	0	0	3	4	0	1	0	38	0	9	56	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	103	729	8	107	419	172	491	1296	374	57	2009	271
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	103	729	8	107	419	172	491	1296	374	57	1828	271
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	729	8	107	419	172	491	1296	374	57	1828	271
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	729	8	107	419	172	491	1296	374	57	1828	271
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.00	0.06	0.11	0.10	0.16	0.17	0.21	0.02	0.32	0.15
Crit Moves:		****		****			****				****	
Green Time:	21.5	46.8	46.8	14.9	40.2	40.2	38.0	95.6	117.1	20.7	78.3	93.2
Volume/Cap:	0.52	0.78	0.02	0.78	0.52	0.46	0.78	0.34	0.35	0.17	0.78	0.32
Delay/Veh:	81.9	71.0	54.2	110.1	66.9	66.4	78.2	28.3	18.0	77.1	50.1	29.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	81.9	71.0	54.2	110.1	66.9	66.4	78.2	28.3	18.0	77.1	50.1	29.4
LOS by Move:	F	E	D-	F	E	E	E-	C	B	E-	D	C
HCM2kAvgQ:	7	21	0	8	11	9	16	11	11	2	31	10

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #21: N 1st St / Montague Expy [CMP]



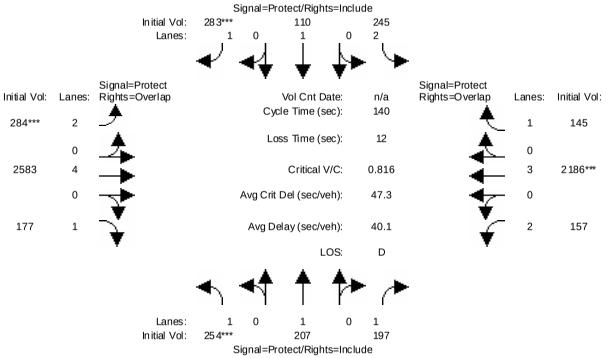
Street Name:	N 1st St						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	292	1384	65	81	659	510	1273	1801	270	86	1936	177
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	292	1384	65	81	659	510	1273	1801	270	86	1936	177
Added Vol:	0	0	2	4	0	1	0	33	0	7	47	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	292	1384	67	85	659	511	1273	1834	270	93	1983	180
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	292	1384	67	85	659	511	1273	1834	270	93	1805	180
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	292	1384	67	85	659	511	1273	1834	270	93	1805	180
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	292	1384	67	85	659	511	1273	1834	270	93	1805	180
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.36	0.04	0.03	0.17	0.29	0.40	0.24	0.15	0.03	0.32	0.10
Crit Moves:		****		****			****				****	
Green Time:	21.3	54.0	54.0	7.0	39.8	99.8	60.0	92.1	113.4	14.8	47.0	54.0
Volume/Cap:	0.78	1.21	0.13	0.69	0.78	0.53	1.21	0.47	0.24	0.36	1.21	0.34
Delay/Veh:	87.6	167	45.9	101.3	71.0	25.8	164.8	28.4	14.7	78.9	169	49.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	87.6	167	45.9	101.3	71.0	25.8	164.8	28.4	14.7	78.9	169	49.6
LOS by Move:	F	F	D	F	E	C	F	C	B	E-	F	D
HCM2kAvgQ:	11	54	3	4	18	19	58	15	7	3	45	8

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #22: Montague Expy / De la Cruz [CMP]



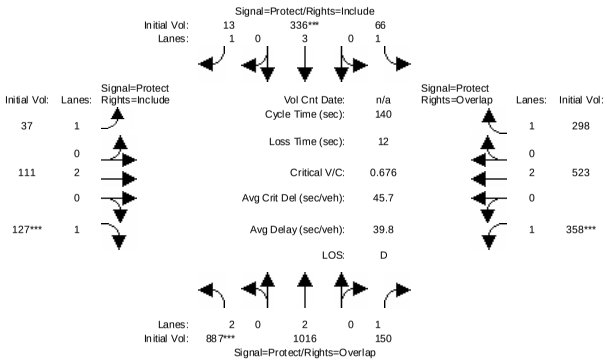
Street Name:	De la Cruz						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	254	207	193	241	110	283	284	2558	177	154	2145	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	254	207	193	241	110	283	284	2558	177	154	2145	141
Added Vol:	0	0	4	4	0	0	0	25	0	3	41	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	254	207	197	245	110	283	284	2583	177	157	2186	145
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	254	207	197	245	110	283	284	2583	177	157	1989	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	254	207	197	245	110	283	284	2583	177	157	1989	145
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	254	207	197	245	110	283	284	2583	177	157	1989	145
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	1900	1750	3150	1900	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.11	0.11	0.08	0.06	0.16	0.09	0.34	0.10	0.05	0.35	0.08
Crit Moves:	****					****	****				****	
Green Time:	24.9	31.1	31.1	21.5	27.7	27.7	15.5	65.7	90.6	9.7	59.9	81.4
Volume/Cap:	0.82	0.49	0.51	0.51	0.29	0.82	0.82	0.72	0.16	0.72	0.82	0.14
Delay/Veh:	70.6	48.4	48.8	55.2	48.2	67.6	74.7	30.6	9.8	75.1	37.5	13.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.6	48.4	48.8	55.2	48.2	67.6	74.7	30.6	9.8	75.1	37.5	13.4
LOS by Move:	E	D	D	E+	D	E	E	C	A	E-	D+	B
HCM2kAvgQ:	13	8	8	6	4	15	9	23	3	4	23	3

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #23: Capitol/Cropley



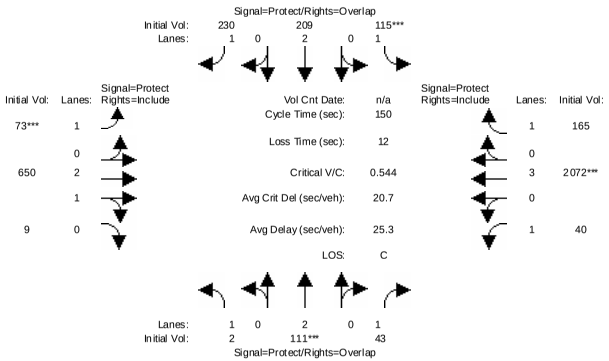
Street Name:	Capitol						Cropley					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	886	941	150	61	290	13	37	93	121	358	517	265
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	886	941	150	61	290	13	37	93	121	358	517	265
Added Vol:	1	75	0	5	46	0	0	18	6	0	6	33
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	887	1016	150	66	336	13	37	111	127	358	523	298
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	887	1016	150	66	336	13	37	111	127	358	523	298
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	887	1016	150	66	336	13	37	111	127	358	523	298
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	887	1016	150	66	336	13	37	111	127	358	523	298
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.28	0.27	0.09	0.04	0.06	0.01	0.02	0.03	0.07	0.20	0.14	0.17
Crit Moves:	****				****				****	****		
Green Time:	58.4	59.5	101.8	11.1	12.2	12.2	15.3	15.0	15.0	42.4	42.1	53.2
Volume/Cap:	0.68	0.63	0.12	0.47	0.68	0.09	0.19	0.27	0.68	0.68	0.46	0.45
Delay/Veh:	34.6	32.4	5.7	64.2	65.7	59.0	57.2	57.8	69.5	46.2	40.0	32.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.6	32.4	5.7	64.2	65.7	59.0	57.2	57.8	69.5	46.2	40.0	32.9
LOS by Move:	C-	C-	A	E	E	E+	E+	E+	E	D	D	C-
HCM2kAvgQ:	19	17	2	3	5	1	2	2	7	15	9	10

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #24: Great Mall Pkwy. & Main St.



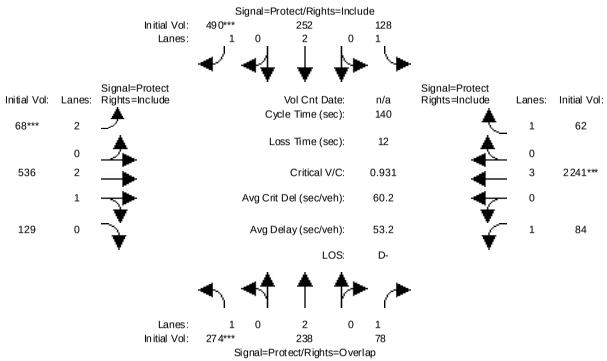
Street Name:	Main St.						Great Mall Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	2	111	43	115	209	230	73	609	9	40	1940	165
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	111	43	115	209	230	73	609	9	40	1940	165
Added Vol:	0	0	0	0	0	0	0	41	0	0	132	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	111	43	115	209	230	73	650	9	40	2072	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	111	43	115	209	230	73	650	9	40	2072	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	111	43	115	209	230	73	650	9	40	2072	165
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	111	43	115	209	230	73	650	9	40	2072	165
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.96	0.04	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	5523	76	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.03	0.02	0.07	0.06	0.13	0.04	0.12	0.12	0.02	0.36	0.09
Crit Moves:		****		****			****				****	
Green Time:	9.5	10.0	41.3	17.9	18.3	29.7	11.3	78.9	78.9	31.3	98.8	98.8
Volume/Cap:	0.02	0.44	0.09	0.55	0.45	0.66	0.55	0.22	0.22	0.11	0.55	0.14
Delay/Veh:	65.9	68.5	40.5	65.5	61.9	60.4	71.8	19.2	19.2	48.2	13.9	9.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	65.9	68.5	40.5	65.5	61.9	60.4	71.8	19.2	19.2	48.2	13.9	9.7
LOS by Move:	E	E	D	E	E	E	E	B-	B-	D	B	A
HCM2kAvgQ:	0	3	2	6	5	11	4	5	5	2	17	3

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #25: Great Mall Pkwy. & Abel St.



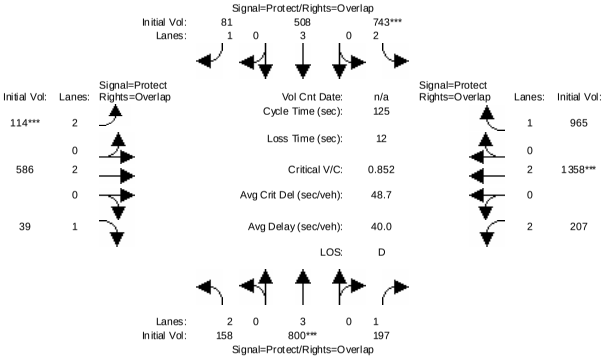
Street Name:	Abel St.						Great Mall Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	257	237	78	128	244	487	61	495	129	84	2115	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	257	237	78	128	244	487	61	495	129	84	2115	56
Added Vol:	17	1	0	0	8	3	7	41	0	0	126	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	274	238	78	128	252	490	68	536	129	84	2241	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	274	238	78	128	252	490	68	536	129	84	2241	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	274	238	78	128	252	490	68	536	129	84	2241	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	274	238	78	128	252	490	68	536	129	84	2241	62
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.40	0.60	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	4512	1086	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.16	0.06	0.04	0.07	0.07	0.28	0.02	0.12	0.12	0.05	0.39	0.04
Crit Moves:	****					****	****				****	
Green Time:	22.8	31.5	50.5	32.2	40.8	40.8	7.0	45.3	45.3	19.1	57.3	57.3
Volume/Cap:	0.96	0.28	0.12	0.32	0.23	0.96	0.43	0.37	0.37	0.35	0.96	0.09
Delay/Veh:	100.4	45.1	30.0	45.2	37.7	78.6	66.5	36.5	36.5	55.8	51.0	25.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	100.4	45.1	30.0	45.2	37.7	78.6	66.5	36.5	36.5	55.8	51.0	25.4
LOS by Move:	F	D	C	D	D+	E-	E	D+	D+	E+	D-	C
HCM2kAvgQ:	17	4	2	5	4	27	2	7	7	3	34	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #26: Zanker Rd / Tasman Dr



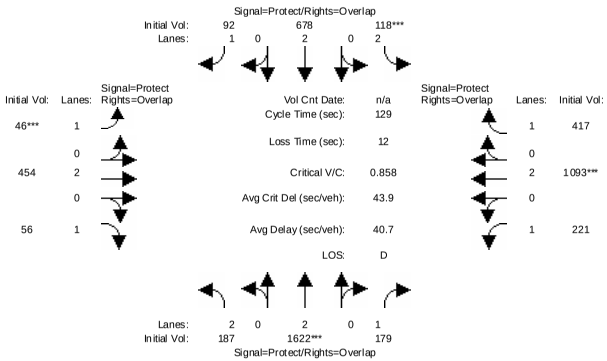
Street Name:	Zanker Rd						Tasman Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	158	800	193	743	508	81	114	550	39	202	1326	965
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	158	800	193	743	508	81	114	550	39	202	1326	965
Added Vol:	0	0	4	0	0	0	0	36	0	5	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	158	800	197	743	508	81	114	586	39	207	1358	965
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	158	800	197	743	508	81	114	586	39	207	1358	965
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	158	800	197	743	508	81	114	586	39	207	1358	965
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	158	800	197	743	508	81	114	586	39	207	1358	965
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.14	0.11	0.24	0.09	0.05	0.04	0.15	0.02	0.07	0.36	0.55
Crit Moves:		****		****			****				****	
Green Time:	21.0	20.3	37.8	34.1	33.4	40.4	7.0	41.1	62.1	17.5	51.6	85.7
Volume/Cap:	0.30	0.87	0.37	0.87	0.33	0.14	0.65	0.47	0.04	0.47	0.87	0.80
Delay/Veh:	45.9	59.6	34.7	52.4	37.0	30.1	65.8	33.6	16.2	50.2	38.8	17.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.9	59.6	34.7	52.4	37.0	30.1	65.8	33.6	16.2	50.2	38.8	17.8
LOS by Move:	D	E+	C-	D-	D+	C	E	C-	B	D	D+	B
HCM2kAvgQ:	3	13	6	19	5	2	3	8	1	4	22	26

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #27: N. 1st St / Tasman Dr



Street Name:	N 1st Street						Tasman Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	187	1622	174	110	678	92	46	431	56	216	1073	410
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	1622	174	110	678	92	46	431	56	216	1073	410
Added Vol:	0	0	5	8	0	0	0	23	0	5	20	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	187	1622	179	118	678	92	46	454	56	221	1093	417
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	187	1622	179	118	678	92	46	454	56	221	1093	417
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	1622	179	118	678	92	46	454	56	221	1093	417
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	187	1622	179	118	678	92	46	454	56	221	1093	417
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.43	0.10	0.04	0.18	0.05	0.03	0.12	0.03	0.13	0.29	0.24
Crit Moves:		****		****			****				****	
Green Time:	17.1	61.5	86.4	7.0	51.4	58.4	7.0	23.6	40.7	24.9	41.5	48.5
Volume/Cap:	0.45	0.89	0.15	0.69	0.45	0.12	0.48	0.65	0.10	0.65	0.89	0.63
Delay/Veh:	52.4	37.0	7.9	71.3	28.6	20.4	63.1	51.2	31.3	52.6	50.5	35.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.4	37.0	7.9	71.3	28.6	20.4	63.1	51.2	31.3	52.6	50.5	35.0
LOS by Move:	D-	D+	A	E	C	C+	E	D-	C	D-	D	D+
HCM2kAvgQ:	5	32	3	4	10	2	3	9	2	8	20	14

Note: Queue reported is the number of cars per lane.

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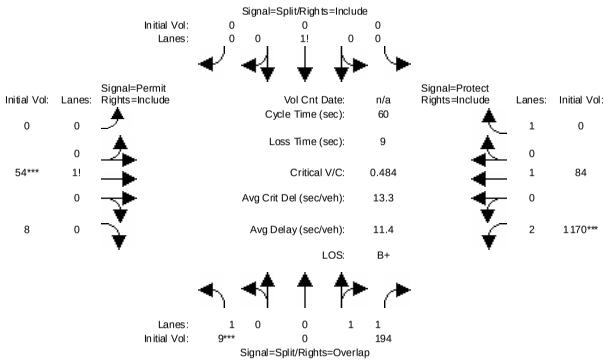
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #101: Dixon Landing Rd. & McCarthy Blvd.



Street Name:	McCarthy Blvd.						Dixon Landing Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	10	10	10	10	10	10	7	10	10
Volume Module:												
Base Vol:	9	0	172	0	0	0	0	54	8	990	84	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	0	172	0	0	0	0	54	8	990	84	0
Added Vol:	0	0	22	0	0	0	0	0	0	180	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	0	194	0	0	0	0	54	8	1170	84	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	0	194	0	0	0	0	54	8	1170	84	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	0	194	0	0	0	0	54	8	1170	84	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	9	0	194	0	0	0	0	54	8	1170	84	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.95	0.92	0.92	0.92	0.92	0.95	0.95	0.83	1.00	0.92
Lanes:	1.00	0.00	2.00	0.00	1.00	0.00	0.00	0.87	0.13	2.00	1.00	1.00
Final Sat.:	1750	0	3600	0	1750	0	0	1568	232	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.03	0.03	0.37	0.04	0.00
Crit Moves:	****							****		****		
Green Time:	10.0	0.0	41.0	0.0	0.0	0.0	0.0	10.0	10.0	31.0	41.0	0.0
Volume/Cap:	0.03	0.00	0.08	0.00	0.00	0.00	0.00	0.21	0.21	0.72	0.06	0.00
Delay/Veh:	21.0	0.0	3.2	0.0	0.0	0.0	0.0	21.9	21.9	12.7	3.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.0	0.0	3.2	0.0	0.0	0.0	0.0	21.9	21.9	12.7	3.2	0.0
LOS by Move:	C+	A	A	A	A	A	A	C+	C+	B	A	A
HCM2kAvgQ:	0	0	1	0	0	0	0	1	1	10	1	0

Note: Queue reported is the number of cars per lane.

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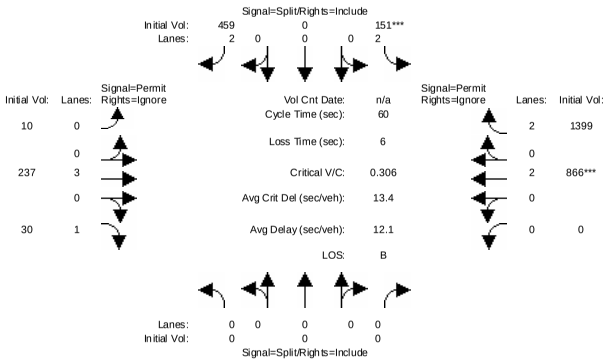
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #102: Dixon Landing Rd. & I-880 SB Ramps



Street Name:	I-880 SB Ramps						Dixon Landing Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Volume Module:												
Base Vol:	0	0	0	151	0	350	10	215	30	0	795	1399
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	151	0	350	10	215	30	0	795	1399
Added Vol:	0	0	0	0	0	109	0	22	0	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	151	0	459	10	237	30	0	866	1399
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	151	0	459	10	237	0	0	866	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	151	0	459	10	237	0	0	866	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	151	0	459	10	237	0	0	866	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.83	0.95	0.98	0.92	0.92	1.00	0.83
Lanes:	0.00	0.00	0.00	2.00	0.00	2.00	0.13	2.87	1.00	0.00	2.00	2.00
Final Sat.:	0	0	0	3150	0	3150	227	5373	1750	0	3800	3150
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.15	0.04	0.04	0.00	0.00	0.23	0.00
Crit Moves:				****							****	
Green Time:	0.0	0.0	0.0	28.5	0.0	28.5	25.5	25.5	0.0	0.0	25.5	0.0
Volume/Cap:	0.00	0.00	0.00	0.10	0.00	0.31	0.10	0.10	0.00	0.00	0.54	0.00
Delay/Veh:	0.0	0.0	0.0	8.8	0.0	10.2	10.5	10.5	0.0	0.0	14.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	8.8	0.0	10.2	10.5	10.5	0.0	0.0	14.2	0.0
LOS by Move:	A	A	A	A	A	B+	B+	B+	A	A	B	A
HCM2kAvgQ:	0	0	0	1	0	3	1	1	0	0	6	0

Note: Queue reported is the number of cars per lane.

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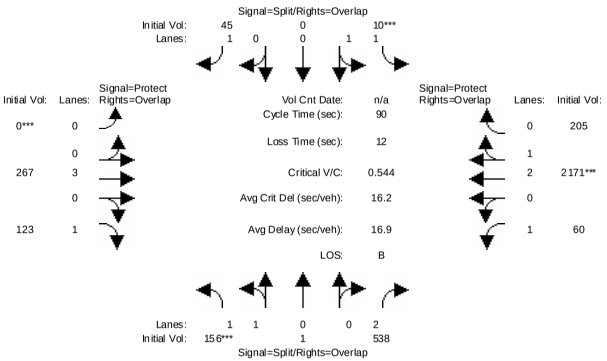
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #103: Dixon Landing Rd. & I-880 NB Ramps



Street Name:	I-880 NB Ramps						Dixon Landing Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	10	10	10	10	10	10	0	10	10	7	10	10
Volume Module:												
Base Vol:	156	1	538	10	0	45	0	245	123	60	2100	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	156	1	538	10	0	45	0	245	123	60	2100	205
Added Vol:	0	0	0	0	0	0	0	22	0	0	71	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	156	1	538	10	0	45	0	267	123	60	2171	205
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	156	1	538	10	0	45	0	267	123	60	2171	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	156	1	538	10	0	45	0	267	123	60	2171	205
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	156	1	538	10	0	45	0	267	123	60	2171	205
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.95	0.83	0.93	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95
Lanes:	1.99	0.01	2.00	2.00	0.00	1.00	0.00	3.00	1.00	1.00	2.73	0.27
Final Sat.:	3527	23	3150	3550	0	1750	0	5700	1750	1750	5116	483
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.17	0.00	0.00	0.03	0.00	0.05	0.07	0.03	0.42	0.42
Crit Moves:	****			****			****				****	
Green Time:	15.4	15.4	37.1	10.0	0.0	10.0	0.0	30.9	46.3	21.7	52.6	62.6
Volume/Cap:	0.26	0.26	0.41	0.03	0.00	0.23	0.00	0.14	0.14	0.14	0.73	0.61
Delay/Veh:	33.4	33.4	19.8	35.8	0.0	39.3	0.0	20.5	11.7	27.6	14.9	8.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.4	33.4	19.8	35.8	0.0	39.3	0.0	20.5	11.7	27.6	14.9	8.0
LOS by Move:	C-	C-	B-	D+	A	D	A	C+	B+	C	B	A
HCM2kAvgQ:	2	2	6	0	0	1	0	2	2	1	18	13

Note: Queue reported is the number of cars per lane.

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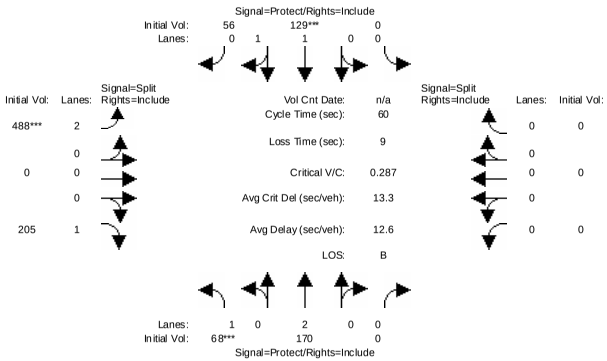
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #104: California Circle & I-880 NB Ramps



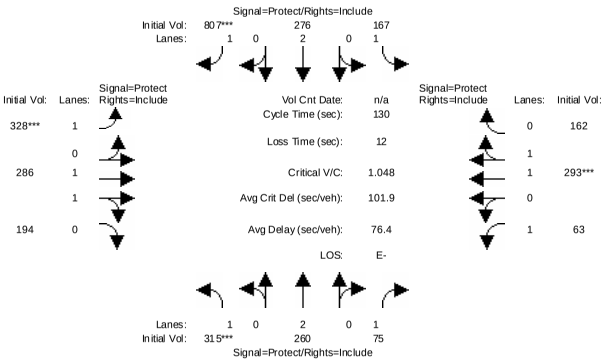
Street Name:	California Circle						I-880 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	0	0	10	10	10	0	10	0	0	0
Volume Module:												
Base Vol:	68	170	0	0	129	56	488	0	205	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	170	0	0	129	56	488	0	205	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	170	0	0	129	56	488	0	205	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	68	170	0	0	129	56	488	0	205	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	170	0	0	129	56	488	0	205	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	170	0	0	129	56	488	0	205	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.99	0.95	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	1.38	0.62	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	0	0	2579	1120	3150	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.00	0.00	0.05	0.05	0.15	0.00	0.12	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green Time:	8.1	18.6	0.0	0.0	10.5	10.5	32.4	0.0	32.4	0.0	0.0	0.0
Volume/Cap:	0.29	0.14	0.00	0.00	0.29	0.29	0.29	0.00	0.22	0.00	0.00	0.00
Delay/Veh:	26.4	15.2	0.0	0.0	22.6	22.6	7.9	0.0	7.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.4	15.2	0.0	0.0	22.6	22.6	7.9	0.0	7.7	0.0	0.0	0.0
LOS by Move:	C	B	A	A	C+	C+	A	A	A	A	A	A
HCM2kAvgQ:	2	1	0	0	2	2	3	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #105: Dixon Landing Rd. & N. Milpitas Blvd.



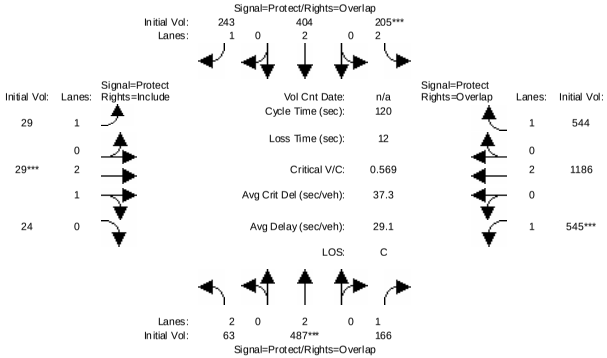
Street Name:	N. Milpitas Blvd.						Dixon Landing Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	315	243	75	167	266	736	306	286	194	63	293	162
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	315	243	75	167	266	736	306	286	194	63	293	162
Added Vol:	0	17	0	0	10	71	22	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	315	260	75	167	276	807	328	286	194	63	293	162
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	315	260	75	167	276	807	328	286	194	63	293	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	260	75	167	276	807	328	286	194	63	293	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	315	260	75	167	276	807	328	286	194	63	293	162
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95	0.92	0.99	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.17	0.83	1.00	1.27	0.73
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	2203	1495	1750	2382	1317
Capacity Analysis Module:												
Vol/Sat:	0.18	0.07	0.04	0.10	0.07	0.46	0.19	0.13	0.13	0.04	0.12	0.12
Crit Moves:	****					****	****				****	
Green Time:	22.3	35.5	35.5	44.0	57.2	57.2	23.2	27.2	27.2	11.3	15.3	15.3
Volume/Cap:	1.05	0.25	0.16	0.28	0.17	1.05	1.05	0.62	0.62	0.41	1.05	1.05
Delay/Veh:	119.0	37.5	36.6	32.6	22.2	82.2	117.5	50.4	50.4	64.4	114	113.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	119.0	37.5	36.6	32.6	22.2	82.2	117.5	50.4	50.4	64.4	114	113.8
LOS by Move:	F	D+	D+	C-	C+	F	F	D	D	E	F	F
HCM2kAvgQ:	19	4	2	5	3	46	20	9	9	3	15	15

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #106: Scott Creek Rd. & Warm Springs Blvd.



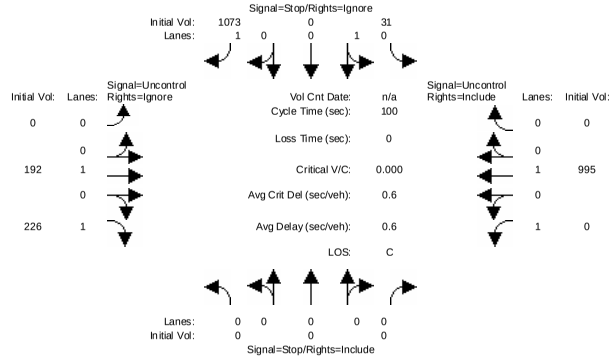
Street Name:	Warm Springs Blvd.						Scott Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	63	448	166	205	371	243	29	29	24	497	1186	544
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	63	448	166	205	371	243	29	29	24	497	1186	544
Added Vol:	0	39	0	0	33	0	0	0	0	48	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	487	166	205	404	243	29	29	24	545	1186	544
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	63	487	166	205	404	243	29	29	24	545	1186	544
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	487	166	205	404	243	29	29	24	545	1186	544
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	63	487	166	205	404	243	29	29	24	545	1186	544
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.13	0.09	0.07	0.11	0.14	0.02	0.01	0.01	0.31	0.31	0.31
Crit Moves:		****		****				****		****		
Green Time:	12.1	24.9	85.4	12.6	25.4	36.5	11.1	10.0	10.0	60.5	59.4	72.0
Volume/Cap:	0.20	0.62	0.13	0.62	0.50	0.46	0.18	0.09	0.16	0.62	0.63	0.52
Delay/Veh:	49.8	44.7	5.6	54.9	42.2	34.4	50.8	50.9	51.4	22.8	23.0	14.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.8	44.7	5.6	54.9	42.2	34.4	50.8	50.9	51.4	22.8	23.0	14.4
LOS by Move:	D	D	A	D-	D	C-	D	D	D-	C+	C+	B
HCM2kAvgQ:	1	8	2	5	7	8	1	1	1	16	16	12

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #107: Scott Creek Rd. & I-680 SB Ramps



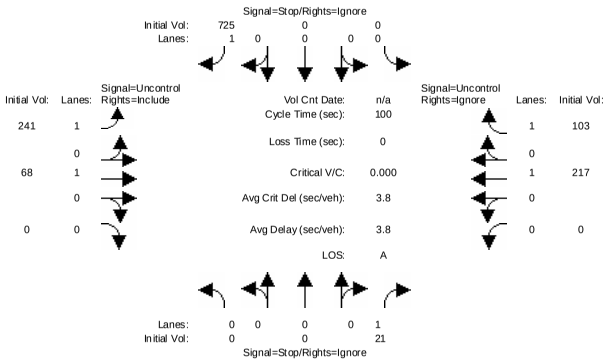
Street Name:	I-680 SB Ramps						Scott Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Volume Module:												
Base Vol:	0	0	0	31	0	1025	0	192	226	0	995	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	31	0	1025	0	192	226	0	995	0
Added Vol:	0	0	0	0	0	48	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	31	0	1073	0	192	226	0	995	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	0	31	0	0	0	0	0	0	995	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	31	0	0	0	0	0	0	995	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	995	995	995	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	274	247	300	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	274	247	300	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.11	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	274	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	19.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	C	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			19.8			xxxxxx			xxxxxx		
ApproachLOS:		*			C			*			*	

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #108: Scott Creek Rd. & I-680 NB Ramps



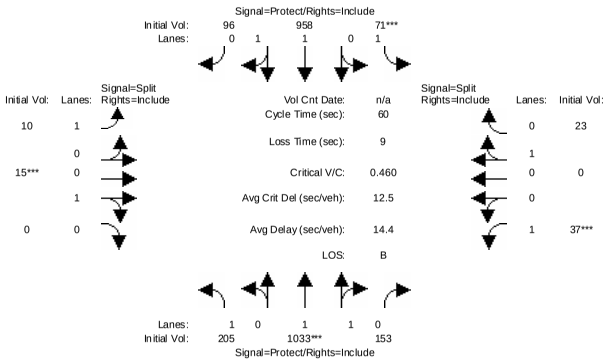
Street Name:	I-680 NB Ramps						Scott Creek Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Volume Module:												
Base Vol:	0	0	21	0	0	725	241	68	0	0	217	103
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	21	0	0	725	241	68	0	0	217	103
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	21	0	0	725	241	68	0	0	217	103
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	0	0	0	0	0	0	241	68	0	0	217	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	241	68	0	0	217	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	6.2	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	68	xxxx	xxxx	217	217	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	1001	xxxx	xxxx	828	1365	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	1001	xxxx	xxxx	828	1365	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.00	xxxx	xxxx	0.00	0.18	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		*			*			*			*	

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #109: McCarthy Blvd. & Ranch Dr. (N)



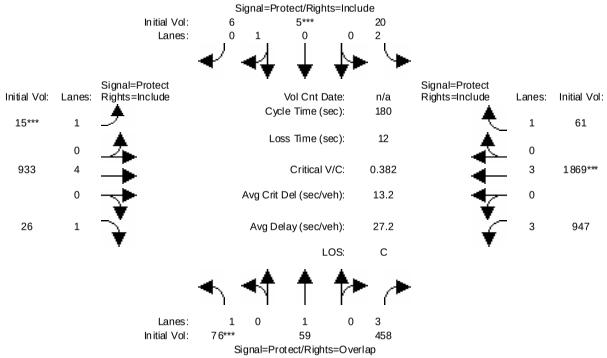
Street Name:	McCarthy Blvd.						Ranch Dr. (N)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	0	0	0	0	10	0	10
Volume Module:												
Base Vol:	76	998	149	71	826	45	10	15	0	36	0	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	76	998	149	71	826	45	10	15	0	36	0	23
Added Vol:	129	35	4	0	132	51	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	205	1033	153	71	958	96	10	15	0	37	0	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	205	1033	153	71	958	96	10	15	0	37	0	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	205	1033	153	71	958	96	10	15	0	37	0	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	205	1033	153	71	958	96	10	15	0	37	0	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.95	0.92	0.92	1.00	0.95
Lanes:	1.00	1.73	0.27	1.00	1.81	0.19	1.00	1.00	0.00	1.00	0.00	1.00
Final Sat.:	1750	3222	477	1750	3363	337	1750	1800	0	1750	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.12	0.32	0.32	0.04	0.28	0.28	0.01	0.01	0.00	0.02	0.00	0.01
Crit Moves:		****		****				****		****		
Green Time:	11.7	33.1	33.1	7.0	28.4	28.4	0.9	0.9	0.0	10.0	0.0	10.0
Volume/Cap:	0.60	0.58	0.58	0.35	0.60	0.60	0.40	0.58	0.00	0.13	0.00	0.08
Delay/Veh:	29.6	10.1	10.1	29.0	13.1	13.1	70.4	99.6	0.0	22.2	0.0	21.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.6	10.1	10.1	29.0	13.1	13.1	70.4	99.6	0.0	22.2	0.0	21.6
LOS by Move:	C	B+	B+	C	B	B	E	F	A	C+	A	C+
HCM2kAvgQ:	5	8	8	2	8	8	1	1	0	1	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1801: Trimble / Montague Expy [CMP]



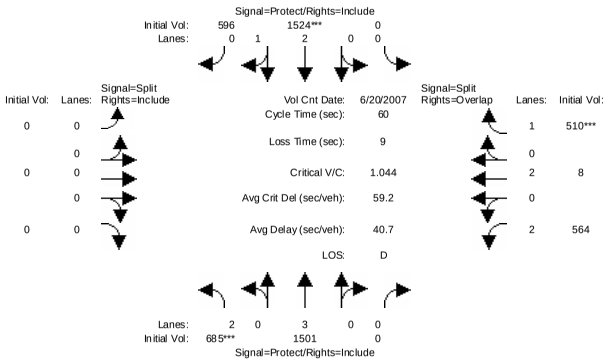
Street Name:	Trimble									Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R			
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10			
Volume Module:															
Base Vol:	76	59	458	20	5	6	15	933	26	947	1869	61			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	76	59	458	20	5	6	15	933	26	947	1869	61			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	76	59	458	20	5	6	15	933	26	947	1869	61			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	76	59	458	20	5	6	15	933	26	947	1701	61			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	76	59	458	20	5	6	15	933	26	947	1701	61			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	76	59	458	20	5	6	15	933	26	947	1701	61			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.80	0.83	0.95	0.95	0.92	1.00	0.92	0.80	1.00	0.92			
Lanes:	1.00	1.00	3.00	2.00	0.45	0.55	1.00	4.00	1.00	3.00	3.00	1.00			
Final Sat.:	1750	1900	4551	3150	818	982	1750	7600	1750	4551	5700	1750			
Capacity Analysis Module:															
Vol/Sat:	0.04	0.03	0.10	0.01	0.01	0.01	0.01	0.12	0.01	0.21	0.30	0.03			
Crit Moves:	****				****		****				****				
Green Time:	19.2	17.2	104.5	12.0	10.0	10.0	7.0	51.5	51.5	87.3	132	131.8			
Volume/Cap:	0.41	0.33	0.17	0.10	0.11	0.11	0.22	0.43	0.05	0.43	0.41	0.05			
Delay/Veh:	76.6	77.1	17.6	79.1	81.3	81.3	85.5	52.4	46.6	30.3	9.3	6.7			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	76.6	77.1	17.6	79.1	81.3	81.3	85.5	52.4	46.6	30.3	9.3	6.7			
LOS by Move:	E-	E-	B	E-	F	F	F	D-	D	C	A	A			
HCM2kAvgQ:	5	3	5	1	1	1	1	10	1	14	11	1			

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1: McCarthy Blvd. & SR 237 WB Ramps

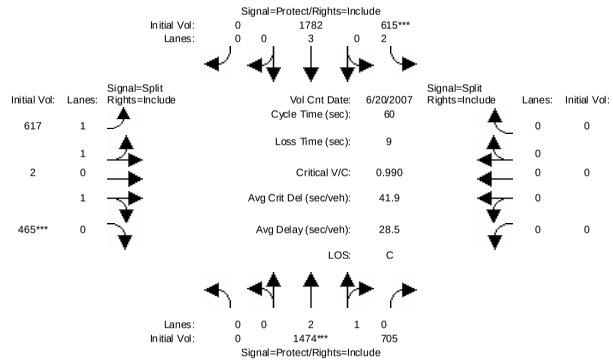



```
Street Name:          McCarthy Blvd.                    SR 237 WB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10     0     0   10    10     0     0     0    10   10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 <<
Base Vol:     670 1467     0     0 1178   431     0     0     0   277    8   504
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  670 1467     0     0 1178   431     0     0     0   277    8   504
Added Vol:     15   34     0     0  346   165     0     0     0   287    0     6
PasserByVol:    0    0     0     0    0     0     0     0     0     0    0     0
Initial Fut:  685 1501     0     0 1524   596     0     0     0   564    8   510
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   685 1501     0     0 1524   596     0     0     0   564    8   510
Reduct Vol:     0    0     0     0    0     0     0     0     0     0    0     0
Reduced Vol:  685 1501     0     0 1524   596     0     0     0   564    8   510
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  685 1501     0     0 1524   596     0     0     0   564    8   510
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.83 1.00  0.92  0.92 1.00  0.95  0.92 1.00  0.92  0.83 1.00  0.92
Lanes:       2.00 3.00  0.00  0.00 2.13  0.87  0.00 0.00  0.00  2.00 2.00  1.00
Final Sat.:  3150 5700     0     0 4024  1574     0    0     0  3150 3800  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.22 0.26  0.00  0.00 0.38  0.38  0.00 0.00  0.00  0.18 0.00  0.29
Crit Moves:  ****                 ****                                     ****
Green Time:  12.5 34.3   0.0   0.0 21.8  21.8   0.0  0.0   0.0  16.7 16.7  16.7
Volume/Cap:  1.04 0.46  0.00  0.00 1.04  1.04  0.00 0.00  0.00  0.64 0.01  1.04
Delay/Veh:   71.0  7.6   0.0   0.0 51.8  51.8   0.0  0.0   0.0  20.6 15.6  74.4
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  71.0  7.6   0.0   0.0 51.8  51.8   0.0  0.0   0.0  20.6 15.6  74.4
LOS by Move:    E    A     A     A   D-    D-     A    A     A    C+    B     E
HCM2kAvgQ:     10    5     0     0   17    17     0    0     0     7    0    19
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #2: McCarthy Blvd. & SR 237 EB Ramps

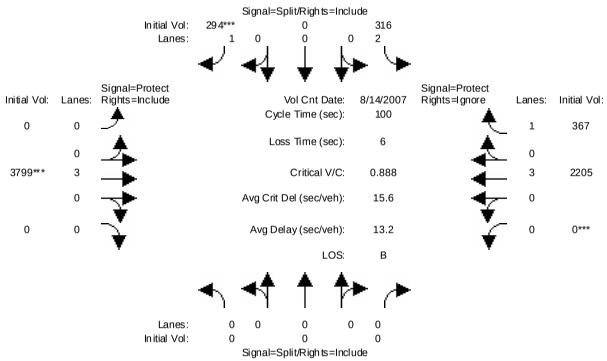



```
Street Name:          McCarthy Blvd.                    SR 237 EB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0   10    10    10     7   10     0    10   10    10     0     0     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 6-9p
Base Vol:       0 1430   302   541 1224     0   612    2   274     0     0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0 1430   302   541 1224     0   612    2   274     0     0     0
Added Vol:      0   44   403    74  558     0     5    0   191     0     0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0     0     0
Initial Fut:    0 1474   705   615 1782     0   617    2   465     0     0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0 1474   705   615 1782     0   617    2   465     0     0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0     0     0
Reduced Vol:    0 1474   705   615 1782     0   617    2   465     0     0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0 1474   705   615 1782     0   617    2   465     0     0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.95  0.83 1.00  0.92  0.93 0.95  0.95  0.92 1.00  0.92
Lanes:       0.00 2.00  1.00  2.00 3.00  0.00  1.99 0.01  1.00  0.00 0.00  0.00
Final Sat.:     0 3797  1800  3150 5700     0  3530   11  1800     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.39  0.39  0.20 0.31  0.00  0.17 0.17  0.26  0.00 0.00  0.00
Crit Moves:       ****        ****                    ****
Green Time:   0.0 23.5  23.5  11.8 35.3   0.0  15.7 15.7  15.7   0.0  0.0   0.0
Volume/Cap:  0.00 0.99  1.00  0.99 0.53  0.00  0.67 0.67  0.99  0.00 0.00  0.00
Delay/Veh:    0.0 35.0  37.3  57.6  7.5   0.0  21.0 21.0  46.9   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 35.0  37.3  57.6  7.5   0.0  21.0 21.0  46.9   0.0  0.0   0.0
LOS by Move:    A   D+    D+    E+    A     A    C+   C+    D     A    A     A
HCM2kAvgQ:      0   14    14     7    6     0     7    7   16     0    0     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #3: SR 237 & I-880 SB Ramps

