# MARTIS VALLEY COMMUNITY PLAN UPDATE

FINAL ENVIRONMENTAL IMPACT REPORT

SCH No.: 2001072050

PREPARED FOR

PLACER COUNTY
PLANNING DEPARTMENT
11414 B AVENUE
AUBURN, CA 95603

PREPARED BY

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SACRAMENTO, CA 95827

MAY 2003

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**MAY 2003**

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This Final Environmental Impact Report (FEIR) was prepared in accordance with the California Environmental Quality Act (CEQA), the CEQA Guidelines (Section 15132) and the Placer County Environmental Review Ordinance. Placer County is the lead agency for the environmental review of the Martis Valley Community Plan Update (project) and has the principal responsibility for approving the project. This FEIR assesses the expected environmental impacts resulting from approval of Martis Valley Community Plan and associated impacts from subsequent development, as well as responds to comments received on the Draft EIR and the Revised Draft EIR.

## 1.1 BACKGROUND AND PURPOSE OF THE EIR

### OVERVIEW OF CEQA REQUIREMENTS FOR PREPARATION OF AN EIR

Placer County (County), serving as the Lead Agency, has prepared this EIR to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed project. As set forth in the provisions of CEQA and implementing regulations, public agencies are charged with the duty to consider the environmental impacts of proposed development and to minimize these impacts where feasible while carrying out an obligation to balance a variety of public objectives, including economic, environmental, and social factors.

CEQA Guidelines Section 15121(a) states that an EIR is an informational document for decision-makers and the general public that analyzes the significant environmental effects of a project, identifies possible ways to minimize significant effects, and describes reasonable alternatives to the project that could reduce or avoid its adverse environmental impacts. Public agencies with discretionary authority are required to consider the information in the EIR, along with any other relevant information, in making decisions on the project.

CEQA requires the preparation of an environmental impact report prior to approving any project, which may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the Martis Valley Community Plan Update, the County has determined that the proposed development is a "project" within the definition of CEQA.

### BACKGROUND OF ENVIRONMENTAL REVIEW PROCESS OF THE PROJECT

The following is an overview of the environmental review process for the Martis Valley Community Plan Update that have led to the preparation of this FEIR:

**Notice of Preparation and Initial Study**

In accordance with Section 15082 of the CEQA Guidelines, Placer County prepared a Notice of Preparation (NOP) of an EIR in January 2001. Placer County was identified as the lead agency for the proposed project. This notice was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the proposed project. The January 2001 NOP is presented in Appendix 1.0 of the Draft EIR. Concerns raised in response to the NOP were considered during preparation of the Draft EIR and are also presented in Appendix 1.0 of the Draft EIR.

**Draft EIR**

The Draft EIR (DEIR), which consisted of three volumes, was released for public and agency review on June 20, 2002 and ended on August 19, 2002. The DEIR contains a description of the project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives.

**Revised Draft EIR**

Several written comments were received on the Draft EIR that expressed the desire for further reduced development alternatives to be considered as part of the environmental review process. As a result of these comments, Placer County prepared and released a Revised Draft EIR that consisted of an expanded analysis of the alternatives to the proposed Martis Valley Community Plan Update as well as the consideration of a new lowest intensity alternative. The Revised Draft EIR was released for public and agency review on March 17, 2003 and ended on April 30, 2003.

**Final EIR**

Following the close of the public review period, the County received several individual comment letters from agencies, interest groups and the public regarding the Draft EIR and the Revised Draft EIR. This document responds to all the written comments received as required by CEQA and the Placer County Environmental Review Ordinance and late comments received through May 5, 2003. This document also contains minor edits to the Draft EIR as a result of comments on the Draft EIR and the Revised Draft EIR. In addition, the County has revised the Draft EIR based on the minor edits as a result of comments as well as minor staff-initiated changes. This document, the Draft EIR and the Revised Draft EIR constitutes the FEIR.

**Certification of the Final EIR/Project Consideration**

Placer County will review and consider the FEIR. If the County finds that the FEIR is "adequate and complete", the County may certify the FEIR, at a public hearing. The rule of adequacy generally holds that the EIR can be certified if: 1) it shows a good faith effort at full disclosure of environmental information; and 2) provides sufficient analysis to allow decisions to be made regarding the project in contemplation of its environmental consequences.

Upon review and consideration of the Final EIR, the County may take action to approve, revise, or reject the project. A decision to approve the project would be accompanied by written findings in accordance with CEQA Guidelines Section 15091 and Section 15093. Public Resources Code Section 21081.6 also requires lead agencies to adopt a reporting and mitigation monitoring and reporting program to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The final mitigation monitoring and reporting program for the project is provided in this document.

## 1.2 TYPE OF DOCUMENT

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Program EIR pursuant to CEQA Guidelines Section 15168. Program EIRs are defined by the CEQA Guidelines (Section 15168) as:

*A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:*

*(1) Geographically,*

*(2) A logical parts in the chain of contemplated actions,*

*(3) In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program, or*

*(4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.*

This EIR will be used to evaluate subsequent projects under the Martis Valley Community Plan. Additional environmental review under CEQA may be required and would be generally based on the subsequent project's consistency with the Community Plan and the analysis in this EIR, as required under CEQA and the Placer County Environmental Review Ordinance.

## 1.3 INTENDED USES OF THE EIR

This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA). The EIR is intended to evaluate the environmental impacts of the project to the greatest extent possible and to be used to modify, approve, or deny approval of the proposed project based on the analysis in the EIR. In accordance with CEQA Guidelines Section 15126, this EIR should be used as the primary environmental document to evaluate all subsequent planning and permitting actions associated with the project. Subsequent actions that may be associated with the project are identified in Section 3.0 (Project Description) of the Draft EIR.

## 1.4 ORGANIZATION AND SCOPE OF THIS DOCUMENT

This document is organized in the following manner:

### SECTION 1.0 - INTRODUCTION

Section 1.0 provides an overview of the EIR process to date and what the FEIR is required to contain.

### SECTION 2.0 – EXECUTIVE SUMMARY

This section provides a brief project description and presents a summary table of probable environmental effects edited as a result of comments received on the Draft EIR and Revised Draft EIR and minor staff edits.

### SECTION 3.0 - COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT EIR

Section 3.0 provides a list of commentors, copies of written comments (coded for reference) and the responses to those written comments as well as master responses to common comments made on the Draft EIR and the Revised Draft EIR.

## SECTION 4.0 – FINAL MITIGATION MONITORING AND REPORTING PROGRAM

Section 4.0 consists of the Final Mitigation Monitoring and Reporting Program for the project.

## SECTION 5.0 – REFERENCES

Section 5.0 provides a list of reference materials used in the preparation of the Final EIR.

This section provides an overview of the project and the environmental analysis. For additional detail regarding specific issues, please consult the appropriate chapter of Sections 4.1 through 4.12 (Environmental Setting, Impacts, and Mitigation Measures) of the Draft EIR.

## 2.1 PURPOSE AND SCOPE OF THE ENVIRONMENTAL IMPACT REPORT

This Environmental Impact Report (EIR) will provide, to the greatest extent possible, an analysis of the potential environmental effects associated with the implementation of the Martis Valley Community Plan Update, pursuant to the California Environmental Quality Act (CEQA).

This EIR analysis focuses upon potential environmental impacts arising from the project. The EIR adopts this approach in order to provide a credible worst-case scenario of the impacts resulting from project implementation.

## 2.2 PROJECT CHARACTERISTICS

The proposed Martis Valley Community Plan would update the existing Placer County portion of the Martis Valley General Plan that was originally adopted in 1974. As described in Section 1 (Preface) of the Martis Valley Community Plan, the update is intended to address new environmental and socioeconomic conditions of the Martis Valley area, guide future land uses in the Plan area, as well as bring the original Martis Valley General Plan goals and policies into consistency with the 1994 Placer County General Plan.

Section 2 (Land Use) of the proposed Martis Valley Community Plan identifies the following goals associated with the general intent of the Plan:

Goal 1.A: To promote the wise, efficient, and environmentally-sensitive use of Martis Valley lands to meet the present and future needs of Placer County residents and businesses.

Goal 1.B: To provide adequate land in a range of residential densities to accommodate the housing needs of all income groups expected to reside in Martis Valley.

Goal 1.C: To designate adequate commercial land for and promote development of commercial uses to meet the present and future needs of Martis Valley residents and visitors and maintain economic vitality.

Goal 1.D: To designate adequately-sized, well-located areas for the development of public facilities to serve both community and regional needs.

Goal 1.E: To designate land for and promote the development and expansion of public and private recreational facilities to serve the needs of residents and visitors.

Goal 1.F: To conserve Placer County's forest resources, enhance the quality and diversity of forest ecosystems, reduce conflicts between forestry and other uses, and encourage a sustained yield of forest products.

Goal 1.G: To preserve and enhance open space lands to maintain the natural resources of the County.

Goal 1.H: To preserve and enhance open space for outdoor recreation purposes.

Goal 1.I: To preserve and enhance open space lands for health and safety purposes.

Goal 1.J: To preserve and enhance open space lands for resource production purposes.

Goal 1.K: To maintain a healthy and diverse local economy that meets the present and future employment, shopping, recreational, public safety, and service needs of Martis Valley residents and to expand the economic base to better serve the needs of residents.

## 2.3 PROJECT ALTERNATIVES SUMMARY

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project, which could feasibly attain the basic objectives of the project and avoid and/or lessen the environmental effects of the project. This alternatives analysis provides a comparative analysis between the project and the selected alternatives. This includes a summary of the impact analysis of the Proposed Land Use Diagram (PP) and the three land use map alternatives (Existing Martis Valley General Plan Land Use Map-AA, Alternative 1 Land Use Map-AB, and Alternative 2 Land Use Map-AC). In addition to these land use map alternatives the EIR quantitatively and qualitatively evaluates the following other land use alternative, which include:

- ***No Project Alternative:*** CEQA Guidelines Section 15126.6(e) requires that a "no project" alternative be evaluated in an EIR. Under this alternative, the project would not be approved and the current Martis Valley General Plan (1975) policy document and land use map would remain. This analysis of the No Project Alternative is consistent with the requirements of CEQA Guidelines 15126.6(e)(3)(A), which specifically identifies that when the project under consideration is the revision of an existing land use or regulatory plan, that the “no project” alternative will be the continuation of the existing plan.

- ***Clustered Land Use Alternative:*** This alternative would involve clustering land use densities as shown in Figure 6.0-1 of the Revised Draft EIR in order to provide compact development in the plan area and minimize the amount of land disturbance.

- ***Reduced Intensity Alternative:*** This alternative would consist of the modification of the Proposed Land Use Diagram that would minimize significant impacts identified in the analysis provided in Sections 4.1 through 4.12 of the Draft EIR (see Figure 6.0-2 of the Revised Draft EIR).

- ***Lowest Intensity Alternative:*** This alternative consists of reductions in development potential beyond the Alternative 2 Land Use Map (see Figure 6.0-3 of the Revised Draft EIR). Specifically, the holding capacity of the Plan Area would be reduced to 5,383 units.

## 2.4 AREAS OF CONTROVERSY

Placer County was identified as the leady agency for the proposed project. In accordance with Section 15082 of CEQA Guidelines, Placer County prepared and distributed a Notice of Preparation (NOP) for the Martis Valley Community Plan Update that was circulated for public review on July 11, 2001. The NOP included a summary of probable effects on the environment

resulting from the implementation of the project. Written comments received on the NOP were considered in the preparation of the EIR. A summary of the NOP comments is included in Section 1.0 (Introduction) of the Draft EIR and the actual NOP comments are included as Appendix 1.0 of the Draft EIR.

The NOP identified that the proposed project may result in the following environmental impacts to be addressed in the EIR:

- Land Use and Planning
- Population and Housing
- Geologic Problems;
- Water;
- Air Quality;
- Transportation/Circulation;
- Geology and Soils;
- Biological Resources;
- Energy and Mineral Resources;
- Hazards;
- Noise;
- Public Services;
- Utilities and Service Systems;
- Aesthetics;
- Cultural Resources; and
- Recreation

## 2.5 SUMMARY OF ENVIRONMENTAL IMPACTS

**Table 2.0-1** displays a summary of impacts for each land use map alternative considered, Martis Valley Community Plan policies, and implementation programs and proposed mitigation measures that would avoid or minimize potential impacts. In the table, the level of significance is indicated both before and after the implementation of each mitigation measure. These impacts and mitigation measures are also applicable to the additional alternatives considered in the Revised Draft EIR.