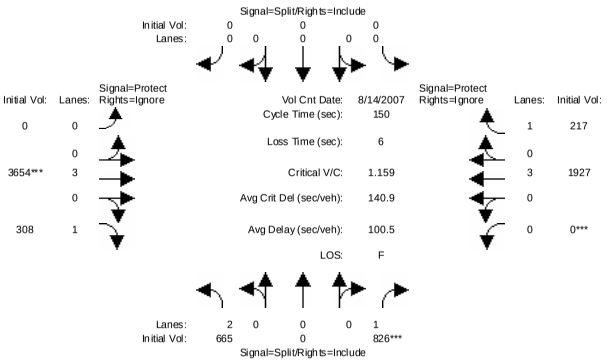



```
Street Name:          I-880 SB Ramps                    SR 237
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     0    10     0     0    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 5:00-6:00PM
Base Vol:       0     0     0   316     0   216     0  3510     0     0  1990   367
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   316     0   216     0  3510     0     0  1990   367
Added Vol:      0     0     0     0     0    78     0   289     0     0   215     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:    0     0     0   316     0   294     0  3799     0     0  2205   367
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
PHF Volume:     0     0     0   316     0   294     0  3799     0     0  2205     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   316     0   294     0  3799     0     0  2205     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00
FinalVolume:    0     0     0   316     0   294     0  3799     0     0  2205     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.83  1.00  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       0.00  0.00  0.00  2.00  0.00  1.00  0.00  3.00  0.00  0.00  3.00  1.00
Final Sat.:     0     0     0  3150     0  1750     0  5700     0     0  5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.10  0.00  0.17  0.00  0.67  0.00  0.00  0.39  0.00
Crit Moves:                                ****        ****        ****
Green Time:   0.0   0.0   0.0  18.9   0.0  18.9   0.0  75.1   0.0   0.0  75.1   0.0
Volume/Cap:  0.00  0.00  0.00  0.53  0.00  0.89  0.00  0.89  0.00  0.00  0.52  0.00
Delay/Veh:    0.0   0.0   0.0  37.4   0.0  63.4   0.0  11.9   0.0   0.0   5.2   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0  37.4   0.0  63.4   0.0  11.9   0.0   0.0   5.2   0.0
LOS by Move:    A     A     A    D+     A     E     A    B+     A     A     A     A
HCM2kAvgQ:      0     0     0     6     0    13     0    32     0     0     9     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #4: Calaveras Blvd. & I-880 NB Ramps

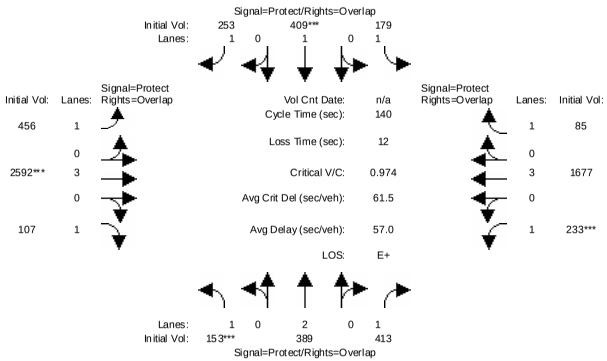



```
Street Name:          I-880 NB Ramps                    Calaveras Blvd.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7    10    10     7    10    10     7    10    10     7    10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Aug 2007 << 4:30-5:30PM
Base Vol:     623     0   826     0     0     0     0  3418   254     0  1755   217
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:  623     0   826     0     0     0     0  3418   254     0  1755   217
Added Vol:     42     0     0     0     0     0     0   236    54     0   172     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:  665     0   826     0     0     0     0  3654   308     0  1927   217
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:   665     0   826     0     0     0     0  3654     0     0  1927     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:  665     0   826     0     0     0     0  3654     0     0  1927     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:  665     0   826     0     0     0     0  3654     0     0  1927     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.83  1.00  0.92  0.92  1.00  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       2.00  0.00  1.00  0.00  0.00  0.00  0.00  3.00  1.00  0.00  3.00  1.00
Final Sat.:  3150     0  1750     0     0     0     0  5700  1750     0  5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.21  0.00  0.47  0.00  0.00  0.00  0.00  0.64  0.00  0.00  0.34  0.00
Crit Moves:                ****                          ****        ****
Green Time:  58.1   0.0  58.1   0.0   0.0   0.0   0.0  78.9   0.0   0.0  75.5   0.0
Volume/Cap:  0.55  0.00  1.22  0.00  0.00  0.00  0.00  1.22  0.00  0.00  0.67  0.00
Delay/Veh:   36.2   0.0 157.4   0.0   0.0   0.0   0.0   137   0.0   0.0  28.6   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:  36.2   0.0 157.4   0.0   0.0   0.0   0.0   137   0.0   0.0  28.6   0.0
LOS by Move:   D+     A     F     A     A     A     A     F     A     A     C     A
HCM2kAvgQ:     14     0    62     0     0     0     0    80     0     0    22     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #5: Calaveras Blvd. / Abel St. [CMP]



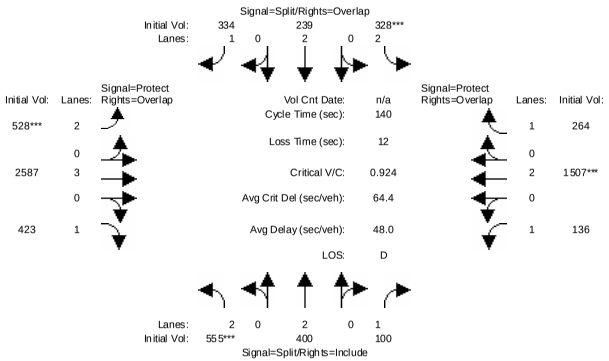
Street Name:	Abel St.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	153	389	413	179	409	244	438	2393	107	233	1541	85
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	153	389	413	179	409	244	438	2393	107	233	1541	85
Added Vol:	0	0	0	0	0	9	18	199	0	0	136	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	153	389	413	179	409	253	456	2592	107	233	1677	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	153	389	413	179	409	253	456	2592	107	233	1677	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	153	389	413	179	409	253	456	2592	107	233	1677	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	153	389	413	179	409	253	456	2592	107	233	1677	85
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	1900	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.10	0.24	0.10	0.22	0.14	0.26	0.45	0.06	0.13	0.29	0.05
Crit Moves:	****				****			****		****		
Green Time:	12.6	21.8	40.9	21.7	30.9	70.6	39.7	65.4	77.9	19.1	44.8	66.5
Volume/Cap:	0.97	0.66	0.81	0.66	0.97	0.29	0.92	0.97	0.11	0.97	0.92	0.10
Delay/Veh:	127.4	58.3	55.0	61.6	91.1	20.3	70.9	48.5	14.7	110.9	53.9	20.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	127.4	58.3	55.0	61.6	91.1	20.3	70.9	48.5	14.7	110.9	53.9	20.3
LOS by Move:	F	E+	E+	E	F	C+	E	D	B	F	D-	C+
HCM2kAvgQ:	11	9	19	9	22	7	23	41	2	11	23	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #6: Milpitas Blvd. / Calaveras Blvd. [CMP]



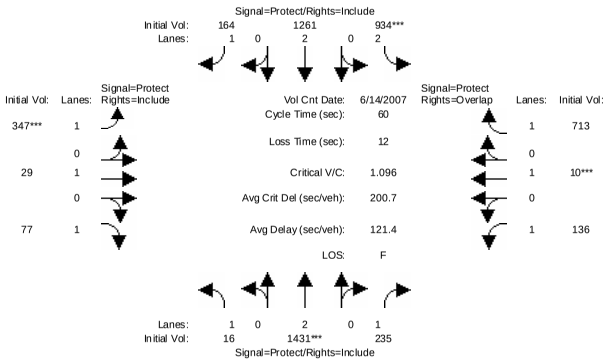
Street Name:	Milpitas Blvd.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	535	400	100	328	239	306	507	2420	412	136	1418	264
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	535	400	100	328	239	306	507	2420	412	136	1418	264
Added Vol:	20	0	0	0	0	28	21	167	11	0	89	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	555	400	100	328	239	334	528	2587	423	136	1507	264
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	555	400	100	328	239	334	528	2587	423	136	1507	264
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	555	400	100	328	239	334	528	2587	423	136	1507	264
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	555	400	100	328	239	334	528	2587	423	136	1507	264
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.18	0.11	0.06	0.10	0.06	0.19	0.17	0.45	0.24	0.08	0.40	0.15
Crit Moves:	****			****			****				****	
Green Time:	26.7	26.7	26.7	15.8	15.8	41.2	25.4	73.0	99.7	12.5	60.1	75.9
Volume/Cap:	0.92	0.55	0.30	0.92	0.56	0.65	0.92	0.87	0.34	0.87	0.92	0.28
Delay/Veh:	77.7	54.2	50.9	93.4	64.0	49.3	79.2	33.2	8.4	107.0	48.1	18.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	77.7	54.2	50.9	93.4	64.0	49.3	79.2	33.2	8.4	107.0	48.1	18.0
LOS by Move:	E-	D-	D	F	E	D	E-	C-	A	F	D	B-
HCM2kAvgQ:	18	8	4	10	5	14	13	31	7	7	36	7

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #7: McCarthy Blvd. & Bellew Dr.

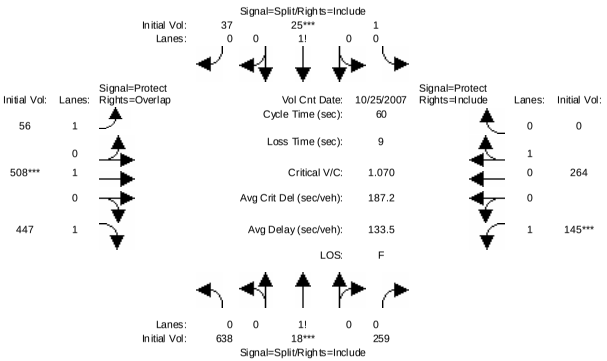



```
Street Name:          McCarthy Blvd.                          Bellew Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:      16 1280  192   442 1004  164   347   29   77   113   10  417
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   16 1280  192   442 1004  164   347   29   77   113   10  417
Added Vol:      0  151   43   492  257    0     0    0    0    23    0  296
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   16 1431  235   934 1261  164   347   29   77   136   10  713
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    16 1431  235   934 1261  164   347   29   77   136   10  713
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   16 1431  235   934 1261  164   347   29   77   136   10  713
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   16 1431  235   934 1261  164   347   29   77   136   10  713
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92  0.92 1.00 0.92  0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  2.00 2.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Sat.:  1750 3800 1750  3150 3800 1750  1750 1900 1750  1750 1900 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.38 0.13  0.30 0.33 0.09  0.20 0.02 0.04  0.08 0.01 0.41
Crit Moves:          ****          ****          ****          ****
Green Time:   7.6 16.4 16.4  12.9 21.7 21.7   8.6 11.0 11.0   7.7 10.0 22.9
Volume/Cap:  0.07 1.38 0.49  1.38 0.92 0.26  1.38 0.08 0.24  0.61 0.03 1.07
Delay/Veh:   23.7  197 21.8 201.9 29.4 14.5 217.8 20.8 22.7  36.4 21.1 72.3
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  23.7  197 21.8 201.9 29.4 14.5 217.8 20.8 22.7  36.4 21.1 72.3
LOS by Move:    C    F   C+     F    C    B     F   C+   C+   D+   C+    E
HCM2kAvgQ:      0   40    5    30   14    2    22    0    2    3    0   22
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #8: Barber Ln & Bellew Dr

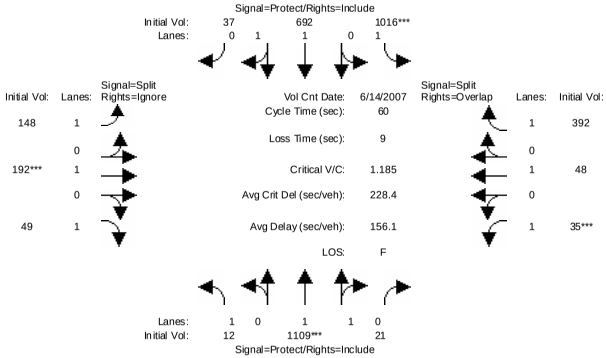



```
Street Name:          Barber Ln                               Bellew Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10   10   10    10   10   10    10   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Oct 2007 <<
Base Vol:     452   18   32     1   25   37    56  182  238    35  131    0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  452   18   32     1   25   37    56  182  238    35  131    0
Added Vol:    186    0  227     0    0    0     0  326  209   110  133    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  638   18  259     1   25   37    56  508  447   145  264    0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   638   18  259     1   25   37    56  508  447   145  264    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  638   18  259     1   25   37    56  508  447   145  264    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  638   18  259     1   25   37    56  508  447   145  264    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.92 0.92  0.92 0.92 0.92  0.92 1.00 0.92  0.92 0.95 0.92
Lanes:       0.70 0.02 0.28  0.01 0.40 0.59  1.00 1.00 1.00  1.00 1.00 0.00
Final Sat.:  1220   34  495    28  694 1028  1750 1900 1750  1750 1800    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.52 0.52 0.52  0.04 0.04 0.04  0.03 0.27 0.26  0.08 0.15 0.00
Crit Moves:          ****          ****          ****          ****
Green Time:  22.5 22.5 22.5  10.0 10.0 10.0   7.6 11.5 34.0   7.0 10.9  0.0
Volume/Cap:  1.39 1.39 1.39  0.22 0.22 0.22  0.25 1.39 0.45  0.71 0.81 0.00
Delay/Veh:  205.5  206 205.5  22.0 22.0 22.0  24.2  218  7.9  36.6 37.5  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 205.5  206 205.5  22.0 22.0 22.0  24.2  218  7.9  36.6 37.5  0.0
LOS by Move:    F    F    F    C+   C+   C+    C    F    A    D+   D+    A
HCM2kAvgQ:     55   55   55     1    1    1    1   27    5     4    8    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #9: McCarthy Blvd. & Alder Dr.

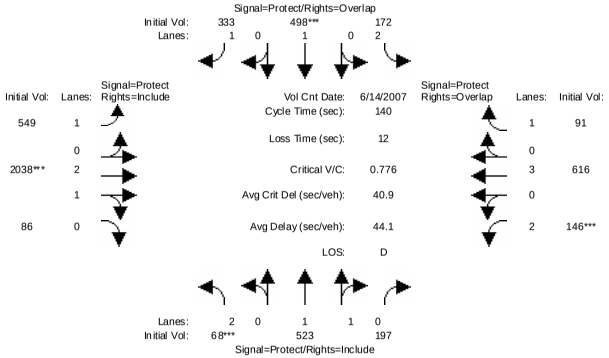



```
Street Name:          McCarthy Blvd.                    Alder Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0  10  10     0   7  10   0     0   0   0    10   0  10     0   7  10  10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:       0 1065  21   834 631   0     0   0   0    35   0 390     0 1065  21
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    0 1065  21   834 631   0     0   0   0    35   0 390     0 1065  21
Added Vol:     12   44   0   182  61  37   148 192  49     0  48   2    12   44   0
PasserByVol:    0    0   0     0   0   0     0   0   0     0   0   0     0    0   0
Initial Fut:   12 1109  21  1016 692  37   148 192  49    35  48 392    12 1109  21
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    12 1109  21  1016 692  37   148 192   0    35  48 392    12 1109  21
Reduct Vol:     0    0   0     0   0   0     0   0   0     0   0   0     0    0   0
Reduced Vol:   12 1109  21  1016 692  37   148 192   0    35  48 392    12 1109  21
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 0.00  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 0.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   12 1109  21  1016 692  37   148 192   0    35  48 392    12 1109  21
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 0.97 0.95  0.92 0.98 0.95  0.92 1.00 0.92  0.92 1.00 0.92  0.92 0.97 0.95
Lanes:       1.00 1.96 0.04  1.00 1.90 0.10  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.96 0.04
Final Sat.:  1750 3631   69  1750 3512  188  1750 1900 1750  1750 1900 1750  1750 3631   69
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.31 0.31  0.58 0.20 0.20  0.08 0.10 0.00  0.02 0.03 0.22  0.01 0.31 0.31
Crit Moves:          ****          ****          ****          ****
Green Time:   1.2 12.7 12.7  24.1 35.6 35.6   4.2  4.2  0.0  10.0 10.0 34.1   1.2 12.7 12.7
Volume/Cap:  0.33 1.44 1.44  1.44 0.33 0.33  1.21 1.44 0.00  0.12 0.15 0.39  0.33 1.44 1.44
Delay/Veh:   52.0  231 230.9 225.9  6.6  6.6 175.9  265  0.0  22.1 22.4  8.4  52.0  231 230.9
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  52.0  231 230.9 225.9  6.6  6.6 175.9  265  0.0  22.1 22.4  8.4  52.0  231 230.9
LOS by Move:   D-    F    F    F    A    A    F    F    A   C+   C+    A    D-    F    F
HCM2kAvgQ:      1   35   35   64    4    4    9   13    0    1    1    4     1   35   35
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #10: McCarthy Blvd. & Tasman Dr.

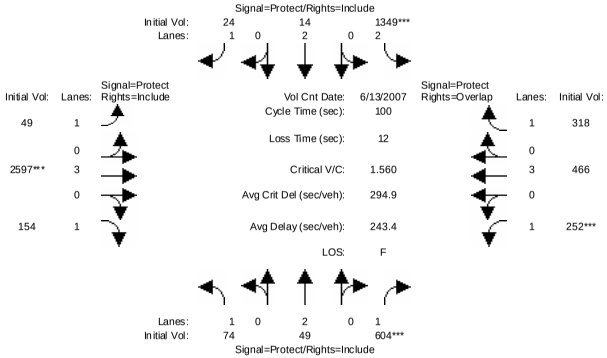



```
Street Name:          McCarthy Blvd.                    Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10  10     7  10  10     7  10  10     7  10  10     7  10  10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:      68 486 197   172 422 298   530 2013  86   146 603  91    68 486 197
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   68 486 197   172 422 298   530 2013  86   146 603  91    68 486 197
Added Vol:      0  37   0     0  76  35    19   25   0     0  13   0     0  37   0
PasserByVol:    0   0   0     0   0   0     0    0   0     0   0   0     0   0   0
Initial Fut:   68 523 197   172 498 333   549 2038  86   146 616  91    68 523 197
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    68 523 197   172 498 333   549 2038  86   146 616  91    68 523 197
Reduct Vol:     0   0   0     0   0   0     0    0   0     0   0   0     0   0   0
Reduced Vol:   68 523 197   172 498 333   549 2038  86   146 616  91    68 523 197
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   68 523 197   172 498 333   549 2038  86   146 616  91    68 523 197
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 0.98 0.95  0.83 1.00 0.92  0.92 0.98 0.95  0.83 1.00 0.92  0.83 0.98 0.95
Lanes:       2.00 1.44 0.56  2.00 1.00 1.00  1.00 2.87 0.13  2.00 3.00 1.00  2.00 1.44 0.56
Final Sat.:  3150 2687 1012  3150 1900 1750  1750 5373  227  3150 5700 1750  3150 2687 1012
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.19 0.19  0.05 0.26 0.19  0.31 0.38 0.38  0.05 0.11 0.05  0.02 0.19 0.19
Crit Moves:  ****                ****          ****          ****
Green Time:   7.0 41.5 41.5  11.6 46.1 101.8  55.7 66.7 66.7   8.2 19.2 30.8   7.0 41.5 41.5
Volume/Cap:  0.43 0.66 0.66  0.66 0.80 0.26  0.79 0.80 0.80  0.80 0.79 0.24  0.43 0.66 0.66
Delay/Veh:   73.0 46.1 46.1  74.5 52.8  6.9  45.8 33.4 33.4  94.1 66.4 46.3  73.0 46.1 46.1
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  73.0 46.1 46.1  74.5 52.8  6.9  45.8 33.4 33.4  94.1 66.4 46.3  73.0 46.1 46.1
LOS by Move:    E    D    D    E   D-    A    D   C-   C-    F    E    D    E    D    D
HCM2kAvgQ:      2   14   14    5   21    5   23   26   26    4    9    3    2   14   14
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #11: Tasman Dr. & Alder Dr.

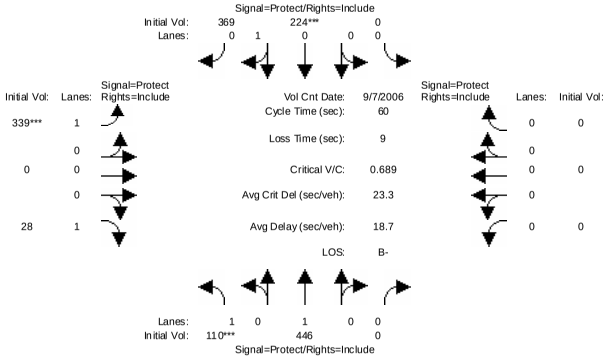



```
Street Name:            Alder Dr.                       Tasman Dr.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10  10     7  10  10     7  10  10     7  10  10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:      61  49  474   975  14  24    49 2597  129   84  466  268
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   61  49  474   975  14  24    49 2597  129   84  466  268
Added Vol:     13   0  130   374   0   0     0    0   25  168    0   50
PasserByVol:    0   0    0     0   0   0     0    0    0    0    0    0
Initial Fut:   74  49  604  1349  14  24    49 2597  154  252  466  318
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    74  49  604  1349  14  24    49 2597  154  252  466  318
Reduct Vol:     0   0    0     0   0   0     0    0    0    0    0    0
Reduced Vol:   74  49  604  1349  14  24    49 2597  154  252  466  318
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   74  49  604  1349  14  24    49 2597  154  252  466  318
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.83 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
Lanes:       1.00 2.00 1.00  2.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00
Final Sat.:  1750 3800 1750  3150 3800 1750 1750 5700 1750 1750 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.01 0.35  0.43 0.00 0.01 0.03 0.46 0.09 0.14 0.08 0.18
Crit Moves:                  ****  ****            ****       ****
Green Time:  20.4 22.1 22.1  27.4 29.2 29.2 15.8 29.2 29.2  9.2 22.6 50.1
Volume/Cap:  0.21 0.06 1.56  1.56 0.01 0.05 0.18 1.56 0.30 1.56 0.36 0.36
Delay/Veh:   34.4 30.9 303.4 294.1 25.2 25.6 37.8  290 29.0 325.4 33.4 16.4
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  34.4 30.9 303.4 294.1 25.2 25.6 37.8  290 29.0 325.4 33.4 16.4
LOS by Move:   C-    C     F     F    C    C    D+    F    C     F   C-    B
HCM2kAvgQ:      2    1    49    61    0    1     1   64    4    21    4    7
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #12: Barber Ln / Alder Dr

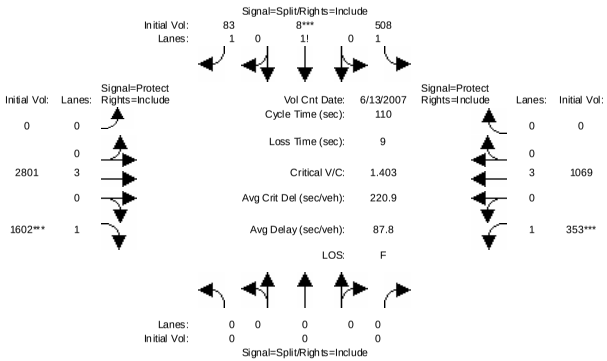



```
Street Name:            Barber Ln                       Alder Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7  10   0     0  10  10     7   0  10     0   0   0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 7 Sep 2006 <<
Base Vol:     110 242   0     0 105 226   145   0  28     0   0   0
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  110 242   0     0 105 226   145   0  28     0   0   0
Added Vol:      0 204   0     0 119 143   194   0   0     0   0   0
PasserByVol:    0   0   0     0   0   0     0   0   0     0   0   0
Initial Fut:  110 446   0     0 224 369   339   0  28     0   0   0
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   110 446   0     0 224 369   339   0  28     0   0   0
Reduct Vol:     0   0   0     0   0   0     0   0   0     0   0   0
Reduced Vol:  110 446   0     0 224 369   339   0  28     0   0   0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:  110 446   0     0 224 369   339   0  28     0   0   0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.92 1.00 0.92  0.92 0.95 0.95 0.92 1.00 0.92 0.92 1.00 0.92
Lanes:       1.00 1.00 0.00  0.00 0.38 0.62 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.:  1750 1900    0     0  680 1120 1750    0 1750    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.23 0.00  0.00 0.33 0.33 0.19 0.00 0.02 0.00 0.00 0.00
Crit Moves:  ****                ****       ****
Green Time:   7.0 34.7  0.0     0.0 27.7 27.7 16.3  0.0 16.3  0.0  0.0  0.0
Volume/Cap:  0.54 0.41 0.00  0.00 0.71 0.71 0.71 0.00 0.06 0.00 0.00 0.00
Delay/Veh:   34.8  8.1  0.0     0.0 18.1 18.1 28.6  0.0 16.4  0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  34.8  8.1  0.0     0.0 18.1 18.1 28.6  0.0 16.4  0.0  0.0  0.0
LOS by Move:   C-    A    A       A   B-   B-    C    A    B    A    A    A
HCM2kAvgQ:      2    5    0       0   11   11    6    0    0    0    0    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #13: Tasman Dr. & I-880 SB Ramps

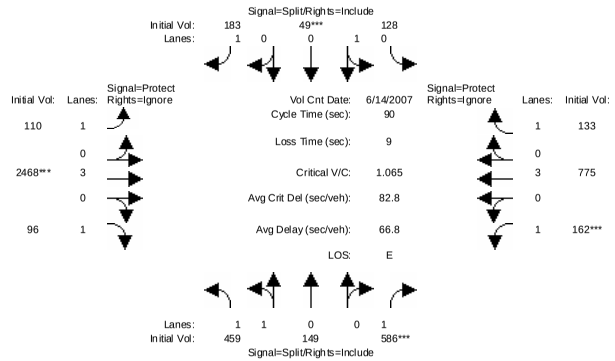



```
Street Name:          I-880 SB Ramps                    Tasman Dr.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     7    10     0     7    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:       0     0     0   508     8    42     0  2564  1335   353   892     0
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    0     0     0   508     8    42     0  2564  1335   353   892     0
Added Vol:      0     0     0     0     0    41     0   237   267     0   177     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:    0     0     0   508     8    83     0  2801  1602   353  1069     0
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:     0     0     0   508     8    83     0  2801  1602   353  1069     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   508     8    83     0  2801  1602   353  1069     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
FinalVolume:    0     0     0   508     8    83     0  2801  1602   353  1069     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.92  0.93  0.95  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       0.00  0.00  0.00  1.83  0.03  1.14  0.00  3.00  1.00  1.00  3.00  0.00
Final Sat.:     0     0     0  3257    47  1992     0  5700  1750  1750  5700     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00  0.00  0.00  0.16  0.17  0.04  0.00  0.49  0.92  0.20  0.19  0.00
Crit Moves:                          ****                    ****  ****
Green Time:   0.0   0.0   0.0  13.4  13.4  13.4   0.0  71.8  71.8  15.8  87.6   0.0
Volume/Cap:  0.00  0.00  0.00  1.28  1.40  0.34  0.00  0.75  1.40  1.40  0.24  0.00
Delay/Veh:    0.0   0.0   0.0 188.9   243  44.8   0.0  14.5 205.9 250.7   2.9   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   0.0   0.0   0.0 188.9   243  44.8   0.0  14.5 205.9 250.7   2.9   0.0
LOS by Move:    A     A     A     F     F     D     A     B     F     F     A     A
HCM2kAvgQ:      0     0     0    20    24     3     0    20   116    27     3     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #14: Great Mall Pkwy. & I-880 NB Ramps

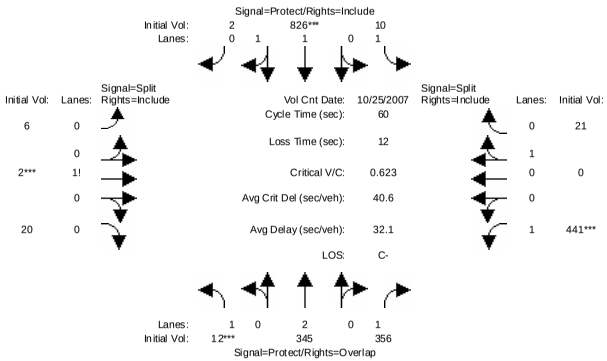



```
Street Name:          I-880 NB Ramps                    Great Mall Pkwy.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10    10    10    10    10    10     7    10    10     7    10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 14 Jun 2007 <<
Base Vol:     351   149   586   128    49   183   110  2315    12   162   706   133
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:  351   149   586   128    49   183   110  2315    12   162   706   133
Added Vol:    108     0     0     0     0     0     0   153    84     0    69     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:  459   149   586   128    49   183   110  2468    96   162   775   133
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:   459   149   586   128    49   183   110  2468     0   162   775     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:  459   149   586   128    49   183   110  2468     0   162   775     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:  459   149   586   128    49   183   110  2468     0   162   775     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.93  0.95  0.92  0.95  0.95  0.92  0.92  1.00  0.92  0.92  1.00  0.92
Lanes:       1.52  0.48  1.00  0.72  0.28  1.00  1.00  3.00  1.00  1.00  3.00  1.00
Final Sat.:  2680   870  1750  1302   498  1750  1750  5700  1750  1750  5700  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.17  0.17  0.33  0.10  0.10  0.10  0.06  0.43  0.00  0.09  0.14  0.00
Crit Moves:                 ****        ****              ****        ****
Green Time:  27.6  27.6  27.6  10.0  10.0  10.0  15.8  35.7   0.0   7.6  27.6   0.0
Volume/Cap:  0.56  0.56  1.09  0.89  0.89  0.94  0.36  1.09  0.00  1.09  0.44  0.00
Delay/Veh:   28.1  28.1  97.0  78.8  78.8  90.5  35.9  75.9   0.0 141.4  25.9   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:  28.1  28.1  97.0  78.8  78.8  90.5  35.9  75.9   0.0 141.4  25.9   0.0
LOS by Move:   C     C     F    E-    E-     F    D+    E-     A     F     C     A
HCM2kAvgQ:     8     8    29     8     8     9     3    33     0     8     6     0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #15: McCarthy Blvd / Barber Ln



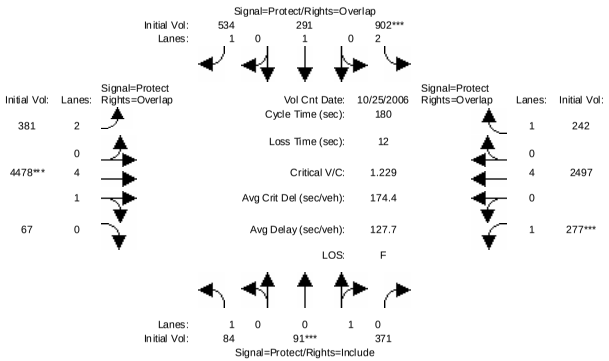
Street Name:	McCarthy Blvd						Barber Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Volume Module: >> Count Date: 25 Oct 2007 <<												
Base Vol:	12	308	152	10	750	2	6	2	20	322	0	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	308	152	10	750	2	6	2	20	322	0	21
Added Vol:	0	37	204	0	76	0	0	0	0	119	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	345	356	10	826	2	6	2	20	441	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	12	345	356	10	826	2	6	2	20	441	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	345	356	10	826	2	6	2	20	441	0	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	345	356	10	826	2	6	2	20	441	0	21
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.97	0.95	0.92	0.92	0.92	0.92	1.00	0.95
Lanes:	1.00	2.00	1.00	1.00	1.99	0.01	0.21	0.07	0.72	1.00	0.00	1.00
Final Sat.:	1750	3800	1750	1750	3691	9	375	125	1250	1750	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.20	0.01	0.22	0.22	0.02	0.02	0.02	0.25	0.00	0.01
Crit Moves:	****				****			****		****		
Green Time:	7.0	12.7	29.1	8.9	14.6	14.6	10.0	10.0	10.0	16.4	0.0	16.4
Volume/Cap:	0.06	0.43	0.42	0.04	0.92	0.92	0.10	0.10	0.10	0.92	0.00	0.04
Delay/Veh:	24.1	22.2	11.5	22.2	38.2	38.2	21.8	21.8	21.8	46.7	0.0	16.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.1	22.2	11.5	22.2	38.2	38.2	21.8	21.8	21.8	46.7	0.0	16.2
LOS by Move:	C	C+	B+	C+	D+	D+	C+	C+	C+	D	A	B
HCM2kAvgQ:	0	3	4	0	9	9	1	1	1	11	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #16: McCarthy Blvd. / Montague Expy. [CMP]



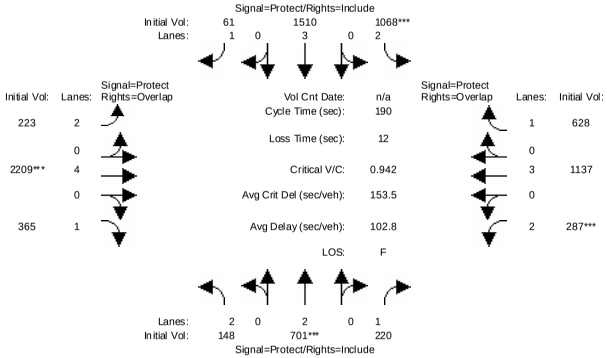
Street Name:	McCarthy Blvd.						Montague Expy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 25 Oct 2006 <<												
Base Vol:	84	76	371	823	281	428	248	4478	67	277	2497	149
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	76	371	823	281	428	248	4478	67	277	2497	149
Added Vol:	0	15	0	79	10	106	133	0	0	0	0	93
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	91	371	902	291	534	381	4478	67	277	2497	242
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	84	91	371	902	291	534	381	4120	67	277	2497	242
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	91	371	902	291	534	381	4120	67	277	2497	242
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	91	371	902	291	534	381	4120	67	277	2497	242
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	0.20	0.80	2.00	1.00	1.00	2.00	4.92	0.08	1.00	4.00	1.00
Final Sat.:	1750	355	1445	3150	1900	1750	3150	9249	150	1750	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.26	0.26	0.29	0.15	0.31	0.12	0.45	0.45	0.16	0.33	0.14
Crit Moves:		****		****				****		****		
Green Time:	16.4	37.6	37.6	42.0	63.1	86.9	23.8	65.3	81.7	23.2	64.6	106.6
Volume/Cap:	0.53	1.23	1.23	1.23	0.44	0.63	0.91	1.23	0.98	1.23	0.91	0.23
Delay/Veh:	86.5	208	207.9	197.7	61.4	57.8	101.6	163	58.3	213.9	60.4	17.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	86.5	208	207.9	197.7	61.4	57.8	101.6	163	58.3	213.9	60.4	17.5
LOS by Move:	F	F	F	F	E	E+	F	F	E+	F	E	B
HCM2kAvgQ:	6	40	40	41	14	28	13	64	49	24	35	7

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #17: Montague Expy. / Great Mall Pkwy./Capitol Ave. [CMP]

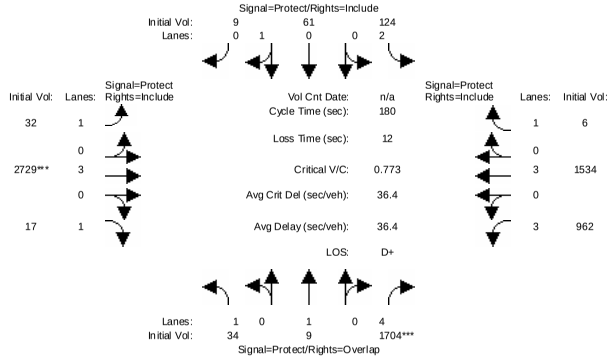



```
Street Name:  Great Mall Pkwy./Capitol Ave.            Montague Expy.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   95   10     7   95   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     113  644  220  1029 1430   61   223 2187  330   287 1106  613
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  113  644  220  1029 1430   61   223 2187  330   287 1106  613
Added Vol:     35   57    0    39   80    0     0   22   35     0   31   15
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  148  701  220  1068 1510   61   223 2209  365   287 1137  628
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 0.92 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   148  701  220  1068 1510   61   223 2032  365   287 1137  628
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  148  701  220  1068 1510   61   223 2032  365   287 1137  628
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  148  701  220  1068 1510   61   223 2032  365   287 1137  628
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92  0.83 1.00 0.92
Lanes:       2.00 2.00 1.00  2.00 3.00 1.00  2.00 4.00 1.00  2.00 3.00 1.00
Final Sat.:  3150 3800 1750  3150 5700 1750  3150 7600 1750  3150 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.18 0.13  0.34 0.26 0.03  0.07 0.27 0.21  0.09 0.20 0.36
Crit Moves:       ****       ****            ****       ****
Green Time:  10.6 24.9 24.9  45.8 60.0 60.0  12.3 95.0 105.6  12.3 95.0 140.8
Volume/Cap:  0.84 1.41 0.96  1.41 0.84 0.11  1.09 0.53 0.38  1.41 0.40 0.48
Delay/Veh:  117.0  277 129.8 263.1 64.1 46.1 179.0 32.6 23.9 298.6 29.8 10.2
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh: 117.0  277 129.8 263.1 64.1 46.1 179.0 32.6 23.9 298.6 29.8 10.2
LOS by Move:    F    F    F     F    E    D     F   C-    C     F    C   B+
HCM2kAvgQ:      5   31   14    59   28    3     9   18   12    16   13   16
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #18: Trimble / Montague Expy [CMP]

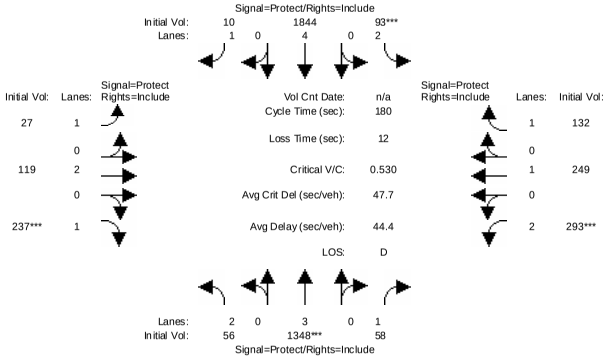



```
Street Name:            Trimble                        Montague Expy
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10   10     7   10   10     7   10   10     7   10   10
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      34    9 1668   124   61    9    32 2632   17   933 1457    6
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:   34    9 1668   124   61    9    32 2632   17   933 1457    6
Added Vol:      0    0   36     0    0    0     0   97    0    29   77    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   34    9 1704   124   61    9    32 2729   17   962 1534    6
User Adj:    0.00 0.00 1.00  0.00 0.00 0.00  0.00 0.92 0.00  0.00 0.00 0.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     0    0 1704     0    0    0     0 2511    0     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    0    0 1704     0    0    0     0 2511    0     0    0    0
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    0    0 1704     0    0    0     0 2511    0     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.92 1.00 0.80  0.83 1.00 0.92  0.92 1.00 0.92  0.80 1.00 0.92
Lanes:       1.00 1.00 4.00  2.00 1.00 0.00  1.00 3.00 1.00  3.00 3.00 1.00
Final Sat.:  1750 1900 6068  3150 1900    0  1750 5700 1750  4551 5700 1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.28  0.00 0.00 0.00  0.00 0.44 0.00  0.00 0.00 0.00
Crit Moves:            ****                       ****
Green Time:   0.0  0.0 66.6   0.0  0.0  0.0   0.0  108  0.0   0.0  0.0  0.0
Volume/Cap:  0.00 0.00 0.76  0.00 0.00 0.00  0.00 0.73 0.00  0.00 0.00 0.00
Delay/Veh:    0.0  0.0 51.3   0.0  0.0  0.0   0.0 26.2  0.0   0.0  0.0  0.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:   0.0  0.0 51.3   0.0  0.0  0.0   0.0 26.2  0.0   0.0  0.0  0.0
LOS by Move:    A    A   D-     A    A    A     A    C    A     A    A    A
HCM2kAvgQ:      0    0   26     0    0    0     0   33    0     0    0    0
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #19: Montague Expy / River Oaks



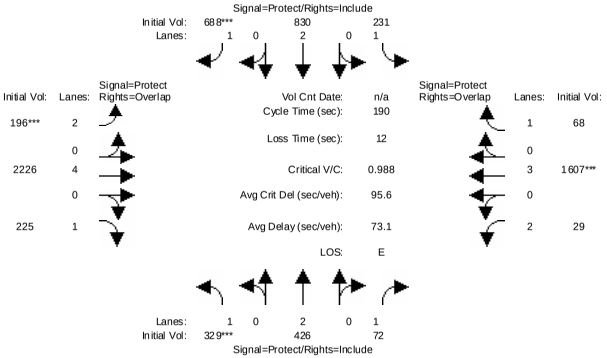
Street Name:	Montague Expy						River Oaks - E Pulmeria					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	55	1280	50	93	1753	10	27	119	236	288	249	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	1280	50	93	1753	10	27	119	236	288	249	132
Added Vol:	1	68	8	0	91	0	0	0	1	5	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	56	1348	58	93	1844	10	27	119	237	293	249	132
User Adj:	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	1348	58	93	1696	10	27	119	237	293	249	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	1348	58	93	1696	10	27	119	237	293	249	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	1348	58	93	1696	10	27	119	237	293	249	132
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	4.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00
Final Sat.:	3150	5700	1750	3150	7600	1750	1750	3800	1750	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.24	0.03	0.03	0.22	0.01	0.02	0.03	0.14	0.09	0.13	0.08
Crit Moves:		****		****					****	****		
Green Time:	13.4	80.4	80.4	10.0	77.0	77.0	17.8	46.0	46.0	31.6	59.9	59.9
Volume/Cap:	0.24	0.53	0.07	0.53	0.52	0.01	0.16	0.12	0.53	0.53	0.39	0.23
Delay/Veh:	80.9	36.9	28.7	93.7	38.6	29.7	76.2	51.7	62.1	71.0	48.0	44.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	80.9	36.9	28.7	93.7	38.6	29.7	76.2	51.7	62.1	71.0	48.0	44.3
LOS by Move:	F	D+	C	F	D+	C	E-	D-	E	E	D	D
HCM2kAvgQ:	2	18	2	3	17	0	1	2	12	9	10	5

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #20: Zanker Rd / Montague Expy [CMP]



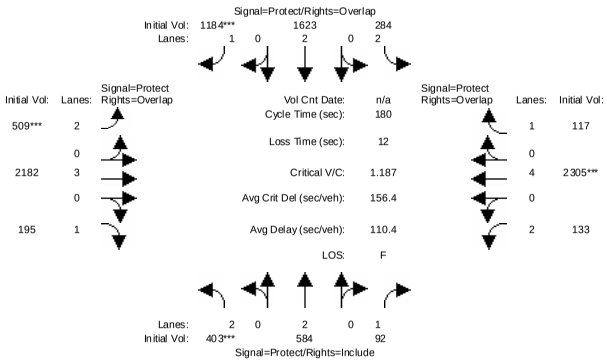
Street Name:	Zanker Rd						Montague Expy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	329	426	61	228	830	687	195	2149	225	23	1549	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	329	426	61	228	830	687	195	2149	225	23	1549	64
Added Vol:	0	0	11	3	0	1	1	77	0	6	58	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	329	426	72	231	830	688	196	2226	225	29	1607	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	329	426	72	231	830	688	196	2048	225	29	1607	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	329	426	72	231	830	688	196	2048	225	29	1607	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	329	426	72	231	830	688	196	2048	225	29	1607	68
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	7600	1750	3150	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.19	0.11	0.04	0.13	0.22	0.39	0.06	0.27	0.13	0.01	0.28	0.04
Crit Moves:	****					****	****				****	
Green Time:	36.2	51.3	51.3	60.5	75.6	75.6	12.0	58.2	94.4	8.0	54.2	114.7
Volume/Cap:	0.99	0.41	0.15	0.41	0.55	0.99	0.99	0.88	0.26	0.22	0.99	0.06
Delay/Veh:	122.5	57.3	52.9	51.4	44.5	87.6	149.1	66.7	27.8	88.9	86.9	15.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	122.5	57.3	52.9	51.4	44.5	87.6	149.1	66.7	27.8	88.9	86.9	15.6
LOS by Move:	F	E+	D-	D-	D	F	F	E	C	F	F	B
HCM2kAvgQ:	25	10	3	11	18	48	7	26	7	1	35	2

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #21: N 1st St / Montague Expy [CMP]