For detailed discussions of all project-level mitigation measures, refer to Sections 4.1 through 4.12 of the Draft EIR and Section 6.0 of the Revised Draft EIR for the additional alternatives considered.

**TABLE 2.0-1**
**PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES**

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| ***Land Use*** | | | | |
| **Impact 4.1.1 Consistency with Relevant Land Use Planning Documents**<br><br>**PP** The Proposed Land Use Diagram would not potentially conflict with land use planning documents relevant to the Plan area. This ~~is~~ would be a **less than significant** impact.<br><br>**AA** The ~~proposed~~ Existing Martis Valley General Plan Land Use Map Alternative would not potentially conflict with land use planning documents relevant to the Plan area. This ~~is~~ would be a **less than significant** impact.<br><br>**AB** The proposed Alternative 1 Land Use Map would not potentially conflict with land use planning documents relevant to the Plan area. This ~~is~~ would be a **less than significant** impact.<br><br>**AC** The proposed Alternative 2 | Policies: 1.A.1, 1.A.2, 1.B.3, 1.B.4, 1.B.6, 1.B.7, 1.B.9, 1.B.10, 1.C.1, 1.C.3, 1.E.1, 1.F.1, 1.F.2, 1.F.3, 1.F.4, 1.F.5, 1.F.6, 1.G.1, 1.G.2, 1.G.3, 1.G.4, 1.G.5, 1.G.6, 1.G.7, 1.J.1, 5.E.1, 5.E.2<br><br>Implementation Programs (Land Use Section):<br><br>1, 2, 3, 4, 5, 6 | S | None required.<br><br>~~MM 4.1.1a All development projects shall conform to the provisions of the Tahoe Truckee Airport District Comprehensive Land Use Plan to include, but not be limited to, land use and height restrictions of the CLUP.~~<br><br>~~MM 4.1.1b Review all development projects for consistency compliance with the goals, policies and specific requirements contained within the Comprehensive Land Use Plan and Airport Master Plan for the Truckee-Tahoe Airport.~~<br><br>~~Responsible Agency/Department: Planning Department~~ | LS |

S - Significant
PS-Potentially Significant
LS – Less Than Significant
CS – Cumulative Significant
SU – Significant and Unavoidable
B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| Land Use Map would potentially conflict with land use planning documents relevant to the Plan area. This ~~is~~ would be a **less than significant** impact." | | | ~~Time frame: Ongoing~~<br><br>~~Funding: Application fees~~ | |
| **Impact 4.1.2 Land Use Conflicts**<br><br>**PP** Development under the Proposed Land Use Diagram would result in substantial change in land use in the Plan area.<br><br>**AA** Development under the Existing Martis Valley Community Plan Land Use Map Alternative would result in substantial change in land use in the Plan area.<br><br>**AB** Development under the Alternative 1 Land Use Map would result in substantial change in land use in the Plan area.<br><br>**AC** Development under the Alternative 2 Land Use Map would result in substantial change in land use in the Plan area. | Policies: 1.A.5, 1.B.2, 1.B.3, 1.B.4, 1.B.5, 1.B.8, 1.C.2, 1.C.5, 1.C.6, 1.C.13, 1.C.14, 1.D.3, 1.F.3, 1.F.4, 1.F.5, 1.F.6, 1.J.1, 1.J.2<br><br>Implementation Programs (Land Use Section):<br><br>2, 3, 5 | PS | ~~See MM 4.1.1a and b,~~ MM 4.3.3a through c, MM 4.5.4a and b. | SU |
| **Impact 4.1.3 Loss of Forest and Timber Lands**<br><br>**PP** Development under the Proposed Land Use Diagram could result in the loss of forestland. | Policies: 1.F.1, 1.F.2, 1.F.3, 1.F.4, 1.F.5, 1.F.6, 1.J.1, 9.E.3, 9.E.4, 9.E.6, 9.E.7, 9.E.8, 9.E.9, 9.E.12, 9.E.14, | S | None available. | SU |

S - Significant LS – Less Than Significant SU – Significant and Unavoidable
PS=Potentially Significant CS – Cumulative Significant B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **AA** Development under the Existing Martis Valley General Plan Land Use Map Alternative does not change the impact to forest or timberland.<br><br>**AB** The Alternative 1 Land Use Map would reduce the allowed development of forestland and timber resources.<br><br>**AC** The Alternative 2 Land Use Map would allow development that could result in the loss of forestland.. | 9.E.15 | | | |
| **Impact 4.1.4 Consistency with Relevant Planning Documents**<br><br>**PP** The Proposed Land Use Diagram would potentially conflict with land use planning documents relevant to the Plan area.<br><br>**AA** The proposed Existing Martis Valley General Plan Land Use Map Alternative would potentially conflict with land use planning documents relevant to the Plan area.<br><br>**AB** The proposed Alternative 1 Land Use Map would potentially conflict with land use planning documents relevant to the Plan area. | Policies: 1.A.1, 1.A.2, 1.B.3, 1.B.4, 1.B.6, 1.B.7, 1.B.9, 1.B.10, 1.C.1, 1.C.3, 1.E.1, 1.F.1, 1.F.2, 1.F.3, 1.F.4, 1.F.5, 1.F.6, 1.G.1, 1.G.2, 1.G.3, 1.G.4, 1.G.5, 1.G.6, 1.G.7, 1.J.1, 5.E.1, 5.E.2<br><br>Implementation Programs (Land Use Section):<br><br>1, 2, 3, 4, 5, 6 | LS | None required. | LS |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **AC** The proposed Alternative 2 Land Use Map would potentially conflict with land use planning documents relevant to the Plan area. | | | | |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **Impact 4.1.5 Cumulative Land Use Conflicts**<br><br>**PP** Development under the Proposed Land Use Diagram would result in substantial change in land use in the Plan area. This is a cumulative significant impact.<br><br>**AA** Development under the Existing Martis Valley Community Plan Land Use Map Alternative would result in substantial change in land use in the Plan area. This is a cumulative significant impact.<br><br>**AB** Development under the Alternative 1 Land Use Map would result in substantial change in land use in the Plan area. This is a cumulative significant impact.<br><br>**AC** Development under the Alternative 2 Land Use Map would result in substantial change in land use in the Plan area. This is a cumulative significant impact. | Policies: 1.A.5, 1.B.2, 1.B.3, 1.B.4, 1.B.5, 1.B.8, 1.C.2, 1.C.5, 1.C.6, 1.C.13, 1.C.14, 1.D.3, 1.F.3, 1.F.4, 1.F.5, 1.F.6, 1.J.1, 1.J.2<br><br>Implementation Programs (Land Use Section):<br><br>2, 3, 5 | CS | None available. | SU |
| **Impact 4.1.6 Cumulative Loss of Timber/Forest Resources**<br><br>**PP** Development under the Proposed Land Use Diagram would result in the loss of forestland.<br><br>**AA** Development under the Existing Martis | Policies: 1.F.1, 1.F.2, 1.F.3, 1.F.4, 1.F.5, 1.F.6, 1.J.1, 9.E.3, 9.E.4, 9.E.6, 9.E.7, 9.E.8, 9.E.9, 9.E.12, 9.E.14, 9.E.15 | CS | None available. | SU |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| Valley General Plan Land Use Map Alternative would result in the loss of forestland.<br><br>**AB** The Alternative 1 Land Use Map would result in the loss of forestland.<br><br>**AC** The Alternative 2 Land Use Map would result in the loss of forestland. | | | | |
| ***Population/Housing/Employment*** | | | | |
| **Impact 4.2.1 Holding Capacity**<br><br>**PP** Development under the Proposed Land Use Diagram could potentially exceed the holding capacity of Martis Valley.<br><br>**AA** Development under the Existing Martis Valley General Plan Land Use Map could potentially exceed the holding capacity of Martis Valley.<br><br>**AB** Development under the Alternative 1 Land Use Map could potentially exceed the holding capacity of Martis Valley.<br><br>**AC** Development under the Alternative 2 Land Use Map could potentially exceed the holding capacity of Martis Valley. | None required | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **Impact 4.2.2 Housing**<br><br>**PP** Development under the Proposed Land Use Diagram would result in housing impacts through not providing sufficient affordable housing and creating an imbalance between employment and housing.<br><br>**AA** Development under the Existing Martis Valley General Plan Land Use Map would result in housing impacts through not providing sufficient affordable housing and creating an imbalance between employment and housing.<br><br>**AB** Development under the Alternative 1 Land Use Map would result in housing impacts through not providing sufficient affordable housing and creating an imbalance between employment and housing.<br><br>**AC** Development under the Alternative 2 Land Use Map would result in housing impacts through not providing sufficient affordable housing and creating an imbalance between employment and housing. | Policies: 3.A.1, 3.A.2, 3.A.3, 3.A.4, 3.A.5, 3.A.6, 3.A.7, 3.A.8<br><br>Implementation Programs (Population and Housing Section): 1, 2, 3, 4, 6, 11 | LS~~PS~~ | ~~MM 4.2.2 As a condition of approval of each housing development in Martis Valley, the project applicant shall construct 5 percent of units affordable to very low-income households (0 to 50 percent of area median income) and 5 percent of units affordable to low income households (50 to 80 percent of median income). Where practicable, the County shall require the future developer of each project site to construct affordable housing as early as possible. In instances where the County finds that it is not feasible to construct the affordable units, the developer shall be required to pay a fee as described in Policy 3.A.3.~~<br><br>~~Responsible Agency/ Department: Planning Department~~<br><br>~~Time frame: Ongoing~~<br><br>~~Funding: General Fund~~ | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **Impact 4.2.3 Cumulative Housing Impact**<br><br>**PP** Cumulative development under the Proposed Land Use Diagram could potentially exceed the holding capacity of Martis Valley as well as result in housing impacts.<br><br>**AA** Cumulative development under the No Project Alternative could potentially exceed the holding capacity of Martis Valley as well as result in housing impacts.<br><br>**AB** Cumulative development under the Alternative 1 Land Use Map could potentially exceed the holding capacity of Martis Valley as well as result in housing impacts.<br><br>**AC** Cumulative development under the Alternative 2 Land Use Map could potentially exceed the holding capacity of Martis Valley as well as result in housing impacts. | Policies: 3.A.1, 3.A.2, 3.A.3, 3.A.4, 3.A.5, 3.A.6, 3.A.7, 3.A.8<br><br>Implementation Programs (Population and Housing Section): 1, 2, 3, 4, 6, 11 | LS~~CS~~ | ~~Implement Mitigation Measure MM 4.2.2.~~ | LS |