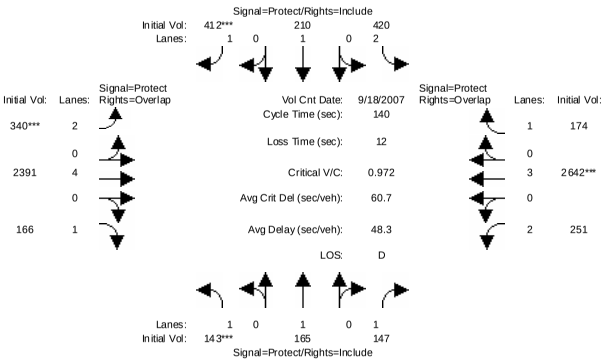
Street Name:	N 1st St									Montague Expy								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10		10	7		10		10	7		10		10	7		10		10
Volume Module:																				
Base Vol:	403		584		84	281		1623		1183	508		2116		195	129		2254		113
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	403		584		84	281		1623		1183	508		2116		195	129		2254		113
Added Vol:	0		0		8	3		0		1	1		66		0	4		51		4
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	403		584		92	284		1623		1184	509		2182		195	133		2305		117
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		0.92		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	403		584		92	284		1623		1184	509		2007		195	133		2305		117
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	403		584		92	284		1623		1184	509		2007		195	133		2305		117
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	403		584		92	284		1623		1184	509		2007		195	133		2305		117
Saturation Flow Module:																				
Sat/Lane:	1900		1900		1900	1900		1900		1900	1900		1900		1900	1900		1900		1900
Adjustment:	0.83		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92
Lanes:	2.00		2.00		1.00	2.00		2.00		1.00	2.00		3.00		1.00	2.00		4.00		1.00
Final Sat.:	3150		3800		1750	3150		3800		1750	3150		5700		1750	3150		7600		1750
Capacity Analysis Module:																				
Vol/Sat:	0.13		0.15		0.05	0.09		0.43		0.68	0.16		0.35		0.11	0.04		0.30		0.07
Crit Moves:	****									****	****							****		
Green Time:	19.4		61.5		61.5	36.0		78.1		102.6	24.5		63.0		82.4	7.5		46.0		82.0
Volume/Cap:	1.19		0.45		0.15	0.45		0.98		1.19	1.19		1.01		0.24	1.01		1.19		0.15
Delay/Veh:	190.2		46.4		41.3	63.8		68.8		133.0	183.1		80.4		30.0	166.4		157		28.6
User DelAdj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
AdjDel/Veh:	190.2		46.4		41.3	63.8		68.8		133.0	183.1		80.4		30.0	166.4		157		28.6
LOS by Move:	F		D		D	E		E		F	F		F		C	F		F		C
HCM2kAvgQ:	21		12		4	8		49		95	23		41		7	5		41		4

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #22: Montague Expy / De la Cruz [CMP]



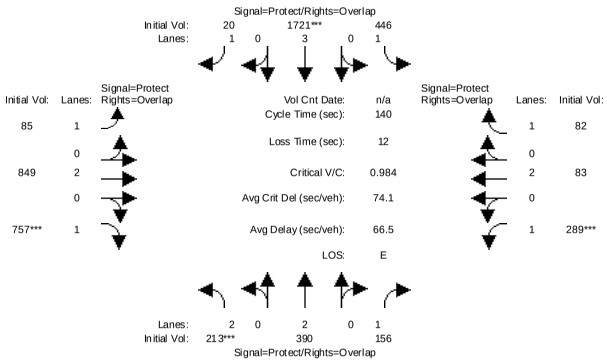
Street Name:	De la Cruz									Montague Expy								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10		10	7		10		10	7		10		10	7		10		10
Volume Module: >> Count Date: 18 Sep 2007 <<																				
Base Vol:	143		165		142	415		210		412	340		2334		166	246		2601		169
Growth Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	143		165		142	415		210		412	340		2334		166	246		2601		169
Added Vol:	0		0		5	5		0		0	0		57		0	5		41		5
PasserByVol:	0		0		0	0		0		0	0		0		0	0		0		0
Initial Fut:	143		165		147	420		210		412	340		2391		166	251		2642		174
User Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		0.92		1.00	1.00		1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
PHF Volume:	143		165		147	420		210		412	340		2200		166	251		2642		174
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Reduced Vol:	143		165		147	420		210		412	340		2200		166	251		2642		174
PCE Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
FinalVolume:	143		165		147	420		210		412	340		2200		166	251		2642		174
Saturation Flow Module:																				
Sat/Lane:	1900		1900		1900	1900		1900		1900	1900		1900		1900	1900		1900		1900
Adjustment:	0.92		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92	0.83		1.00		0.92
Lanes:	1.00		1.00		1.00	2.00		1.00		1.00	2.00		4.00		1.00	2.00		3.00		1.00
Final Sat.:	1750		1900		1750	3150		1900		1750	3150		7600		1750	3150		5700		1750
Capacity Analysis Module:																				
Vol/Sat:	0.08		0.09		0.08	0.13		0.11		0.24	0.11		0.29		0.09	0.08		0.46		0.10
Crit Moves:	****									****	****							****		
Green Time:	11.8		18.0		18.0	27.7		33.9		33.9	15.5		64.5		76.3	17.8		66.8		94.4
Volume/Cap:	0.97		0.67		0.65	0.67		0.46		0.97	0.97		0.63		0.17	0.63		0.97		0.15
Delay/Veh:	129.4		65.5		64.7	54.9		45.9		88.8	102.5		29.0		16.1	61.1		47.2		8.3
User DelAdj:	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00
AdjDel/Veh:	129.4		65.5		64.7	54.9		45.9		88.8	102.5		29.0		16.1	61.1		47.2		8.3
LOS by Move:	F		E		E	D-		D		F	F		C		B	E		D		A
HCM2kAvgQ:	10		8		8	11		8		24	13		18		4	6		35		3

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #23: Capitol/Cropley



Street Name:	Capitol									Cropley		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	207	321	156	419	1634	20	85	825	754	289	66	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	207	321	156	419	1634	20	85	825	754	289	66	58
Added Vol:	6	69	0	27	87	0	0	24	3	0	17	24
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	213	390	156	446	1721	20	85	849	757	289	83	82
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	213	390	156	446	1721	20	85	849	757	289	83	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	213	390	156	446	1721	20	85	849	757	289	83	82
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	213	390	156	446	1721	20	85	849	757	289	83	82
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	5700	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.07	0.10	0.09	0.25	0.30	0.01	0.05	0.22	0.43	0.17	0.02	0.05
Crit Moves:	****				****				****	****		
Green Time:	9.6	15.1	38.6	37.5	43.0	74.0	31.1	51.9	61.5	23.5	44.4	81.8
Volume/Cap:	0.98	0.95	0.32	0.95	0.98	0.02	0.22	0.60	0.98	0.98	0.07	0.08
Delay/Veh:	121.5	94.3	40.7	80.0	66.0	15.7	44.8	36.4	67.1	106.0	33.4	12.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	121.5	94.3	40.7	80.0	66.0	15.7	44.8	36.4	67.1	106.0	33.4	12.7
LOS by Move:	F	F	D	E-	E	B	D	D+	E	F	C-	B
HCM2kAvgQ:	9	12	6	21	26	0	3	15	41	18	1	2

Note: Queue reported is the number of cars per lane.

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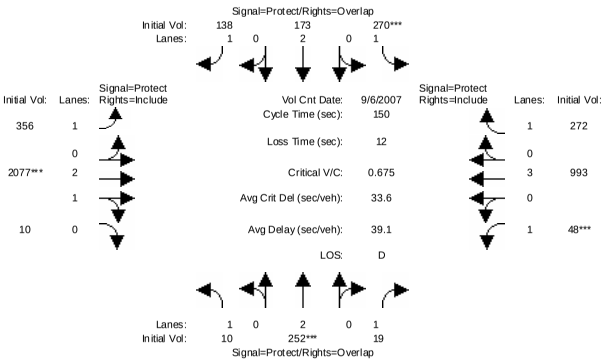
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #24: Great Mall Pkwy. & Main St.



Street Name:	Main St.									Great Mall Pkwy.		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 6 Sep 2007 <<												
Base Vol:	10	252	19	270	173	138	356	1947	10	48	919	272
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	252	19	270	173	138	356	1947	10	48	919	272
Added Vol:	0	0	0	0	0	0	0	130	0	0	74	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	252	19	270	173	138	356	2077	10	48	993	272
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	252	19	270	173	138	356	2077	10	48	993	272
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	252	19	270	173	138	356	2077	10	48	993	272
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	252	19	270	173	138	356	2077	10	48	993	272
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.98	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.99	0.01	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	5573	27	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.07	0.01	0.15	0.05	0.08	0.20	0.37	0.37	0.03	0.17	0.16
Crit Moves:		****		****				****		****		
Green Time:	20.1	14.6	21.6	34.1	28.7	76.8	48.1	82.3	82.3	7.0	41.2	41.2
Volume/Cap:	0.04	0.68	0.08	0.68	0.24	0.15	0.63	0.68	0.68	0.59	0.63	0.57
Delay/Veh:	56.7	70.4	55.6	57.7	51.6	19.5	45.8	25.0	25.0	80.8	48.7	48.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.7	70.4	55.6	57.7	51.6	19.5	45.8	25.0	25.0	80.8	48.7	48.3
LOS by Move:	E+	E	E+	E+	D-	B-	D	C	C	F	D	D
HCM2kAvgQ:	0	7	1	13	3	3	14	22	22	2	13	11

Note: Queue reported is the number of cars per lane.

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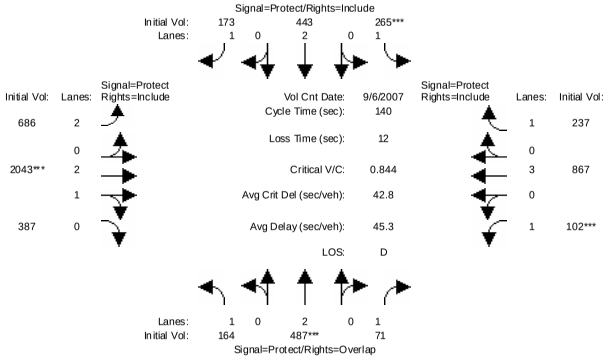
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #25: Great Mall Pkwy. & Abel St.



Street Name:	Abel St.						Great Mall Pkwy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 6 Sep 2007 <<												
Base Vol:	163	487	71	265	430	163	680	1913	370	102	809	221
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	487	71	265	430	163	680	1913	370	102	809	221
Added Vol:	1	0	0	0	13	10	6	130	17	0	58	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	164	487	71	265	443	173	686	2043	387	102	867	237
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	164	487	71	265	443	173	686	2043	387	102	867	237
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	487	71	265	443	173	686	2043	387	102	867	237
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	164	487	71	265	443	173	686	2043	387	102	867	237
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.50	0.50	1.00	3.00	1.00
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	4707	892	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.09	0.13	0.04	0.15	0.12	0.10	0.22	0.43	0.43	0.06	0.15	0.14
Crit Moves:		****		****				****		****		
Green Time:	20.7	21.3	30.9	25.1	25.7	25.7	48.1	72.0	72.0	9.7	33.6	33.6
Volume/Cap:	0.64	0.84	0.18	0.84	0.64	0.54	0.63	0.84	0.84	0.84	0.63	0.56
Delay/Veh:	61.3	68.7	44.5	74.0	54.7	53.6	39.8	31.7	31.7	103.4	48.7	48.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.3	68.7	44.5	74.0	54.7	53.6	39.8	31.7	31.7	103.4	48.7	48.6
LOS by Move:	E	E	D	E	D-	D-	D	C	C	F	D	D
HCM2kAvgQ:	8	13	3	14	10	8	14	28	28	5	11	9

Note: Queue reported is the number of cars per lane.

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Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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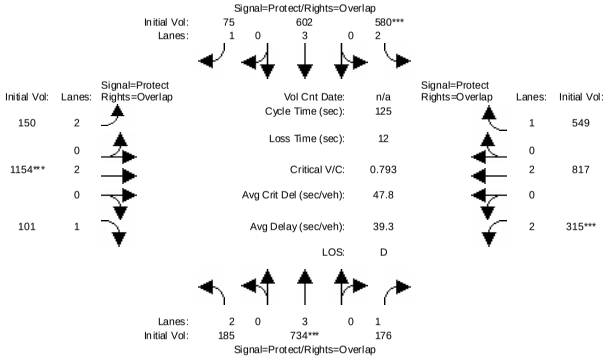
2000 HCM Operations (Future Volume Alternative)
Project PM

Intersection #26: Zanker Rd / Tasman Dr



Street Name:	Zanker Rd						Tasman Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	185	734	171	580	602	75	150	1115	101	310	774	549
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	185	734	171	580	602	75	150	1115	101	310	774	549
Added Vol:	0	0	5	0	0	0	0	39	0	5	43	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	185	734	176	580	602	75	150	1154	101	315	817	549
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	185	734	176	580	602	75	150	1154	101	315	817	549
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	185	734	176	580	602	75	150	1154	101	315	817	549
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	185	734	176	580	602	75	150	1154	101	315	817	549
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.13	0.10	0.18	0.11	0.04	0.05	0.30	0.06	0.10	0.22	0.31
Crit Moves:		****		****				****		****		
Green Time:	17.6	20.3	36.1	29.0	31.7	44.9	13.2	47.9	65.5	15.8	50.5	79.5
Volume/Cap:	0.42	0.79	0.35	0.79	0.42	0.12	0.45	0.79	0.11	0.79	0.53	0.49
Delay/Veh:	49.6	55.1	35.6	51.1	39.1	26.9	53.5	37.2	15.1	63.5	28.6	12.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.6	55.1	35.6	51.1	39.1	26.9	53.5	37.2	15.1	63.5	28.6	12.4
LOS by Move:	D	E+	D+	D-	D	C	D-	D+	B	E	C	B
HCM2kAvgQ:	4	11	6	14	7	2	3	18	2	7	11	11

Note: Queue reported is the number of cars per lane.

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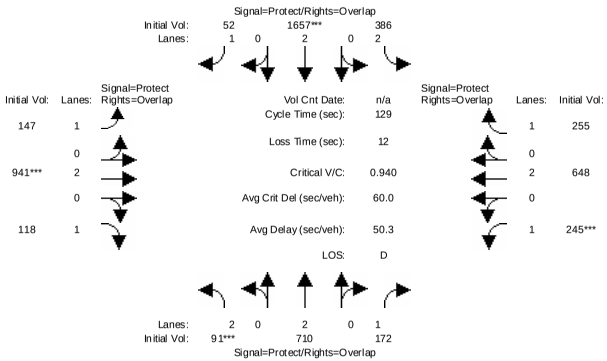
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #27: N. 1st St / Tasman Dr



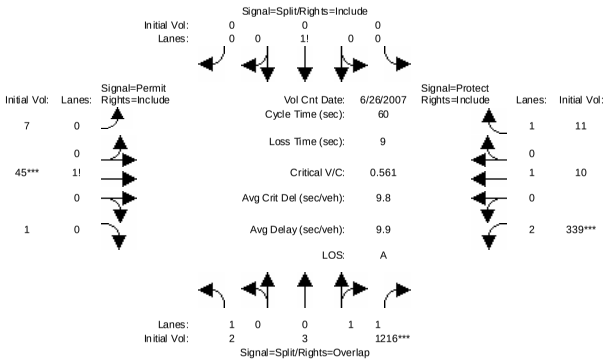
Street Name:	N 1st Street						Tasman Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	91	710	166	376	1657	52	147	917	118	239	622	244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	710	166	376	1657	52	147	917	118	239	622	244
Added Vol:	0	0	6	10	0	0	0	24	0	6	26	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	710	172	386	1657	52	147	941	118	245	648	255
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	710	172	386	1657	52	147	941	118	245	648	255
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	710	172	386	1657	52	147	941	118	245	648	255
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	710	172	386	1657	52	147	941	118	245	648	255
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	3150	3800	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.19	0.10	0.12	0.44	0.03	0.08	0.25	0.07	0.14	0.17	0.15
Crit Moves:	****				****			****		****		
Green Time:	7.0	39.4	58.1	25.8	58.2	75.3	17.1	33.1	40.1	18.7	34.7	60.5
Volume/Cap:	0.53	0.61	0.22	0.61	0.97	0.05	0.63	0.97	0.22	0.97	0.63	0.31
Delay/Veh:	62.6	39.2	21.8	48.8	48.9	11.5	58.7	68.4	33.1	101.7	42.9	21.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.6	39.2	21.8	48.8	48.9	11.5	58.7	68.4	33.1	101.7	42.9	21.5
LOS by Move:	E	D	C+	D	D	B+	E+	E	C-	F	D	C+
HCM2kAvgQ:	3	12	4	9	37	1	7	23	4	12	11	6

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #101: Dixon Landing Rd. & McCarthy Blvd.



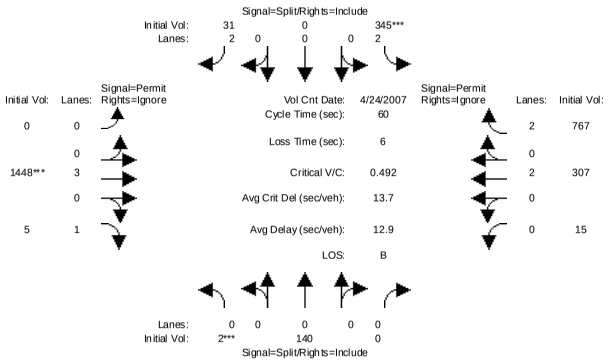
Street Name:	McCarthy Blvd.						Dixon Landing Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	0	10	10	10	10	10	10	10	7	10	10
Volume Module: >> Count Date: 26 Jun 2007 << 4-6pm												
Base Vol:	2	3	1034	0	0	0	7	45	1	310	10	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	3	1034	0	0	0	7	45	1	310	10	11
Added Vol:	0	0	182	0	0	0	0	0	0	29	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	3	1216	0	0	0	7	45	1	339	10	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	3	1216	0	0	0	7	45	1	339	10	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	3	1216	0	0	0	7	45	1	339	10	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	3	1216	0	0	0	7	45	1	339	10	11
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.83	1.00	0.92
Lanes:	1.00	0.01	1.99	0.00	1.00	0.00	0.13	0.85	0.02	2.00	1.00	1.00
Final Sat.:	1750	9	3591	0	1750	0	231	1486	33	3150	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.34	0.00	0.00	0.00	0.03	0.03	0.03	0.11	0.01	0.01
Crit Moves:			****					****		****		
Green Time:	31.1	31.1	41.0	0.0	0.0	0.0	10.0	10.0	10.0	9.9	19.9	19.9
Volume/Cap:	0.00	0.65	0.50	0.00	0.00	0.00	0.18	0.18	0.18	0.65	0.02	0.02
Delay/Veh:	7.0	11.4	4.7	0.0	0.0	0.0	21.8	21.8	21.8	26.4	13.5	13.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.0	11.4	4.7	0.0	0.0	0.0	21.8	21.8	21.8	26.4	13.5	13.5
LOS by Move:	A	B+	A	A	A	A	C+	C+	C+	C	B	B
HCM2kAvgQ:	0	10	6	0	0	0	1	1	1	4	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #102: Dixon Landing Rd. & I-880 SB Ramps

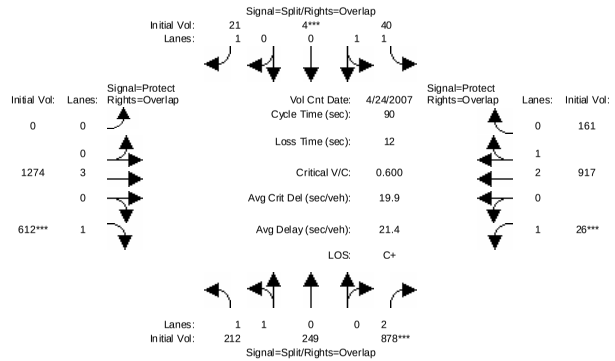



```
Street Name:          I-880 SB Ramps                    Dixon Landing Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0     0     0    10     0    10     0    10     0     0    10     0
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 24 Apr 2007 << 4-6pm
Base Vol:       2   140     0   345     0    28     0  1266     5    15   281   767
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:    2   140     0   345     0    28     0  1266     5    15   281   767
Added Vol:      0     0     0     0     0     3     0   182     0     0    26     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:    2   140     0   345     0    31     0  1448     5    15   307   767
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Volume:     2   140     0   345     0    31     0  1448     0    15   307     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    2   140     0   345     0    31     0  1448     0    15   307     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
FinalVolume:    2   140     0   345     0    31     0  1448     0    15   307     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.95  0.95  0.92  0.83  1.00  0.83  0.92  1.00  0.92  0.95  0.97  0.83
Lanes:       0.01  0.99  0.00  2.00  0.00  2.00  0.00  3.00  1.00  0.10  1.90  2.00
Final Sat.:    25  1775     0  3150     0  3150     0  5700  1750   172  3528  3150
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08  0.08  0.00  0.11  0.00  0.01  0.00  0.25  0.00  0.09  0.09  0.00
Crit Moves:  ****                ****                    ****
Green Time:   9.6   9.6   0.0  13.4   0.0  13.4   0.0  31.0   0.0  31.0  31.0   0.0
Volume/Cap:  0.49  0.49  0.00  0.49  0.00  0.04  0.00  0.49  0.00  0.17  0.17  0.00
Delay/Veh:   28.8  28.8   0.0  22.8   0.0  18.4   0.0  10.0   0.0   7.9   7.9   0.0
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:  28.8  28.8   0.0  22.8   0.0  18.4   0.0  10.0   0.0   7.9   7.9   0.0
LOS by Move:    C     C     A    C+     A    B-     A     A     A     A     A     A
HCM2kAvgQ:      3     3     0     4     0     0     0     6     0     2     2     0
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #103: Dixon Landing Rd. & I-880 NB Ramps

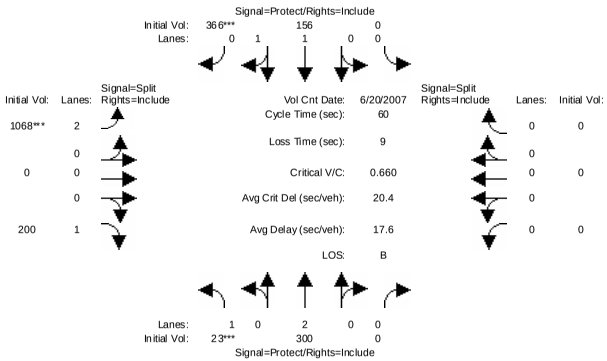



```
Street Name:          I-880 NB Ramps                    Dixon Landing Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:    10    10    10    10    10    10     0    10    10     7    10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 24 Apr 2007 <<
Base Vol:     212   249   878    40     4    21     0  1200   504    26   891   161
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:  212   249   878    40     4    21     0  1200   504    26   891   161
Added Vol:      0     0     0     0     0     0     0    74   108     0    26     0
PasserByVol:    0     0     0     0     0     0     0     0     0     0     0     0
Initial Fut:  212   249   878    40     4    21     0  1274   612    26   917   161
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Volume:   212   249   878    40     4    21     0  1274   612    26   917   161
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:  212   249   878    40     4    21     0  1274   612    26   917   161
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
FinalVolume:  212   249   878    40     4    21     0  1274   612    26   917   161
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900  1900
Adjustment:  0.92  1.00  0.83  0.93  0.95  0.92  0.92  1.00  0.92  0.92  0.99  0.95
Lanes:       1.00  1.00  2.00  1.82  0.18  1.00  0.00  3.00  1.00  1.00  2.54  0.46
Final Sat.:  1750  1900  3150  3227   323  1750     0  5700  1750  1750  4763   836
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.12  0.13  0.28  0.01  0.01  0.01  0.00  0.22  0.35  0.01  0.19  0.19
Crit Moves:                ****        ****                    ****  ****
Green Time:  28.5  28.5  35.5  10.0  10.0  10.0   0.0  32.5  61.0   7.0  39.5  49.5
Volume/Cap:  0.38  0.41  0.71  0.11  0.11  0.11  0.00  0.62  0.52  0.19  0.44  0.35
Delay/Veh:   24.8  25.3  26.2  36.6  36.6  37.1   0.0  25.1   8.8  41.9  18.1  11.6
User DelAdj: 1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:  24.8  25.3  26.2  36.6  36.6  37.1   0.0  25.1   8.8  41.9  18.1  11.6
LOS by Move:    C     C     C    D+    D+    D+     A     C     A     D    B-    B+
HCM2kAvgQ:      5     5    13     1     1     1     0    10     9     1     7     6
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #104: California Circle & I-880 NB Ramps



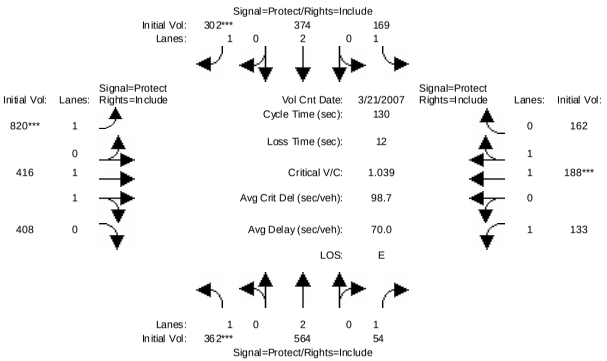
Street Name:	California Circle						I-880 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	0	0	10	10	10	0	10	0	0	0
Volume Module: >> Count Date: 20 Jun 2007 << 4-6pm												
Base Vol:	23	300	0	0	156	258	1068	0	200	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	300	0	0	156	258	1068	0	200	0	0	0
Added Vol:	0	0	0	0	0	108	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	300	0	0	156	366	1068	0	200	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	300	0	0	156	366	1068	0	200	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	300	0	0	156	366	1068	0	200	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	300	0	0	156	366	1068	0	200	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	1.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	0	0	1900	1750	3150	0	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.08	0.00	0.00	0.08	0.21	0.34	0.00	0.11	0.00	0.00	0.00
Crit Moves:	****					****	****					
Green Time:	7.0	23.8	0.0	0.0	16.8	16.8	27.2	0.0	27.2	0.0	0.0	0.0
Volume/Cap:	0.11	0.20	0.00	0.00	0.29	0.75	0.75	0.00	0.25	0.00	0.00	0.00
Delay/Veh:	24.8	12.2	0.0	0.0	17.4	26.9	17.2	0.0	10.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.8	12.2	0.0	0.0	17.4	26.9	17.2	0.0	10.9	0.0	0.0	0.0
LOS by Move:	C	B	A	A	B	C	B	A	B+	A	A	A
HCM2kAvgQ:	0	2	0	0	2	8	11	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #105: Dixon Landing Rd. & N. Milpitas Blvd.



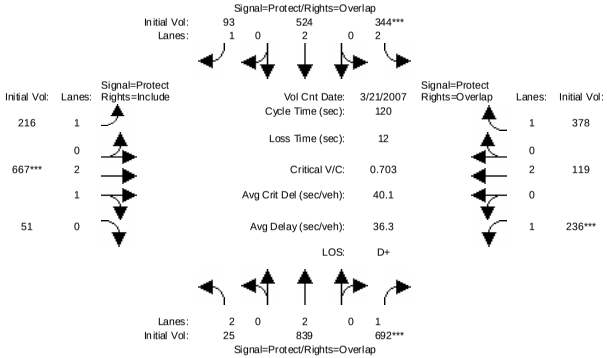
Street Name:	N. Milpitas Blvd.						Dixon Landing Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 21 Mar 2007 <<												
Base Vol:	362	552	54	169	355	276	746	416	408	133	188	162
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	362	552	54	169	355	276	746	416	408	133	188	162
Added Vol:	0	12	0	0	19	26	74	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	362	564	54	169	374	302	820	416	408	133	188	162
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	362	564	54	169	374	302	820	416	408	133	188	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	362	564	54	169	374	302	820	416	408	133	188	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	362	564	54	169	374	302	820	416	408	133	188	162
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.95	0.92	1.00	0.95
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.05	0.95
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1899	1800	1750	1986	1711
Capacity Analysis Module:												
Vol/Sat:	0.21	0.15	0.03	0.10	0.10	0.17	0.47	0.22	0.23	0.08	0.09	0.09
Crit Moves:	****					****	****				****	
Green Time:	25.9	28.8	28.8	18.7	21.6	21.6	58.7	52.8	52.8	17.7	11.8	11.8
Volume/Cap:	1.04	0.67	0.14	0.67	0.59	1.04	1.04	0.54	0.56	0.56	1.04	1.04
Delay/Veh:	110.6	50.5	41.4	66.1	54.2	117.3	78.1	30.7	31.2	61.6	118	118.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	110.6	50.5	41.4	66.1	54.2	117.3	78.1	30.7	31.2	61.6	118	118.4
LOS by Move:	F	D	D	E	D-	F	E-	C	C	E	F	F
HCM2kAvgQ:	21	11	2	7	7	18	47	13	13	6	12	12

Note: Queue reported is the number of cars per lane.

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #106: Scott Creek Rd. & Warm Springs Blvd.

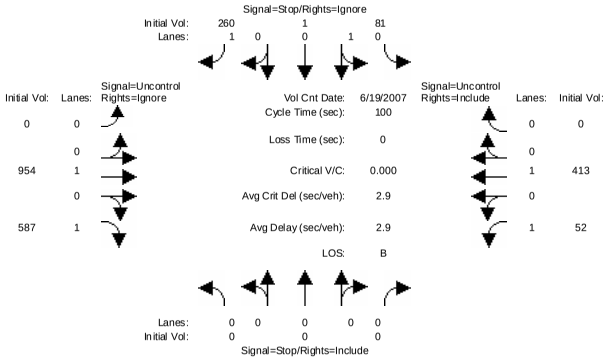



```
Street Name:         Warm Springs Blvd.                  Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10    10     7   10    10     7   10    10     7   10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 21 Mar 2007 <<
Base Vol:      25  800   644   344  481    93   216  667    51   234  119   378
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   25  800   644   344  481    93   216  667    51   234  119   378
Added Vol:      0   39    48     0   43     0     0    0     0     2    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   25  839   692   344  524    93   216  667    51   236  119   378
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    25  839   692   344  524    93   216  667    51   236  119   378
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   25  839   692   344  524    93   216  667    51   236  119   378
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   25  839   692   344  524    93   216  667    51   236  119   378
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.83 1.00  0.92  0.83 1.00  0.92  0.92 0.99  0.95  0.92 1.00  0.92
Lanes:       2.00 2.00  1.00  2.00 2.00  1.00  1.00 2.78  0.22  1.00 2.00  1.00
Final Sat.:  3150 3800  1750  3150 3800  1750  1750 5202   398  1750 3800  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.22  0.40  0.11 0.14  0.05  0.12 0.13  0.13  0.13 0.03  0.22
Crit Moves:                 ****  ****                 ****        ****
Green Time:  18.8 44.5  67.5  18.6 44.3  68.4  24.1 21.9  21.9  23.0 20.8  39.5
Volume/Cap:  0.05 0.60  0.70  0.70 0.37  0.09  0.62 0.70  0.70  0.70 0.18  0.66
Delay/Veh:   43.1 31.2  21.3  52.6 27.8  11.8  47.0 48.2  48.2  51.9 42.4  37.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  43.1 31.2  21.3  52.6 27.8  11.8  47.0 48.2  48.2  51.9 42.4  37.2
LOS by Move:    D    C    C+    D-    C    B+     D    D     D    D-    D    D+
HCM2kAvgQ:      0   12    19     9    7     2     9   10    10    10    2    14
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #107: Scott Creek Rd. & I-680 SB Ramps

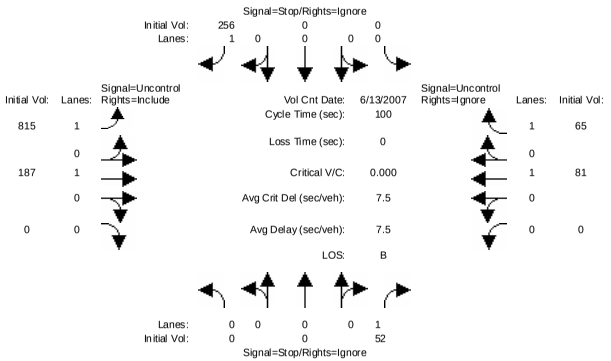



```
Street Name:          I-680 SB Ramps                     Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 19 Jun 2007 <<
Base Vol:       0    0     0    81    1   258     0  906   587    52  413     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0    81    1   258     0  906   587    52  413     0
Added Vol:      0    0     0     0    0     2     0   48     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0    81    1   260     0  954   587    52  413     0
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 0.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:     0    0     0    81    1     0     0    0     0    52  413     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0    81    1     0     0    0     0    52  413     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.4  6.5   6.2 xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5  4.0   3.3 xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx   517  517   413  xxxx xxxx xxxxx     0 xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx   522  465   643  xxxx xxxx xxxxx   900 xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx   499  438   643  xxxx xxxx xxxxx   900 xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  0.16 0.00  0.00  xxxx xxxx  xxxx  0.06 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.2 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx   9.2 xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     *    *     *     A     *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx   498 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx   0.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx  13.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     B    *     *     *    *     *     *     *     *
ApproachDel:    xxxxxx             13.6           xxxxxx           xxxxxx
ApproachLOS:         *                B                *                *
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #108: Scott Creek Rd. & I-680 NB Ramps

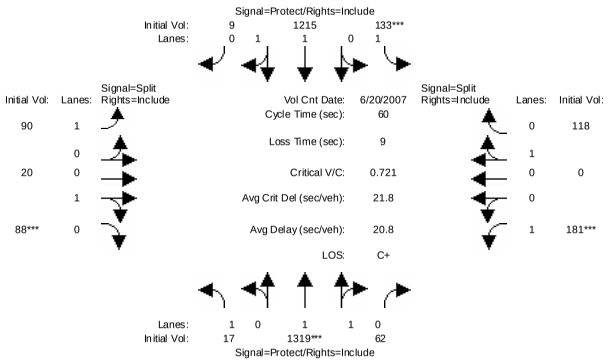



```
Street Name:          I-680 NB Ramps                  Scott Creek Rd.
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 13 Jun 2007 <<
Base Vol:       0    0    52     0    0  256   767  187     0     0   81    65
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0    52     0    0  256   767  187     0     0   81    65
Added Vol:      0    0     0     0    0    0    48    0     0     0    0     0
PasserByVol:    0    0     0     0    0    0     0    0     0     0    0     0
Initial Fut:    0    0    52     0    0  256   815  187     0     0   81    65
User Adj:    1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  0.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:     0    0     0     0    0    0   815  187     0     0   81     0
Reduct Vol:     0    0     0     0    0    0     0    0     0     0    0     0
FinalVolume:    0    0     0     0    0    0   815  187     0     0   81     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx   6.2 xxxxx xxxx   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx   3.3 xxxxx xxxx   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx   187  xxxx xxxx    81    81 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx   860  xxxx xxxx   985  1529 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx   860  xxxx xxxx   985  1529 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  0.00  xxxx xxxx  0.00  0.53 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   3.3 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  10.0 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *     B     *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *     *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:         *                *                *                *
Note: Queue reported is the number of cars per lane.
```


Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #109: McCarthy Blvd. & Ranch Dr. (N)

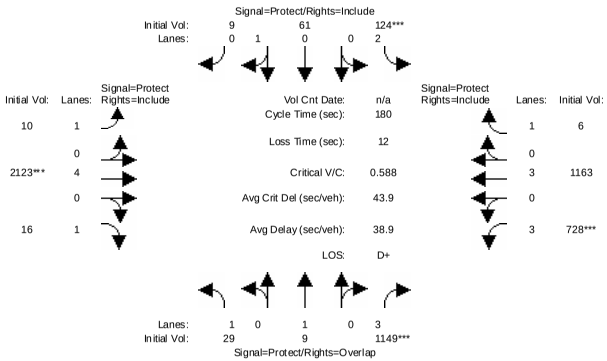



```
Street Name:          McCarthy Blvd.                  Ranch Dr. (N)
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10    10     7   10     0     0    0     0    10    0    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 20 Jun 2007 << 6-9
Base Vol:      13 1182    60   133 1174     7    40   20     0   177    0   118
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   13 1182    60   133 1174     7    40   20     0   177    0   118
Added Vol:      4  137     2     0   41     2    50    0    88     4    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   17 1319    62   133 1215     9    90   20    88   181    0   118
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    17 1319    62   133 1215     9    90   20    88   181    0   118
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   17 1319    62   133 1215     9    90   20    88   181    0   118
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   17 1319    62   133 1215     9    90   20    88   181    0   118
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.97  0.95  0.92 0.97  0.95  0.92 0.95  0.95  0.92 1.00  0.95
Lanes:       1.00 1.91  0.09  1.00 1.98  0.02  1.00 0.19  0.81  1.00 0.00  1.00
Final Sat.:  1750 3534   166  1750 3673    27  1750  333  1467  1750    0  1800
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.37  0.37  0.08 0.33  0.33  0.05 0.06  0.06  0.10 0.00  0.07
Crit Moves:       ****       ****                      ****  ****
Green Time:   9.5 29.3  29.3   7.0 26.8  26.8   4.7  4.7   4.7  10.0  0.0  10.0
Volume/Cap:  0.06 0.76  0.76  0.65 0.74  0.74  0.66 0.76  0.76  0.62 0.00  0.39
Delay/Veh:   21.9 15.7  15.7  40.4 16.7  16.7  48.7 58.9  58.9  32.8  0.0  26.1
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  21.9 15.7  15.7  40.4 16.7  16.7  48.7 58.9  58.9  32.8  0.0  26.1
LOS by Move:   C+    B     B     D    B     B     D   E+    E+    C-    A     C
HCM2kAvgQ:      0   13    13     4   11    11     3    4     4     5    0     2
Note: Queue reported is the number of cars per lane.
```

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #1801: Trimble / Montague Expy [CMP]



Street Name:	Trimble								Montague Expy							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	7	10	10		7	10	10		7	10	10		7	10	10	
Volume Module:																
Base Vol:	29	9	1149		124	61	9		10	2123	16		728	1163	6	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	29	9	1149		124	61	9		10	2123	16		728	1163	6	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	29	9	1149		124	61	9		10	2123	16		728	1163	6	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	0.92	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	29	9	1149		124	61	9		10	1953	16		728	1163	6	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	29	9	1149		124	61	9		10	1953	16		728	1163	6	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	29	9	1149		124	61	9		10	1953	16		728	1163	6	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	1.00	0.80		0.83	0.95	0.95		0.92	1.00	0.92		0.80	1.00	0.92	
Lanes:	1.00	1.00	3.00		2.00	0.87	0.13		1.00	4.00	1.00		3.00	3.00	1.00	
Final Sat.:	1750	1900	4551		3150	1569	231		1750	7600	1750		4551	5700	1750	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.00	0.25		0.04	0.04	0.04		0.01	0.26	0.01		0.16	0.20	0.00	
Crit Moves:			****		****					****			****			
Green Time:	16.6	28.3	77.3		12.0	23.7	23.7		20.4	78.7	78.7		49.0	107	107.2	
Volume/Cap:	0.18	0.03	0.59		0.59	0.29	0.29		0.05	0.59	0.02		0.59	0.34	0.01	
Delay/Veh:	75.9	64.3	39.7		85.9	71.3	71.3		71.2	38.7	28.8		57.5	18.6	14.8	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	75.9	64.3	39.7		85.9	71.3	71.3		71.2	38.7	28.8		57.5	18.6	14.8	
LOS by Move:	E-	E	D		F	E	E		E	D+	C		E+	B-	B	
HCM2kAvgQ:	2	0	20		5	4	4		1	20	1		15	10	0	

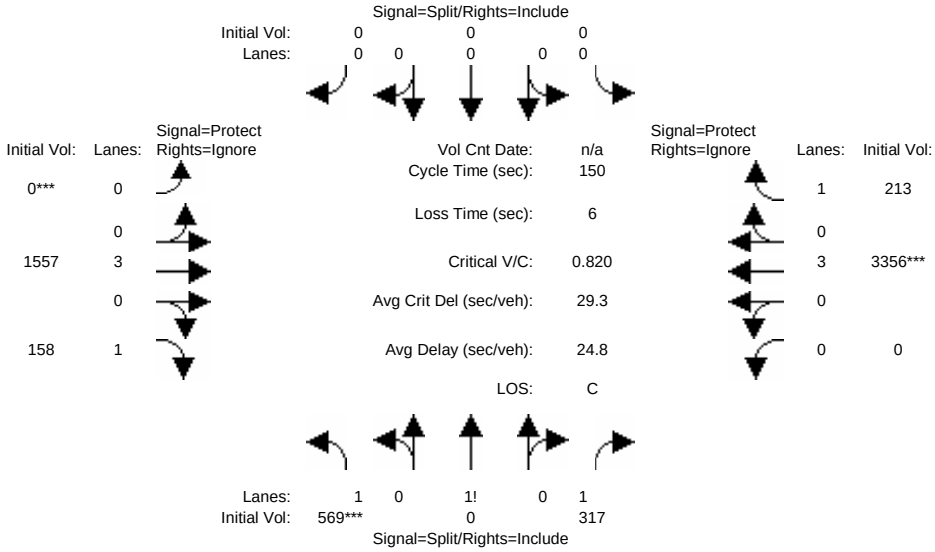
Note: Queue reported is the number of cars per lane.

APPENDIX C:
MITIGATED INTERSECTION LEVEL OF SERVICE CALCULATIONS

Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #4: Calaveras Blvd. & I-880 NB Ramps



Street Name:	I-880 NB Ramps						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	438	0	317	0	0	0	0	1462	92	0	3169	213
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	438	0	317	0	0	0	0	1462	92	0	3169	213
Added Vol:	131	0	0	0	0	0	0	95	66	0	187	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	569	0	317	0	0	0	0	1557	158	0	3356	213
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	569	0	317	0	0	0	0	1557	0	0	3356	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	569	0	317	0	0	0	0	1557	0	0	3356	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	569	0	317	0	0	0	0	1557	0	0	3356	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.64	0.00	1.36	0.00	0.00	0.00	0.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	2874	0	2376	0	0	0	0	5700	1750	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.20	0.00	0.13	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.59	0.00
Crit Moves:	****						****				****	
Green Time:	34.5	0.0	34.5	0.0	0.0	0.0	0.0	93.5	0.0	0.0	103	0.0
Volume/Cap:	0.86	0.00	0.58	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.86	0.00
Delay/Veh:	63.0	0.0	51.9	0.0	0.0	0.0	0.0	14.7	0.0	0.0	20.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	63.0	0.0	51.9	0.0	0.0	0.0	0.0	14.7	0.0	0.0	20.4	0.0
LOS by Move:	E	A	D-	A	A	A	A	B	A	A	C+	A
HCM2kAvgQ:	19	0	11	0	0	0	0	12	0	0	41	0

Note: Queue reported is the number of cars per lane.

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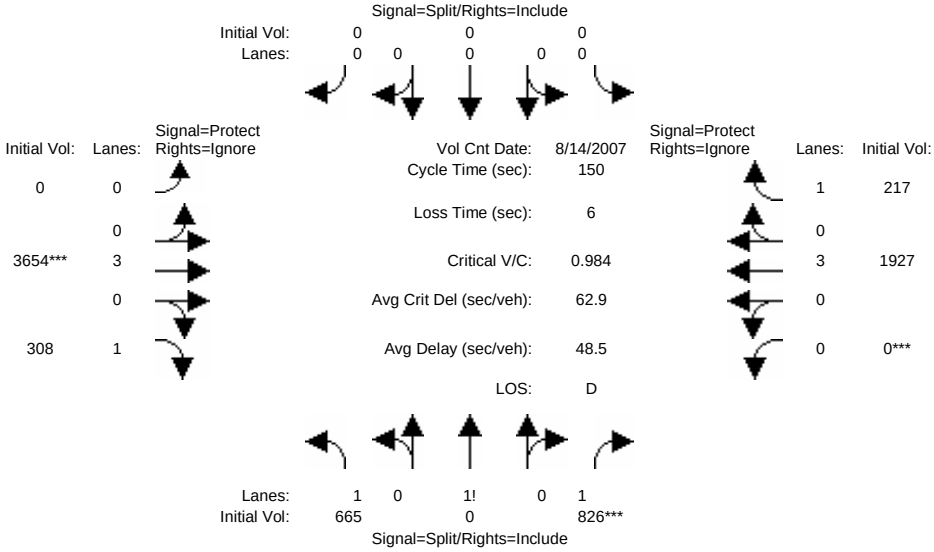
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #4: Calaveras Blvd. & I-880 NB Ramps



Street Name:	I-880 NB Ramps						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module: >> Count Date: 14 Aug 2007 << 4:30-5:30PM												
Base Vol:	623	0	826	0	0	0	0	3418	254	0	1755	217
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	623	0	826	0	0	0	0	3418	254	0	1755	217
Added Vol:	42	0	0	0	0	0	0	236	54	0	172	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	665	0	826	0	0	0	0	3654	308	0	1927	217
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	665	0	826	0	0	0	0	3654	0	0	1927	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	665	0	826	0	0	0	0	3654	0	0	1927	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	665	0	826	0	0	0	0	3654	0	0	1927	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.45	0.00	1.55	0.00	0.00	0.00	0.00	3.00	1.00	0.00	3.00	1.00
Final Sat.:	2531	0	2719	0	0	0	0	5700	1750	0	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.26	0.00	0.30	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.34	0.00
Crit Moves:			****					****		****		
Green Time:	44.0	0.0	44.0	0.0	0.0	0.0	0.0	93.0	0.0	0.0	87.8	0.0
Volume/Cap:	0.90	0.00	1.03	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.58	0.00
Delay/Veh:	57.5	0.0	86.1	0.0	0.0	0.0	0.0	53.5	0.0	0.0	19.7	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.5	0.0	86.1	0.0	0.0	0.0	0.0	53.5	0.0	0.0	19.7	0.0
LOS by Move:	E+	A	F	A	A	A	A	D-	A	A	B-	A
HCM2kAvgQ:	25	0	34	0	0	0	0	61	0	0	18	0

Note: Queue reported is the number of cars per lane.

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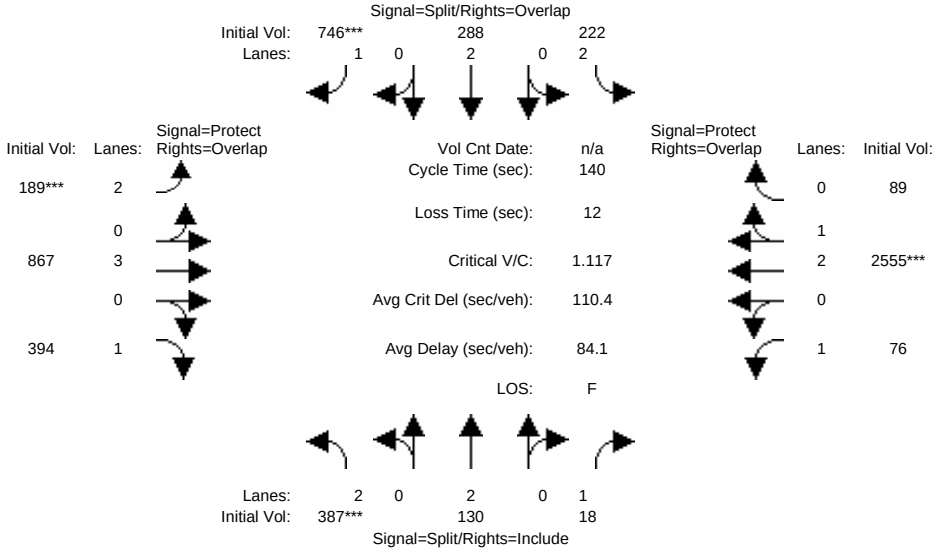
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #6: Milpitas Blvd. / Calaveras Blvd. [CMP]



Street Name:	Milpitas Blvd.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	382	130	18	222	288	732	170	822	379	76	2410	89
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	382	130	18	222	288	732	170	822	379	76	2410	89
Added Vol:	5	0	0	0	0	14	19	45	15	0	145	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	387	130	18	222	288	746	189	867	394	76	2555	89
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	387	130	18	222	288	746	189	867	394	76	2555	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	387	130	18	222	288	746	189	867	394	76	2555	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	387	130	18	222	288	746	189	867	394	76	2555	89
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	0.98	0.95
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	1.00	2.90	0.10
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	1750	5411	188
Capacity Analysis Module:												
Vol/Sat:	0.12	0.03	0.01	0.07	0.08	0.43	0.06	0.15	0.23	0.04	0.47	0.47
Crit Moves:	****					****	****				****	
Green Time:	15.4	15.4	15.4	45.9	45.9	53.4	7.5	50.2	65.6	16.5	59.2	105.1
Volume/Cap:	1.12	0.31	0.09	0.21	0.23	1.12	1.12	0.42	0.48	0.37	1.12	0.63
Delay/Veh:	146.1	59.3	57.0	34.5	34.6	114.9	170.3	34.6	27.5	61.9	99.6	9.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	146.1	59.3	57.0	34.5	34.6	114.9	170.3	34.6	27.5	61.9	99.6	9.0
LOS by Move:	F	E+	E+	C-	C-	F	F	C-	C	E	F	A
HCM2kAvgQ:	16	3	1	4	4	49	7	9	12	3	54	20

Note: Queue reported is the number of cars per lane.

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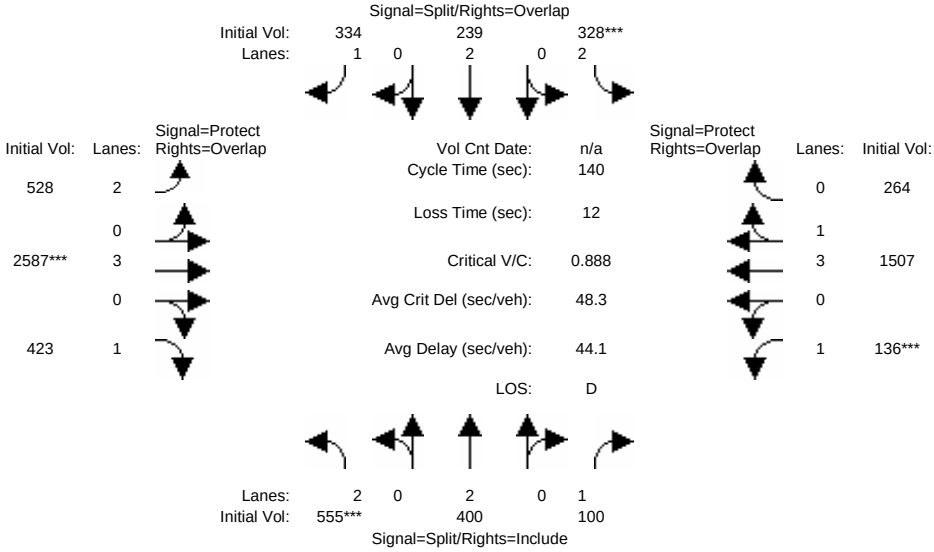
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #6: Milpitas Blvd. / Calaveras Blvd. [CMP]



Street Name:	Milpitas Blvd.						Calaveras Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	535	400	100	328	239	306	507	2420	412	136	1418	264
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	535	400	100	328	239	306	507	2420	412	136	1418	264
Added Vol:	20	0	0	0	0	28	21	167	11	0	89	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	555	400	100	328	239	334	528	2587	423	136	1507	264
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	555	400	100	328	239	334	528	2587	423	136	1507	264
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	555	400	100	328	239	334	528	2587	423	136	1507	264
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	555	400	100	328	239	334	528	2587	423	136	1507	264
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.92	0.99	0.95
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	1.00	3.38	0.62
Final Sat.:	3150	3800	1750	3150	3800	1750	3150	5700	1750	1750	6380	1118
Capacity Analysis Module:												
Vol/Sat:	0.18	0.11	0.06	0.10	0.06	0.19	0.17	0.45	0.24	0.08	0.24	0.24
Crit Moves:	****			****				****		****		
Green Time:	27.8	27.8	27.8	16.4	16.4	51.2	34.8	71.6	99.3	12.3	49.0	65.4
Volume/Cap:	0.89	0.53	0.29	0.89	0.54	0.52	0.67	0.89	0.34	0.89	0.67	0.51
Delay/Veh:	71.7	52.9	49.8	86.5	62.8	37.8	52.1	35.1	8.5	111.0	40.1	26.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	71.7	52.9	49.8	86.5	62.8	37.8	52.1	35.1	8.5	111.0	40.1	26.5
LOS by Move:	E	D-	D	F	E	D+	D-	D+	A	F	D	C
HCM2kAvgQ:	17	8	4	10	5	12	11	32	7	8	17	14

Note: Queue reported is the number of cars per lane.

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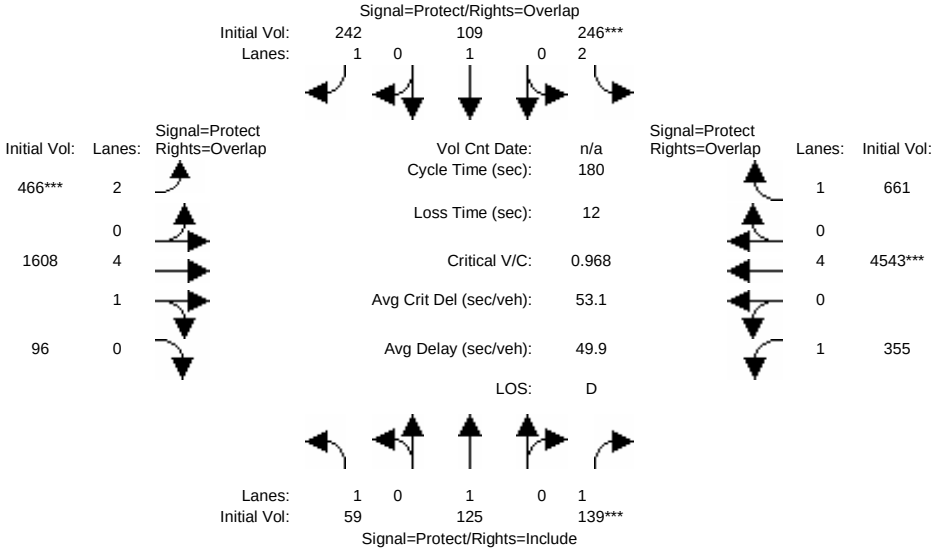
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #16: McCarthy Blvd. / Montague Expy. [CMP]



Street Name:	McCarthy Blvd.						Montague Expy.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Volume Module:												
Base Vol:	59	116	139	183	96	143	394	1608	96	355	4543	605
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	116	139	183	96	143	394	1608	96	355	4543	605
Added Vol:	0	9	0	63	13	99	72	0	0	0	0	56
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	125	139	246	109	242	466	1608	96	355	4543	661
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	59	125	139	246	109	242	466	1608	96	355	4543	661
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	125	139	246	109	242	466	1608	96	355	4543	661
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	125	139	246	109	242	466	1608	96	355	4543	661
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.99	0.95	0.92	1.00	0.92
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	4.71	0.29	1.00	4.00	1.00
Final Sat.:	1750	1900	1750	3150	1900	1750	3150	8869	530	1750	7600	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.08	0.08	0.06	0.14	0.15	0.18	0.18	0.20	0.60	0.38
Crit Moves:			****	****			****				****	
Green Time:	11.8	14.8	14.8	14.5	17.5	45.0	27.5	65.5	77.3	73.2	111	125.7
Volume/Cap:	0.51	0.80	0.97	0.97	0.59	0.55	0.97	0.50	0.42	0.50	0.97	0.54
Delay/Veh:	89.0	111	152.3	134.6	88.5	73.4	108.5	44.6	35.9	40.3	40.0	13.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	89.0	111	152.3	134.6	88.5	73.4	108.5	44.6	35.9	40.3	40.0	13.7
LOS by Move:	F	F	F	F	F	E	F	D	D+	D	D	B
HCM2kAvgQ:	4	9	12	10	6	13	18	16	15	15	63	18

Note: Queue reported is the number of cars per lane.

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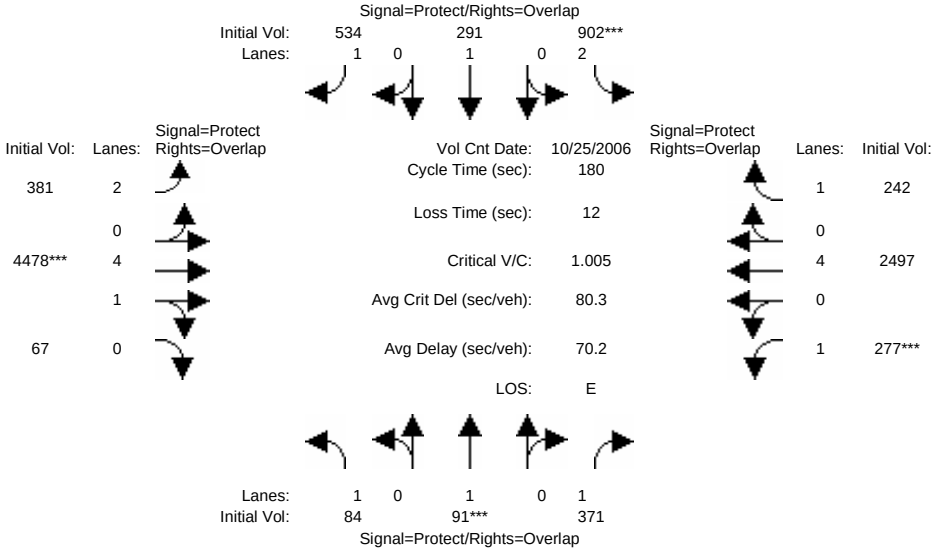
Milpitas Near-Term Cumulative Analysis
Interim Cumulative Results (Four Projects)

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

Intersection #16: McCarthy Blvd. / Montague Expy. [CMP]




```
Street Name:          McCarthy Blvd.                    Montague Expy.
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     7   10    10     7   10    10     7   10    10     7   10    10
------------|---------------||---------------||---------------||---------------|
Volume Module: >> Count Date: 25 Oct 2006 <<
Base Vol:      84   76   371   823  281   428   248 4478    67   277 2497   149
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   84   76   371   823  281   428   248 4478    67   277 2497   149
Added Vol:      0   15     0    79   10   106   133    0     0     0    0    93
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:   84   91   371   902  291   534   381 4478    67   277 2497   242
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 0.92  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    84   91   371   902  291   534   381 4120    67   277 2497   242
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   84   91   371   902  291   534   381 4120    67   277 2497   242
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   84   91   371   902  291   534   381 4120    67   277 2497   242
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 1.00  0.92  0.83 1.00  0.92  0.83 0.99  0.95  0.92 1.00  0.92
Lanes:       1.00 1.00  1.00  2.00 1.00  1.00  2.00 4.92  0.08  1.00 4.00  1.00
Final Sat.:  1750 1900  1750  3150 1900  1750  3150 9249   150  1750 7600  1750
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.05  0.21  0.29 0.15  0.31  0.12 0.45  0.45  0.16 0.33  0.14
Crit Moves:        ****        ****                 ****        ****
Green Time:  12.6 10.0  38.1  50.8 48.3  77.1  28.8 79.1  91.6  28.1 78.3 129.2
Volume/Cap:  0.69 0.86  1.00  1.01 0.57  0.71  0.75 1.01  0.87  1.01 0.75  0.19
Delay/Veh:  101.0  135 130.8 115.2 72.4  66.7  78.6 68.1  41.1 134.0 43.8   8.4
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh: 101.0  135 130.8 115.2 72.4  66.7  78.6 68.1  41.1 134.0 43.8   8.4
LOS by Move:    F    F     F     F    E     E    E-    E     D     F    D     A
HCM2kAvgQ:      6    7    27    31   14    28    12   51    43    19   29     5
Note: Queue reported is the number of cars per lane.
```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Milpitas Near-Term Cumulative Analysis

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

Intersection #9073 McCarthy Blvd. & Bellew Dr. (MS)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.642
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	24.6
Optimal Cycle:	47	Level Of Service:	C

Street Name:	McCarthy Blvd.						Bellew Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 2 0 1			2 0 2 0 1			2 0 0 1 0			1 0 1 0 1		
Volume Module:												
Base Vol:	89	715	52	371	1334	327	141	2	6	188	27	321
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	715	52	371	1334	327	141	2	6	188	27	321
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	89	715	52	371	1334	327	141	2	6	188	27	321
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	89	715	52	371	1334	327	141	2	6	188	27	321
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	715	52	371	1334	327	141	2	6	188	27	321
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	89	715	52	371	1334	327	141	2	6	188	27	321
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	0.25	0.75	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	450	1350	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.19	0.03	0.12	0.35	0.19	0.04	0.00	0.00	0.11	0.01	0.18
Crit Moves:	****				****			****		****		
Green Time:	7.0	18.9	18.9	11.8	23.7	23.7	7.1	10.0	10.0	7.3	10.2	22.0
Volume/Cap:	0.44	0.60	0.09	0.60	0.89	0.47	0.38	0.03	0.03	0.89	0.08	0.50
Delay/Veh:	31.3	19.5	14.8	26.1	25.0	15.8	27.3	21.1	21.1	64.1	21.5	17.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.3	19.5	14.8	26.1	25.0	15.8	27.3	21.1	21.1	64.1	21.5	17.5
LOS by Move:	C	B-	B	C	C	B	C	C+	C+	E	C+	B
HCM2kAvgQ:	56	161	19	119	390	132	47	4	4	176	12	137

Note: Queue reported is the distance per lane in feet.

Milpitas Near-Term Cumulative Analysis

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

Intersection #9073 McCarthy Blvd. & Bellew Dr. (MS)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.877
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	43.2
Optimal Cycle:	76	Level Of Service:	D

Street Name:	McCarthy Blvd.						Bellew Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 2 0 1			2 0 2 0 1			2 0 0 1 0			1 0 1 0 1		
Volume Module: >> Count Date: 29 Nov 2007 << .												
Base Vol:	41	526	174	1029	1012	234	93	32	31	271	47	934
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	526	174	1029	1012	234	93	32	31	271	47	934
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	526	174	1029	1012	234	93	32	31	271	47	934
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	526	174	1029	1012	234	93	32	31	271	47	934
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	526	174	1029	1012	234	93	32	31	271	47	934
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	526	174	1029	1012	234	93	32	31	271	47	934
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	0.51	0.49	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	914	886	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.14	0.10	0.33	0.27	0.13	0.03	0.04	0.04	0.15	0.02	0.53
Crit Moves:		****		****			****					****
Green Time:	8.8	10.0	10.0	19.0	20.1	20.1	7.0	10.0	10.0	9.0	12.0	31.0
Volume/Cap:	0.16	0.83	0.60	1.03	0.79	0.40	0.25	0.21	0.21	1.03	0.12	1.03
Delay/Veh:	23.7	36.2	31.8	57.9	23.2	17.3	25.8	23.2	23.2	88.8	20.3	53.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.7	36.2	31.8	57.9	23.2	17.3	25.8	23.2	23.2	88.8	20.3	53.2
LOS by Move:	C	D+	C	E+	C	B	C	C	C	F	C+	D-
HCM2kAvgQ:	21	188	107	512	271	97	30	31	31	288	20	759

Note: Queue reported is the distance per lane in feet.

Milpitas Near-Term Cumulative Analysis

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

Intersection #9073 McCarthy Blvd. & Bellew Dr. (MS)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.882
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	53.5
Optimal Cycle:	77	Level Of Service:	D-

Street Name:	McCarthy Blvd.						Bellew Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Lanes:	1 0 2 0 1			2 0 2 0 1			2 0 0 1 0			1 0 1 0 1		
Volume Module: >> Count Date: 14 Jun 2007 <<												
Base Vol:	16	1276	229	743	992	164	347	29	77	131	10	556
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	1276	229	743	992	164	347	29	77	131	10	556
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	1276	229	743	992	164	347	29	77	131	10	556
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	1276	229	743	992	164	347	29	77	131	10	556
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	1276	229	743	992	164	347	29	77	131	10	556
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	1276	229	743	992	164	347	29	77	131	10	556
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.95	0.95	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	0.27	0.73	1.00	1.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	492	1308	1750	1900	1750
Capacity Analysis Module:												
Vol/Sat:	0.01	0.34	0.13	0.24	0.26	0.09	0.11	0.06	0.06	0.07	0.01	0.32
Crit Moves:		****		****				****		****		
Green Time:	9.6	18.2	18.2	12.8	21.4	21.4	7.0	10.0	10.0	7.0	10.0	22.8
Volume/Cap:	0.06	1.11	0.43	1.11	0.73	0.26	0.94	0.35	0.35	0.64	0.03	0.84
Delay/Veh:	21.8	81.6	19.3	91.2	20.3	14.7	61.1	25.4	25.4	39.8	21.1	28.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.8	81.6	19.3	91.2	20.3	14.7	61.1	25.4	25.4	39.8	21.1	28.8
LOS by Move:	C+	F	B-	F	C+	B	E	C	C	D	C+	C
HCM2k95thQ:	19	972	208	737	421	136	355	123	123	197	11	550

Note: Queue reported is the distance per lane in feet.

Congestion Management Program
Deficiency Plan Guidelines
Immediate Implementation Action List

A. Bicycle and Pedestrian Actions

A-2.....Bike Lockers, Racks, and Facilities at Transit Centers
A-3.....Improve Roadside Bicycle Facilities
A-4.....Improve Pedestrian Facilities

B. Public Transit

B-3.....Shuttle
B-8.....Bus Stop Improvements

C. Carpooling, Bus Pooling, Van Pooling, Taxi Pooling

(All actions on deferred list, pending adoption of the Countywide Deficiency Plan.)

D. High Occupancy Vehicle (HOV) Facilities

(All actions on deferred list, pending adoption of the Countywide Deficiency Plan.)

E. Transportation Demand Management (TDM) Programs

E-2.....Public Information Programs

F. Traffic Flow Improvements

F-2.....Peak-Hour Parking and Delivery Restrictions
F-3.....Traffic Signal Timing and Synchronization Program
F-4.....Traffic Flow Improvements in Urban Areas

G. Site Design Guidelines for New Development

G-1.....HOV Parking Preference Program
G-2.....Bike Facilities at Development Projects
G-3.....Building Orientation Placement at Employment Sites
G-4.....Pedestrian Circulation System
G-5.....Bike Storage at Residential Development Projects
G-6.....Shuttle Service (New Development)
G-7.....Transit Stop Improvements
G-8.....Multi-Tenant Complex TDM Program

H. Land-Use Program

(All actions on deferred list, pending adoption of the Countywide Deficiency Plan.)

APPENDIX A-2
MILPITAS SQUARE PARKING ANALYSIS MEMORANDUM (FEHR & PEERS)

FEHR & PEERS
TRANSPORTATION CONSULTANTS

MEMORANDUM

Date: September 17, 2008

To: Sheldon AhSing, City of Milpitas

From: Todd Henry and Norman Wong, P.E., Fehr & Peers

Subject: ***Milpitas Square Parking Analysis***

SJ07-997

DRAFT

Fehr & Peers reviewed parking demand and supply for the proposed Milpitas Square mixed-use development located on Barber Lane. Our review is based upon the Milpitas Square site plans prepared by Van Meter Williams Pollack Architects (September 2008).

The project developer proposes to construct 2,970 parking spaces upon final build-out of the site. Our analysis indicates this supply would be sufficient to meet expected parking demand at the future site. The results of the analysis are discussed below.

PARKING RATES

Retail Uses: Parking surveys were conducted at the existing Ranch 99 retail development to determine the parking demand ratio for the site. Surveys were conducted every half-hour between 9:00 AM and 8:00 PM on a weekday and weekend in December 2007. Included in these surveys were vehicles that utilized the Barber Lane on-street spaces and vehicles that parked in the Cisco and nearby hotel lots where the associated drivers/passengers visited the Ranch 99 development. These surveys indicate a Saturday peak parking demand of 6.65 spaces per 1,000 square feet (KSF) of retail space at 12:30 PM. The weekday peak demand was slightly lower (6.29 spaces per KSF) and also occurred during the mid-day. We used these demand rates in our analysis because the proposed project is likely to contain retail users similar to those currently operating at the Ranch 99 complex.

We increased the observed peak parking demand rate by 10 percent to determine a parking supply rate for the proposed project. This factor accounts for general parking lot inefficiencies, such as circulating vehicles, imbalanced lot usage or improperly parked cars. The resulting recommended supply rate for retail uses on the site is 7.3 spaces per KSF.

Residential Units: We used parking supply rates, identified in Table 2-2 of the Urban Land Institute's (ULI) *Shared Parking* (2nd Edition, 2005), to estimate the supply for the proposed residential units. ULI provides parking information for an assortment of land uses to help determine the appropriate number of parking spaces needed to adequately serve mixed-use projects, as well as single-use projects with common parking facilities. The rates in ULI include a factor that accounts for circulating vehicles, as parking facilities are considered "full" even though maximum capacity is not reached, similar to the factor applied to the demand rate of retail uses. The parking supply ratio identified for residential units in ULI is 1.85 spaces per unit.

RECOMMENDED PARKING SUPPLY

We applied the parking rates discussed above to the proposed uses (175 KSF of retail and 900 units) to obtain the recommended parking supply. As shown in Table 1, the proposed supply of 2,970 spaces would exceed the recommend supply of 2,943 spaces by 27 spaces.

160 W. Santa Clara Street, Suite 675, San Jose CA 95110 (408) 278-1700 Fax (408) 278-1717
www.fehrandpeers.com

FEHR & PEERS
TRANSPORTATION CONSULTANTS

TABLE 1
PARKING SUPPLY RECOMMENDATIONS

Land Use	Size	Rate	Stalls Recommended
Community Shopping Center	175,000 sq. ft.	7.3 spaces per KSF[1]	1,278
Residential	900 dwelling units	1.85 spaces per unit[2]	1,665
		Total Recommended Supply	*2,943*
		Total Spaces Provided On-Site	2,970
		Surplus	**+27**

Notes:

1 Based on parking demand surveys conducted at the existing Ranch 99 retail development Wednesday, December 5, 2008 and Saturday, December 8, 2008. The observed peak demand occurred on a Saturday afternoon at 12:30pm. The observed demand rate (6.65 spaces/KSF) was factored up by 10% to determine the effective supply rate. This factor accounts for inefficiencies in parking design, such as spatial demand of spaces and vehicle circulation through the lot.

2 Taken from Table 2-2 in ULI *Shared Parking* (2nd Edition, 2005).

Source: Fehr & Peers, September 2008.

DRAFT

APPENDIX A-3
PARKING STUDY
(HEXAGON)

HEXAGON TRANSPORTATION CONSULTANTS, INC.

MEMORANDUM

TO: Tony Morici

FROM: Gary Black
Ryan Sebastian

DATE: April 14, 2009

SUBJECT: ***Parking Study for the Proposed Milpitas Square***

Hexagon Transportation Consultants, Inc. has completed this parking study for the proposed mixed use development located at the Ranch 99 retail center on Barber Lane in the City of Milpitas. The project proposes to expand the existing 162,200 square feet (s.f.) retail center by 12,800 s.f. and construct up to 900 dwelling units on the site. The purpose of the parking analysis is to determine the adequate number of parking spaces expected to satisfy demand.

Estimated Parking Demand

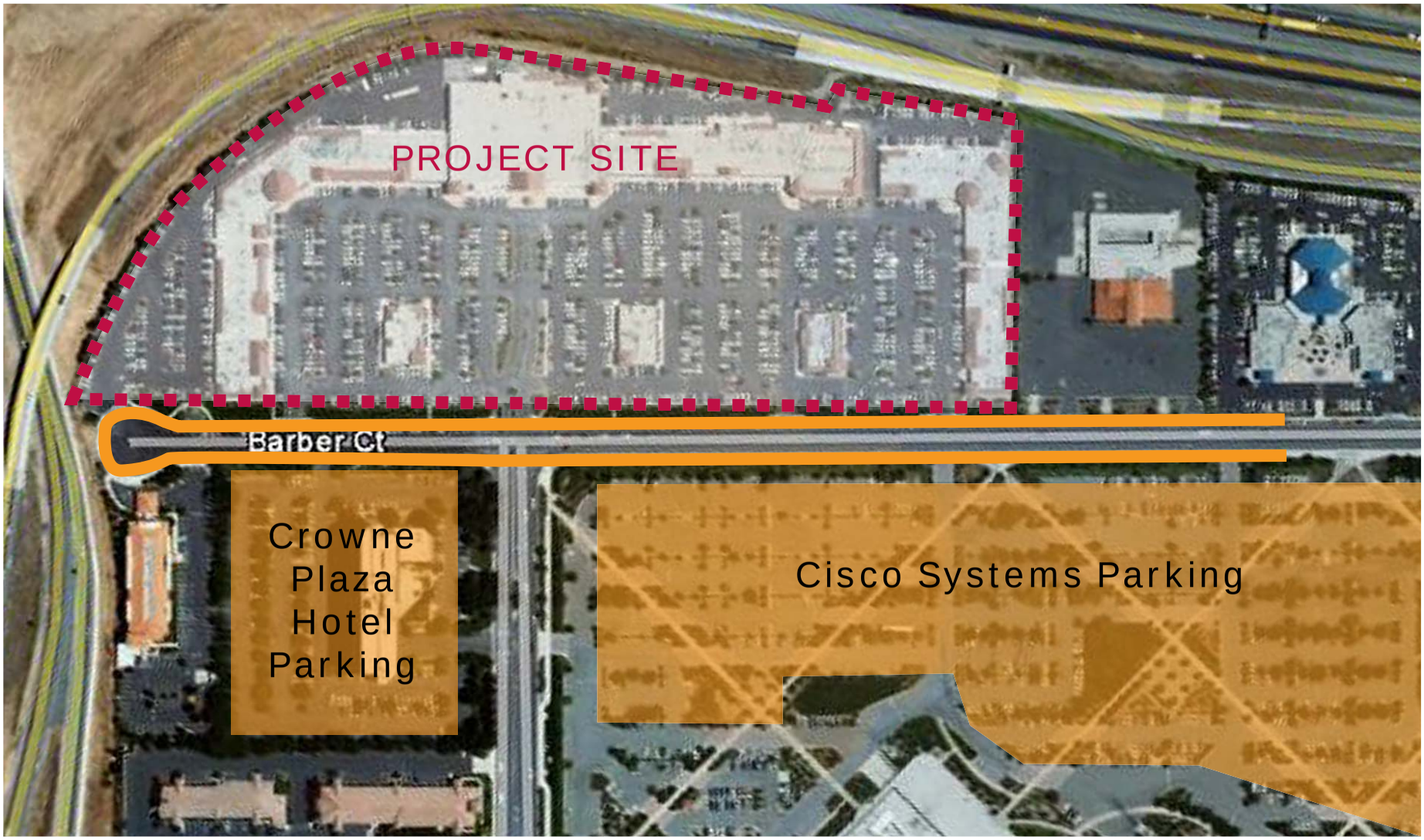
To evaluate the proposed parking for the project, Hexagon considered data and input from parking surveys conducted by Hexagon at the existing project site and Urban Land Institute research. Each of these sources is described in detail below.

Retail

Hexagon conducted parking surveys at the existing Ranch 99 shopping center to estimate parking demand. Surveys were conducted between 9:00 AM and 9:00 PM every hour on two weekends in February 2009. Observations have shown that parking demand is highest on Saturdays. Since parking demand currently outstrips the supply of on-site parking spaces, surrounding parking areas such as on-street parking spaces on Barber Lane, off-street parking lots at Cisco Systems, and a nearby hotel lot were also monitored (see Figure 1). The parking surveys showed that the demand peaked at 991 spaces (or 6.11 spaces per 1,000 s.f.) at 1:00 PM on Saturday, February 7, 2009 (see Table 1). A previous parking study conducted by Fehr & Peers in December 2007 showed a peak parking demand of 1,079 spaces (or 6.65 spaces per 1,000 s.f.).

The Urban Land Institute (ULI) conducts research on shopping centers and published the report, *Parking Requirements for Shopping Centers, Second Edition.* According to the study, providing parking for the average demand would be inadequate, leading to insufficient parking half of the time. Designing the project for the year's busiest hour would also be undesirable because it would result in substantial excess parking throughout the majority of the year. Instead, the ULI recommends that shopping centers provide parking for the 20th highest hour of the year. That means that there may be more cars than parking spaces for only 19 hours of the year. The ULI has surveyed vehicular traffic data at numerous shopping centers throughout the country to determine the 20th highest hour. Research shows that the hours of 1:00 PM and 3:00 PM on the second Saturday before the week of Christmas are the best representative time periods for these conditions. This parking standard results in adequate parking under all but the most intense shopping times while avoiding expensive and unnecessary overbuilding.

NORTH



LEGEND

= On-street Parking

Hexagon Transportation Consultants, Inc.

Figure 1

PARKING LOCATIONS

Milpitas Square

Table 1
Parking Survey

Time	2/7/2009	2/21/2009
9:00 AM	88	108
10:00 AM	229	251
11:00 AM	514	543
12:00 PM	818	798
1:00 PM	991	871
2:00 PM	906	846
3:00 PM	740	721
4:00 PM	628	645
5:00 PM	677	668
6:00 PM	755	780
7:00 PM	942	858
8:00 PM	876	818
9:00 PM	511	526

Denotes highest peak parking demand.

Note: Counts include parking at the existing shopping center, and shoppers utilizing the adjacent Cisco Systems, Crowne Plaza Hotel, and Barber Lane parking spaces.

The most recent parking surveys were conducted on Saturday, February 7, 2009 and Saturday, February 21, 2009 and estimated a demand of 6.11 spaces per 1,000 s.f. A previous parking survey was conducted by Fehr & Peers on Saturday, December 8, 2007. The Fehr & Peers survey can be considered close enough to the guidelines to represent the 20th highest hour. The survey estimated a higher demand of 6.65 spaces per 1,000 s.f. In order for the shopping center to provide an adequate parking supply for the 20th hour, parking demand should be based on the December parking survey (see Table 2).

Residential

The ULI also conducts research on parking demand ratios and publishes the manual, *Shared Parking, Second Edition*, which estimates parking demand for projects with multiple uses and common parking facilities. *Shared Parking* also provides an appropriate parking demand estimate for the residential component of the proposed project. According to ULI parking supply ratios, for sale residential units should provide 1.7 and 0.15 spaces per unit for residents and visitors, respectively. This ratio provides an effective parking supply that allows for up to 10 percent empty parking spaces at peak demand to allow reasonable parking space search times by residents and visitors. The actual peak parking demand for residential projects according to the ULI research is 1.53 and 0.14 spaces per unit for residents

and visitors, respectively. These estimates allow one reserved parking spot for each dwelling unit to ensure convenient parking supply for residents. The estimated parking demand for the residential portion of the project is described in Table 2.

Table 2
Estimated Parking Demand

Land Use	Size	Ratio	Parking Spaces
Community Shopping Center /a/	175 ksf	6.65	1,164
Residential			
Reserved /b/	900 units	1.00	900
Resident /b/	900 units	0.53	477
Guest /b/	900 units	0.14	126
		Total	**2,667**

/a/ Ratio based on parking demand surveys conducted by Fehr & Peers, December 2007. The peak demand for parking was observed at 12:30 PM.
/b/ Urban Land Institute, *Shared Parking, 2nd Edition,* 2005.

Shared Parking

Under certain circumstances, multiple land uses within a single development may provide the opportunity for shared parking on-site. The combined land uses may result in a demand for parking that will be less than the demand that would be generated by separate free-standing developments. To determine the potential shared parking reduction, an evaluation of the peaking characteristics for the proposed development was completed. The evaluation is based on survey results compiled by the Urban Land Institute and the methodology presented in their *Shared Parking* guide. The surveys evaluated parking demand characteristics for various land uses and developed hourly parking demand ratios. Parking demand for the proposed project was calculated based on the proposed size and uses of the project and the application of the *Shared Parking* guide methodology. Based on the *Shared Parking* guide, the parking demand for the proposed land uses are staggered throughout the day. Weekend retail peak demands occur between the hours of 2:00 PM to 3:00 PM. Residential peak demands occur during late night/early morning hours of 10:00 PM to 6:00 AM.

The combined peak parking demand of residential and retail uses for the site was determined to occur at 2:00 to 3:00 PM on a weekend, with a peak of 2,423 spaces needed (see Table 3). Thus, the shared parking demand calculates to a number about 10% less than the individual demands added together.

Table 3
Shared Parking

Use	ksf/units	Peak Demand Ratio	Peak Demand Parking Spaces
Retail	175	6.65	1,164
Residential			
Reserved	900	1.00	900
Residents	900	0.53	477
Guests	900	0.14	126

Weekend Demand

Hour	Retail	Residential Reserved	Residential Residents	Residential Guests	Total
6:00 AM	12	900	477	25	1,414
7:00 AM	58	900	429	25	1,413
8:00 AM	116	900	405	25	1,447
9:00 AM	349	900	382	25	1,656
10:00 AM	582	900	358	25	1,865
11:00 AM	756	900	334	25	2,016
12:00 PM	931	900	310	25	2,166
1:00 PM	1,047	900	334	25	2,306
2:00 PM	1,164	900	334	25	2,423
3:00 PM	1,164	900	334	25	2,423
4:00 PM	1,106	900	358	25	2,389
5:00 PM	1,047	900	405	50	2,403
6:00 PM	931	900	429	76	2,336
7:00 PM	873	900	463	126	2,362
8:00 PM	756	900	467	126	2,250
9:00 PM	582	900	472	126	2,080
10:00 PM	407	900	477	126	1,910
11:00 PM	175	900	477	101	1,652
12:00 AM	0	900	477	63	1,440

Denotes highest peak parking demand.
Source: Urban Land Institute, *Shared Parking, 2nd Edition,* 2005.

Parking Supply

If parking were provided solely on the basis of observed parking demand, vehicles searching for the last available parking spaces may encounter extended search times and long walking distances from intended destinations. The project as proposed consists of multiple parking structures to serve employees, residents and visitors. Visitors may find that some parking garages are more utilized than others due to location, accessibility, or a combination of both.

According to the ULI, parking lots are perceived as “full” at 85 to 95 percent of capacity, depending on the familiarity of the users. New users may take longer to find empty spaces. For a project mostly visited by new users, a “parking cushion” of 15 percent may be adequate. Regular visitors already have a working knowledge of the location of available spaces. For a project mostly visited by regulars, 5 percent may be adequate. Most likely, the shopping center as proposed would attract a mix of new and regular users. Therefore, a parking cushion of 10 percent ordinarily would be appropriate for the proposed project.

In recent years, some developments with multi-story parking structures, such as the proposed project, have implemented parking guidance systems that effectively reduce the recommended parking cushion. Basic parking guidance systems consist of roadway sensors that track ins and outs on each level of parking and display the results on electronic display boards throughout the garage. For developments with multiple garages, central display boards inform users of available parking at each garage. For both the casual and regular visitor, search times for available parking spaces is sharply reduced by parking guidance systems. Installation of a basic parking guidance system in the proposed project’s parking garages would conservatively reduce the required parking cushion to 5 percent. Therefore, with a basic parking guidance system in place, the recommended parking cushion would result in a recommended parking supply of 2,533 spaces (see Table 4).

The project as proposed would supply 2,970 spaces, substantially more than the estimated demand of 2,423 spaces and the recommended supply of 2,533 parking spaces. To ensure reasonable parking availability for residents, one parking space should be reserved exclusively for each dwelling unit. The remaining parking spaces should remain available for use by residents, guests, retail visitors, and employees. To maximize effectiveness of the parking guidance system, it is recommended that electronic boards should be installed at all project driveways to display parking availability at each garage with clear directional signage leading visitors to garage entrances.

Table 4
Recommended Parking Supply With Parking Guidance System

		Parking Supply	
Use	**ksf/units**	**Ratio**	**Parking Spaces**
Retail	175	6.98	1,222
Residential			
Reserved	900	1.00	900
Residents	900	0.61	549
Guests	900	0.15	135

Weekend Demand

		Residential			
Hour	**Retail**	**Reserved**	**Residents**	**Guests**	**Total**
6:00 AM	12	900	549	27	1,488
7:00 AM	61	900	494	27	1,482
8:00 AM	122	900	467	27	1,516
9:00 AM	366	900	439	27	1,733
10:00 AM	611	900	412	27	1,950
11:00 AM	794	900	384	27	2,105
12:00 PM	977	900	357	27	2,261
1:00 PM	1,099	900	384	27	2,411
2:00 PM	1,222	900	384	27	2,533
3:00 PM	1,222	900	384	27	2,533
4:00 PM	1,160	900	412	27	2,499
5:00 PM	1,099	900	467	54	2,520
6:00 PM	977	900	494	81	2,452
7:00 PM	916	900	533	135	2,484
8:00 PM	794	900	538	135	2,367
9:00 PM	611	900	544	135	2,189
10:00 PM	428	900	549	135	2,012
11:00 PM	183	900	549	108	1,740
12:00 AM	0	900	549	68	1,517

Denotes highest peak parking demand.

Source: Urban Land Institute, *Shared Parking, 2nd Edition,* 2005.

APPENDIX B
AIR QUALITY STUDY

Milpitas Mixed-Use Project
Milpitas, CA
Air Quality Study

Draft: May 22, 2008
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Prepared for:

Will Burns
David J. Powers & Associates
1885 The Alameda, Suite 204
San Jose, CA 95126

Prepared by:

James A. Reyff

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
505 Petaluma Boulevard South
Petaluma, CA 94952
(707) 766-7700

Job No.: 07-187

Introduction

This report presents results of an air quality impact assessment for the Milpitas Square project in Milpitas, California. The proposed project would expand the existing commercial site by allowing slightly more commercial use and residential uses. There would be an option to allow some hotel uses in lieu of residential units. The project site is currently developed with a commercial shopping center totaling 162,200 square feet of development. The shopping center includes a grocery store (99 Ranch Market) and five commercial strip buildings configured in a half-moon shape around a parking lot. Three additional commercial buildings are located along the western portion of the parking lot. The center is mainly leased by restaurant tenants, which serve the nearby industrial park campuses and City of Milpitas residents.

A proposed General Plan amendment and rezoning of the site would allow for the development of up to 175,000 square feet of commercial space and a maximum of 900 residential units.[1] The project also proposes the option of constructing a 380-room hotel in place of 205 residential units, which would result in a maximum of 468 residential units on the site; this variation is referred to as the *"Hotel Option"*. The proposed development would be constructed in five phases with a total of six structures on the site at build out of the project. The existing 99 Ranch Market would be retained at its current size in its existing location, with aesthetic renovations to the façade facing the main entrance plaza. The phasing of the development is structured to keep as much retail operational as possible throughout the duration of the construction on the site to allow shop owners to relocate on the property.

The project would create an urban mixed-use residential and commercial development, including public plazas that would allow residents to seek services within walking distance of their homes. The project will continue to provide a destination commercial center for employees of nearby office industrial parks and nearby hotel guests.

This analysis evaluates the air quality impacts of the proposed change in land uses between current uses and future allowable uses. The impact associated with the proposed development was also evaluated in terms of operational and construction impacts to air quality. The air quality study also evaluated the compatibility of placing new sensitive receptors near large air pollutant sources, specifically sources of diesel particulate matter emissions. Interstate 880 and State Route 237 are sources with potential to adversely affect air quality for nearby new sensitive receptors. This analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD)[2].

Overall Regulatory Setting

The Federal Clean Air Act governs air quality in the United States. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California Clean Air Act. At the federal level, the United States Environmental Protection Agency (USEPA) administers the federal Clean Air Act. The California Clean Air Act is administered by the California Air Resources Board (CARB) at the State level and by the

[1] The maximum amount of development allowed on the project site under the proposed General Plan land use designation and zoning are analyzed throughout this document unless otherwise noted.
[2] BAAQMD CEQA Guidelines for Assessing Air Quality Impacts from Projects and Plans, 1996, revised 1999.