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LS – Less Than Significant
CS – Cumulative Significant
SU – Significant and Unavoidable
B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| ***Human Health/Risk of Upset*** | | | | |
| **Impact 4.3.1 Abandoned Mines and Tailings**<br><br>**PP** The potential exists for abandoned mine shafts and openings in the Plan area to present a physical hazard for subsequent development under the Proposed Land Use Diagram.<br><br>**AA** The potential exists for abandoned mine shafts and openings in the Plan area to present a physical hazard for subsequent development under the Existing Martis Valley General Plan Land Use Map.<br><br>**AB** The potential exists for abandoned mine shafts and openings in the Plan area to present a physical hazard for subsequent development under the Alternative 1 Land Use Map.<br><br>**AC** The potential exists for abandoned mine shafts and openings in the Plan area to present a physical hazard for subsequent development under the Alternative 2 Land Use Map. | Policy: 9.A.1<br><br>Implementation Program (Natural Resources Section): 2 | PS | MM 4.3.1 Upon the identification of mine facilities on a project site within the Plan area, the County shall require that a detailed survey of the mine features and a hazards assessment be performed and that remedial measures be undertaken in areas of waste rock, mine tailings, and other associated contamination areas. Remediation shall be undertaken in accordance with the requirements of the County, California Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board. Remedial measures that could be implemented include, but are not limited to, the following: 1) fencing the impacted area to prohibit public access, 2) removal of mine wastes to an appropriate landfill facility, 3) consolidate and | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | | Resulting Level of Significance |
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| | | | | encapsulate mine wastes, restore the area with vegetation, and re-route drainage, and 4) securing mine sites to restrict access and subsidence. | |
| **Impact 4.3.2 Hazardous Materials Contamination**<br><br>**PP** Implementation of the Proposed Land Use Diagram could result in potential disturbance and contamination of existing and future land uses resulting from the use of toxic chemicals, the storage and disposal of toxic chemicals, and other hazardous materials.<br><br>**AA** Implementation of Existing Martis Valley General Plan Land Use Map could result in potential disturbance and contamination of existing and future land uses resulting from the use of toxic chemicals, the storage and disposal of toxic chemicals, and other hazardous materials.<br><br>**AB** Implementation of Alternative 1 Land Use Map could result in potential disturbance and contamination of existing and future land uses resulting | None required | PS | MM 4.3.2 | Prior to site improvements for properties that are suspected or known to contain hazardous materials and sites that are listed in the hazardous material/waste database search or the California State Water Resources Control Board database, the County shall require that the soil and surrounding area shall be tested and remediated for potential hazardous materials in accordance with local, state, and federal regulations. | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| from the use of toxic chemicals, the storage and disposal of toxic chemicals, and other hazardous materials.<br><br>**AC** Implementation of Alternative 2 Land Use Map could result in potential disturbance and contamination of existing and future land uses resulting from the use of toxic chemicals, the storage and disposal of toxic chemicals, and other hazardous materials. | | | | |
| **Impact 4.3.3 Airport Operations**<br><br>**PP** The potential exists for safety hazards associated with airport operations to occur within the Plan area in areas proposed for development under the Proposed Land Use Diagram.<br><br>**AA** The potential exists for safety hazards associated with airport operations to occur within the Plan area in areas proposed for development under the existing Martis Valley Community Plan Land Use Map.<br><br>**AB** The potential exists for safety hazards associated with airport operations to occur within the Plan area in areas proposed for development under the | Policies: 5.E.1, 5.E.2 | PS | MM 4.3.3a The County shall review all development projects in the overflight zones of the Truckee-Tahoe Airport for consistency with its Comprehensive Land Use Plan.<br><br>MM 4.3.3b The County shall limit land uses in airport safety zones to those uses listed in the applicable airport comprehensive land use plans (CLUPs) as compatible uses. Exceptions shall be made only as provided for in the CLUPs <u>or State law</u>. Such uses shall also be regulated to ensure compatibility in | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| Alternative 1 Land Use Map.<br><br>**AC** The potential exists for safety hazards associated with airport operations to occur within the Plan area in areas proposed for development under the Alternative 2 Land Use Map. | | | terms of location, height, and noise.<br><br>MM 4.3.3c The County shall ensure that development within the airport approach and departure zones complies with Part 77 of the Federal Aviation Administration Regulations (objects affecting navigable airspace). | |
| **Impact 4.3.4 Radon Exposure**<br><br>**PP** Development under the Proposed Land Use Diagram could be potentially exposed to radon.<br><br>**AA** Development under the existing Martis Valley Community Plan Land Use Map could be potentially exposed to radon.<br><br>**AB** Development under the Alternative 1 Land Use Map could be potentially exposed to radon.<br><br>**AC** Development under the Alternative 2 Land Use Map could be potentially exposed to radon. | None required | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| **Impact 4.3.5 Cumulative Hazard Impacts**<br><br>**PP** Development under the Proposed Land Use Diagram could result in site-specific hazards for area residents.<br><br>**AA** Development under the existing Martis Valley Community Plan Land Use Map could result in site-specific hazards for area residents.<br><br>**AB** Development under the Alternative 1 Land Use Map could result in site-specific hazards for area residents.<br><br>**AC** Development under the Alternative 2 Land Use Map could result in site-specific hazards for area residents. | Policies: 9.A.1, 5.E.1, 5.E.2<br><br>Implementation Program (Natural Resources Section): 2 | LS | None required. | LS |
| ***Transportation and Circulation*** | | | | |
| **Impact 4.4.1 Potential to Exceed an Established Level of Service Standard**<br><br>**PP** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of the Proposed Land Use Diagram for roadways and ~~up to 8~~ intersections in the Town of Truckee~~, and 3 intersections and 2 roadway~~ | Policies: 5.A.3, 5.A.4, 5.A.7, 5.A.8, 5.A.9, 5.A.10, 5.A.11, 5.A.12, 5.A.13, 5.A.14, 5.A.15, 5.C.1, 5.C.2, 5.C.3, 5.C.4<br><br>Implementation | S | MM 4.4.1a ~~The County shall establish a capital improvement program for the land use map and roadway improvements ultimately approved by the County for the improvements identified in **Tables 4.4-20** through **4.4-25** (depending on the land use map adopted). This would~~ | SU |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| ~~segments~~ and in Placer County.<br><br>**AA** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of this land use alternative for roadways and ~~up to 8~~ intersections in the Town of Truckee, and ~~3 intersections and 1 roadway segment~~ in Placer County.<br><br>**AB** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of this land use alternative for roadways and ~~up to 8~~ intersections in the Town of Truckee, and ~~3 intersections and 1 roadway segment~~ in Placer County.<br><br>**AC** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of this land use alternative for roadways and ~~up to 8~~ intersections in the Town of Truckee, and ~~3 intersections and 1 roadway segment~~ in Placer County. | Programs (Transportation and Circulation Section): 1, 2, 3, 4, 5, 6, 7, 8, 9 | | ~~adopted). This would include funding and coordination for traffic improvements associated with impacts identified in the Town of Truckee as well as to state highway facilities (SR 267 and SR 28).~~<br><br>The County will establish a capital improvement program for the land use and roadway improvements identified in Tables 4.4-20 through 4.4-25 (depending on the land use map adopted) for impacts identified within Placer County's jurisdiction.<br><br>The County shall develop a mechanism whereby development within the plan area pays its fair share contributions toward transportation improvements outside of the County's jurisdiction as identified in this environmental document or as defined in project specific environmental impact | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| in Placer County. | | | reports.<br><br>The County shall complete a focused transit service plan for the Martis Valley area. This plan shall identify an appropriate and reasonable public transit program to accommodate future growth. The transit service plan shall develop a funding mechanism (potentially a CSA) and shall be the basis of developing agreements that provide for input from and coordination with the CSA, Placer County, Town of Truckee, and development stakeholders to ensure coordinated service and connections with adequate capacity and year-round service provisions. This plan shall be conducted after the completion of the Tahoe Area Regional Transit Short Range Transit Plan currently (May, 2003) being conducted by the Tahoe Regional Planning Agency and shall be consistent with | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | this plan.<br><br>MM 4.4.1b (optional)<br>Reduce Land Use Quantities in Martis Valley Community Plan Area. | |
| **Impact 4.4.2 Traffic Impacts to Local Residential Roadways**<br><br>**PP** Implementation of the Proposed Land Use Diagram would result in an increase in traffic volumes along local residential roadways in the Sierra Meadows/ Ponderosa Palisades area if the Palisades connection is made.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would result in an increase in traffic volumes along local residential roadways in the Sierra Meadows/ Ponderosa Palisades area if the Palisades connection is made.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would result in an increase in traffic volumes along local residential roadways in the Sierra Meadows/Ponderosa Palisades area if the Palisades connection is made. | Policy: 5.A.5 | PS | MM 4.4.2a The Circulation Diagram shall not allow public roadway access to the Sierra Meadows/Ponderosa Palisades area.<br><br>MM 4.4.2b The Northstar Connector (if ultimately included as part of the Circulation Diagram as a public roadway) shall be designed to accommodate projected traffic volumes with minimal local residential roadway connections. Residential lots shall be restricted from having direct access onto the Connector. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **AC** Implementation of the Proposed Land Use Diagram would result in an increase in traffic volumes along local residential roadways in the Sierra Meadows/ Ponderosa Palisades area if the Palisades connection is made. | | | | |
| **Impact 4.4.3 Potential Hazards Because of Design or Incompatible Uses**<br><br>**PP** Implementation of the Proposed Land Use Diagram is not expected to result in significant traffic hazards.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to result in significant traffic hazards.<br><br>**AB** Implementation of the Alternative 1 Land Use Map is not expected to result in significant traffic hazards.<br><br>**AC** Implementation of the Alternative 2 Land Use Map is not expected to result in significant traffic hazards. | Policies: 5.A.2, 5.A.4 | LS | None required. | LS |
| **Impact 4.4.4 Inadequate Parking Capacity**<br><br>**PP** Implementation of the Proposed Land Use Diagram is not expected to result in parking capacity impacts. | Policy: 5.A.6 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to result in parking capacity impacts.<br><br>**AB** Implementation of the Alternative 1 Land Use Map is not expected to result in parking capacity impacts.<br><br>**AC** Implementation of the Alternative 2 Land Use Map is not expected to result in parking capacity impacts. | | | | |
| **Impact 4.4.5 Conflicts with Transit**<br><br>**PP** Implementation of the Proposed Land Use Diagram is not expected to result in conflicts with transit.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to result in conflicts with transit.<br><br>**AB** Implementation of the Alternative 1 Land Use Map is not expected to result in conflicts with transit.<br><br>**AC** Implementation of the Alternative 2 Land Use Map is not expected to result | Policies: 5.B.1, 5.B.2, 5.B.3, 5.B.4, 5.B.5, 5.B.6, 5.B.7, 5.C.1, 5.D.2<br><br>Implementation Programs (Transportaion and Circulation Section): 1, 7, 8 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| in conflicts with transit. | | | | |
| **Impact 4.4.6 Conflicts with Pedestrian and Bicycle Uses**<br><br>**PP** Implementation of the Proposed Land Use Diagram is not expected to result in conflicts with pedestrian and bicycle uses.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to result in conflicts with pedestrian and bicycle uses.<br><br>**AB** Implementation of the Alternative 1 Land Use Map is not expected to result in conflicts with pedestrian and bicycle uses.<br><br>**AC** Implementation of the Alternative 2 Land Use Map is not expected to result in conflicts with pedestrian and bicycle uses. | Policies: 5.A.3, 5.C.1, 5.C.2, 5.D.1, 5.D.2, 5.D.3, 5.D.4, 5.D.5<br><br>Implementation Programs (Transportation and Circulation Section):<br><br>1, 3, 4, 9 | LS | None required. | LS |
| **Impact 4.4.7 Cumulative Impacts to Area Intersections and Roadways**<br><br>**PP** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded | Policies: 5.A.3, 5.A.4, 5.A.7, 5.A.8, 5.A.9, 5.A.10, 5.A.11, 5.A.12, 5.A.13, 5.A.14, 5.A.15, 5.C.1, 5.C.2, | CS | See MM 4.4.1a and/or b and MM 4.4.2a and b. | SU |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| under full development of the Proposed Land Use Diagram and other regional development under year 2021 conditions for area roadway facilities in the Town of Truckee and Placer County. | 5.C.3, 5.C.4, | | | |
| **AA** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of the Existing Martis Valley General Plan Land Use Map and other regional development under year 2021 conditions for area roadway facilities in the Town of Truckee and Placer County. | Implementation Programs (Transportation and Circulation Section):<br><br>1, 2, 3, 4, 5, 6, 7, 8, 9 | | | |
| **AB** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of the Alternative 1 Land Use Map and other regional development under year 2021 conditions for area roadway facilities in the Town of Truckee and Placer County. | | | | |
| **AC** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded | | | | |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| under full development of the Alternative 2 Land Use Map and other regional development under year 2021 conditions for area roadway facilities in the Town of Truckee and Placer County. | | | | |
| **Impact 4.4.8 Cumulative Impacts to Regional Highway Facilities**<br><br>**PP** Full development of the Proposed Land Use Diagram and other regional development is expected to add to year 2021 traffic volumes along Interstate 80 and State Route 89 (north of Interstate 80). While State Route 89 (north of Interstate 80) is anticipated to operate properly, Interstate 80 is expected to operate deficiently.<br><br>**AA** Full development of the Existing Martis Valley General Plan Land Use Map and other regional development is expected to add to year 2021 traffic volumes along Interstate 80 and State Route 89 (north of Interstate 80). While State Route 89 (north of Interstate 80) is anticipated to operate properly, Interstate 80 is expected to operate deficiently.<br><br>**AB** Full development of the Alternative 1 | None required | CS | None available | SU |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| Land Use Map and other regional development is expected to add to year 2021 traffic volumes along Interstate 80 and State Route 89 (north of Interstate 80). While State Route 89 (north of Interstate 80) is anticipated to operate properly, Interstate 80 is expected to operate deficiently.<br><br>**AC** Full development of the Alternative 2 Land Use Map and other regional development is expected to add to year 2021 traffic volumes along Interstate 80 and State Route 89 (north of Interstate 80). While State Route 89 (north of Interstate 80) is anticipated to operate properly, Interstate 80 is expected to operate deficiently. | | | | |
| **Impact 4.4.9 Cumulative Roadway Hazards Because of Design or Incompatible Uses**<br><br>**PP** Implementation of the Proposed Land Use Diagram is not expected to contribute to significant traffic hazards.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to contribute to significant traffic hazards. | Policies: 5.A.2 and 5.A.4 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| **AB** Implementation of the Alternative 1 Land Use Map is not expected to contribute to significant traffic hazards.<br><br>**AC** Implementation of the Alternative 2 Land Use Map is not expected to contribute to significant traffic hazards. | | | | |
| **Impact 4.4.10 Cumulative Conflicts with Transit, Pedestrian and Bicycle Uses**<br><br>**PP** Implementation of the Proposed Land Use Diagram is not expected to contribute to conflicts with transit.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to contribute to conflicts with transit, pedestrian and bicycle uses.<br><br>**AB** Implementation of the Alternative 1 Land Use Map is not expected to contribute to conflicts with transit, pedestrian and bicycle uses.<br><br>**AC** Implementation of the Alternative 2 Land Use Map is not expected to contribute to conflicts with transit, pedestrian and bicycle uses. | Policies: 5.A.3, 5.B.1, 5.B.2, 5.B.3, 5.B.4, 5.B.5, 5.B.6, 5.B.7, 5.C.1, 5.C.2, 5.D.1, 5.D.2, 5.D.3, 5.D.4, 5.D.5, 5.D.6, 5.D.7<br><br>Implementation Programs (Transportation and Circulation Section):<br><br>1, 3, 4, 7, 8, 9 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | | Resulting Level of Significance |
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| ***Noise*** | | | | | |
| **Impact 4.5.1 Construction Noise Impacts**<br><br>**PP** Noise associated with construction activities for subsequent development under the Proposed Land Use Diagram would result in elevated noise levels that would be in excess of applicable noise standards.<br><br>**AA** Noise associated with construction activities for subsequent development under the Existing Martis Valley General Plan Land Use Map would result in elevated noise levels that would be in excess of applicable noise standards.<br><br>**AB** Noise associated with construction activities for subsequent development under the Alternative 1 Land Use Map would result in elevated noise levels that would be in excess of applicable noise standards.<br><br>**AC** Noise associated with construction activities for subsequent development under the Alternative 2 Land Use Map would result in elevated noise levels that would be in excess of applicable noise standards. | None available | S | MM 4.5.1a<br><br>MM 4.5.1b | As part of subsequent project approvals, the County shall require that construction activities be prohibited on Sundays and federal holidays and limited to daytime hours (6:00 a.m. to 8:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturdays).<br><br>As part of subsequent project approvals, the County shall require that stationary construction equipment and construction staging areas be setback from existing noise-sensitive land uses. The setback distance will be considered on a case-by-case basis and will be determined by the County as part of subsequent project review. | SU |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **Impact 4.5.2 Transportation Noise Impacts**<br><br>**PP** Anticipated transportation noise increases associated with subsequent development under the Proposed Land Use Diagram would result in elevated noise levels that would be in excess of applicable noise standards.<br><br>**AA** Anticipated transportation noise increases associated with subsequent development under the Existing Martis Valley General Plan Land Use Map would result in elevated noise levels that would be in excess of applicable noise standards.<br><br>**AB** Anticipated transportation noise increases associated with subsequent development under the Alternative 1 Land Use Map would result in elevated noise levels that would be in excess of applicable noise standards.<br><br>**AC** Anticipated transportation noise increases associated with subsequent development under the Alternative 2 Land Use Map would result in elevated noise levels that would be in excess of applicable noise standards. | Policies: 10.A.3, 10.A.5. 10.A.6, 10.A.7, 10.A.8, 10.A.10<br><br>Implementation Programs (Noise Section): 1 and 2 | S | None available. | SU |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **Impact 4.5.3 Future Stationary Noise Impacts**<br><br>**PP** Implementation of the Proposed Land Use Diagram could result in the future development of land uses that generate noise levels in excess of applicable noise standards for non-transportation noise sources.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map could result in the future development of land uses that generate noise levels in excess of applicable noise standards for non-transportation noise sources.<br><br>**AB** Implementation of the Alternative 1 Land Use Map could result in the future development of land uses that generate noise levels in excess of applicable noise standards for non-transportation noise sources.<br><br>**AC** Implementation of the Alternative 2 Land Use Map could result in the future development of land uses that generate noise levels in excess of applicable noise standards for non-transportation noise sources. | Policies: 10.A.1, 10.A.2, 10.A.3, 10.A.4, 10.A.9, 10.A.10<br><br>Implementation Programs (Noise Section): 1 and 2 | LS | None required. | LS |