Air Quality Management Districts at the regional and local levels. The Bay Area Air Quality Management District (BAAQMD) regulates air quality at the regional level, which includes the nine-county Bay Area.

United States Environmental Protection Agency

The US EPA is responsible for enforcing the Federal CAA. The US EPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). The NAAQS are required under the 1977 Clean Air Act and subsequent amendments. The US EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by CARB.

California Air Resources Board

In California, CARB, which is part of the California Environmental Protection Agency, is responsible for meeting the state requirements of the Federal Clean Air Act, administering the California Clean Air Act, and establishing the California Ambient Air Quality Standards (CAAQS). The California Clean Air Act requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CARB regulates mobile air pollution sources, such as motor vehicles. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB has established passenger vehicle fuel specifications. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level. CARB also conducts or supports research into the effects of air pollution on the public and develops innovative approaches to reducing air pollutant emissions.

Bay Area Air Quality Management District

BAAQMD is primarily responsible for assuring that the National and State ambient air quality standards are attained and maintained in the Bay Area. BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, as well as many other activities. BAAQMD has jurisdiction over much of the nine-county Bay Area counties.

National and State Ambient Air Quality Standards

As required by the Federal Clean Air Act, NAAQS have been established for six major air pollutants: carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O_3), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), sulfur oxides, and lead. Pursuant to the California Clean Air Act, the State of California has also established ambient air quality standards. These standards are generally more stringent than the corresponding federal standards and incorporate

additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. Both State and Federal standards are summarized in Table 1. The "primary" standards have been established to protect the public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation and other aspects of the general welfare. Because CAAQS are more stringent than NAAQS, CAAQS are used as the comparative standard in this analysis.

Table 1 Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards [a]	
			Primary [b,c]	Secondary [b,d]
Ozone	8-hour	0.07 ppm	0.075 ppm	—
	1-hour	0.09 ppm	—[e]	Same as primary
Carbon monoxide	8-hour	9.0 ppm	9 ppm	—
	1-hour	20 ppm	35 ppm	—
Nitrogen dioxide	Annual	0.03 ppm	0.053 ppm	Same as primary
	1-hour	0.18 ppm	0.030 ppm	—
Sulfur dioxide	Annual	—	0.03 ppm	—
	24-hour	0.04 ppm	0.14 ppm	—
	3-hour	—	—	0.5 ppm
	1-hour	0.25 ppm	—	—
PM_{10}	Annual	20 µg/m^3	--[f]	Same as primary
	24-hour	50 µg/m^3	150 µg/m^3	Same as primary
$PM_{2.5}$	Annual	12 µg/m^3	15 µg/m^3	
	24-hour	—	35 µg/m^3 [f]	
Lead	Calendar quarter	—	1.5 µg/m^3	Same as primary
	30-day average	1.5 µg/m^3	—	—

Notes: (a) Standards, other than for ozone and those based on annual averages, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.

(b) Concentrations are expressed first in units in which they were promulgated. Equivalent units given in parenthesis.

(c) Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than 3 years after that state's implementation plan is approved by the EPA.

(d) Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

(e) The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.

(f) The annual PM_{10} standard was revoked by U.S. EPA on September 21, 2006 and a new $PM_{2.5}$ 24-hour standard was established.

Criteria Air Pollutants and Effect

Air quality studies generally focus on five pollutants that are most commonly measured and regulated: carbon monoxide (CO), ground level ozone, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and suspended particulate matter, i.e., PM_{10} and $PM_{2.5}$. In the Santa Clara County, ozone and particulate matter are the pollutants of greatest concern since measured air pollutant levels exceed these concentrations at times.

Carbon Monoxide

CO, a colorless and odorless gas, interferes with the transfer of oxygen to the brain. It can cause dizziness and fatigue, and can impair central nervous system functions. CO is emitted almost exclusively from the incomplete combustion of fossil fuels. Automobile exhausts release approximately 70 percent of the CO in the Bay Area. A substantial amount also comes from burning wood in fireplaces and wood stoves. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. The highest CO concentrations measured in the Bay Area are typically recorded during the winter.

Ozone

Ozone, a colorless toxic gas, is the chief component of urban smog. Ozone enters the blood stream and interferes with the transfer of oxygen, depriving sensitive tissues in the heart and brain of oxygen. Although ozone is not directly emitted, it forms in the atmosphere through a chemical reaction between reactive organic gas (ROG) and nitrogen oxides (NO_X) under sunlight.[3] ROG and NOx are primarily emitted from automobiles and industrial sources. Ozone is present in relatively high concentrations within the Bay Area, and the damaging effects of photochemical smog are generally related to the concentration of ozone. Highest ozone concentrations occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. EPA lowered the 8-hour ozone standard in May 2008 to 0.075ppm.

Nitrogen Dioxide

NO_2, a reddish-brown gas, irritates the lungs. It can cause breathing difficulties at high concentrations. Like ozone, NO_2 is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as nitrogen oxides (NO_x) and are major contributors to ozone formation. NO_2 also contributes to the formation of PM_{10} (see discussion of PM_{10} below).

Sulfur Oxides

Sulfur oxides, primarily SO_2, are a product of high-sulfur fuel combustion. The main sources of SO_2 are coal and oil used in power stations, in industries, and for domestic heating. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 concentrations have been reduced to levels well below the state and national standards, but further reductions in emissions are needed to attain compliance with standards for PM_{10}, of which SO_2 is a contributor.

[3] ROG and NO_X are emitted from automobiles and industrial sources.

Suspended Particulate Matter

Particulate matter pollution consists of very small particles suspended in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when industry and gaseous pollutant undergo chemical reactions in the atmosphere. Respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$) represent fractions of particulate matter. PM_{10} refers to particulate matter less than 10 microns in diameter and $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter. Major sources of $PM_{2.5}$ results primarily from diesel fuel combustion (from motor vehicles, power generation, industrial facilities), residential fireplaces, and wood stoves. PM_{10} include all $PM_{2.5}$ sources as well as emissions from dust generated by construction, landfills, and agriculture; wildfires and brush/waste burning, industrial sources, windblown dust from open lands, and atmospheric chemical and photochemical reactions. PM_{10} and $PM_{2.5}$ pose a greater health risk than larger-size particles, because these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract increasing the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Whereas, larger particles tend to collect in the upper portion of the respiratory system, $PM_{2.5}$ are so tiny that they can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility. The U.S. EPA recently adopted a new more stringent standard of 35 $\mu g/m^3$ for 24-hour exposures, based on a review of the latest new scientific evidence. At the same time, the U.S. EPA revoked the annual PM_{10} standard due to a lack of scientific evidence correlating long-term exposures of ambient PM_{10} with adverse health effects.

Toxic Air Contaminants (TAC)

TACs are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to CARB, diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the ARB, and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants programs.

CARB reports that recent air pollution studies have shown an association that diesel exhaust and other cancer-causing toxic air contaminants emitted from vehicles are responsible for much of the overall cancer risk from TACs in California. Particulate matter emitted from diesel-fueled engines (diesel particulate matter [DPM]) was found to make up much of that risk. In August 1998, the CARB formally identified DPM as a TAC. Diesel particulate matter is of particular concern since it can be distributed over large regions, thus leading to widespread public exposure. The particles emitted by diesel engines are coated with chemicals, many of which

have been identified by EPA as hazardous air pollutants, and by CARB as TACs. Diesel engines emit particulate matter at a rate about 20 times greater than comparable gasoline engines. The vast majority of diesel exhaust particles (over 90 percent) consist of $PM_{2.5}$, which are the particles that can be inhaled deep into the lung. Like other particles of this size, a portion will eventually become trapped within the lung possibly leading to adverse health effects. While the gaseous portion of diesel exhaust also contains TACs, CARB's 1998 action was specific to DPM that accounts for much of the cancer-causing potential from diesel exhaust. California has adopted a comprehensive diesel risk reduction program to reduce DPM emissions 85 percent by 2020. The U.S. EPA and CARB adopted low sulfur diesel fuel standards in 2006 that reduce diesel particulate matter substantially.

In cooler weather, smoke from residential wood combustion can be a source of TACs. Localized high TAC concentrations can result when cold stagnant air traps smoke near the ground and, with no wind; the pollution can persist for many hours. This occurs in sheltered valleys during the winter. Wood smoke also contains a significant amount of PM_{10} and $PM_{2.5}$. Wood smoke is an irritant and is implicated in worsening asthma and other chronic lung problems.

Air Quality Planning

Bay Area Clean Air Plan

BAAQMD, along with the other regional agencies (i.e., ABAG and MTC), has prepared an Ozone Attainment Plan to address the 1-hour NAAQS for ozone. Although the U.S. EPA revoked the 1-hour NAAQS, commitments made in that plan along with emissions budgets remain valid until the region develops an attainment demonstration/maintenance plan for the 8-hour NAAQS for ozone. The region will be required to submit a maintenance plan and demonstration of attainment with a request for redesignation to EPA in when the 8-hour ozone NAAQS is met. A Carbon Monoxide Maintenance Plan was approved in 1998 by EPA, which demonstrated how NAAQS for carbon monoxide standard would be maintained.

Air quality plans addressing the California Clean Air Act are developed about every three years. The plans are meant to demonstrate progress toward meeting the more stringent 1-hour ozone CAAQS. The latest plan, which was adopted in January 2006, is called the *Bay Area 2005 Ozone Strategy*. This plan includes a comprehensive strategy to reduce emissions from stationary, area, and mobile sources. The plan objective is to indicate how the region would make progress toward attaining the stricter state air quality standards, as mandated by the California Clean Air Act. The plan is designed to achieve a region-wide reduction of ozone precursor pollutants through the expeditious implementation of all feasible measures. The plan proposes expanded implementation of transportation control measures (TCMs) and programs such as Spare the Air. Spare the Air is a public outreach program designed to educate the public about air pollution in the Bay Area and promote individual behavior changes that improve air quality. Some of these measures or programs rely on local governments for implementation.

The clean air planning efforts for ozone will also reduce PM_{10} and $PM_{2.5}$, since a substantial amount of this air pollutant comes from combustion emissions such as vehicle exhaust. In addition, BAAQMD adopts and enforces rules to reduce particulate matter emissions and develops public outreach programs to educate the public to reduce PM_{10} and $PM_{2.5}$ emissions (e.g., Spare the Night Program). SB 656 requires further action by CARB and air districts to

reduce public exposure to PM_{10} and $PM_{2.5}$. Efforts identified by BAAQMD in response to SB656 are primarily targeting reductions in wood smoke emissions and adoption of new rules to further reduce NOx and particulate matter from internal combustion engines and reduce particulate matter from commercial charbroiling activities. NOx emissions contribute to ammonium nitrate formation that resides in the atmosphere as particulate matter. The Bay Area experiences the highest PM_{10} and $PM_{2.5}$ in winter when wood smoke and ammonium nitrate contributions to particulate matter are highest.

Physical Setting

Climate and Topography

The project is located in Milpitas, in the northern Santa Clara Valley. The proximity of this location to both the Pacific Ocean and the San Francisco Bay has a moderating influence on the climate. The valley is bounded to the north by the San Francisco Bay and by mountains to the east, south, and west. The surrounding terrain greatly influences winds in the valley, resulting in a prevailing wind that follows along the valley's northwest-southeast axis. During the afternoon and early evening, a north-northwesterly sea breeze often flows from the Bay through the valley, and a light south-southeasterly drainage flow often occurs during the late evening and early morning hours. Wind data collected at Alviso and Mineta San José International Airport characterize wind flow at the project site. Winds are mostly from the northwest (off the bay), occurring about 50% of the time. Wind flow from the southeast occurs about 25% of the time, with light and variable winds occurring the other 25% of the time. Wind speed on average is about 5 miles per hour.

Typical summer maximum temperatures for the region are in the low 80's, while winter maximum temperatures are in the high 50's or low 60's. Minimum temperatures usually range from the high 50's in the summer to the upper 30's and low 40's in the winter. Rainfall in the valley is approximately 15 to 20 inches per year, occurring mostly in the months of November through March.

Air quality standards for ozone traditionally are exceeded when relatively stagnant conditions occur for periods of several days during the warmer months of the year. Weak wind flow patterns combined with strong inversions substantially reduces normal atmospheric mixing. Key components of ground-level ozone formation are sunlight and heat; therefore, significant ozone formation only occurs during the months from late spring through early fall. Prevailing winds during the summer and fall can transport and trap ozone precursors from the more urbanized portions of the Bay Area. Meteorological factors make air pollution potential in the Santa Clara Valley quite high. The clear skies with relatively warm conditions that are typical in summer combine with transported and localized air pollutant emissions to elevate ozone levels. The surrounding mountains up slope and down slope flows may also recirculate pollutants already present, contributing to the buildup of air pollution. Light winds and stable conditions during the late fall and winter contribute to the buildup of particulate matter from motor vehicles, agriculture, and wood burning in fireplaces and stoves.

Air Monitoring Data

Air quality in the region is controlled by the rate of pollutant emissions and meteorological conditions. Meteorological conditions such as wind speed, atmospheric stability, and mixing height may all affect the atmosphere's ability to mix and disperse pollutants. Long-term variations in air quality typically result from changes in air pollutant emissions, while frequent, short-term variations result from changes in atmospheric conditions. The San Francisco Bay Area is considered to be one of the cleanest metropolitan areas in the country with respect to air quality. The BAAQMD monitors air quality conditions at over 30 locations throughout the Bay Area. There are several BAAMQD monitoring stations in San José, which are closest to this part of Milpitas. Air pollutant concentrations measured at stations closest to the project area are shown in Table 2.

The pollutant of most concern in the Milpitas area is ozone, since prevailing summertime wind conditions tend to cause a build up of ozone in the Santa Clara Valley. Ozone levels measured in San Jose, exceeded the state ozone standard from 0 to 5 times in 2002-2006. The 8-hour national ozone standard was only exceeded once in the last five years and that was in 2006 during an extended heat wave. Measured exceedances of the state PM_{10} standard have occurred between 2 and 3 measurement days each year in San José (estimated at 12 to 18 days). PM_{10} and $PM_{2.5}$ are measured every sixth day. Exceedances of the federal $PM_{2.5}$ standard of 65 µg/m^3 were not measured in San José; however, the new standard of 35 µg/m^3 was exceeded on six measurement days during 2006 (estimated 36 days per year). The entire Bay Area, including San Jose, did not experience any exceedances of other air pollutants. Table 3 reports the number of days that an ambient air quality standard was exceeded at any of the stations in San José near the project and in the entire Bay Area.

Table 2 Highest Measured Air Pollutant Concentrations

Pollutant	**Average Time**	**Measured Air Pollutant Levels**				
		2002	**2003**	**2004**	**2005**	**2006**
East San Jose						
Ozone (O_3)	1-Hour	0.09 ppm	**0.10** ppm	0.09 ppm	**0.11 ppm**	NA
	8-Hour	0.07 ppm	0.07 ppm	0.07 ppm	0.08 ppm	NA
San José 4th Street/Central (relocated in 2002)						
Ozone (O_3)	1-Hour	NA	**0.12** ppm	0.09 ppm	**0.11** ppm	**0.12** ppm
	8-Hour	NA	0.08 ppm	0.07 ppm	0.08 ppm	0.09 ppm
Carbon Monoxide (CO)	8-Hour	4.5 ppm	4.0 ppm	2.9 ppm	3.1 ppm	2.9 ppm
Nitrogen Dioxide (NO_2)	1-Hour	0.08 ppm	0.09 ppm	0.07 ppm	0.07 ppm	0.07 ppm
	Annual	NA	0.021ppm	NA	0.019ppm	0.018ppm
Respirable Particulate Matter (PM_{10})	24-Hour	**70** ug/m^3	**60 ug/m^3**	**58 ug/m^3**	**54 ug/m^3**	**73 ug/m^3**
	Annual	NA	**23** ug/m^3	**23** ug/m^3	**22 ug/m^3**	**21 ug/m^3**
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	58 ug/m^3	56 ug/m^3	52 ug/m^3	55 ug/m^3	**64 ug/m^3**
	Annual	NA	12 ug/m^3	12 ug/m^3	12 ug/m^3	11 ug/m^3

Bay Area (Basin Summary)						
Ozone (O_3)	1-Hour	**0.16** ppm	**0.13** ppm	**0.11** ppm	**0.11** ppm	**0.13** ppm
	8-Hour	**0.11** ppm	**0.10** ppm	0.08 ppm	0.08 ppm	**0.10 ppm**
Carbon Monoxide (CO)	8-Hour	4.5 ppm	4.0 ppm	3.4 ppm	3.4 ppm	2.9 ppm
Nitrogen Dioxide (NO_2)	1-Hour	0.08 ppm	0.09 ppm	0.07 ppm	0.07 ppm	0.11 ppm
	Annual	0.014ppm	0.021ppm	0.019ppm	0.019ppm	0.018ppm
Respirable Particulate Matter (PM_{10})	1-Hour	**84** µg/m^3	**60** µg/m^3	**65** µg/m^3	**81** ug/m^3	**90** ug/m^3
	Annual	**25** ug/m^3	**25** ug/m^3	**26** ug/m^3	**24 ug/m^3**	**23 ug/m^3**
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	**77** µg/m^3	56 µg/m^3	**74** µg/m^3	55 µg/m^3	**64** µg/m^3
	Annual	**14** ug/m^3	12 ug/m^3	12 ug/m^3	12 ug/m^3	11 ug/m^3

Source: BAAQMD Air Quality Summaries for 2002, 2003, 2004, 2005, and 2006 and California Air Resources Board Air Quality Data website http://www.arb.ca.gov/aqd/aqdpage.htm.
Note: ppm = parts per million and ug/m^3 = micrograms per cubic meter
Values reported in bold exceed ambient air quality standard
NA = data not available.

Table 3 Annual Number of Days Exceeding Ambient Air Quality Standards

Pollutant	**Standard**	**Monitoring Station**	Days Exceeding Standard				
			2002	**2003**	**2004**	**2005**	**2006**
Ozone (O_3.)	NAAQS 1-hr	San Jose BAY AREA	0 2	0 1	0 0	X X	X X
	NAAQS 8-hr	San Jose BAY AREA	0 7	0 7	0 0	0 1	1 12
	CAAQS 1-hr	San Jose BAY AREA	0 16	4 19	0 7	1 9	5 18
	CAAQS 8-hr	San Jose BAY AREA	-- --	-- --	-- --	1 9	5 22
Fine Particulate Matter (PM_{10})	NAAQS 24-hr	San Jose BAY AREA	0 0	0 0	0 0	0 0	0 0
	CAAQS 24-hr	San Jose BAY AREA	2 6	2 6	3 7	2 6	2 15
Fine Particulate Matter ($PM_{2.5}$)	NAAQS 24-hr*	San Jose BAY AREA	NA 7	0 0	0 1	0 0	6 10
All Other (CO, NO_2, Lead, SO_2)	All Other	San Jose (Tully) BAY AREA	0 0	0 0	0 0	0 0	0 0

* Based on standard of 65 µg/m^3 that was in place until September 21, 2006, then 35 µg/m^3 standard.
X = Standard revoked in 2004.
NA = data not available.

Attainment Status

Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. The Bay Area as a whole does not meet State or federal ambient air quality standards for ground level O_3 and State standards for PM_{10} and $PM_{2.5}$.

Under the Federal CAA, the US EPA has classified the region as marginally nonattainment for the 8-hour O_3 standard. EPA requires the region to attain the standard by 2007. The Bay Area has met the CO standards for over a decade and is classified *attainment maintenance* by the US EPA. The US EPA grades the region *unclassified* for all other air pollutants, which include PM_{10} and $PM_{2.5}$.

At the State level, the region is considered *serious non-attainment* for ground level O_3 and non-attainment for PM_{10}. California ambient air quality standards are more stringent than the national ambient air quality standards. The region is required to adopt plans on a triennial basis that show progress towards meeting the State O_3 standard. The area is considered attainment or unclassified for all other pollutants.

Recent $PM_{2.5}$ monitoring data for San José suggest that Santa Clara County exceeds the new national $PM_{2.5}$ standards for 24-hour exposures. U.S. EPA is expected to make rulings on area attainment designations in 2010 based on 2007 to 2009 monitoring data. Most nonattainment areas would have until 2015 to attain the standards with some extensions to 2020 possible.

Sensitive Receptors

Some groups of people are more affected by air pollution than others. CARB has identified the following people who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks.

Air Quality Impacts and Mitigations

Thresholds of Significance

CEQA Guidelines prepared by BAAQMD are used to establish the significance criteria to judge the impacts caused by the project. The following are the significance criteria that are used to judge project impacts:

- Conflict with or obstruct implementation of the applicable air quality plan.
- A substantial contribution to an existing or project violation of an ambient air quality standard would result if the project would cause an exceedance of the California Ambient Air Quality Standard for carbon monoxide of 9.0 parts per million over an 8-hour averaging period:

- A cumulatively considerable net increase of any criteria pollutant or a precursor to that pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors). This is judged by comparing direct and indirect project emissions to BAAQMD significance thresholds of 80 pounds per day for ROG, NOx, or PM_{10}.
- Expose sensitive receptors or the general public to substantial pollutant concentrations.
- Create or expose a substantial number of people to objectionable odors.

Potential Impact 1: Conflict with or obstruct implementation of the applicable air quality plan? *Significant*

The City of Milpitas has substantially more jobs than employed residences (a jobs/housing ratio of about 1.4). The proposed project would create additional residential development and will incrementally improve the jobs/housing balance in the City. Providing housing for more of the City's workers is expected to help reduce traffic congestion, commute times, and regional air pollution levels. The project includes commercial and retail services that would accommodate the residential development. In addition, the project is served by local transit with direct connections to regional transit. Regional transit is located approximately ½-mile from the project site. However, the project would result in a General Plan amendment that would change the land use designation of the site from General Commercial to allow for mixed-use high density residential development. The change in land uses could conflict with the latest Clean Air planning efforts since additional residential development would be allowed beyond projections used for clean air planning purposes. As a result, the project would have a *significant* impact with respect to consistency with regional clean air planning. *There are no practical measures to reduce this impact in an urbanized setting*.

The 2005 Bay Area Ozone Strategy includes 20 transportation control measures, of which seven require participation at the local level. Seven of the adopted TCMs (Nos. 1, 9, 12, 15, 17, 19 and 21) identify local governments as implementing agencies and are listed by BAAQMD in their CEQA Guidelines. Future development, primarily residential, associated with the project cannot individually implement the listed measures. Although most TCMs would be implemented through the City's General Plan policies, mitigation measures would be needed for future development at the project site to ensure that appropriate TCM implementation. Without appropriate mitigation measures, adoption of the proposed GPA would have a *significant impact*.

Mitigation Measure 1: Include Clean Air Plan transportation control measures to reduce motor vehicle emissions.

To ensure incorporation of appropriate Clean Air Plan TCMs, the features listed below shall be included in the project. Implementation of the measures listed below along with the City's General Plan requirements would reduce vehicle-related emission in a manner consistent with the Clean Air Plan.

- Bicycle amenities should be provided. This would include secure residential bicycle parking, bicycle racks for commercial and residential visitors, and bike lane connections.
- Pedestrian facilities should include easy access to bus stops and roadways that serve the site.

- Implement a landscape plan that provides shade trees along adjacent sidewalks.

- Consider requirements for unbundling a portion of the residential parking spaces.

Potential Impact 2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation? *Less than significant*

Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Measured carbon monoxide levels have been at healthy levels (i.e., below state and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. There is an ambient air quality monitoring station in central San Jose that measures carbon monoxide concentrations. The highest measured level over any 8-hour averaging period during the last 3 years is 3.4 parts per million (ppm). The contribution of project-generated traffic to these levels was predicted following the screening guidance recommended by BAAQMD. Future carbon monoxide levels were predicted near these intersections for existing conditions and with the project in place using traffic projections provided by Fehr & Peers Transportation Consultants. Emission factors used were calculated using the EMFAC2007 model, developed by the California Air Resources Board, with default assumptions for Santa Clara County during winter that include a temperature of 40 deg. F. A slow speed of 5 miles per hour was used that results in higher emission rates. This screening analysis included the number of through lanes in the intersection configuration with a receptor located at the edge of the roadway. Screening calculations are provided in Attachment 1. Refined modeling using wider roadways that account for turn lanes would result in lower concentrations due to the increased mixing zone. Results are reported as follows:

Table 4 Predicted Roadside Carbon Monoxide Concentrations

Description	Existing 2007	Project	Cumulative
W. Calaveras Blvd and S. Abel St.	6.8 ppm	6.3 ppm	5.2 ppm
Tasman Dr. and McCarthy Blvd.	5.8 ppm	5.9 ppm	4.9 ppm
BAAQMD Thresholds	*9.0 ppm (CAAQS)*		

The highest 8-hour concentration with the project in place (in about 2015) is predicted to be 6.3 ppm over an 8-hour averaging period. This concentration would occur along West Calaveras Boulevard, east of the Interstate 880 freeway interchange at South Abel Street. This is the most

congested surface street intersection with the highest traffic volumes that is affected by the project. Lower concentrations would occur at other intersections affected by project traffic. The results of this screening analysis indicate that project levels would be below the California ambient air quality standard (used to judge the significance of the impact) of 9.0 ppm; therefore, the impact is considered less-than-significant. Had levels been above the ambient air quality standards, a more refined analysis would have been conducted using the CALINE4 dispersion model and actual lane-receiver geometry.

Potential Impact 3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? *Significant*

The Bay Area is considered a non-attainment area for ground-level ozone under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM_{10}), and particulate matter with a diameter of less than 2.5 micrometers ($PM_{2.5}$) under the California Clean Air Act, but not the Federal Act. The area has attained both state and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM_{10}, BAAQMD has established thresholds of significance for air pollutants. These thresholds are for ozone precursor pollutants (reactive organic gases and nitrogen oxides) and PM_{10}. The Bay Area has attained carbon monoxide standards.

The project would add new traffic trips, which would lead to increased emissions of air pollutants. Emissions of air pollutants associated with the project were predicted using the URBEMIS2007 model (Version 9.2.4), distributed by the Rimpo Associates (*www.urbemis.com*) and recommended for use by BAAQMD. This model predicts daily emissions associated with land use developments. The model combines predicted daily traffic activity, associated with the different land use types, with emission factors from the State's mobile emission factor model (i.e., EMFAC2007). Fehr & Peers Transportation Consultants provided trip generation rates in the project traffic report. These trip rates included trip reductions associated with project internalization and diverted trips (e.g., onsite retail uses serving onsite residences). The model also predicts area source emissions associated with the proposed project, which are minor compared to emissions associated with traffic. Emissions associated with current uses of the site were also calculated and subtracted from the project emissions to predict the net change in air pollutant emissions. URBEMIS2007 Model output files are included as Attachment 2. Daily emissions predicted with full build out of the project scenarios are reported in Table 5 and compared against BAAQMD thresholds.

Table 5 Daily Project Emissions in Pounds Per Day

Scenario	Modeled Daily Emissions in Pounds Per Day (lbs/day)			
	Reactive Organic Gases (ROG)	**Nitrogen Oxides (NOx)**	**Respirable Particulates (PM_{10})**	**Fine Particulates ($PM_{2.50}$)**
New sources to be added (12.8 ksf Commercial and 673 Townhomes)	Area: 51 Mobile: 56 **Total: 107**	Area: 7 Mobile: 59 Total: 66	Area: <1 Mobile: 118 **Total: 118**	Area: <0.1 Mobile: 22 Total: 22
BAAQMD Thresholds	*80*	*80*	*80*	--

Emissions of PM_{10} and ROG, as shown in Table 5, would exceed the significance thresholds established by BAAQMD. Emissions of other air pollutants would be below the thresholds. BAAQMD has not established thresholds for $PM_{2.5}$ at this time. However, PM_{10} emissions can include some $PM_{2.5}$, which would contribute to unhealthful levels in the South Bay Area.

The project's emissions of PM_{10} could contribute to regional PM_{10} and $PM_{2.5}$ concentrations. Most areas of the South Bay exceed the health-based State ambient air quality standards about 12 to 24 days per year. The State annual PM_{10} standard has been exceeded in each of the last three years in San Jose. Monitoring data indicate that $PM_{2.5}$ levels exceed the new national 24-hour standard for $PM_{2.5}$. The project impacts would be regional in nature since most of the emissions are produced by vehicle travel that is spread out over a broad area. PM_{10} and $PM_{2.5}$ are air pollutants that, at high concentrations, can result in damage to the respiratory tract increasing the number and severity of asthma attacks, cause or aggravate bronchitis, and other lung diseases. High PM_{10} levels also degrade visibility.

Project ROG emissions would primarily be associated with use of consumer products associated with residential uses. These products include cleaners, perfumes/deodorants, solvents and paints. These sources of air pollutants are regulated to some manner through CARB Consumer Products Program. ROG is a precursor air pollutant to ground level ozone. Emissions of ozone precursor pollutants that exceed the significance thresholds could impact the regions' effort to attain and maintain the ozone ambient air quality standards. Ozone is an air pollutant that exacerbates lung diseases (e.g., asthma) and can interfere with the body's ability to transfer oxygen to sensitive tissues. Emissions associated with the project are not likely to have a measurable effect on ozone concentrations in the region, but when combined with emissions from other sources in the region, they constrain efforts to reduce regional emissions to attain the health-based ambient air quality standards throughout the Bay Area.

The PM_{10} and ROG emissions are predicted to be above the significance thresholds established by BAAQMD, and therefore, would be considered *significant*.

Mitigation Measure 2: This mitigation measure should be implemented in addition to Mitigation Measure 1 that would also reduce PM_{10} emissions. Further reduce air pollutant emissions from both traffic trips and area sources through the measures listed below. The combination of mitigation measures Mitigation Measures 1 and 2 could reduce emissions by about 10%; however, emissions of ROG and

PM_{10} would continue to be above the BAAQMD significance thresholds. As a result, the impact would be *significant and unavoidable.*

- Provide exterior electrical outlets to encourage use of electrical landscape equipment.
- Prohibit idling of trucks at loading docks for more than 3 minutes and include signage indicating such a prohibition.
- If necessary, provide 110- and 220-volt electrical outlets at loading docks to eliminate any idling of trucks to operate auxiliary equipment.
- Implement a landscape plan that provides shade trees along pedestrian pathways.
- Implement "Green Building" designs, such a Leadership in Energy and Environmental Design (LEED) or Green Point Rated into buildings to increase energy efficiency, which would reduce the future energy demand caused by the project, and therefore, reduce air pollutant emissions indirectly.
- Explore options to provide shuttle service to the Tasman Light Rail Station

Potential Impact 4: Expose sensitive receptors to substantial pollutant concentrations? *Less than significant with appropriate mitigation*

Operation of the project is not expected to cause any localized emissions that could expose existing sensitive receptors to unhealthy air pollutant levels. Construction activities would result in localized emissions of dust and diesel exhaust that could result in temporary impacts to adjacent land uses. These impacts are evaluated under a separate impact. The project would place new sensitive receptors near a freeway interchange (Interstate 880 and State Route 237), which is a source of diesel particulate matter (DPM) emissions. In addition, new commercial uses could pose a health threat to new project sensitive land uses. Each of these impacts are described below.

CARB Guidance and Ambient Health Risk

In 2005, CARB released the final version of the Air Quality and Land Use Handbook, which is intended to encourage local land use agencies to consider the risks from air pollution prior to making decisions that approve the siting of new sensitive receptors (e.g., schools, homes or daycare centers) near sources of air pollution. The proposed project would be located within 200 feet from State Route 237 and about less than 200 feet from I-880). CARB recommends that new residential construction be setback 500 feet from freeways or large arterials to avoid chronic health effects from air pollution exposure. Diesel particulate matter emitted from train locomotives and trucks are the primary pollutant of concern. The recommendation is general and does not distinguish between different types of freeways and rail yards in California or the prevailing dispersion conditions that are site specific. Drycleaners that use certain solvents were identified in this handbook by CARB as posing chronic health issues to nearby sensitive uses (e.g., located within 300 feet) where activities using solvents are occurring.

Unlike industrial or stationary sources of air pollution, siting of new sensitive receptors does not require air quality permits or approval by Air Districts, but could create air quality problems. The primary purpose of the CARB handbook is to highlight the potential health impacts associated with proximity to common air pollution sources, so that those issues are considered in the planning process. CARB makes recommendations regarding the siting of new sensitive land uses near freeways, truck distribution centers, rail yards, marine ports, dry cleaners, gasoline dispensing stations, and other air pollution sources. These "advisory" recommendations include general setbacks or buffers from air pollution sources. The setbacks are based primarily on modeling information and are not reflective of site-specific conditions in Milpitas. Siting of new sensitive land uses within these recommendation distances may be possible, but only after site-specific studies are conducted to identify the actual health risks. This study considers local conditions such as source strength meteorological conditions, and actual setbacks. CARB acknowledges that land use agencies have to balance other siting considerations such as housing and transportation needs, economic development priorities and other quality of life issues.

Since identifying diesel particulate matter as a toxic air contaminant, CARB has conducted studies to identify existing health effects from exposure to DPM. CARB has identified the average year 2000 statewide potential cancer risks at 540 excess cases per million people[4]. The potential risk near high volume freeways was found to be much higher. The risk is predicted to decrease in the future due to plans to reduce diesel particulate matter emissions from a variety of sources. The 2000 CARB report predicts an average statewide risk at 360 excess cancer cases per million people in 2020. Modeling information compiled by CARB indicates that the current cancer risk due to DPM in Milpitas is about 750 to 1,000 excess cases per million people[5]. The risk is anticipated to be reduced to 100 to 250 cases by 2010, assuming major components of the diesel reduction plan are implemented in a timely manner[4].

Exposure of Proposed Residences to DPM from State Route 237 and I-880

Traffic along SR 237 and I-880 emits diesel particulate matter (DPM) that would affect the project site. A majority of DPM emitted from traffic is from trucks, especially heavy-duty trucks. According to Caltrans, SR 237 through Milpitas carries about 89,000 average annual daily trips, in which about 3% are trucks. Interstate 880 carries about 175,000 average annual daily trips, which over 5% are trucks[6].

Analysis of Site-Specific DPM Cancer Risk

Future concentrations of DPM from traffic were predicted at the project site. The analysis involved the prediction of DPM emissions for traffic using the latest version of CARB EMFAC2007 emission factor model with defaults for Santa Clara County. The emission factors were then used in the Cal3qhcr dispersion model to predict average DPM concentrations and

[4] -California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel Fueled Engines and Vehicles*, 2000.

[5] -California Air Resources Board http://www.arb.ca.gov/toxics/cti/hlthrisk/cncrinhl/riskmapviewfull.htm

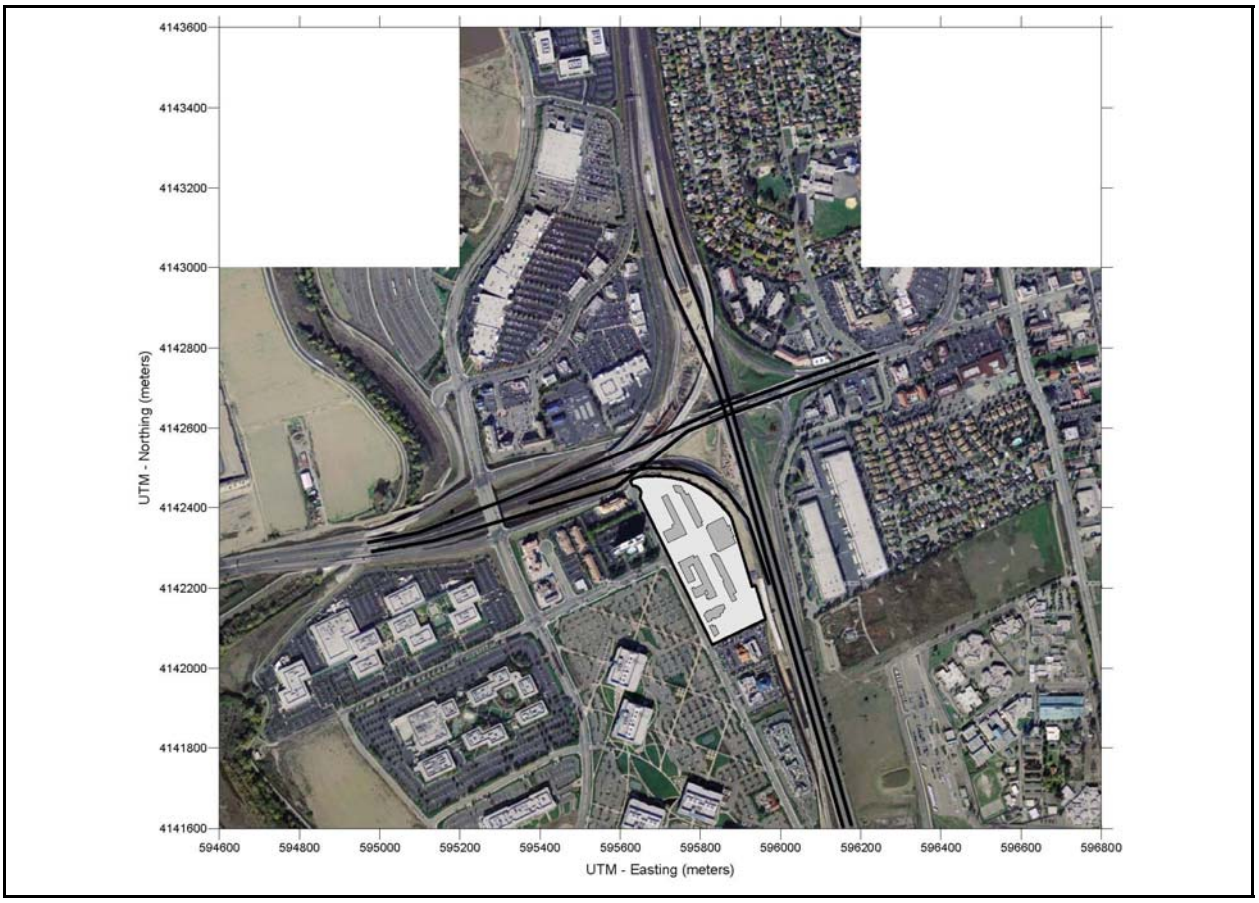
[6] -Caltrans, Based on 2005 Average Annual Daily Truck Traffic on the California State Highway System - http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/

compute the resulting health risks. Technical information developed from this analysis to support the report findings are contained in Attachment 2.

EMFAC2007 is the recent version of the CARB motor vehicle emission factor model, released in November 2006. DPM emissions are predicted by the model to decrease in the future. Since this analysis assesses the risk of proposed residences that could reside at the project for well into the future, the lower future emissions were taken into account. The horizon year for residences was 2030 (assuming emission rates and traffic do not change beyond 2030). The EMFAC2007 results were then adjusted to the traffic mix on the roadways. Annual average daily traffic volume and truck mix for I-880 and SR 237 was based on information reported by Caltrans. Emission factors are speed dependent. Vehicle speeds were assumed to be 55 mph near the project. Emission factors were developed for 2010, 2015, 2020, 2025, and 2030 using the calculated mix of diesel-fueled vehicles.

The Cal3qhcr dispersion modeling of the DPM emissions used a 5-year set of meteorological data for Alviso that was obtained from the BAAQMD. Other inputs to the model included geometry, traffic volumes, and the DPM emission factors described above. Traffic was assumed to increase at a rate of about 1% per year, which is consistent with the projections used in the project traffic study. A view showing the project and roadway links are shown in Figure 1. Modeling inputs and results are also included as Attachment 3.

Figure 1 Aerial view showing roadway links and receptors used in DPM modeling



The maximum individual cancer risks were computed using the methods recommended by the California Office Of Environmental Health Hazard Assessment (OEHHA) that assume almost continuous exposure over a 70-year lifetime for residence. This results in DPM unit risk factors of 318.6 for residential exposure. The residential unit risk factor is applied to the time weighted average DPM concentration expressed in microgram per cubic meter ($\mu g/m^3$) to calculate the residential cancer risk. The maximum concentrations of DPM and resulting health risk occur at proposed residences closest to the freeways and generally decrease towards the southwest (i.e., away from the roadways).

The analysis included the conservative assumption that exposure to DPM will be almost continuous for a 70-year period beginning in 2010. Lower future vehicle emission rates that have been established by regulations through 2006 were taken into account. Future regulatory actions not yet adopted that would continue to lower emissions rates were not included. CARB's diesel reduction plan[7] includes proposed regulatory actions developed in 2000 that are intended to substantially decrease emissions of DPM. CARB has implemented many of the control measures outlined in the plan and most of those actions are reflected in the EMFAC2007 model runs. Additional measures will be adopted in the near future, which were not included in the emission factors. Such measures include a proposed regulation to reduce DPM emissions from

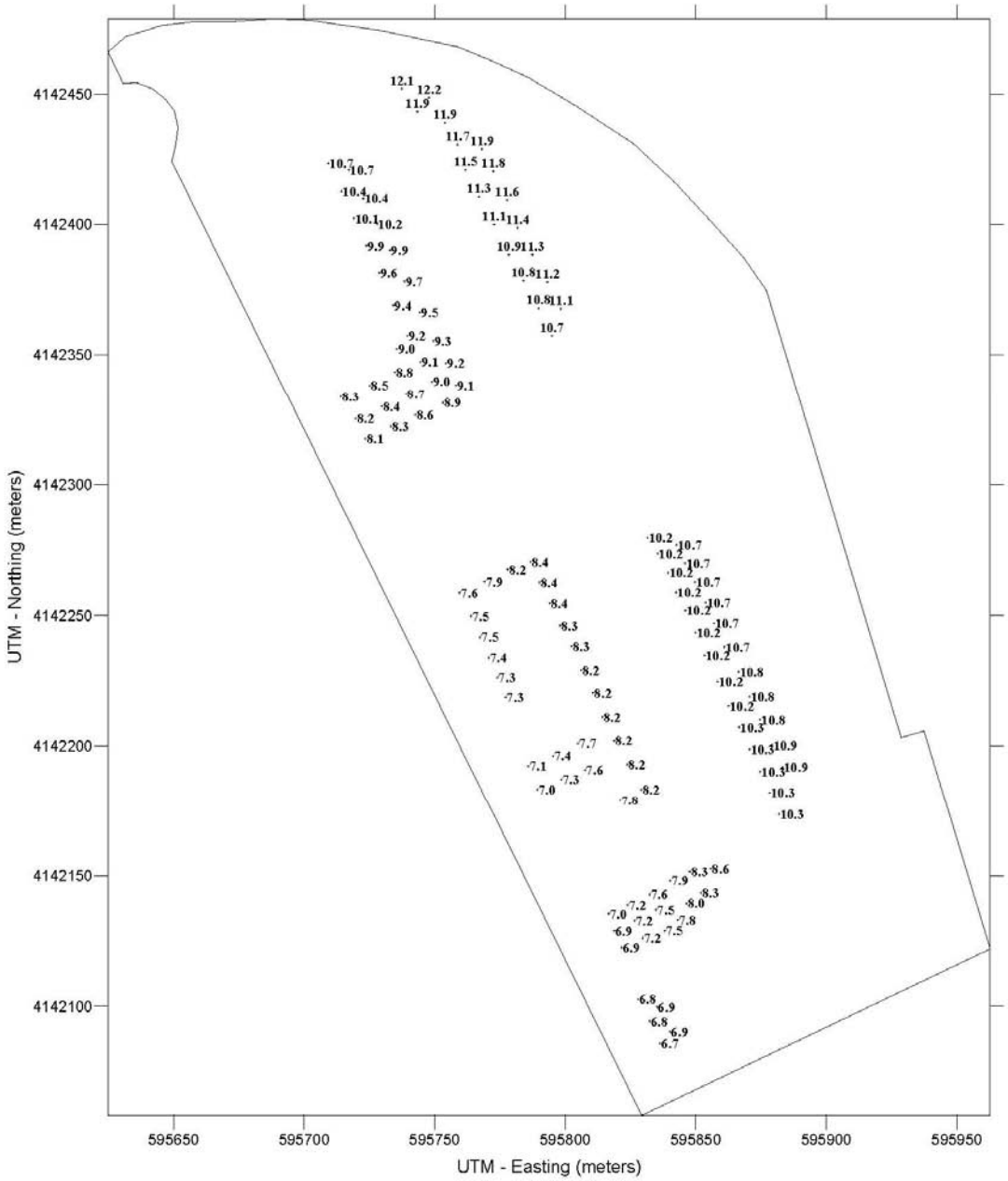
[7] CARB. 2000, Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October

in-use on-road diesel-fueled vehicles. This regulation would require truck fleet owners to either retrofit or phase out older engines over time. The analysis did not include these additional reduction features.

The U.S. EPA considers 9 years to be the estimate of average residence time, 30 years to be the high-end of residence time, and 70 years to be representative of lifetime exposure. The average residency exposure of 9 years should take into account children, which have a higher intake rate based on body weight. OEHHA recommends the 70-year lifetime exposure period for determining residential cancer risks[8]. This recommendation is accepted by BAAQMD and required for use in risk assessments, including those conducted for CEQA only purposes. This 70-year exposure period would ensure that a person residing in the vicinity of the freeway for a lifetime would be included in the evaluation. The lifetime (or 70-year exposure) has been the historical benchmark for comparing facility impacts on sensitive receptors. OEHHA recognizes that although it is not likely that most people will reside at a single residence for 70 years, it is common that people will spend their entire lives in a major urban area. While residing in urban areas it is quite possible to be exposed to the emissions of other sources at the next residence. According to OEHHA, exposure durations of 9 years and 30 years may also be evaluated as supplemental information to show the range of cancer risk based on residency periods. The modeled receptors and their associated health risk are shown in Figure 2. Maximum cancer risks are shown in Table 6 for the different averaging periods.

[8] OEHHA. 2003. Air Toxics Hot Spots Program Risk Assessment Guidelines - The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. August.

Figure 2 Modeled 70-year cancer risk at receptors used in DPM modeling



The proposed residences closest to both State Route 237 and Interstate 880 would have annual DPM concentrations that are predicted to be up to 0.10 $\mu g/m^3$ in 2010 and decrease to about 0.03 $\mu g/m^3$ by 2030. Over the course of a 70-year lifetime exposure, the incremental risk at maximally exposed proposed residences would range from 7 to 12 excess cancer cases per million people. BAAQMD considers an incremental risk of greater than ten cases per million at the Maximally Exposed Individual or MEI for a 70-year exposure period to result in a significant impact. Therefore, portions of the residential part of the project could expose sensitive receptors to unhealthy levels of air pollutants. This would be considered a *significant* impact.

Table 6 Maximum computed cancer risks due to exposure to freeway traffic for different exposure periods

Exposure Type	Maximum Computed Cancer Risk Per million
70-year lifetime*	12.2
30-year Adult	6.8
9-year Adult	3.4
9-year Child	6.6
* BAAQMD policy is to judge impacts based on 70-year exposure	

Exposure of Proposed Residences to Onsite Commercial Operations

There is a retail dry cleaning site that is assumed to remain with the project (Kathy's Cleaner). This site does not conduct onsite dry cleaning; therefore, it would not pose any substantial health risk to new residences. No other uses have been identified that could cause unhealthy air pollutant concentrations for new sensitive receptors, such as residences.

DPM Mitigation Measures

The analysis shows that health risks from exposure to diesel particulate matter from nearby freeway traffic would be significant for a portion of the project site. The year 2010 was used as the first year of occupancy and exposures are calculated to occur for 9 to 70 years thereafter. Emission rates of diesel particulate matter from traffic are anticipated to decrease substantially in the future. The EMFAC2007 model used in this analysis indicates that 2015 rates would be 35% lower than 2010 rates. The rates in 2020 would be nearly half of the 2010 rates and the 2030 rates would decrease 70% below the 2010 rates. The decrease would be attributable to many of CARB measures implemented as part of their Diesel Risk Reduction Plan. However, the decrease in emissions rates would be partially offset by traffic growth. As a result, the significant health risk findings are primarily due to exposure to the higher levels of diesel particulate matter that would occur during the first 5 years of the project. Controlling the exposure of future occupants to diesel particulate matter during the first 5 years of the project could reduce the impact to a *less-than-significant* level.

The exposure could be controlled in two ways: 1) delay occupancy of the portions of the site where significant health risks are predicted by up to 3 years [until 2015], or 2) provide centralized forced air mechanical ventilation systems with appropriate filter systems in those units and discouraging the occupants from using their windows.

A properly designed and installed heating, ventilation and air conditioning (HVAC) system with filtration would adequately reduce exposure to particulate matter. This HVAC system shall maintain positive pressure in all living areas and include high efficiency filters for particulates. Air intakes for the HVAC systems shall be placed at positions that minimize roadway air pollution sources. A licensed mechanical engineer shall certify that the designed HVAC system

offers the best available technology to minimize outdoor to indoor transmission of air pollution. The developer shall ensure an ongoing maintenance plan for the HVAC and filtration systems. Residences would have to be equipped with low-air infiltration windows and doors with seals to prevent air contamination. Opening of windows by occupants would reduce the effectiveness of this measure. Instructions regarding the proper use of any installed air filtration systems shall be provided to future occupants.

In addition, the project sponsor shall provide notification (e.g., in the form of a fact sheet) to new affected project residents of the incremental health risks presented by exposure to concentrations of diesel particulate matter generated by State Route 237 and Interstate 880 truck traffic. This notification shall describe the harmful effects of diesel particulate matter, sources of this contaminant, potential level of exposure and the planning/regulatory efforts being taken to reduce harmful effects.

Construction Dust

During demolition, grading and construction activities, dust would be generated. Most of the dust would result during demolition and grading activities. The amount of dust generated would be highly variable and is dependent on the size of the area disturbed, amount of activity, soil conditions and meteorological conditions. Typical winds during late spring through summer are from the north. Nearby land uses are mostly commercial or offices. The nearest sensitive land uses is a daycare facility about 800 feet or further south of the site. In addition, adjacent active land uses could be adversely affected by dust generated during construction activities.

Although grading and construction activities would be temporary, they would have the potential to cause both nuisance and health air quality impacts. PM_{10} is the pollutant of greatest concern associated with dust. If uncontrolled, PM_{10} levels downwind of actively disturbed areas could possibly exceed State standards. In addition, dust fall on adjacent properties could be a nuisance. If uncontrolled, dust generated by grading and construction activities represents a *significant* impact.

<u>Construction Equipment Exhaust</u>

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known Toxic Air Contaminant. BAAQMD has not developed any procedures or guidelines for identifying these impacts from temporary construction activities where emissions are transient. They are typically evaluated for stationary sources (e.g., large compression ignition engines such as generators) in health risk assessments over the course of lifetime exposures (i.e., 24 hours per day over 70 years). Diesel exhaust poses both a health and nuisance impact to nearby receptors. The initial construction activities would not be near sensitive receptors and are expected to occur during a relatively short time. Subsequent construction activities may be conducted on site when portion of the project become occupied by residences. Again, exposures would be relatively short, so significant impacts from diesel exhaust are not anticipated. However, the BAAQMD does encourage all feasible measures to reduce construction equipment exhaust to lessen the exposure of TACs. The air quality impacts from construction equipment exhaust are considered to be less than significant if reasonable available control measures are applied.

Construction Mitigation Measure: Include measures to control dust emissions.

Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a *less- than-significant* level. Measures to reduce diesel particulate matter and $PM_{2.5}$ from construction are recommended to ensure that short-term health impacts to nearby sensitive receptors are avoided.

Dust (PM_{10}) Control Measures:

1. Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.

2. Cover all hauling trucks or maintain at least two feet of freeboard.

3. Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas.

4. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.

5. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously-graded areas that are inactive for 10 days or more).

6. Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.

7. Limit traffic speeds on any unpaved roads to 15 mph.

8. Replant vegetation in disturbed areas as quickly as possible.

9. Suspend construction activities that cause visible dust plumes to extend beyond the construction site.

Diesel Exhaust Control Measures:

1. Diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite.
2. Prohibit the use of “dirty” equipment. Opacity is an indicator of exhaust particulate emissions from off-road diesel-powered equipment. The project shall ensure that emissions from all construction diesel-powered equipment used on the project site do not exceed 40-percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40-percent opacity (or Ringelmann 2.0) shall be repaired immediately. In essence, any piece of equipment that emits dark smoke for more than 3 minutes would be in violation of this mitigation measure.

3. The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g. compressors).
4. Properly tune and maintain equipment for low emissions.

Potential Impact 5: Create objectionable odors affecting a substantial number of people? *Significant and Unavoidable*

During construction the various diesel powered vehicles and equipment in use on the site would create localized odors. These odors would be temporary and not likely to be noticeable for extended periods of time much beyond the project's site boundaries. The potential for diesel odor impacts is therefore *less than significant.* The proposed residential uses that would be constructed would not produce any offensive odors; therefore this would be a *less-than-significant* impact. Odors associated with restaurant uses associated with the mixed-use project could affect new residences. These odors can be abated using appropriate cooking equipment and ventilation systems, and therefore, should not cause odor complaints.

The project site is located in a commercial and industrial area that has experienced odors in the past. Several potential sources of odors exist to the northwest. These sources include two compost facilities, two landfills, the San José/Santa Clara Water Pollution Control Plant, and salt ponds. In addition, there are Bay wetlands that can generate odors. The distance to these sources varies from one and one-half miles to two and three-quarter miles from the project site. As mentioned, most of these sites are located to the northwest, typically putting the project in a downwind situation.

The BAAQMD CEQA Guidelines state that a significant odor impact should be identified if a project is locating near an existing odor source and the project site is closer to the existing odor source than any location where there has been:

1. More than one confirmed complaint per year averaged over a three year period, or

2. Three unconfirmed complaints per year averaged over a three year period.

According to information provided by BAAQMD through a public records request, there were 112 odor complaints received for the Newby Island Landfill between November 1, 2005 and November 12, 2008. Two of these complaints were confirmed by BAAQMD. During the same time period, four unconfirmed complaints were received for the San Jose/Santa Clara Water Pollution Control Plant. Over this time period, BAAQMD did not receive any odor complaints from the waste facilities on Zanker Road in San Jose. Over a three year period, an average of nine unconfirmed odor complaints were made by locations further from the San Jose/Santa Clara Wastewater Treatment Plant and Newby Island Landfill than the project site. The confirmed complaints occurred about 0.7 miles from the Newby Island Landfill. In 2003, Milpitas prepared an Odor Action Plan. To support the plan, BAAQMD developed a "Rapid Notification" system that e-mails any real-time odor complaint advisories to potential odor sources and Milpitas City staff. In June 2007, the City reported that complaints have decreased after the system was implemented and remained low at less than 10 per year. As a result, the City transitioned the

odor control plan into a maintenance plan[9]. While odor complaints have been greatly reduced by the plan, the proposed project would place new residences at a location that is close enough to identified odor sources that could generate odor complaints. Based on the BAAQMD guidelines the project site would be significantly impacted by odor sources in the area. This would be a *significant* impact.

Odor Mitigation Measure: Provide notification to future residents.

New residences at the project shall be provided notice that the project may be affected by odors generated by a number of facilities in the area. This would inform people who choose to live at the project site of the potential to experience odors. While the mitigation measures may reduce or eliminate potential odor complaints, it cannot reduce the impact to a less-than-significant level. The impact would be *significant and unavoidable.*

[9] City of Milpitas Odor Control Plan #6 – Maintenance Level Plan. Revised June 2008.

Milpitas Square

CARBON MONOXIDE ANALYSIS

PM Peak Hour

Assumes worst case of all intersections based on total volume, LOS and project traffic contribution

Intersection	Traffic Volume: Existing (2007)	Traffic Volume: Background (2010)	Traffic Volume: Project (2010)	Traffic Volume: Interim Cumulative	1-Hour CO Contribution: Existing (2007)	1-Hour CO Contribution: Background (2010)	1-Hour CO Contribution: Project (2010)	1-Hour CO Contribution: Interim Cumulative	Total 1-Hour CO Concentration: Existing (2007)	Total 1-Hour CO Concentration: Background (2010)	Total 1-Hour CO Concentration: Project (2010)	Total 1-Hour CO Concentration: Interim Cumulative	Total 8-Hour CO Concentration: Existing (2007)	Total 8-Hour CO Concentration: Background (2010)	Total 8-Hour CO Concentration: Project (2010)	Total 8-Hour CO Concentration: Interim Cumulative
Link: S. Abel St. and W. Calaveras Blvd.									**10.3**	**9.7**	**9.8**	**8.1**	**6.8**	**6.3**	**6.4**	**5.2**
W. Calaveras Blvd (6-lane)	4372	5111	5177	5368	4.2	3.7	3.7	2.3								
S. Abel St. (4-lane)	1780	2012	2052	2067	0.6	0.5	0.5	0.3								
Link: Tasman Dr and McCarthy Blvd.									**9.0**	**9.0**	**9.1**	**7.6**	**5.8**	**5.9**	**5.9**	**4.9**
Tasman Dr (6-lane)	3141	4238	4269	4313	3.1	3.1	3.1	1.8								
McCarthy Blvd (4-lane)	1258	1823	1863	1955	0.4	0.5	0.5	0.3								

* Indicates primary roadway (due to higher volume)

Emission Factors (EMFAC2002 - 5mph)

Santa Clara County

LOS E or F (5mph)	2007	(5 mph)	10.223	g/mi
|	2010	(5mph)	7.609	
|	2020	(5 mph)	4.456	g/mi
V				g/mi

Background CO Levels -

1-Hour	8-Hour
5.5	3.4

Dispersion Factors

		Edge
Primary	2 Ln	14.0
	4 Ln	11.9
	6 Ln	9.5
Secondary	2 Ln	3.7
	4 Ln	3.3
	6 Ln	2.8

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: Z:\I&R Docs\07-187 Milpitas Mixed-Use\AQ\MilpitasSquare - New Uses.urb9

Project Name: Milpitas Square

Project Location: Santa Clara County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	50.94	6.95	6.20	0.00	0.02	0.02	8,818.82
TOTALS (lbs/day, mitigated)	50.10	5.55	3.99	0.00	0.01	0.01	7,053.41
Percent Reduction	1.65	20.14	35.65	NaN	50.00	50.00	20.02

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	56.14	59.27	676.23	0.66	117.54	22.32	65,557.89
TOTALS (lbs/day, mitigated)	49.68	51.12	583.31	0.56	101.38	19.27	56,549.21
Percent Reduction	11.51	13.75	13.74	15.15	13.75	13.66	13.74

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	107.08	66.22	682.43	0.66	117.56	22.34	74,376.71
TOTALS (lbs/day, mitigated)	99.78	56.67	587.30	0.56	101.39	19.28	63,602.62
Percent Reduction	6.82	14.42	13.94	15.15	13.75	13.70	14.49

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.53	6.91	2.99	0.00	0.01	0.01	8,813.32
Hearth							
Landscape	0.26	0.04	3.21	0.00	0.01	0.01	5.50
Consumer Products	44.03						
Architectural Coatings	6.12						
TOTALS (lbs/day, unmitigated)	50.94	6.95	6.20	0.00	0.02	0.02	8,818.82

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Apartments high rise	48.32	49.36	567.89	0.55	98.01	18.62	54,752.74
High turnover (sit-down) rest.	7.82	9.91	108.34	0.11	19.53	3.70	10,805.15
TOTALS (lbs/day, unmitigated)	56.14	59.27	676.23	0.66	117.54	22.32	65,557.89

Operational Settings:

Does not include correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 7.25 Nonresidential Trip % Reduction: 25.49

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Analysis Year: 2012 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Apartments high rise	14.52	7.42	dwelling units	900.00	6,678.00	57,094.90
High turnover (sit-down) rest.		119.22	1000 sq ft	12.80	1,526.00	11,380.15
					8,204.00	68,475.05

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.2	0.5	99.3	0.2
Light Truck < 3750 lbs	11.8	1.7	95.8	2.5
Light Truck 3751-5750 lbs	20.6	0.5	99.5	0.0
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	2.9	62.1	37.9	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
High turnover (sit-down) rest.				5.0	2.5	92.5

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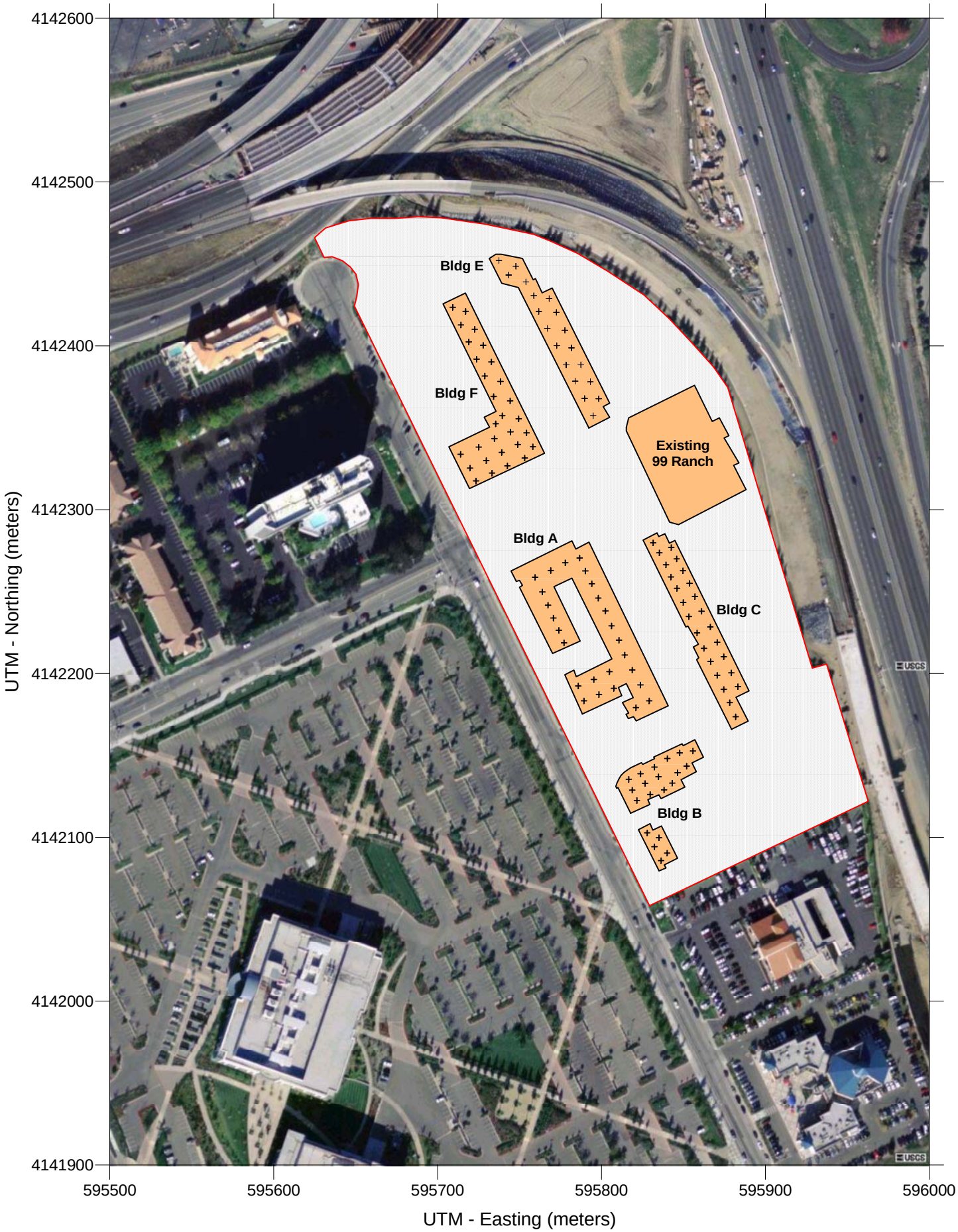
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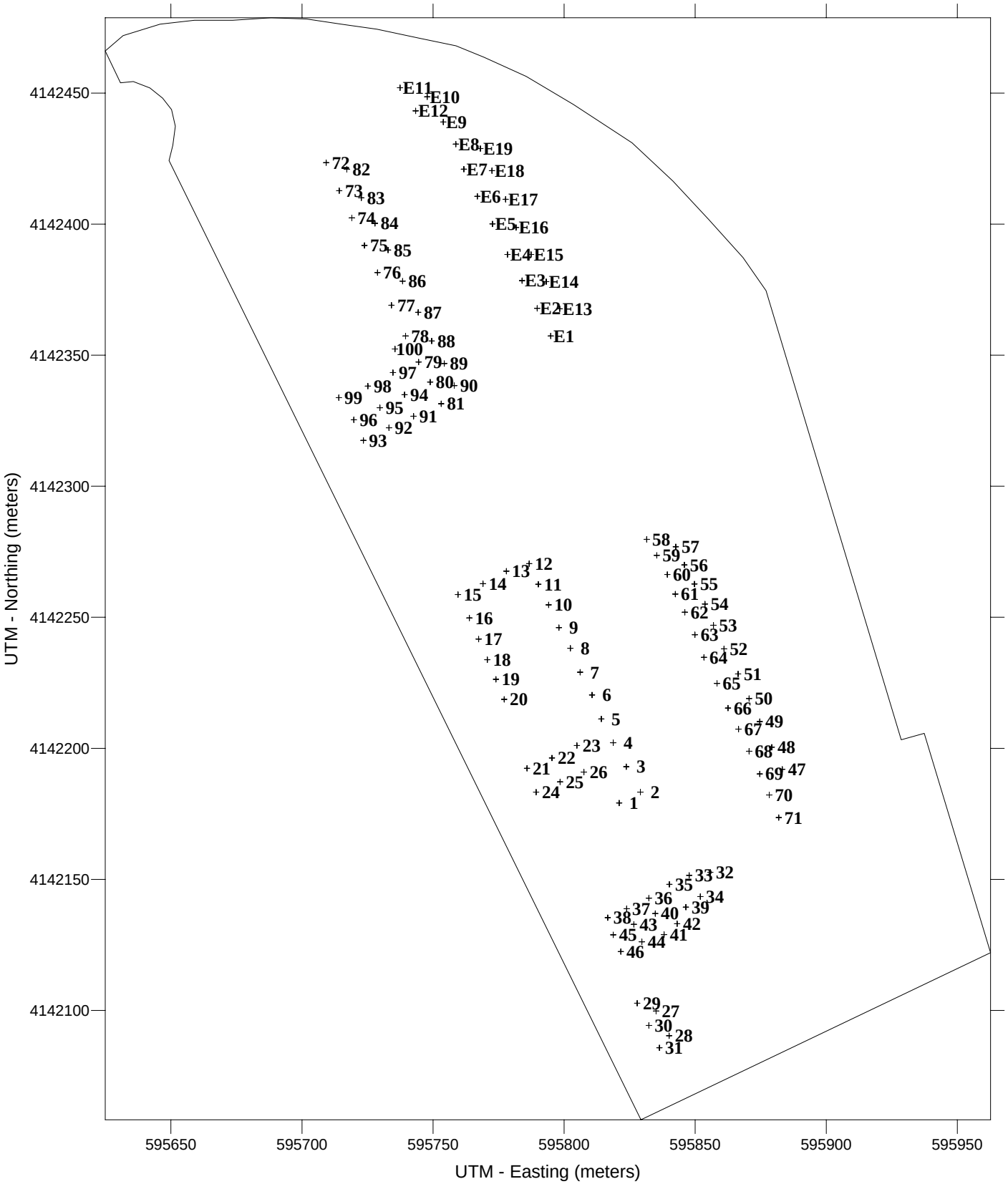
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DPM Risk Modeling Parameters and Maximum Cancer Risk for Proposed Milpitas Square Development

Receptor Information

Number of Receptors	119	
Receptor Height (Bldgs A, B, E & F) =	31.2 feet	(9.5 meters)
Receptor Height (Bldg C) =	35.4 feet	(10.8 meters)
Receptor distances =	variable	

Meteorological Conditions

BAAQMD Alviso Hourly Met Data: 1996 - 2000

Land Use Classification	Urban	
Stability class =	variable	
Wind speed =	variable	
Wind direction =	variable	
Surface roughness =	100	cm

Cancer Risk Calculation Method

Inhalation Dose = C_{air} x DBR x A x EF x ED x 10^{-6} / AT

Where: C_{air} = concentration in air (µg/m^3)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
ED = Exposure duration (years)
AT = Averaging time period over which exposure is averaged.
10^{-6} = Conversion factor

Inhalation Dose Factors

Exposure Type	Value[1] DBR (L/kg BW -d	A (-)	Exposure (hr/day)	EF (days/yr)	ED (Years)	AT (days)
Residential (70-Year)	302	1	24	350	70	25,550
Residential (30-Year)	302	1	24	350	30	25,550
Residential (9-year)	302	1	24	350	9	25,550
Residential-Child	581	1	24	350	9	25,550
Off-Site Worker	149	1	8	245	40	25,550

[1] Default values recommended by OEHHA& Bay Area Air Quality Management District

Cancer Risk (per million) = CPF x Inhalation Dose x 1.0E6
= URF x Cair

Where: CPF = Cancer potency factor (mg/kg-day)$^{-1}$
URF =Unit risk factor (cancer risk per µg/m^3)

Diesel Particulate Matter Unit Risk Factors

Exposure Type	CPF (mg/kg-day)	URF *(Risk/million/µg/m^3)*
Residential (70-Yr Exposure)	1.10E+00	318.5
Residential (30-Yr Exposure)	1.10E+00	136.5
Residential (9-Yr Exposure)	1.10E+00	41.0
Residential-Child	1.10E+00	78.8
Off-Site Worker	1.10E+00	62.87

MEI Cancer Risk Calculations - Building C: Receptor No. 47

Meteorological Data Year	Maximum DPM Concentration (ug/m^3) 2010	2015	2020	2025	2030		30-Year Exposure Adult	9-Year Exposure Adult	9-Year Exposure Child
1996	0.0880	0.0558	0.0392	0.0310	0.0260				
1997	0.0883	0.0560	0.0394	0.0311	0.0261				
1998	0.0903	0.0573	0.0402	0.0318	0.0267				
1999	0.0871	0.0553	0.0388	0.0307	0.0257				
2000	0.0918	0.0582	0.0409	0.0323	0.0271				
Average	**0.0891**	**0.0565**	**0.0397**	**0.0314**	**0.0263**		**0.0449**	**0.0746**	**0.0746**
Cancer Risk[a]	28.4	18.0	12.6	10.0	8.4				
70-yr Cumulative Risk[b]	**10.9**						**6.1**	**3.1**	**5.9**

Notes:

Maximum concentrations occur at Receptor No. 47 (southeast corner of Building C, closest to I-880)

Receptor Height = 10.8 m

a Cancer risk (per million) calculated assuming constant 70-year exposure to concentration for year of analysis.

b Cumulative cancer risk (per million) calculated assuming variable exposure over a 70-year period due to decreased concentrations over time.

MEI Cancer Risk Calculations - Building E: Receptor No. E10

Meteorological Data Year	Maximum DPM Concentration (ug/m^3) 2010	2015	2020	2025	2030		30-Year Exposure Adult	9-Year Exposure Adult	9-Year Exposure Child
1996	0.0952	0.0607	0.0424	0.0335	0.0282				
1997	0.0995	0.0635	0.0443	0.0350	0.0294				
1998	0.1005	0.0641	0.0448	0.0354	0.0297				
1999	0.0991	0.0632	0.0442	0.0349	0.0293				
2000	0.1014	0.0647	0.0452	0.0357	0.0300				
Average	**0.0991**	**0.0632**	**0.0442**	**0.0349**	**0.0293**		**0.0500**	**0.0832**	**0.0832**
Cancer Risk[a]	31.6	20.1	14.1	11.1	9.3				
70-yr Cumulative Risk[b]	**12.2**						**6.8**	**3.4**	**6.6**

Notes:

Maximum concentrations occur at Receptor No. E10 (near northwest corner of Building E)

Receptor Height = 9.5 m

a Cancer risk (per million) calculated assuming constant 70-year exposure to concentration for year of analysis.

b Cumulative cancer risk (per million) calculated assuming variable exposure over a 70-year period due to decreased concentrations over time.

MEI Cancer Risk Calculations - Building F: Receptor No. 72

Meteorological Data Year	Maximum DPM Concentration (ug/m^3) 2010	2015	2020	2025	2030		30-Year Exposure Adult	9-Year Exposure Adult	9-Year Exposure Child
1996	0.0830	0.0530	0.0370	0.0292	0.0243				
1997	0.0882	0.0564	0.0394	0.0311	0.0261				
1998	0.0884	0.0564	0.0394	0.0311	0.0262				
1999	0.0876	0.0559	0.0390	0.0308	0.0259				
2000	0.0892	0.0570	0.0398	0.0314	0.0264				
Average	**0.0873**	**0.0558**	**0.0389**	**0.0307**	**0.0258**		**0.0440**	**0.0733**	**0.0733**
Cancer Risk[a]	27.8	17.8	12.4	9.8	8.2				
70-yr Cumulative Risk[b]	**10.7**						**6.0**	**3.0**	**5.8**

Maximum concentrations occur at Receptor No. 72 (northwest corner of Building F, closest to SR-237)

Receptor Height = 9.5 m

a Cancer risk (per million) calculated assuming constant 70-year exposure to concentration for year of analysis.

b Cumulative cancer risk (per million) calculated assuming variable exposure over a 70-year period due to decreased concentrations over time.

Milpitas Square - DPM Risk Summary by Receptor (Unsorted)
70-Year Cumulative Risk Based on 2010, 2015, 2020, 2025 and 2030 DPM Emissions

Emission Year =	2010		2015		2020		2025		2030		
Receptor No.	5-Year Average Concentration (ug/m3)	70-Year Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Residential Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Residential Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Residential Cancer Risk (per million)	Residential Time-Weighted Cancer Risk (per million)
1	0.064	20.3	0.041	12.9	0.028	9.1	0.022	7.2	0.019	6.0	**7.8**
2	0.067	21.2	0.042	13.5	0.030	9.5	0.023	7.5	0.020	6.3	**8.2**
3	0.067	21.2	0.042	13.5	0.030	9.4	0.023	7.5	0.020	6.3	**8.2**
4	0.066	21.2	0.042	13.5	0.030	9.4	0.023	7.5	0.020	6.3	**8.2**
5	0.067	21.2	0.042	13.5	0.030	9.5	0.023	7.5	0.020	6.3	**8.2**
6	0.067	21.4	0.043	13.6	0.030	9.5	0.024	7.5	0.020	6.3	**8.2**
7	0.067	21.4	0.043	13.6	0.030	9.5	0.024	7.5	0.020	6.3	**8.2**
8	0.068	21.6	0.043	13.7	0.030	9.6	0.024	7.6	0.020	6.4	**8.3**
9	0.068	21.6	0.043	13.7	0.030	9.6	0.024	7.6	0.020	6.4	**8.3**
10	0.068	21.7	0.043	13.8	0.030	9.7	0.024	7.6	0.020	6.4	**8.4**
11	0.068	21.8	0.044	13.9	0.030	9.7	0.024	7.7	0.020	6.4	**8.4**
12	0.069	21.9	0.044	14.0	0.031	9.8	0.024	7.7	0.020	6.5	**8.4**
13	0.067	21.2	0.042	13.5	0.030	9.4	0.023	7.5	0.020	6.3	**8.2**
14	0.064	20.4	0.041	13.0	0.029	9.1	0.023	7.2	0.019	6.0	**7.9**
15	0.062	19.7	0.039	12.5	0.028	8.8	0.022	6.9	0.018	5.8	**7.6**
16	0.061	19.5	0.039	12.4	0.027	8.7	0.022	6.9	0.018	5.8	**7.5**
17	0.061	19.4	0.039	12.3	0.027	8.6	0.021	6.8	0.018	5.7	**7.5**
18	0.060	19.2	0.038	12.2	0.027	8.6	0.021	6.8	0.018	5.7	**7.4**
19	0.060	19.1	0.038	12.1	0.027	8.5	0.021	6.7	0.018	5.6	**7.3**
20	0.059	18.9	0.038	12.1	0.027	8.4	0.021	6.7	0.018	5.6	**7.3**
21	0.058	18.4	0.037	11.7	0.026	8.2	0.020	6.5	0.017	5.4	**7.1**
22	0.060	19.1	0.038	12.2	0.027	8.5	0.021	6.7	0.018	5.7	**7.4**
23	0.063	20.0	0.040	12.7	0.028	8.9	0.022	7.1	0.019	5.9	**7.7**
24	0.057	18.2	0.036	11.6	0.025	8.1	0.020	6.4	0.017	5.4	**7.0**
25	0.060	19.0	0.038	12.1	0.027	8.5	0.021	6.7	0.018	5.6	**7.3**
26	0.062	19.8	0.039	12.6	0.028	8.8	0.022	7.0	0.018	5.8	**7.6**
27	0.057	18.0	0.036	11.4	0.025	8.0	0.020	6.3	0.017	5.3	**6.9**
28	0.057	18.0	0.036	11.4	0.025	8.0	0.020	6.3	0.017	5.3	**6.9**
29	0.055	17.6	0.035	11.2	0.025	7.8	0.019	6.2	0.016	5.2	**6.8**
30	0.055	17.6	0.035	11.2	0.025	7.8	0.019	6.2	0.016	5.2	**6.8**
31	0.055	17.5	0.035	11.1	0.025	7.8	0.019	6.2	0.016	5.2	**6.7**
32	0.070	22.4	0.045	14.2	0.031	10.0	0.025	7.9	0.021	6.6	**8.6**
33	0.067	21.5	0.043	13.6	0.030	9.6	0.024	7.6	0.020	6.3	**8.3**
34	0.068	21.5	0.043	13.7	0.030	9.6	0.024	7.6	0.020	6.4	**8.3**
35	0.065	20.6	0.041	13.1	0.029	9.2	0.023	7.2	0.019	6.1	**7.9**
36	0.062	19.6	0.039	12.5	0.027	8.7	0.022	6.9	0.018	5.8	**7.6**
37	0.059	18.8	0.037	11.9	0.026	8.4	0.021	6.6	0.017	5.5	**7.2**
38	0.057	18.1	0.036	11.5	0.025	8.1	0.020	6.4	0.017	5.4	**7.0**
39	0.065	20.8	0.041	13.2	0.029	9.3	0.023	7.3	0.019	6.1	**8.0**
40	0.061	19.6	0.039	12.4	0.027	8.7	0.022	6.9	0.018	5.8	**7.5**
41	0.061	19.5	0.039	12.4	0.027	8.7	0.022	6.9	0.018	5.8	**7.5**
42	0.063	20.2	0.040	12.8	0.028	9.0	0.022	7.1	0.019	6.0	**7.8**
43	0.059	18.7	0.037	11.9	0.026	8.3	0.021	6.6	0.017	5.5	**7.2**
44	0.059	18.7	0.037	11.9	0.026	8.3	0.021	6.6	0.017	5.5	**7.2**
45	0.056	18.0	0.036	11.4	0.025	8.0	0.020	6.3	0.017	5.3	**6.9**
46	0.056	17.9	0.036	11.4	0.025	8.0	0.020	6.3	0.017	5.3	**6.9**
47	0.089	28.4	0.057	18.0	0.040	12.6	0.031	10.0	0.026	8.4	**10.9**
48	0.089	28.3	0.056	17.9	0.040	12.6	0.031	10.0	0.026	8.4	**10.9**
49	0.088	28.2	0.056	17.9	0.039	12.5	0.031	9.9	0.026	8.3	**10.8**
50	0.088	28.1	0.056	17.8	0.039	12.5	0.031	9.9	0.026	8.3	**10.8**
51	0.088	28.1	0.056	17.8	0.039	12.5	0.031	9.9	0.026	8.3	**10.8**
52	0.087	27.8	0.055	17.7	0.039	12.4	0.031	9.8	0.026	8.2	**10.7**
53	0.087	27.8	0.055	17.7	0.039	12.4	0.031	9.8	0.026	8.2	**10.7**

Emission Year =	2010		2015		2020		2025		2030		
Receptor No.	5-Year Average Concentration (ug/m3)	70-Year Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Residential Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Residential Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Residential Cancer Risk (per million)	Residential Time-Weighted Cancer Risk (per million)
54	0.088	27.9	0.056	17.7	0.039	12.4	0.031	9.8	0.026	8.2	**10.7**
55	0.087	27.8	0.055	17.7	0.039	12.4	0.031	9.8	0.026	8.2	**10.7**
56	0.087	27.7	0.055	17.6	0.039	12.4	0.031	9.8	0.026	8.2	**10.7**
57	0.087	27.7	0.055	17.6	0.039	12.4	0.031	9.8	0.026	8.2	**10.7**
58	0.083	26.5	0.053	16.8	0.037	11.8	0.029	9.3	0.025	7.8	**10.2**
59	0.083	26.5	0.053	16.9	0.037	11.8	0.029	9.3	0.025	7.8	**10.2**
60	0.084	26.6	0.053	16.9	0.037	11.9	0.029	9.4	0.025	7.9	**10.2**
61	0.083	26.5	0.053	16.9	0.037	11.8	0.029	9.3	0.025	7.8	**10.2**
62	0.083	26.6	0.053	16.9	0.037	11.9	0.029	9.4	0.025	7.9	**10.2**
63	0.083	26.6	0.053	16.9	0.037	11.8	0.029	9.4	0.025	7.9	**10.2**
64	0.083	26.5	0.053	16.8	0.037	11.8	0.029	9.3	0.025	7.8	**10.2**
65	0.083	26.6	0.053	16.9	0.037	11.8	0.029	9.4	0.025	7.9	**10.2**
66	0.083	26.6	0.053	16.9	0.037	11.9	0.029	9.4	0.025	7.9	**10.2**
67	0.084	26.7	0.053	16.9	0.037	11.9	0.029	9.4	0.025	7.9	**10.3**
68	0.084	26.8	0.053	17.0	0.037	11.9	0.030	9.4	0.025	7.9	**10.3**
69	0.084	26.8	0.053	17.0	0.038	11.9	0.030	9.4	0.025	7.9	**10.3**
70	0.084	26.9	0.054	17.0	0.038	12.0	0.030	9.5	0.025	7.9	**10.3**
71	0.084	26.9	0.054	17.1	0.038	12.0	0.030	9.5	0.025	7.9	**10.3**
72	0.087	27.8	0.056	17.8	0.039	12.4	0.031	9.8	0.026	8.2	**10.7**
73	0.085	27.0	0.054	17.2	0.038	12.0	0.030	9.5	0.025	8.0	**10.4**
74	0.082	26.3	0.053	16.8	0.037	11.7	0.029	9.2	0.024	7.8	**10.1**
75	0.080	25.6	0.051	16.3	0.036	11.4	0.028	9.0	0.024	7.6	**9.9**
76	0.079	25.0	0.050	16.0	0.035	11.2	0.028	8.8	0.023	7.4	**9.6**
77	0.077	24.4	0.049	15.6	0.034	10.9	0.027	8.6	0.023	7.2	**9.4**
78	0.075	23.9	0.048	15.2	0.033	10.6	0.026	8.4	0.022	7.1	**9.2**
79	0.074	23.5	0.047	15.0	0.033	10.5	0.026	8.3	0.022	6.9	**9.1**
80	0.073	23.3	0.047	14.8	0.033	10.4	0.026	8.2	0.022	6.9	**9.0**
81	0.072	23.0	0.046	14.7	0.032	10.3	0.025	8.1	0.021	6.8	**8.9**
82	0.087	27.7	0.056	17.7	0.039	12.4	0.031	9.8	0.026	8.2	**10.7**
83	0.085	27.0	0.054	17.2	0.038	12.0	0.030	9.5	0.025	8.0	**10.4**
84	0.083	26.4	0.053	16.8	0.037	11.8	0.029	9.3	0.024	7.8	**10.2**
85	0.081	25.8	0.052	16.5	0.036	11.5	0.029	9.1	0.024	7.6	**9.9**
86	0.079	25.2	0.050	16.1	0.035	11.2	0.028	8.9	0.023	7.4	**9.7**
87	0.077	24.7	0.049	15.7	0.035	11.0	0.027	8.7	0.023	7.3	**9.5**
88	0.076	24.2	0.049	15.5	0.034	10.8	0.027	8.5	0.023	7.2	**9.3**
89	0.075	24.0	0.048	15.3	0.034	10.7	0.026	8.4	0.022	7.1	**9.2**
90	0.074	23.7	0.047	15.1	0.033	10.6	0.026	8.3	0.022	7.0	**9.1**
91	0.070	22.2	0.044	14.2	0.031	9.9	0.025	7.8	0.021	6.6	**8.6**
92	0.068	21.5	0.043	13.7	0.030	9.6	0.024	7.6	0.020	6.4	**8.3**
93	0.066	20.9	0.042	13.3	0.029	9.3	0.023	7.4	0.019	6.2	**8.1**
94	0.071	22.5	0.045	14.4	0.032	10.0	0.025	7.9	0.021	6.7	**8.7**
95	0.069	21.8	0.044	13.9	0.031	9.7	0.024	7.7	0.020	6.5	**8.4**
96	0.067	21.2	0.042	13.5	0.030	9.4	0.023	7.5	0.020	6.3	**8.2**
97	0.072	22.8	0.046	14.5	0.032	10.2	0.025	8.0	0.021	6.7	**8.8**
98	0.069	22.1	0.044	14.1	0.031	9.9	0.024	7.8	0.021	6.5	**8.5**
99	0.067	21.5	0.043	13.7	0.030	9.6	0.024	7.6	0.020	6.4	**8.3**
100	0.073	23.4	0.047	14.9	0.033	10.4	0.026	8.2	0.022	6.9	**9.0**
E1	0.087	27.7	0.055	17.6	0.039	12.3	0.031	9.8	0.026	8.2	**10.7**
E2	0.088	27.9	0.056	17.8	0.039	12.5	0.031	9.8	0.026	8.3	**10.8**
E3	0.088	28.2	0.056	17.9	0.039	12.6	0.031	9.9	0.026	8.3	**10.8**
E4	0.089	28.4	0.057	18.1	0.040	12.7	0.031	10.0	0.026	8.4	**10.9**
E5	0.091	28.8	0.058	18.4	0.040	12.9	0.032	10.2	0.027	8.5	**11.1**
E6	0.092	29.3	0.059	18.6	0.041	13.0	0.032	10.3	0.027	8.7	**11.3**
E7	0.093	29.8	0.060	19.0	0.042	13.3	0.033	10.5	0.028	8.8	**11.5**
E8	0.095	30.4	0.061	19.4	0.043	13.6	0.034	10.7	0.028	9.0	**11.7**
E9	0.097	30.9	0.062	19.7	0.043	13.8	0.034	10.9	0.029	9.2	**11.9**
E10	0.099	31.6	0.063	20.1	0.044	14.1	0.035	11.1	0.029	9.3	**12.2**