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| **Impact 4.5.4 Truckee-Tahoe Airport Noise Impacts**<br><br>**PP** Subsequent development under the Proposed Land Use Diagram would be exposed to noise associated with the operation of the Truckee-Tahoe Airport.<br><br>**AA** Subsequent development under the Existing Martis Valley General Plan Land Use Map would be exposed to noise associated with the operation of the Truckee-Tahoe Airport.<br><br>**AB** Subsequent development under the Alternative 1 Land Use Map would be exposed to noise associated with the operation of the Truckee-Tahoe Airport.<br><br>**AC** Subsequent development under the Alternative 2 Land Use Map would be exposed to noise associated with the operation of the Truckee-Tahoe Airport. | Policies: 10.A.3, 10.A.5. 10.A.6, 10.A.7, 10.A.8, 10.A.10<br><br>Implementation Programs (Noise Section): 1 and 2 | S | MM 4.5.4a As part of subsequent residential project approvals, the County shall require that avigation easements be granted to the Truckee-Tahoe Airport District as appropriate. The purpose of the easement is to disclose to future residents that they may be exposed to occasional noise from aircraft utilizing the airport.<br><br>MM 4.5.4b As part of subsequent residential project submittals for land areas within the designated 55 CNEL contour of the Truckee Tahoe Airport, the County shall require that the applicant incorporate mitigation that is sufficient to bring interior noise levels to 45 CNEL. | SU |
| **Impact 4.5.5 Cumulative Traffic Noise Impacts**<br><br>**PP** Anticipated transportation noise increases associated with subsequent development under the Proposed Land Use Diagram in year 2021 would | None available. | CS | None available. | SU |