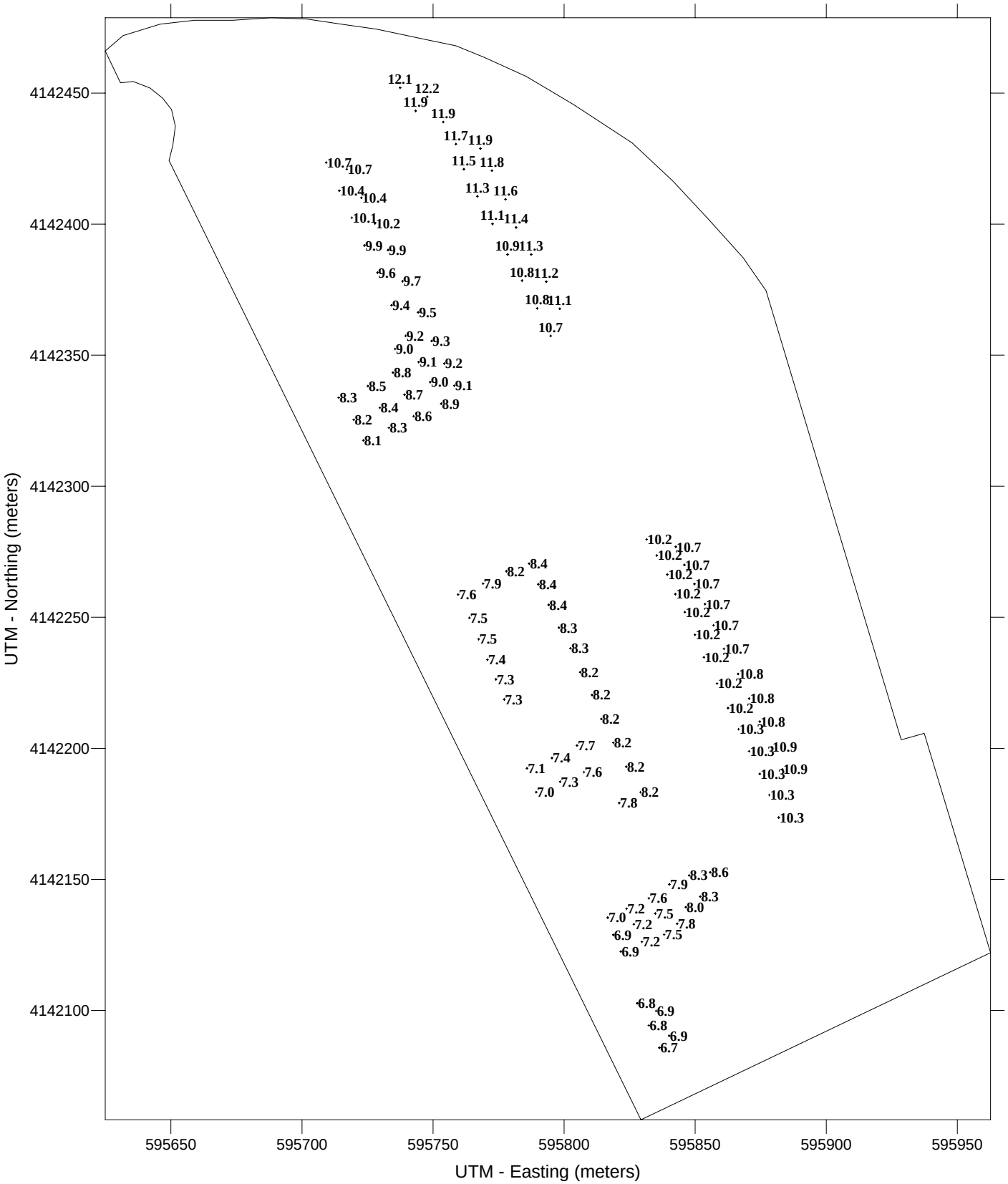
Emission Year =	2010		2015		2020		2025		2030		
Receptor No.	5-Year Average Concentration (ug/m3)	70-Year Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Residential Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Residential Cancer Risk (per million)	5-Year Average Concentration (ug/m3)	70-Year Residential Cancer Risk (per million)	Residential Time-Weighted Cancer Risk (per million)
E11	0.099	31.5	0.063	20.1	0.044	14.0	0.035	11.1	0.029	9.3	**12.1**
E12	0.097	30.8	0.062	19.6	0.043	13.7	0.034	10.8	0.029	9.1	**11.9**
E13	0.090	28.8	0.058	18.3	0.040	12.8	0.032	10.1	0.027	8.5	**11.1**
E14	0.091	29.0	0.058	18.5	0.041	12.9	0.032	10.2	0.027	8.6	**11.2**
E15	0.092	29.2	0.058	18.6	0.041	13.0	0.032	10.3	0.027	8.6	**11.3**
E16	0.093	29.5	0.059	18.8	0.041	13.2	0.033	10.4	0.027	8.7	**11.4**
E17	0.094	30.0	0.060	19.1	0.042	13.4	0.033	10.6	0.028	8.9	**11.6**
E18	0.096	30.5	0.061	19.5	0.043	13.6	0.034	10.8	0.028	9.0	**11.8**
E19	0.097	30.9	0.062	19.7	0.043	13.8	0.034	10.9	0.029	9.2	**11.9**
Maximum Value	**0.099**	**31.6**	**0.063**	**20.1**	**0.044**	**14.1**	**0.035**	**11.1**	**0.029**	**9.3**	**12.2**

Milpitas Square - Modeled DPM Concentrations and 5-Year Averages

	2010						2015						2020						2025						2030					
Rec	1996	1997	1998	1999	2000	Average	1996	1997	1998	1999	2000	Average	1996	1997	1998	1999	2000	Average	1996	1997	1998	1999	2000	Average	1996	1997	1998	1999	2000	Average
No.	x 1000	x 1000	x 1000	x 1000	x 1000	ug/m3	x 1000	x 1000	x 1000	x 1000	x 1000	ug/m3	x 1000	x 1000	x 1000	x 1000	x 1000	ug/m3	x 1000	x 1000	x 1000	x 1000	x 1000	ug/m3	x 1000	x 1000	x 1000	x 1000	x 1000	ug/m3
1	61.45	64.41	64.53	62.77	65.75	0.064	39.05	40.93	40.99	39.90	41.77	0.041	27.38	28.70	28.75	27.97	29.30	0.028	21.64	22.67	22.72	22.10	23.15	0.022	18.16	19.03	19.07	18.55	19.43	0.019
2	64.35	67.08	67.42	65.48	68.62	0.067	40.88	42.62	42.82	41.61	43.59	0.042	28.67	29.88	30.04	29.18	30.57	0.030	22.65	23.61	23.74	23.05	24.16	0.023	19.01	19.82	19.92	19.35	20.28	0.020
3	64.25	67.02	67.35	65.45	68.53	0.067	40.82	42.59	42.78	41.60	43.54	0.042	28.63	29.86	30.01	29.16	30.53	0.030	22.62	23.59	23.72	23.04	24.13	0.023	18.99	19.81	19.91	19.34	20.25	0.020
4	64.19	67.01	67.32	65.46	68.47	0.066	40.79	42.59	42.77	41.61	43.51	0.042	28.60	29.86	30.00	29.17	30.51	0.030	22.60	23.59	23.71	23.05	24.11	0.023	18.97	19.80	19.90	19.34	20.24	0.020
5	64.32	67.18	67.49	65.65	68.61	0.067	40.88	42.70	42.88	41.74	43.60	0.042	28.66	29.93	30.07	29.25	30.57	0.030	22.65	23.65	23.77	23.11	24.16	0.023	19.01	19.85	19.94	19.40	20.28	0.020
6	64.74	67.60	67.93	66.11	69.03	0.067	41.15	42.98	43.17	42.04	43.87	0.043	28.84	30.12	30.27	29.46	30.76	0.030	22.79	23.80	23.92	23.27	24.31	0.024	19.13	19.98	20.08	19.54	20.40	0.020
7	64.85	67.76	68.08	66.28	69.15	0.067	41.23	43.09	43.27	42.16	43.96	0.043	28.90	30.19	30.34	29.54	30.81	0.030	22.83	23.85	23.98	23.34	24.35	0.024	19.17	20.03	20.12	19.59	20.44	0.020
8	65.27	68.20	68.53	66.75	69.58	0.068	41.50	43.38	43.56	42.46	44.23	0.043	29.08	30.39	30.54	29.75	31.00	0.030	22.98	24.01	24.14	23.50	24.50	0.024	19.29	20.16	20.26	19.73	20.56	0.020
9	65.34	68.33	68.64	66.90	69.66	0.068	41.55	43.46	43.64	42.56	44.30	0.043	29.12	30.45	30.59	29.81	31.04	0.030	23.01	24.05	24.17	23.55	24.53	0.024	19.31	20.20	20.29	19.77	20.59	0.020
10	65.70	68.72	69.04	67.31	70.03	0.068	41.79	43.72	43.90	42.83	44.54	0.043	29.28	30.62	30.77	30.00	31.21	0.030	23.13	24.19	24.32	23.70	24.66	0.024	19.42	20.31	20.41	19.89	20.70	0.020
11	65.93	69.00	69.31	67.61	70.28	0.068	41.94	43.91	44.08	43.03	44.71	0.044	29.38	30.75	30.89	30.13	31.32	0.030	23.21	24.29	24.41	23.81	24.75	0.024	19.49	20.40	20.49	19.98	20.77	0.020
12	66.32	69.42	69.74	68.06	70.69	0.069	42.19	44.18	44.36	43.32	44.97	0.044	29.55	30.94	31.08	30.33	31.50	0.031	23.35	24.44	24.56	23.96	24.89	0.024	19.60	20.52	20.62	20.12	20.90	0.020
13	63.90	67.21	67.31	65.80	68.29	0.067	40.67	42.78	42.82	41.89	43.45	0.042	28.48	29.95	30.00	29.33	30.43	0.030	22.50	23.66	23.71	23.17	24.05	0.023	18.89	19.87	19.90	19.45	20.19	0.020
14	61.40	64.88	64.77	63.43	65.79	0.064	39.09	41.31	41.22	40.40	41.87	0.041	27.36	28.91	28.87	28.27	29.32	0.029	21.62	22.84	22.81	22.33	23.17	0.023	18.15	19.18	19.15	18.75	19.45	0.019
15	59.09	62.74	62.42	61.25	63.48	0.062	37.63	39.95	39.73	39.01	40.41	0.039	26.34	27.96	27.82	27.30	28.29	0.028	20.81	22.09	21.98	21.56	22.35	0.022	17.47	18.54	18.45	18.10	18.76	0.018
16	58.62	62.22	61.90	60.70	62.98	0.061	37.32	39.62	39.39	38.66	40.09	0.039	26.12	27.73	27.59	27.06	28.07	0.027	20.64	21.90	21.80	21.37	22.18	0.022	17.33	18.39	18.30	17.94	18.62	0.018
17	58.16	61.72	61.40	60.19	62.50	0.061	37.02	39.30	39.07	38.33	39.78	0.039	25.92	27.51	27.36	26.82	27.85	0.027	20.48	21.73	21.62	21.19	22.01	0.021	17.19	18.24	18.15	17.79	18.47	0.018
18	57.68	61.23	60.89	59.67	62.02	0.060	36.72	38.98	38.74	37.99	39.47	0.038	25.71	27.29	27.14	26.59	27.64	0.027	20.31	21.55	21.44	21.01	21.84	0.021	17.05	18.10	18.00	17.64	18.33	0.018
19	57.30	60.82	60.48	59.24	61.63	0.060	36.47	38.71	38.47	37.72	39.21	0.038	25.54	27.10	26.95	26.40	27.46	0.027	20.18	21.41	21.30	20.86	21.70	0.021	16.94	17.97	17.88	17.51	18.22	0.018
20	56.91	60.40	60.05	58.81	61.22	0.059	36.21	38.44	38.20	37.44	38.95	0.038	25.36	26.92	26.76	26.21	27.28	0.027	20.04	21.26	21.15	20.70	21.56	0.021	16.82	17.85	17.75	17.38	18.09	0.018
21	55.17	58.65	58.20	56.97	59.46	0.058	35.10	37.31	37.01	36.26	37.81	0.037	24.58	26.13	25.94	25.39	26.49	0.026	19.42	20.64	20.50	20.06	20.93	0.020	16.30	17.33	17.20	16.84	17.57	0.017
22	57.62	60.94	60.71	59.30	61.92	0.060	36.64	38.76	38.59	37.73	39.37	0.038	25.67	27.15	27.05	26.42	27.59	0.027	20.29	21.45	21.38	20.88	21.80	0.021	17.03	18.01	17.94	17.52	18.30	0.018
23	60.44	63.57	63.57	61.97	64.74	0.063	38.43	40.42	40.40	39.41	41.15	0.040	26.93	28.32	28.33	27.61	28.85	0.028	21.28	22.37	22.39	21.82	22.80	0.022	17.86	18.79	18.79	18.31	19.13	0.019
24	54.68	58.15	57.69	56.45	58.97	0.057	34.78	36.99	36.68	35.92	37.50	0.036	24.36	25.91	25.71	25.16	26.27	0.025	19.25	20.47	20.31	19.87	20.76	0.020	16.16	17.18	17.05	16.68	17.42	0.017
25	57.09	60.41	60.15	58.74	61.39	0.060	36.30	38.42	38.23	37.37	39.03	0.038	25.44	26.92	26.80	26.17	27.35	0.027	20.10	21.26	21.18	20.68	21.61	0.021	16.87	17.85	17.77	17.36	18.14	0.018
26	59.69	62.83	62.79	61.20	63.99	0.062	37.95	39.95	39.90	38.92	40.67	0.039	26.59	27.99	27.98	27.27	28.51	0.028	21.02	22.12	22.11	21.55	22.53	0.022	17.64	18.57	18.55	18.08	18.91	0.018
27	54.16	57.51	57.01	55.57	58.54	0.057	34.40	36.53	36.19	35.31	37.18	0.036	24.13	25.62	25.40	24.76	26.08	0.025	19.06	20.24	20.07	19.56	20.61	0.020	16.00	16.99	16.84	16.42	17.29	0.017
28	54.15	57.50	56.99	55.54	58.56	0.057	34.40	36.52	36.18	35.28	37.18	0.036	24.12	25.62	25.39	24.74	26.09	0.025	19.06	20.24	20.07	19.55	20.61	0.020	16.00	16.99	16.84	16.41	17.30	0.017
29	52.82	56.25	55.64	54.31	57.18	0.055	33.56	35.74	35.34	34.52	36.32	0.035	23.53	25.06	24.79	24.19	25.47	0.025	18.59	19.79	19.59	19.12	20.13	0.019	15.60	16.62	16.44	16.04	16.89	0.016
30	52.77	56.20	55.58	54.24	57.15	0.055	33.52	35.70	35.29	34.46	36.29	0.035	23.51	25.04	24.76	24.16	25.46	0.025	18.57	19.78	19.57	19.09	20.12	0.019	15.59	16.60	16.42	16.02	16.88	0.016
31	52.65	56.09	55.44	54.09	57.04	0.055	33.44	35.62	35.20	34.37	36.22	0.035	23.45	24.99	24.70	24.10	25.41	0.025	18.53	19.74	19.52	19.04	20.08	0.019	15.55	16.57	16.38	15.98	16.85	0.016
32	68.30	70.61	71.25	68.98	72.56	0.070	43.35	44.83	45.21	43.80	46.05	0.045	30.43	31.46	31.74	30.73	32.33	0.031	24.05	24.86	25.09	24.28	25.55	0.025	20.18	20.87	21.05	20.38	21.44	0.021
33	65.27	67.84	68.26	66.17	69.56	0.067	41.44	43.08	43.32	42.03	44.16	0.043	29.08	30.22	30.41	29.48	30.99	0.030	22.98	23.88	24.04	23.29	24.49	0.024	19.29	20.05	20.17	19.55	20.56	0.020
34	65.43	67.98	68.40	66.28	69.74	0.068	41.54	43.16	43.41	42.09	44.26	0.043	29.15	30.28	30.47	29.53	31.07	0.030	23.04	23.93	24.08	23.34	24.55	0.024	19.33	20.09	20.21	19.58	20.60	0.020
35	62.35	65.15	65.35	63.44	66.66	0.065	39.60	41.38	41.48	40.30	42.33	0.041	27.78	29.03	29.11	28.26	29.70	0.029	21.95	22.93	23.01	22.33	23.47	0.023	18.42	19.25	19.31	18.74	19.70	0.019
36	59.31	62.34	62.30	60.58	63.65	0.062	37.68	39.60	39.56	38.50	40.42	0.039	26.43	27.77	27.76	26.99	28.35	0.027	20.88	21.94	21.94	21.33	22.41	0.022	17.52	18.42	18.41	17.90	18.81	0.018
37	56.55	59.77	59.50	57.97	60.88	0.059	35.93	37.98	37.79	36.85	38.67	0.037	25.19	26.63	26.51	25.83	27.12	0.026	19.91	21.04	20.95	20.41	21.43	0.021	16.71	17.66	17.58	17.13	17.99	0.017
38	54.41	57.77	57.33	55.95	58.73	0.057	34.58	36.72	36.42	35.57	37.32	0.036	24.24	25.74	25.54	24.93	26.17	0.025	19.16	20.33	20.19	19.69	20.68	0.020	16.08	17.07	16.94	16.53	17.36	0.017
39	63.00	65.74	65.97	64.00	67.32	0.065	40.00	41.74	41.87	40.65	42.74	0.041	28.07	29.29	29.39	28.51	29.99	0.029	22.18	23.14	23.23	22.53	23.70	0.023	18.61	19.42	19.49	18.91	19.89	0.019
40	59.17	62.20	62.14	60.42	63.51	0.061	37.58	39.51	39.45	38.39	40.33	0.039	26.36	27.71	27.69	26.92	28.29	0.027	20.83	21.89	21.88	21.27	22.36	0.022	17.48	18.38	18.36	17.85	18.76	0.018
41	58.99	62.03	61.94	60.22	63.34	0.061	37.47	39.40	39.33	38.26	40.22	0.039	26.28	27.63	27.60	26.83	28.22	0.027	20.77	21.83	21.81	21.20	22.30	0.022	17.43	18.33	18.30	17.79	18.72	0.018
42	61.00	63.89	63.97	62.12	65.34	0.063	38.74	40.57	40.61	39.46	41.49	0.040	27.18	28.46	28.50	27.67	29.11	0.028	21.47	22.49	22.53	21.87	23.00	0.022	18.02	18.88	18.90	18.35	19.31	0.019
43	56.45	59.66	59.38	57.85	60.78	0.059	35.86	37.91	37.71	36.76	38.61	0.037	25.15	26.58	26.46	25.78	27.08	0.026	19.87	21.00	20.91	20.36	21.40	0.021	16.68	17.63	17.55	17.09	17.96	0.017
44	56.34	59.56	59.27	57.72	60.69	0.059	35.79	37.84	37.63	36.68	38.55	0.037	25.10	26.53	26.41	25.72	27.04	0.026	19.84	20.96	20.87	20.32	21.37	0.021	16.65	17.60	17.51	17.05	17.93	0.017
45	54.03	57.41	56.93	55.56	58.36	0.056	34.34	36.48	36.16	35.32	37.08	0.036	24.07	25.58	25.36	24.75	26.00	0.025	19.02	20.20	20.04	19.56	20.54	0.020	15.96	16.96	16.82	16.41	17.24	0.017
46	53.89	57.27	56.77	55.40	58.23	0.056	34.25	36.39	36.06	35.21	36.99	0.036	24.01	25.51	25.30	24.68	25.94	0.025	18.97	20.15	19.99	19.50	20.50	0.020	15.92	16.92	16.77	16.37	17.20	0.017
47	88.01	88.33	90.29	87.10	91.75	0.089	55.82	56.04	57.25	55.27	58.19	0.057	39.21	39.35	40.22	38.81	40.88	0.040	30.99	31.10	31.80	30.67	32.31	0.031	26.01	26.10	26.68	25.74	27.12	0.026
48	87.60	88.00	89.93	86.78	91.35	0.089	55.56	55.83	57.03	55.07	57.94	0.056	39.03	39.20	40.07	38.67	40.70	0.040	30.85	30.98	31.67	30.56	32.17	0.031	25.89	26.00	26.58	25.65	27.00	0.026
49	87.22	87.70	89.62	86.51	91.00	0.088	55.33	55.65	56.84	54.91	57.73	0.056	38.86	39.07	39.93	38.54	40.54	0.039	30.72	30.88	31.56	30.46	32.04	0.031	25.78	25.92	26.49	25.57	26.89	0.026
50	86.94	87.49	89.39	86.33	90.73	0.088	55.16	55.53	56.71	54.79	57.56	0.056	38.74	38.98	39.83	38.46	40.42	0.039	30.62	30.80	31.48	30.40	31.95	0.031	25.70	25.86	26.42	25.51	26.82	0.026
51	86.80	87.42	89.31	86.27	90.60	0.088	55.07	55.49	56.66	54.77	57.49	0.056	38.67	38.95	39.79	38.44	40.37	0.039	30.57	30.78	31.45	30.38	31.90	0.031	25.65	25.84	26.40	25.50	26.78	0.026
52	86.07	86.81	88.66	85.68	89.90	0.087	54.62	55.11	56.26	54.40	57.05	0.055	38.35	38.68	39.50	38.18	40.05	0.039	30.31	30.56	31.23	30.17	31.66	0.031	25.44	25.66	26.20	25.32	26.57	0.026
53	85.99	86.79	88.64	85.68	89.84	0.087	54.58	55.10	56.25	54.41	57.02	0.055	38.31	38.67	39.50	38.18	40.03	0.039	30.28	30.56	31.22	30.17	31.64	0.031	25.42	25.65	26.20	25.32	26.55	0.026
54	86.10	86.94	88.81	85.85	89.97	0.088	54.65	55.21	56.37	54.52	57.11	0.056	38.36	38.74	39.57	38.25	40.09	0.039	30.32	30.61	31.28	30.23	31.69	0.031	25.45	25.70	26.25	25.38	26.59	0.026
55	85.78	86.72	88.57	85.64	89.69	0.087	54.46	55.08	56.22	54.40	56.94	0.055	38.22	38.64	39.46	38.16	39.96	0.039	30.21	30.54	31.19	30.15	31.59	0.031	25.36	25.63	26.18	25.31	26.51	0.026
56	85.51	86.55	88.37	85.47	89.46	0.087	54.30	54.97	56.10	54.30	56.80	0.055	38.10	38.57	39.38	38.09	39.86	0.039	30.11	30.47	31.12	30.10	31.51	0.031	25.28	25.58	26.12	25.26	26.44	0.026
57	85.43	86.54	88.35	85.47	89.42	0.087	54.25	54.98	56.09	54.31	56.78	0.055	38.07	38.56	39.37	38.09	39.84	0.039	30.09	30.47	31.12	30.10	31.49	0.031	25.25	25.58	26.12	25.27	26.43	0.026
58	81.20	82.77	84.28	81.66	85.28	0.083	51.58	52.60	53.53	51.90	54.18	0.053	36.18	36.88	37.56	36.39	38.00	0.037	28.59	29.14	29.69	28.76	30.03	0.029	24.00	24.47	24.91	24.14	25.21	0.025
59	81.54	83.03	84.58	81.91	85.60	0.083	51.79	52.76	53.71	52.05	54.37	0.053	36.33	37.00	37.69	36.50	38.14	0.037	28.72	29.24	29.79	28.84	30.15	0.029	24.10	24.54	25.00	24.21	25.30	0.025
60	81.81	83.20	84.77	82.07	85.82	0.084	51.95	52.86	53.83	52.15	54.50	0.053	36.45	37.07	37.77	36.57	38.24	0.037	28.81	29.29	29.86	28.90	30.22	0.029	24.18	24.59	25.06	24.26	25.37	0.025
61	81.62	82.97	84.53	81.82	85.61	0.083	51.83	52.70	53.67	51.98	54.36	0.053	36.37	36.97	37.67	36.46	38.15	0.037	28.74	29.21	29.77	28.81	30.15	0.029	24.12	24.52	24.99	24.18	25.30	0.025
62	81.85	83.12	84.71	81.97	85.81	0.083	51.97	52.80	53.78	52.07	54.49	0.053	36.47	37.04	37.75	36.53	38.24	0.037	28.82	29.27	29.84	28.86	30.22	0.029	24.19	24.57	25.04	24.23	25.36	0.025
63	81.79	83.01	84.59	81.83	85.73	0.083	51.93	52.72	53.69	51.98	54.43	0.053	36.44	36.99	37.69	36.47	38.20	0.037	28.80	29.22	29.79	28.82	30.19	0.029	24.17	24.54	25.00	24.19	25.34	0.025
64	81.64	82.82	84.39	81.63	85.57	0.083	51.82	52.59	53.56	51.84	54.31	0.053	36.37	36.90	37.60	36.37	38.12	0.037	28.75	29.16	29.72	28.74	30.13	0.029	24.13	24.48	24.94	24.13	25.29	0.025
65	81.93	83.03	84.62	81.81	85.84	0.083	52.00	52.72	53.70	51.95	54.48	0.053	36.50	36.99	37.71	36.45	38.25	0.037	28.85	29.23	29.80	28.81	30.23	0.029	24.21	24.54	25.01	24.18	25.37	0.025
66	82.01	83.06	84.65	81.81	85.91	0.083	52.04	52.72	53.71	51.94	54.52	0.053	36.54	37.01	37.72	36.45	38.28	0.037	28.88	29.24	29.81	28.81	30.25	0.029	24.24	24.55	25.02	24.18	25.39	0.025
67	82.31	83.29	84.91	82.03	86.20	0.084	52.23	52.87	53.87	52.07	54.69	0.053	36.67	37.11	37.83	36.55	38.40	0.037	28.99	29.32	29.90	28.88	30.35	0.029	24.33	24.61	25.10	24.24	25.48	0.025
68	82.60	83.51	85.15	82.23	86.47	0.084	52.40	53.00	54.01	52.19	54.86	0.053	36.80	37.21	37.94	36.64	38.52	0.037	29.09	29.40	29.99	28.95	30.45	0.030	24.41	24.68	25.16	24.30	25.56	0.025
69	82.84	83.69	85.34	82.39	86.70	0.084	52.55	53.11	54.13	52.29	55.00	0.053	36.91	37.29	38.02	36.71	38.63	0.038	29.17	29.46	30.05	29.01	30.53	0.030	24.48	24.73	25.22	24.35	25.62	0.025
70	83.03	83.84	85.49	82.52	86.89	0.084	52.67	53.20	54.22	52.37	55.12	0.054	36.99	37.35	38.09	36.77	38.71	0.038	29.24	29.52	30.11	29.06	30.60	0.030	24.54	24.78	25.27	24.39	25.68	0.025
71	83.09	83.87	85.51	82.53	86.95	0.084	52.70	53.21	54.22	52.37	55.15	0.054	37.02	37.36	38.10	36.77	38.74	0.038	29.26	29.53	30.12	29.06	30.62	0.030	24.56	24.78	25.27	24.39	25.70	0.025
72	83.02	88.24	88.40	87.55	89.23	0.087	53.03	56.37	56.44	55.94	56.99	0.056	37.02	39.35	39.42	39.04	39.79	0.039	29.24	31.08	31.14	30.84	31.43	0.031	24.56	26.10	26.15	25.90	26.40	0.026
73	80.65	85.59	85.74	84.79	86.54	0.085	51.49	54.67	54.73	54.17	55.25	0.054	35.96	38.16	38.23	37.81	38.58	0.038	28.40	30.14	30.20	29.87	30.48	0.030	23.85	25.32	25.36	25.08	25.60	0.025

74	78.62	83.35	83.47	82.46	84.27	0.082	50.19	53.22	53.27	52.66	53.78	0.053	35.05	37.16	37.22	36.77	37.57	0.037	27.69	29.35	29.41	29.04	29.68	0.029	23.26	24.65	24.69	24.39	24.92	0.024
75	76.70	81.22	81.33	80.26	82.12	0.080	48.94	51.84	51.89	51.24	52.40	0.051	34.19	36.21	36.26	35.78	36.61	0.036	27.01	28.60	28.65	28.27	28.92	0.028	22.68	24.02	24.05	23.74	24.29	0.024
76	75.09	79.43	79.55	78.40	80.33	0.079	47.90	50.68	50.73	50.04	51.24	0.050	33.47	35.41	35.46	34.96	35.81	0.035	26.44	27.97	28.02	27.61	28.29	0.028	22.21	23.49	23.52	23.19	23.76	0.023
77	73.23	77.38	77.51	76.30	78.30	0.077	46.70	49.36	49.41	48.68	49.93	0.049	32.64	34.50	34.55	34.02	34.90	0.034	25.79	27.25	27.30	26.87	27.58	0.027	21.65	22.89	22.92	22.56	23.16	0.023
78	71.71	75.71	75.84	74.57	76.65	0.075	45.72	48.28	48.34	47.57	48.86	0.048	31.97	33.75	33.81	33.25	34.16	0.033	25.25	26.66	26.72	26.26	27.00	0.026	21.20	22.39	22.43	22.05	22.66	0.022
79	70.68	74.55	74.70	73.38	75.51	0.074	45.05	47.53	47.60	46.79	48.12	0.047	31.50	33.23	33.30	32.71	33.66	0.033	24.89	26.25	26.31	25.84	26.59	0.026	20.90	22.04	22.09	21.70	22.33	0.022
80	70.02	73.79	73.97	72.59	74.79	0.073	44.62	47.04	47.12	46.28	47.65	0.047	31.21	32.89	32.97	32.36	33.33	0.033	24.66	25.98	26.06	25.57	26.34	0.026	20.71	21.82	21.87	21.47	22.12	0.022
81	69.31	72.99	73.18	71.76	74.01	0.072	44.16	46.52	46.61	45.74	47.15	0.046	30.89	32.54	32.62	31.99	32.99	0.032	24.41	25.70	25.78	25.27	26.06	0.025	20.49	21.58	21.64	21.22	21.88	0.021
82	83.01	87.98	88.25	87.26	89.06	0.087	53.00	56.19	56.33	55.74	56.86	0.056	37.01	39.23	39.35	38.91	39.71	0.039	29.24	30.98	31.09	30.74	31.37	0.031	24.56	26.03	26.11	25.81	26.34	0.026
83	80.80	85.51	85.77	84.69	86.55	0.085	51.57	54.59	54.73	54.08	55.24	0.054	36.02	38.12	38.24	37.76	38.59	0.038	28.46	30.11	30.21	29.83	30.48	0.030	23.90	25.29	25.37	25.05	25.60	0.025
84	79.08	83.58	83.85	82.69	84.61	0.083	50.46	53.35	53.49	52.79	53.99	0.053	35.26	37.26	37.38	36.87	37.72	0.037	27.85	29.43	29.54	29.12	29.80	0.029	23.39	24.72	24.80	24.46	25.03	0.024
85	77.49	81.79	82.07	80.83	82.83	0.081	49.43	52.19	52.34	51.59	52.83	0.052	34.54	36.46	36.59	36.04	36.92	0.036	27.29	28.80	28.91	28.47	29.17	0.029	22.92	24.19	24.27	23.91	24.50	0.024
86	75.73	79.83	80.12	78.81	80.88	0.079	48.29	50.93	51.08	50.28	51.57	0.050	33.76	35.59	35.72	35.13	36.06	0.035	26.67	28.11	28.22	27.76	28.49	0.028	22.40	23.61	23.69	23.31	23.92	0.023
87	74.22	78.15	78.45	77.07	79.23	0.077	47.32	49.83	50.00	49.16	50.50	0.049	33.09	34.84	34.97	34.36	35.32	0.035	26.14	27.52	27.64	27.14	27.90	0.027	21.95	23.11	23.20	22.79	23.43	0.023
88	73.02	76.80	77.12	75.68	77.91	0.076	46.54	48.96	49.14	48.26	49.65	0.049	32.55	34.24	34.38	33.74	34.73	0.034	25.72	27.04	27.17	26.65	27.44	0.027	21.59	22.71	22.81	22.38	23.04	0.023
89	72.25	75.91	76.25	74.76	77.04	0.075	46.03	48.38	48.57	47.66	49.09	0.048	32.20	33.83	33.99	33.32	34.34	0.034	25.44	26.73	26.86	26.33	27.13	0.026	21.36	22.45	22.55	22.11	22.78	0.022
90	71.48	75.05	75.41	73.88	76.21	0.074	45.54	47.83	48.02	47.09	48.54	0.047	31.86	33.45	33.61	32.93	33.97	0.033	25.17	26.43	26.56	26.02	26.84	0.026	21.14	22.19	22.30	21.84	22.54	0.022
91	66.72	70.60	70.54	69.33	71.42	0.070	42.53	45.01	44.94	44.21	45.51	0.044	29.74	31.47	31.45	30.91	31.83	0.031	23.50	24.86	24.85	24.41	25.15	0.025	19.73	20.87	20.86	20.50	21.12	0.021
92	64.61	68.64	68.37	67.33	69.30	0.0677	41.20	43.77	43.57	42.94	44.17	0.043	28.80	30.60	30.48	30.01	30.89	0.030	22.75	24.17	24.08	23.71	24.40	0.024	19.10	20.29	20.21	19.91	20.49	0.020
93	62.58	66.74	66.25	65.39	67.25	0.066	39.91	42.57	42.23	41.72	42.88	0.042	27.89	29.75	29.53	29.15	29.97	0.029	22.04	23.50	23.34	23.03	23.68	0.023	18.50	19.73	19.59	19.33	19.88	0.019
94	67.62	71.57	71.51	70.32	72.37	0.071	43.10	45.63	45.57	44.85	46.13	0.045	30.14	31.90	31.88	31.35	32.26	0.032	23.81	25.20	25.19	24.77	25.49	0.025	19.99	21.16	21.14	20.79	21.40	0.021
95	65.45	69.55	69.28	68.27	70.20	0.069	41.74	44.36	44.16	43.55	44.75	0.044	29.18	31.01	30.88	30.43	31.29	0.031	23.05	24.49	24.40	24.04	24.72	0.024	19.35	20.56	20.48	20.19	20.76	0.020
96	63.43	67.66	67.16	66.34	68.15	0.067	40.46	43.17	42.82	42.33	43.46	0.042	28.27	30.16	29.94	29.57	30.38	0.030	22.34	23.82	23.66	23.36	24.00	0.023	18.75	20.01	19.86	19.62	20.15	0.020
97	68.44	72.49	72.42	71.28	73.28	0.072	43.64	46.23	46.16	45.47	46.71	0.046	30.51	32.32	32.28	31.78	32.66	0.032	24.10	25.53	25.51	25.10	25.81	0.025	20.24	21.43	21.41	21.08	21.67	0.021
98	66.30	70.50	70.20	69.24	71.12	0.069	42.29	44.97	44.75	44.18	45.35	0.044	29.56	31.43	31.29	30.87	31.70	0.031	23.35	24.82	24.72	24.38	25.04	0.024	19.61	20.84	20.76	20.47	21.03	0.021
99	64.26	68.60	68.06	67.30	69.05	0.067	41.00	43.78	43.41	42.96	44.05	0.043	28.64	30.58	30.34	30.00	30.78	0.030	22.63	24.15	23.97	23.70	24.32	0.024	19.00	20.28	20.12	19.90	20.42	0.020
100	70.19	74.25	74.27	73.08	75.10	0.073	44.76	47.36	47.34	46.62	47.88	0.047	31.29	33.10	33.11	32.58	33.48	0.033	24.72	26.15	26.16	25.74	26.45	0.026	20.76	21.96	21.96	21.61	22.21	0.022
E1	84.40	86.90	88.28	85.92	89.06	0.087	53.70	55.31	56.16	54.70	56.66	0.055	37.61	38.73	39.35	38.30	39.69	0.039	29.72	30.60	31.10	30.26	31.37	0.031	24.95	25.70	26.10	25.41	26.33	0.026
E2	85.09	87.74	89.10	86.80	89.85	0.088	54.15	55.86	56.69	55.27	57.18	0.056	37.92	39.10	39.71	38.69	40.05	0.039	29.97	30.90	31.39	30.57	31.65	0.031	25.16	25.94	26.35	25.67	26.57	0.026
E3	85.66	88.49	89.81	87.58	90.55	0.088	54.53	56.35	57.16	55.79	57.64	0.056	38.18	39.44	40.03	39.04	40.36	0.039	30.17	31.16	31.64	30.85	31.89	0.031	25.33	26.17	26.56	25.90	26.78	0.026
E4	86.33	89.33	90.62	88.48	91.34	0.089	54.97	56.91	57.69	56.37	58.16	0.057	38.48	39.82	40.39	39.44	40.71	0.040	30.41	31.46	31.92	31.16	32.18	0.031	25.53	26.42	26.80	26.17	27.02	0.026
E5	87.47	90.66	91.93	89.87	92.64	0.091	55.71	57.78	58.55	57.27	59.01	0.058	38.99	40.42	40.98	40.06	41.29	0.040	30.81	31.93	32.39	31.65	32.63	0.032	25.87	26.81	27.19	26.58	27.40	0.027
E6	88.64	92.04	93.27	91.31	93.99	0.092	56.48	58.67	59.42	58.21	59.89	0.059	39.51	41.03	41.58	40.71	41.90	0.041	31.22	32.42	32.86	32.16	33.11	0.032	26.22	27.23	27.59	27.01	27.80	0.027
E7	90.05	93.65	94.84	92.99	95.59	0.093	57.39	59.71	60.44	59.30	60.92	0.060	40.14	41.75	42.28	41.46	42.61	0.042	31.72	32.98	33.42	32.76	33.67	0.033	26.64	27.70	28.06	27.51	28.27	0.028
E8	91.96	95.70	96.90	95.13	97.68	0.095	58.62	61.04	61.76	60.68	62.27	0.061	40.99	42.66	43.20	42.41	43.55	0.043	32.40	33.71	34.14	33.51	34.41	0.034	27.20	28.31	28.67	28.14	28.90	0.028
E9	93.40	97.37	98.52	96.87	99.34	0.097	59.56	62.12	62.81	61.81	63.35	0.062	41.64	43.41	43.92	43.19	44.28	0.043	32.90	34.30	34.71	34.12	35.00	0.034	27.63	28.81	29.14	28.66	29.39	0.029
E10	95.18	99.45	100.51	99.05	101.40	0.099	60.71	63.46	64.11	63.22	64.69	0.063	42.43	44.34	44.81	44.16	45.21	0.044	33.53	35.03	35.41	34.89	35.72	0.035	28.16	29.42	29.74	29.31	30.00	0.029
E11	94.61	99.30	100.15	98.94	101.10	0.099	60.38	63.40	63.91	63.18	64.52	0.063	42.18	44.27	44.65	44.12	45.08	0.044	33.33	34.98	35.29	34.85	35.62	0.035	27.99	29.38	29.63	29.27	29.91	0.029
E12	92.71	97.08	98.02	96.62	98.89	0.097	59.15	61.96	62.53	61.68	63.09	0.062	41.33	43.28	43.71	43.08	44.09	0.043	32.66	34.20	34.54	34.04	34.84	0.034	27.43	28.72	29.00	28.59	29.26	0.029
E13	87.91	90.24	91.84	89.33	92.61	0.090	55.93	57.43	58.42	56.86	58.92	0.058	39.18	40.22	40.93	39.82	41.27	0.040	30.97	31.78	32.35	31.47	32.62	0.032	26.00	26.68	27.16	26.42	27.39	0.027
E14	88.48	90.96	92.53	90.09	93.29	0.091	56.30	57.91	58.87	57.37	59.36	0.058	39.43	40.54	41.24	40.16	41.58	0.041	31.16	32.04	32.60	31.73	32.86	0.032	26.17	26.90	27.36	26.64	27.59	0.027
E15	89.05	91.73	93.25	90.90	93.99	0.092	56.68	58.41	59.35	57.89	59.83	0.058	39.69	40.89	41.56	40.52	41.89	0.041	31.37	32.30	32.85	32.02	33.11	0.032	26.34	27.13	27.58	26.88	27.80	0.027
E16	89.74	92.61	94.09	91.83	94.82	0.093	57.14	58.99	59.90	58.51	60.37	0.059	40.00	41.28	41.94	40.94	42.26	0.041	31.61	32.61	33.15	32.35	33.40	0.033	26.54	27.39	27.83	27.16	28.05	0.027
E17	91.24	94.25	95.73	93.54	96.47	0.094	58.11	60.05	60.96	59.61	61.44	0.060	40.67	42.01	42.67	41.70	43.00	0.042	32.14	33.19	33.73	32.95	33.98	0.033	26.99	27.88	28.32	27.67	28.53	0.028
E18	92.69	95.90	97.35	95.26	98.10	0.096	59.05	61.12	62.01	60.73	62.50	0.061	41.32	42.75	43.40	42.47	43.73	0.043	32.65	33.78	34.30	33.56	34.56	0.034	27.42	28.37	28.80	28.18	29.02	0.028
E19	93.79	97.17	98.58	96.60	99.36	0.097	59.76	61.95	62.81	61.60	63.32	0.062	41.81	43.32	43.95	43.07	44.29	0.043	33.04	34.23	34.73	34.03	35.00	0.034	27.74	28.75	29.16	28.58	29.39	0.029

Plotted Cancer Risk - chances per million



Milpitas Place Traffic Volumes and Truck Volumes for DPM Modeling

Roadway Link	Basis	ADT	Year
880 SB Onramp From EB 237	880 SEG SB ON FR EB RTE 237	7,600	2005
NB 880 Before Rte 237	880 A JCT RTE. 237	175,000	2006
NB 880 After Rte 237	880 A JCT RTE. 237	175,000	2006
SB 880 Before Rte 237	880 A JCT RTE. 237	175,000	2006
SB 880 After Rte 237	880 A JCT RTE. 237	175,000	2006
WB Rte 237 Before 880	237 A Sunnyvale, Jct Rte. 101	89,000	2006
WB Rte 237 After 880	237 A Sunnyvale, Jct Rte. 101	89,000	2006
EB Rte 237 Before 880	237 A Sunnyvale, Jct Rte. 101	89,000	2006
EB Rte 237 After 880	237 A Sunnyvale, Jct Rte. 101	89,000	2006

Traffic volumes will be increased 1% per year for calculating future year volumes

Reference	Truck Volumes From
2006 Caltrans Ramp Volumes	2006 Caltrans Truck AADT for Rte 237: **B** Jct Rte 880, Nimitz Freeway
2006 Caltrans Truck AADT Report	2006 Caltrans Truck AADT for Rte. 880 **A** Jct 237
2006 Caltrans Truck AADT Report	2006 Caltrans Truck AADT for Rte. 880 **A** Jct 237
2006 Caltrans Truck AADT Report	2006 Caltrans Truck AADT for Rte. 880 **A** Jct 237
2006 Caltrans Truck AADT Report	2006 Caltrans Truck AADT for Rte. 880 **A** Jct 237
2006 Caltrans Truck AADT Report	2006 Caltrans Truck AADT for Rte 237: **A** Jct Rte 880, Nimitz Freeway
2006 Caltrans Truck AADT Report	2006 Caltrans Truck AADT for Rte 237: **B** Jct Rte 880, Nimitz Freeway
2006 Caltrans Truck AADT Report	2006 Caltrans Truck AADT for Rte 237: **B** Jct Rte 880, Nimitz Freeway
2006 Caltrans Truck AADT Report	2006 Caltrans Truck AADT for Rte 237: **A** Jct Rte 880, Nimitz Freeway

APPENDIX C
ENVIRONMENTAL NOISE ASSESSMENT

MILPITAS SQUARE MIXED-USE PROJECT ENVIRONMENTAL NOISE ASSESSMENT MILPITAS, CALIFORNIA

Draft: May 23, 2008
Revised: June 30, 2008
Revised: January 7, 2009

Prepared for:

Will Burns
David J. Powers & Associates
1885 The Alameda, Suite 204
San Jose, CA 95126

Prepared by:

Fred M. Svinth
ILLINGWORTH & RODKIN, INC.
Acoustics · Air Quality
505 Petaluma Boulevard South
Petaluma, CA 94952
(707) 766-7700

Job No.: 07-187

Introduction

This report presents the results of the noise assessment conducted for the Milpitas Square Mixed-Use project in Milpitas, California. The proposed project would expand the existing commercial site by allowing slightly more commercial use and new residential uses. There would be an option to allow some hotel uses in lieu of residential units. The project site is currently developed with a commercial shopping center totaling 162,200 square feet of development. The shopping center includes a grocery store (99 Ranch Market) and five commercial strip buildings. Three additional commercial buildings are located along the western portion of the parking lot. The center is mainly leased by restaurant tenants, which serve the nearby industrial park campuses and City of Milpitas residents. The site and the immediate vicinity are shown in Figure 1.