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| contribute to elevated noise levels that would be in excess of applicable noise standards. | | | | |
| **AA** Anticipated transportation noise increases associated with subsequent development under the Existing Martis Valley General Plan Land Use Map in year 2021 would contribute to elevated noise levels that would be in excess of applicable noise standards. | | | | |
| **AB** Anticipated transportation noise increases associated with subsequent development under the Alternative 1 Land Use Map in year 2021 would contribute to elevated noise levels that would be in excess of applicable noise standards. | | | | |
| **AC** Anticipated transportation noise increases associated with subsequent development under the Alternative 2 Land Use Map in year 2021 would contribute to elevated noise levels that would be in excess of applicable noise standards. | | | | |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| ***Air Quality*** | | | | |
| **Impact 4.6.1 Construction Air Quality Impacts**<br><br>**PP** The potential exists for construction emissions to exceed the PCAPCD's significance thresholds for air pollutants for subsequent development under the Proposed Land Use Diagram.<br><br>**AA** The potential exists for construction emissions to exceed the PCAPCD's significance thresholds for air pollutants for subsequent development under the Existing Martis Valley General Plan.<br><br>**AB** The potential exists for construction emissions to exceed the PCAPCD's significance thresholds for air pollutants for subsequent development under the Alternative 1 Land Use Map.<br><br>**AC** The potential exists for construction emissions to exceed the PCAPCD's significance thresholds for air pollutants for subsequent development under the Alternative 2 Land Use Map. | Policy: 9.H.1, 9.H.2, 9.H.5, 9.H.6, 9.H.7, 9.H.8 | S | The following mitigation measure shall be added as an implementation program in Section IX of the Natural Resources Section of the Community Plan:<br><br>MM 4.6.1 The County shall require subsequent projects to fully mitigate their construction air pollutant emissions that are in excess of Placer County Air Pollution Control District's thresholds of significance for emissions. This may include the use of low emission construction equipment, particulate matter control measures, and/or participation in Placer County's Air Pollution Control District's offsite mitigation program.<br><br>Responsible Agency/Department: Planning Department<br><br>Time Frame: On-going<br><br>Funding: Application Fees | SU |