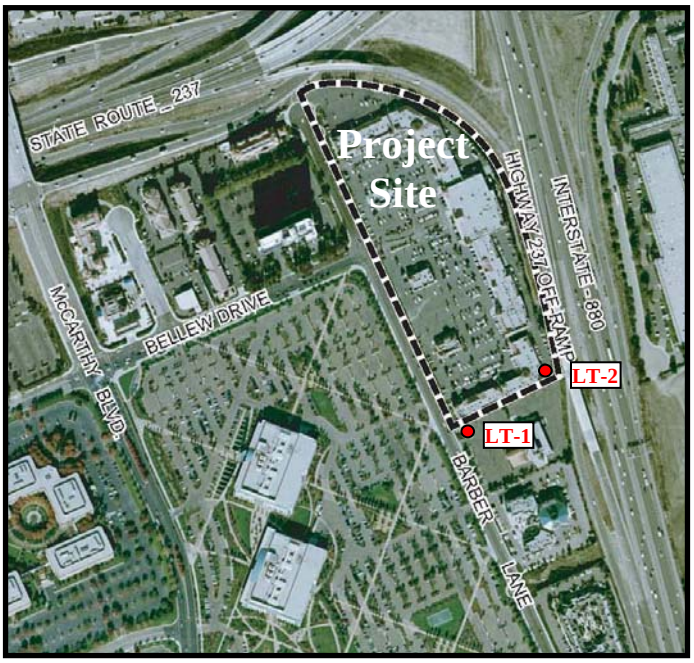


Figure 1: Site and Noise Measurement Locations

A proposed General Plan amendment and rezoning of the site would allow for the development of up to 175,000 square feet of commercial space and a maximum of 900 residential units. The project also proposes the option of constructing a 380-room hotel in place of 214 residential units, which would result in a maximum of 686 residential units on the site; this variation is referred to as the *"Hotel Option"*. The proposed development would be constructed in five phases with a total of six structures on the site at build out of the project. The existing 99 Ranch Market would be retained at its current size in its existing location with the only changes being improvements to the existing exterior facade of the building. This assessment presents the fundamentals of environmental noise, provides a discussion of policies and standards applicable to the project, presents the results of measurements conducted at the site, and provides an evaluation of the potential significance of impacts resulting from the project.

Fundamentals of Environmental Noise

Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. Decibels and other technical terms are defined in Table 1.

Table 1: Definitions of Acoustical Terms Used in this Report

Term	Definitions
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, Leq	The average A-weighted noise level during the measurement period.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Most of the sounds we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all of the frequencies of a sound in accordance with a weighting that reflects the facts that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This is called "A" weighting, and the

decibel level so measured is called the A-weighted sound level (dBA). In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. Typical A-weighted levels measured in the environment and in industry are shown in Table 2 for different types of noise.

Table 2: Typical Noise Levels in the Environment

Common Outdoor Noise Source	Noise Level (dBA)	Common Indoor Noise Source
	120 dBA	
Jet fly-over at 300 meters		Rock concert
	110 dBA	
Pile driver at 20 meters	100 dBA	
		Night club with live music
	90 dBA	
Large truck pass by at 15 meters		
	80 dBA	Noisy restaurant
		Garbage disposal at 1 meter
Gas lawn mower at 30 meters	70 dBA	Vacuum cleaner at 3 meters
Commercial/Urban area daytime		Normal speech at 1 meter
Suburban expressway at 90 meters	60 dBA	
Suburban daytime		Active office environment
	50 dBA	
Urban area nighttime		Quiet office environment
	40 dBA	
Suburban nighttime		
Quiet rural areas	30 dBA	Library
		Quiet bedroom at night
Wilderness area	20 dBA	
Most quiet remote areas	10 dBA	Quiet recording studio
Threshold of human hearing	0 dBA	Threshold of human hearing

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources, which create a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, L_{01}, L_{10}, L_{50}, and L_{90}, are commonly used. They are the A-weighted noise levels equaled or exceeded during 1 percent, 10%, 50%, and 90% of a stated time period. A single number descriptor called the L_{eq} is also widely used. The L_{eq} is the average A-weighted noise level during a stated period of time.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. However, most household noise also decreases at night and exterior noise becomes very noticeable. Further, most people sleep at night and are very sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, L_{dn} (day/night average sound level), was developed. The L_{dn} divides the 24-hour day into the daytime of 7:00 AM to 10:00 PM and the nighttime of 10:00 PM to 7:00 AM. The nighttime noise level is weighted 10 dB higher than the daytime noise level. The Community Noise Equivalent Level (CNEL) is another 24-hour average, which includes both an evening and nighttime weighting.

Fundamentals of Groundborne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the Peak Particle Velocity (PPV) and another is the Root Mean Square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration. In this section, a PPV descriptor with units of mm/sec. or in/sec. is used to evaluate construction generated vibration for building damage and human complaints. Table 3 displays the reactions of people and the effects on buildings that continuous vibration levels produce.

The annoyance levels shown in Table 3 should be interpreted with care since vibration may be found to be annoying at much lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying.

Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Table 3: Reaction of People and Damage to Buildings for Continuous Vibration Levels[1]

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.006 to 0.019	Threshold of perception, Possibility of intrusion	Vibration unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk of "architectural" damage to normal dwellings such as plastered walls or ceilings.
0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations	Vibration at this level would cause "architectural" damage and possibly minor structural damage.

[1] A Survey of Traffic Induced Vibrations, Whiffen and Leonard, Transport and Road Research Laboratory, RRL Report LR418, Crowthorne, Berkshire, England, 1971.

Regulatory Background

The State of California and the City of Milpitas have established plans and policies designed to limit noise exposure at noise sensitive land uses. These plans and policies are contained in the following documents: (1) the State CEQA Guidelines, Appendix G, (2) the California Building Code, (3) the City of Milpitas Noise Element of the General Plan, (4) the City of Milpitas Municipal Code, and (5) Groundborne vibration guidelines.

(1) California Environmental Quality Act (CEQA)

Under the California Environmental Quality Act (CEQA), noise impacts would be considered significant if the project would result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
e) For a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, if the project would expose people residing or working in the project area to excessive noise levels;
f) For a project within the vicinity of a private airstrip, if the project would expose people residing or working in the project area to excessive noise levels.

Of these guidelines, items (a), (b), (c), and (d) are applicable to the proposed project. Guidelines (e) and (f) are not applicable because the project is not located in the vicinity of a private or public airport or airstrip.

CEQA does not define what noise level increase would be considered substantial. Typically, an increase in the L_{dn} noise level resulting from the project at noise sensitive land uses of 3 dBA or greater would be considered a significant impact when projected noise levels would exceed those considered acceptable for the affected land use. An increase of 5 dBA or greater would be considered a significant impact when projected noise levels would remain within those considered acceptable for the affected land use.

(2) 2007 California Building Code

The development of new multi-family and attached dwellings are subject to the environmental noise limits set forth in the 2007 California Building Code (Chapter 12, Appendix Section 1207.11.2). The noise limit is a maximum interior noise level of 45 dBA L_{dn}/CNEL. Where exterior noise levels exceed 60 dBA L_{dn}/CNEL, a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the noise limit.

(3) City of Milpitas General Plan

The Noise Element of the City of Milpitas' General Plan identifies noise and land use compatibility standards for various land uses. The City's goal is to, "maintain land use compatibility with noise levels similar to those set by State guidelines" and to "minimize unnecessary, annoying, or injurious noise." Policies presented in the Noise Element applicable to this project are as follows:

Policy 6-I-1. Use the guidelines in Table 6-1 (Noise and Land Use Compatibility, not shown) as review criteria for development projects. *Table 6-1 specifies that for multi-family residential uses, exterior noise levels of up to 65 dBA L_{dn} would be considered normally acceptable, noise levels of 60 to 70 dBA L_{dn} would be considered conditionally acceptable, noise levels of 70 to 75 dBA L_{dn} would be considered normally unacceptable, and noise levels exceeding 75 dBA L_{dn} would be considered clearly unacceptable.*

Policy 6-I-2. Require an acoustical analysis for projects located within a "conditionally acceptable" or "normally unacceptable" exterior noise exposure area. Require mitigation measures to reduce noise to acceptable levels.

Policy 6-I-3. Prohibit new construction where the exterior noise exposure is considered "clearly unacceptable" for the use proposed.

Policy 6-I-4. Where actual or projected rear yard and exterior common open space noise exposure exceeds the "normally acceptable" levels for new single-family and multifamily residential projects, use mitigation measures to reduce sound levels in those areas to acceptable levels.

Policy 6-I-5. All new residential development (single family and multifamily) and lodging facilities must have interior noise levels of 45 dB L_{dn} or less. Mechanical ventilation will be required where use of windows for ventilation will result in higher than 45 dB L_{dn} interior noise levels.

Policy 6-I-7. Avoid residential L_{dn} exposure increases of more than 3 dB or more than 65 dB at the property line, whichever is more restrictive.

Policy 6-I-9. Enforce the provisions of the City of Milpitas Noise Ordinance and the use of established truck routes.

Policy 6-I-11. Minimize noise impacts on neighbors caused by commercial and industrial projects.

(4) City of Milpitas Municipal Code

The Public Heath, Safety, and Welfare Chapter of the City of Milpitas Municipal Code includes the following criteria that would be applicable to the project:

V-213-3 (b). Unlawful to Create or Permit Disturbing Noise, Site Construction Regulations No person shall engage or permit others to engage in construction of any building or related road or walkway, pool or landscape improvement or in the construction operations related thereto, including, delivery of construction materials, supplies, or improvements on or to a construction site except within the hours of 7:00 a.m. to 7:00 p.m. on weekdays and weekends. No construction work shall be conducted or performed on the holidays indicated in Section V-213-2-2.05 of this chapter.

(5) Groundborne Vibration.
There are no local, state, or federal vibration impact criteria that are applicable to this project. The California Department of Transportation uses a vibration limit of 12.7 mm/sec (0.5 inches/sec), ppv for buildings structurally sound and designed to modern engineering standards. A conservative vibration limit of 5 mm/sec (0.2 inches/sec), ppv has been used for buildings that are found to be structurally sound but structural damage is a major concern. For historic buildings or buildings that are documented to be structurally weakened, a conservative limit of 2 mm/sec (0.08 inches/sec), ppv is often used to provide the highest level of protection. All of these limits have been used successfully and compliance to these limits has not been known to result in appreciable structural damage. All vibration limits referred to herein apply on the ground level and take into account the response of structural elements (i.e. walls and floors) to ground-borne excitation.

Existing Noise Environment

The project site is located southwest of the Interstate 880 and Highway 237 intersection in Milpitas, California. Interstate 880 and two highway ramps adjoin the site to the east and Highway 237 is elevated above the site to the north. The I-880 off-ramp that is located closest to the site is elevated on-structure, allowing direct line of sight to mainline I-880 traffic. The project is adjoined to the south and west by commercial, retail, and office uses. Interstate 880 and Highway 237 traffic dominate the noise environment of the site. Traffic noise from Barber Lane acts as a local noise source. Due to the complexity of the freeway on-ramp configurations and the height of the proposed buildings, future noise levels at the residential units were modeled using SoundPlan 6.4 (discussed under Future Noise Environment). Two long-term noise measurements were conducted at representative ground level positions for use in calibrating the model and to measure the daily trend in noise levels throughout the daytime and nighttime hours for local road traffic (LT-1) and freeway traffic (LT-2). The locations of these noise measurements are shown in Figure 1.

Long-term noise measurement LT-1 was made from August 1-3, 2006 at a distance of about 50 feet from the centerline of Barber Lane, and about 12 feet above the surrounding ground. The location was partially shielded from Interstate 880 by the existing structure on the project site. The primary noise sources at this location were I-880, which acts as a constant ambient background noise source, and Barber Lane, which generates more intermittent noise levels that were closer to the noise measurement position. The day-night average noise level over the course of the measurement period was 65 dBA L_{dn}. Daytime noise levels typically ranged from 61 to 64 dBA L_{eq}, but were raised as high as 68 dBA L_{eq} during the 6:00 pm hour on August 1st and the 12:00 pm hour on August 2nd. During the early morning, noise levels dropped as low as 52 to 53 dBA L_{eq}. The daily trend in noise levels at LT-1 is shown in Figure 2.

Long-term noise measurement LT-2 was made from August 1-3, 2006 at a distance of about 200 feet from the centerline of I-880, and about 10 feet above the surrounding ground. An elevated freeway ramp was located adjacent to the measurement location, but did not block line-of-sight between the microphone and I-880. The day-night average noise level over the course of the

measurement period was 80 dBA L_{dn}. Daytime noise levels typically ranged from 73 to 77 dBA L_{eq} and noise levels dropped to a low of 68 to 69 dBA L_{eq} in the early morning. The daily trend in noise levels at LT-2 is shown in Figure 3.

Figure 2: Daily Trend in Noise Levels at LT-1

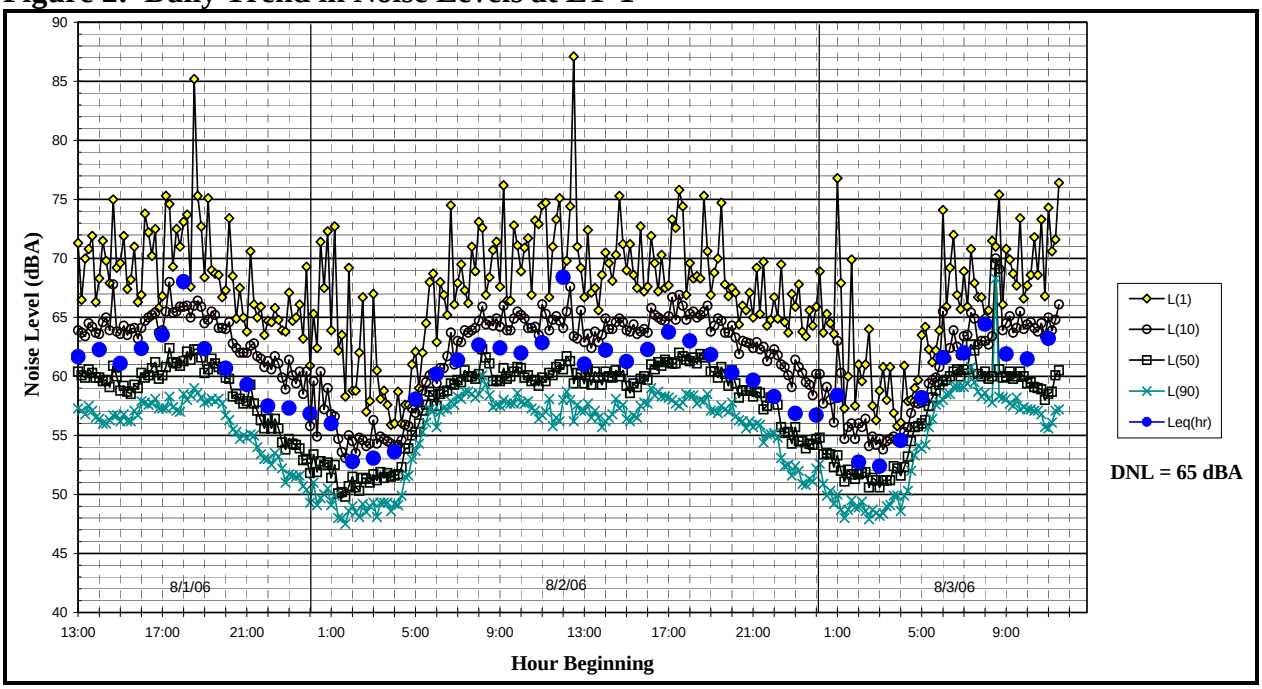
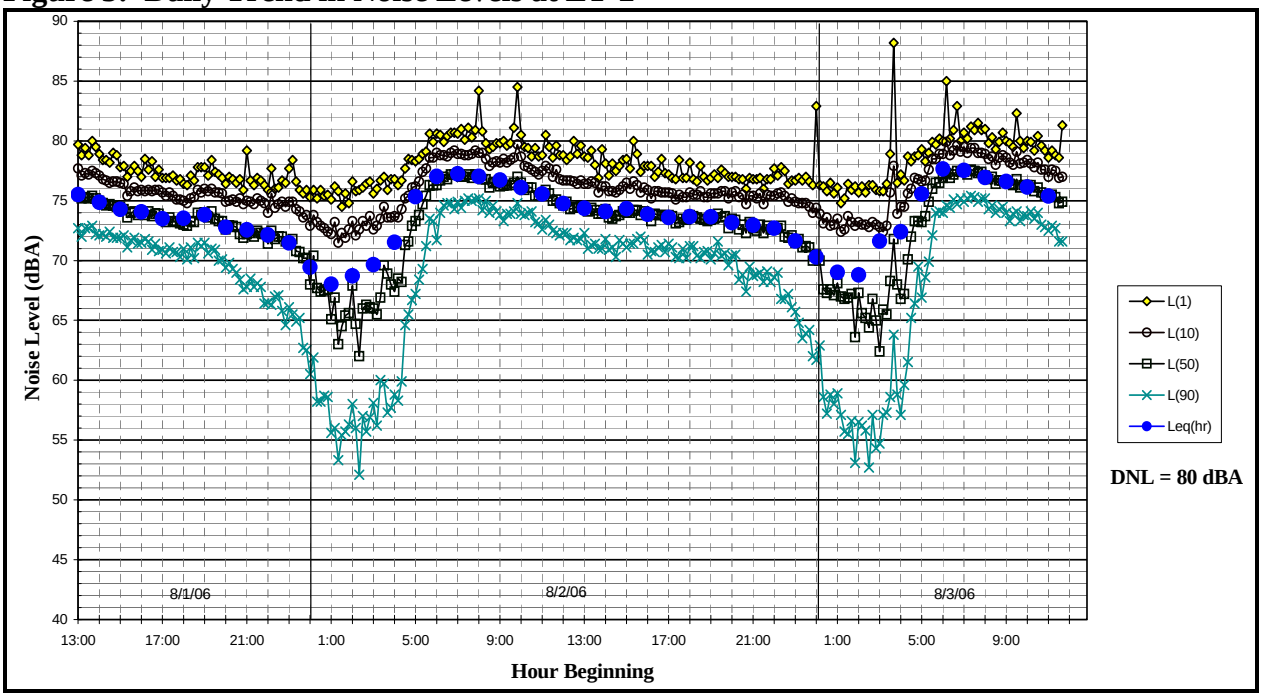


Figure 3: Daily Trend in Noise Levels at LT-2



Future Noise Environment

The project proposes the, with the exception of the 99 Ranch Market building, the removal of all building on the site and the construction of five new structures which would include up to 175,000 square feet of commercial space and a maximum of 900 residential units. The project also proposes the option of constructing a 380-room hotel in place of 214 residential units, which would result in a maximum of 686 residential units on the site; this variation is referred to as the *"Hotel Option"*. The proposed development would be constructed in five phases with a total of six structures on the site at build out of the project. Figure 4, below, shows the current site plan for the development.

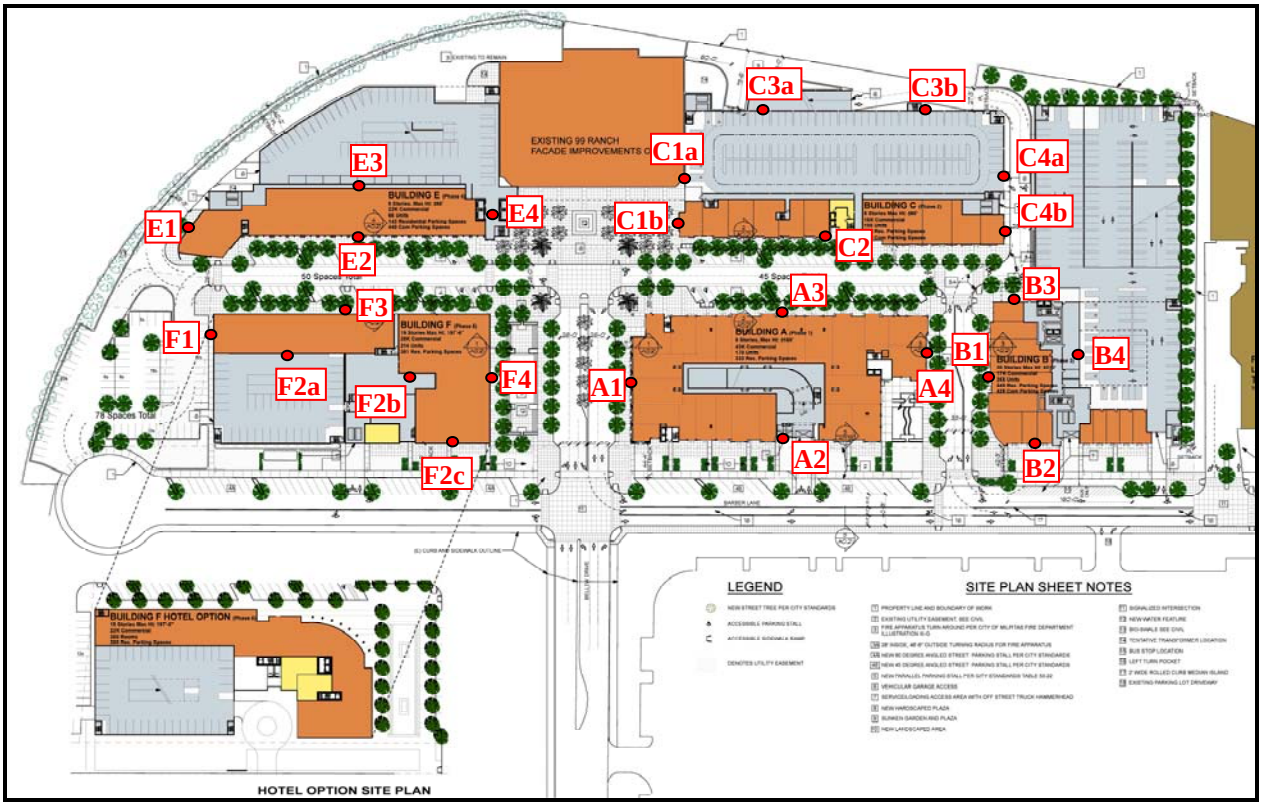


Figure 4: Site Plan and SoundPlan Modeling Locations

The five new structures are indicated as Buildings A, B, C, E and F, and according to current design documents would have following general characteristics:

<u>Building A</u>: Eight-story structure with three levels of parking, commercial on ground level and residential units at 2nd through 8th levels with noise protected outdoor courtyards on the 4th level of the building.

<u>Building B</u>: Twenty-story residential tower with ground level commercial attached to a five story structure which combines a parking garage, residential units and a noise protected outdoor courtyard.

Building C: Eight-story structure with four levels of parking, commercial on ground level and residential units at 2nd through 8th levels and a noise protected outdoor courtyard on the 5th level of the building.

Building E: Eight-story linear residential structure with ground floor commercial attached to a four-story parking garage with ground floor commercial and an outdoor use area at the roof level of the garage.

Building F: Nineteen-story residential tower with ground level commercial attached to a parking garage, residential units and a noise protected outdoor courtyard. This building has the option of being built as a 19-story hotel with attached parking garage.

The building geometries and roadway characteristics for the project were input into SoundPlan 6.4 to calculate future noise levels at proposed upper level outdoor use areas and across the proposed building facades. SoundPlan is a three-dimensional ray tracing program that takes into account the characteristics of the noise source, the locations of the receiving points where sound levels are calculated, and conditions in the sound transmission path that affect sound propagation primarily including ground absorption and the effects of intervening barriers or topography. Hard ground was assumed for this analysis. Area topography and roadway elevations were input from as-built AutoCAD files provided by the Santa Clara Valley Transportation Authority. The project geometry, including building and receiver locations, was based on information from the project plans and topography maps available on Google Earth. Highway traffic data was based on information available from Caltrans[2] and local traffic volumes were obtained from information provided by Fehr & Peers Transportation Consultants.

Based on typical ramped lower level parking garage designs, the garage structures are anticipated to act as effective acoustical barriers and were modeled as a solid structure. Noise measurements conducted during the noise monitoring survey were used to calibrate the model. Future exterior noise levels for residential facades are summarized in Table 4. The receiver locations used to calculate the facade exposures are shown on Figure 4. Noise levels were also modeled at the proposed outdoor use areas of the five proposed buildings, and with the exception of the rooftop garden proposed for Building E all of the identified outdoor use areas were found to have noise levels below an L_{dn} of 60 dBA, based on the placement of these spaces in areas shielded from traffic noise by the structure of the buildings (Buildings A, B, and F) or roof edge noise barriers (Building C). Due the lack of significant attenuation from the roof edge or the presence of roof edge barriers at Building E, noise levels in the roof garden, proposed as an outdoor use area for this building were found to be between 72 to 74 dBA L_{dn}.

[2] Traffic and Vehicle Data Systems Unit, State of California, Department of Transportation, 2005.

Table 4: Summary of Exterior Noise Exposure at Residential Unit Facades

Floor Level	Noise Levels at Façade modeling points, dBA L_{dn}																							
	Building A				Building B				Building C							Building E				Building F				
	A1	A2	A3	A4	B1	B2	B3	B4	C1a	C1b	C2	C3a	C3b	C4a	C4b	E1	E2	E3	E4	F1	F2a	F2b	F2c	F3	F4
1	63	70	58	61	62	70	65	*	*	60	58	*	*	78	67	71	67	*	60	71	*	*	70	68	63
2	64	70	59	62	63	70	65	*	*	60	58	*	*	78	68	72	68	*	60	72	*	*	70	69	64
3	64	70	59	62	63	70	65	53	73	64	58	*	*	78	68	73	69	*	60	73	*	64	70	70	64
4	65	70	60	62	63	70	65	54	73	66	59	*	*	78	68	73	69	*	61	73	*	64	70	70	65
5	65	70	61	62	63	70	65	58	73	68	59	78	78	78	68	74	70	*	61	74	*	66	70	71	65
6	65	70	63	61	62	67	68	65	74	71	58	78	78	79	69	74	70	*	61	74	*	68	70	71	65
7	66	69	64	61	62	66	69	69	74	72	59	78	78	79	70	74	70	74	62	74	66	69	69	71	66
8	66	69	65	60	62	67	71	71	75	73	60	78	78	79	72	74	70	74	62	74	70	70	69	71	66
9	-	-	-	-	63	67	72	72	-	-	-	-	-	-	-	-	-	-	-	74	70	70	69	71	67
10	-	-	-	-	63	66	72	72	-	-	-	-	-	-	-	-	-	-	-	74	70	70	68	71	68
11	-	-	-	-	64	66	73	72	-	-	-	-	-	-	-	-	-	-	-	74	71	70	68	71	68
12	-	-	-	-	65	66	74	72	-	-	-	-	-	-	-	-	-	-	-	74	71	70	68	71	68
13	-	-	-	-	66	67	74	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	69	71	69
14	-	-	-	-	67	67	75	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	69	71	69
15	-	-	-	-	67	67	75	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	69	71	69
16	-	-	-	-	68	67	76	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	69	71	69
17	-	-	-	-	69	68	76	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	70	71	69
18	-	-	-	-	69	68	76	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	70	71	70
19	-	-	-	-	69	68	76	73	-	-	-	-	-	-	-	-	-	-	-	74	71	70	70	71	70
20	-	-	-	-	70	68	76	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes: * No residential façade, or a residential façade shielded by garage structure at this level.
- Building does not continue to this floor level

NOISE IMPACTS AND MITIGATION MEASURES

Significance Criteria

The following significance criteria are used in this report to evaluate the significance of noise impacts:

1. **Noise and Land Use Compatibility.** If proposed residential uses are exposed to a L_{dn} in excess of City or State noise and land use compatibility guidelines, the impact would be considered significant (65 dBA L_{dn} for exterior common use areas and 45 dBA L_{dn} for interior residential uses);
2. **Project Generated Traffic Noise.** If project traffic were to increase noise levels at noise sensitive areas by more than 3 dBA L_{dn}, the impact would be considered significant;
3. **Project Operational Noise.** If project operations were to increase noise levels at noise sensitive areas by more than 3 dBA L_{dn}, the impact would be considered significant;
4. **Construction Noise.** Construction noise impacts would be considered significant when the duration of the noise-generating activities last for more than one year and hourly average noise levels received at the nearby commercial land uses is anticipated to disrupt indoor activities.
5. **Construction Vibration.** Construction vibration impacts would be considered significant when construction activities are anticipated to generate a peak vertical particle velocity of 0.50 inches/sec, ppv at adjacent commercial structures (assumed to be structurally sound) or lower if highly vibration sensitive uses are identified adjoining the site.

Impact 1: **Noise and Land Use Compatibility.** The project site is located in an area that exceeds 65 dBA L_{dn}. **This is a potentially significant impact.**

The project would include five buildings with parking structures and mixed-use residential and commercial uses. Parking and commercial uses would be considered compatible with the future noise environment. Future noise levels at the common use areas and outside residential facades were calculated in SoundPLAN 6.4, as discussed previously.

Exterior Use Areas

Based on the results of the traffic noise model, exterior noise levels would be below 60 dBA L_{dn} in the exterior use areas proposed at Buildings A, B, C, D and F, which are well shielded from I-880 and Hwy 237 by the project structures. However, noise levels at the Building E Rooftop Garden will be between 70 to 75 dBA L_{dn}, with higher noise levels on the portions of the garden closest to the freeway to the roof edge. Noise barrier modeling calculated only small noise reductions with the inclusion of a noise barrier along the perimeter of the garage rooftop garden and pool/spa area. A 6-foot high barrier was found to reduce noise levels by about 1 dBA and a 12-foot high barrier was found to reduce noise levels by about 4 dBA. Noise levels would continue to exceed 70 dBA L_{dn} in portions of the Building E garage Rooftop Garden, even with the construction of a 12-foot high barrier around the perimeter of the roof. Based on SoundPlan modeling the use of 10-foot high rooftop carport structures arranged around specific rooftop garden areas can create 25 foot wide areas where noise levels are reduced to 60 dBA or less.

Interior Noise Levels

Proposed residential unit facades would be exposed to exterior noise levels of up to 79 dBA L_{dn}. Where exterior day-night average noise levels are less than 65 to 70 dBA L_{dn}, interior noise level can typically be maintained below City and State standards (45 dBA L_{dn}) with the incorporation of forced air mechanical ventilation systems in residential units. Where noise levels exceed 65 to 70 dBA L_{dn}, forced-air mechanical ventilation systems and sound-rated construction would be required. Noise levels at the building exteriors exceeding 75 dBA L_{dn} would be considered clearly unacceptable and would require construction materials and methods with high sound ratings to meet the standards. Specifications of window and wall systems in areas exposed to sound levels of 70 dBA L_{dn} or greater shall be determined during the final design stage of the project when building elevations and floor plans are available.

Mitigation 1: The following mitigation measures shall be included in the project to reduce the impact to a less-than-significant level:

1. Building design and treatments to ensure compliance with State and City noise standards. A project-specific acoustical analyses would be required by the City of Milpitas to insure that interior noise levels will be reduced to 45 dBA L_{dn} or lower. Building sound insulation requirements would need to include the provision of forced-air mechanical ventilation for all outer facing residential units so that windows could be kept closed at the occupant's discretion to control noise. Special building construction techniques may be required in areas exposed to sound levels of 70 dBA L_{dn} or greater. These treatments could include sound rated windows and doors, sound rated wall constructions, acoustical caulking, etc. Results of the analysis, including the description of the necessary noise

control treatments, would be submitted to the City along with the building plans and approved prior to issuance of a building permit. Feasible construction techniques such as these would adequately reduce interior noise levels to 45 dBA L_{dn} or lower.

2. A qualified acoustical consultant should review final site plans, building elevations, and floor plans prior to the issuance of a building permit to calculate expected interior and exterior noise levels and ensure compliance with City policies and State noise regulations.

Impact 2: **Project Generated Traffic Noise.** Project generated traffic would not significantly increase traffic noise levels along roadways in noise sensitive areas. **This is a less-than-significant impact.**

The nearest noise sensitive use is the Cisco Family Connection day care center located approximately 835 feet south of the site at 800 Barber Lane. Other noise sensitive receptors, in the form of single-family residences, are located to the east of Interstate 880 and about 1300 feet from the project site. Residences are also located east of I-880 both to the north across E. Calaveras Boulevard (about 3,000 feet from the site) and to the south across Great Mall Parkway (about 2,500 feet from the site). Based on traffic volumes supplied by Fehr & Peers Transportation Consultants, noise levels due to project traffic would not significantly increase at the nearby noise sensitive receptors.

Mitigation 2: None Recommended

Impact 3: **Project Operational Noise.** Noise associated with the operation of the project is not anticipated to be audible at noise sensitive uses. **This is a less-than-significant impact.**

High-rise multi-use structures typically include various mechanical equipment such as air conditioners, exhaust fans, and air handling equipment for the underground parking levels. Truck deliveries for the project commercial uses would also have the potential to generate noise. The project site is not in close proximity to any noise sensitive uses (the closest residences are located across I-880 from the project site). In addition, the project site is located in an area that is dominated by freeway traffic noise. Therefore, noise-generating activities associated with the operation of the project are not anticipated to be audible at noise sensitive uses.

Mitigation 3: None Recommended

Impact 4: **Construction Noise.** During project construction, businesses in the vicinity of the site would be intermittently exposed to high noise levels. **This is considered a potentially significant short-term noise impact.**

Construction of the project would be completed in phases and will involve site improvements such as the establishment of utilities, removal of existing pavement, substantial excavation to create the underground garage level and to lay foundations, building erection, paving, and landscaping. Pile driving could be used to construct the foundation. A portable rock crusher will be used to recycling of existing building materials. Noise impacts from construction activities

depend on the various pieces of construction equipment, the timing and length of noise generating activities, the distance between the noise generating construction activities and receptors that would be affected by the noise, and shielding. Construction activities for each phase are expected to be carried out in stages. During each stage of construction, there would be a different mix of equipment operating.

Construction noise levels would vary by stage and vary within stages based on the amount of equipment in operation and location where the equipment is operating. Typical construction noise levels at a distance of 50 feet are shown in Tables 5 and 6. Table 5 shows the average noise level ranges by construction phase and Table 6 shows the maximum noise level ranges for different construction equipment. Most demolition and construction noise is in the range of 80 to 90 dBA at a distance of 50 feet from the source.

Table 5: Typical Ranges of Energy Equivalent Construction Noise Levels at 50 Feet, L_{eq} in dBA

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	**II**	**I**	**II**	**I**	**II**	**I**	**II**
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84
I - All pertinent equipment present at site. **II** - Minimum required equipment present at site.								

Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

The highest noise levels would be generated during grading, excavation, and foundation construction. The erection of large buildings from steel structures can also cause considerable noise for fairly long durations and would not typically be shielded by the surrounding structures. Jackhammers typically generate maximum noise levels of 85 dBA at a distance of 50 feet. Portable rock crushers can produce noise levels of between 87 to 91 dBA at 50 feet. Large pieces of earth-moving equipment, such as graders, scrapers, and bulldozers, generate maximum noise levels of 85 to 90 dBA at a distance of 50 feet. Pile driving can produce very high noise levels of about 105 dBA at 100 feet. Mat slab construction would generate lower noise levels than pile driving activities, but would introduce a large number of trucks into the construction area.

Commercial uses, which may remain in use during various phases of the project, are located on the site, and other commercial uses are located to the west, and south of the project area. During construction, noise levels would be elevated at these nearby businesses. Due to the proximity of the site to Interstate 880, existing ambient noise levels at the site are high. Daytime noise levels at adjacent uses are estimated to range from 74 to 77 dBA L_{eq} in areas adjacent to and in line-of-sight with I-880 to about 62 dBA L_{eq} in areas that are well shielded and located west of the freeway. Noise levels are typically about 30 dBA lower inside commercial structures, which are anticipated to be fully ventilated with windows normally closed.

The closest noise sensitive receptor, the Cisco Family Connection day care center on Barber Lane, is located over 800 feet south of the site. Considering the attenuation due to distance, and the high ambient noise levels in this area due to I-880 traffic, construction noise at this use would not be expected to result in a significant increase in existing noise levels.

Table 6: Construction Equipment 50-foot Noise Emission Limits

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Portable Crusher and Conveyer	91	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

[1] Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.
[2] Noise limits apply to total noise emitted from equipment and associated components operating at full power used for its intended operation.
[3] Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

Average exterior noise levels at 100 feet from typical construction activity at this site would range from 70 to 80 dBA during busy construction periods. These noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. Noise levels inside adjacent commercial structures could reach 40 to 50 dBA during busy construction periods and could reach 75 dBA during pile driving activities. Most construction activities would typically be similar to or below noise levels generated by activities within these uses (i.e., conversations, ambient music, etc.). Pile-driving activities would generate noise levels that would be anticipated to disturb occupants, but activities would be intermittent and over a short duration within the overall construction schedule. To reduce noise impacts from construction, a series of best practices are provided.

Mitigation 4: Construction equipment should be well maintained and used judiciously to be as quiet as practical. With the implementation of the following measures, this impact would be reduced to a less-than-significant level:

1. Utilize 'quiet' models of air compressors and other stationary noise sources where technology exists;
2. Prohibit all unnecessary idling of internal combustion engines and equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment;
3. Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from businesses or noise-sensitive land uses;
4. Notify all adjacent land uses of the construction schedule in writing;
5. Designate a disturbance coordinator, responsible for responding to complaints about construction noise. The name and telephone number of the disturbance coordinator shall be posted at the construction site and made available to businesses, residences or noise-sensitive land uses adjacent to the construction site;
6. If pile driving is necessary, pre-drill foundation pile holes to minimize the number of impacts required to seat the pile; and
7. If pile driving is necessary, when possible the project shall work with the owners and managers of adjacent commercial uses to select days and times to conduct pile-driving activities that would minimize the impact on these uses.

Impact 5: **Construction Vibration.** Businesses on the project site and in the vicinity of the project could be exposed to construction related vibration during the excavation and foundation work of the project, particularly if pile driving is used as a construction method. **This is considered a potentially significant impact.**

Construction activities would include demolition of existing pavement, site preparation work, foundation work, possible pile driving, and new building erection. These activities may, at

times, produce substantial vibration. Pile driving may also be required for building foundation support. Use of pile drivers and to a lesser extent other construction equipment would generate vibration levels on the site and in the site vicinity that could be perceptible to nearby occupants and could have the potential to cause structural and/or architectural damage to adjoining structures.

Past studies have established a peak vertical particle velocity of 0.20 inches/sec, ppv from pile driving activities as the limit where vibration would begin to annoy people in buildings and at which there is a risk of 'architectural' damage to normal dwellings such as plastered walls or ceilings. A vibratory limit of 0.50 inches/sec, ppv is established by the California Department of Transportation as the limit at which structurally sound buildings are at risk for structural damage.

Depending on the phasing and occupancy of the remaining commercial buildings on the site, these structures may be very close to work activities. Pile driving, if used, has the potential of generating the highest ground vibration levels and is of primary concern to structural and architectural damage. Other project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may also potentially generate vibration in the immediate vicinity, but would not be anticipated to cause structural or architectural damage to buildings. Erection of the building structure is not anticipated to be a source of substantial vibration with the exception of sporadic events such as dropping of heavy objects, which should be avoided to the extent possible.

Vibration levels generated by construction activities would vary depending on project conditions such as soil conditions, construction methods, and equipment used. Based on past studies[3], at a distance of 50 feet impact pile drivers typically generate vibration levels of 0.48 inches/sec, ppv and vibratory pile drivers typically generate vibration levels of 0.23 inches/sec, ppv. Jackhammers typically generate vibration levels of 0.03 inches/sec, ppv and drilling typically generates vibration levels of 0.06 inches/sec, ppv at a distance of 25 feet. Again, vibration levels would vary depending on project conditions such as soil conditions, construction methods, and equipment used. At a distance of 25 feet, construction activities other than pile driving would be unlikely to generate vibration levels exceeding 0.20 inches/sec, ppv criteria. Impact pile driving would not exceed 0.50 inches/sec, ppv at distances of 50 feet or further and vibratory pile driving would not exceed 0.50 inches/sec, ppv at distances of 25 feet or further.

Structural or architectural damage could potentially occur if impact pile driving were to take place within 50 feet of structures and vibration would likely be annoying to occupants of the adjacent buildings to the north and south within about 100 feet from impact pile driving. Vibratory pile driving would likely be annoying to occupants of the adjacent buildings within about 75 feet, but would not be expected to cause structural damage to adjacent buildings. Other construction activities would not be anticipated to generate vibration levels high enough to be perceptible inside adjacent uses.

[3] Construction Vibrations: State of the Art, John F. Wiss, Journal of the Geotechnical Engineering Division, February 1981.

If impact pile driving were to take place within 50 feet of adjacent structures, significant impacts could occur. Where vibration may be perceptible but would not be expected to cause structural damage, this impact would not normally be considered significant given the intermittent and short duration of the phases that have the highest potential of producing vibration (pile driving). By use of administrative controls such as notifying adjacent commercial uses of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration to hours with least potential to affect nearby businesses, perceptible vibration can be kept to a minimum and as such would not result in a significant impact with respect to perception.

Mitigation 5: The following measures, in addition to the best practices specified in Mitigation 4, are recommended to reduce vibration impacts from construction activities to a less-than-significant level:

1. Avoid impact pile driving where possible. Drilled piles or slab mats causes lower vibration levels where geological conditions permit their use;

2. Identify any highly vibration sensitive uses located in the adjoining properties and/or remaining commercial uses;

3. If impact pile driving is proposed within 50 feet of adjacent structures or within 200 feet of any highly sensitive uses identified in the adjoining buildings, a construction vibration-monitoring plan would need to be implemented to document conditions prior to, during and after vibration generating construction activities. All plan tasks shall be undertaken under the direction of a licensed Professional Structural Engineer in the State of California and be in accordance with industry accepted standard methods. The construction vibration monitoring plan should be implemented to include the following tasks:
   a. Schedule pile driving so that piles furthest from adjacent structures are driven first, and only after vibration levels are found to be within the limits is pile driving allowed at closer distances.
   b. Performance of a photo survey, elevation survey, and crack monitoring survey for each impacted structure. Surveys shall be performed prior to any construction activity, in regular interval during construction and after project completion and shall include internal and external crack monitoring in structures, settlement, and distress and shall document the condition of foundations, walls and other structural elements in the interior and exterior of said structures.
   c. Development of a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions. Construction contingencies would be identified for when vibration levels approached the limits.
   d. At a minimum, vibration monitoring should be conducted during pavement demolition, excavation, and pile driving activities. Monitoring results may indicate the need for more or less intensive measurements.

e. If vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures.
f. Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.
g. Conduct post-survey on structures where either monitoring has indicated high levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities.
h. The results of all vibration monitoring shall be summarized and submitted in a report shortly after substantial completion of each phase identified in the project schedule. The report will include a description of measurement methods, equipment used, calibration certificates and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits will be included together with proper documentation supporting any such claims.