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|---|---|---|---|---|
| **Impact 4.6.2 Local Carbon Monoxide Concentration Impacts**<br><br>**PP** Carbon monoxide concentrations (hot spots) at project intersections at build-out under the Proposed Land Use Diagram would not exceed state or federal air quality standards.<br><br>**AA** Carbon monoxide concentrations (hot spots) at project intersections at build-out under the Existing Martis Valley General Plan would not exceed state or federal air quality standards.<br><br>**AB** Carbon monoxide concentrations (hot spots) at project intersections at build-out under the Alternative 1 Land Use Map would not exceed state or federal air quality standards.<br><br>**AC** Carbon monoxide concentrations (hot spots) at project intersections at build-out under the Alternative 2 Land Use Map would not exceed state or federal air quality standards. | None required | LS | None required. | LS |
| **Impact 4.6.3 Regional Ozone Precursor Emissions**<br><br>**PP** Summertime emissions of ozone precursors as a result of subsequent | Policies: 9.H.1, 9.H.4, 9.H.5, 9.H.6, 9.H.8, 9.H.9, 9.H.10, 9.H.11, 9.H.12, | S | MM 4.6.3 "~~County staff will develop, with the advice of the Placer County APCD, a mitigation fee program for indirect sources similar to that in use~~ | SU |

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PS=Potentially Significant CS – Cumulative Significant B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| development under the Proposed Land Use Diagram would exceed the Placer County APCD's thresholds of significance.<br><br>**AA** Summertime emissions of ozone precursors as a result of subsequent development under this alternative would exceed the Placer County APCD's thresholds of significance.<br><br>**AB** Summertime emissions of ozone precursors as a result of subsequent development under this alternative would exceed the Placer County APCD's thresholds of significance.<br><br>**AC** Summertime emissions of ozone precursors as a result of subsequent development under this alternative would exceed the Placer County APCD's thresholds of significance. | 9.H.13, 9.H.14 | | ~~in western Placer County. Mitigation targets will be identified, appropriate off-site mitigation programs developed, and equitable fees established.~~ The County (in coordination with the Placer County APCD) shall develop an offsite mitigation program to offset the development increases in Nitrogen Oxide, Reactive Organic Gas and Particulate Matter emissions. This may include development of a fee program that could fund activities such as retrofitting existing heavy equipment/vehicles with cleaner burning engines, retrofitting or purchasing new low emission transit vehicles and equipment, providing natural gas fuel infrastructure, implement improved street sweeping and sanding guidelines/procedures, provision of a green waste pick up program as an alternative to burning and | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | replacing non-EPA certified woodstoves with new EPA certified units.<br><br>The County shall promote and encourage new development to utilize non-wood burning devices in the Plan area. Only EPA certified Phase II wood burning devices or their equivalent shall be allowed within the Plan area. The maximum emission potential from each residence shall not exceed 7.5 grams per hour. Outdoor burn pits must be plumbed with natural gas and prohibited from burning wood." | |
| **Impact 4.6.4 Regional $PM_{10}$ Emissions**<br><br>**PP** Project-related emissions of PM10 for the Proposed Land Use Diagram would exceed the Placer County APCD's thresholds of significance.<br><br>**AA** Project-related emissions of $PM_{10}$ for the Existing Martis Valley General Plan Land Use Map would exceed the Placer | Policies: 9.H.1, 9.H.4, 9.H.5, 9.H.6, 9.H.8 | S | Implement Mitigation Measure MM 4.6.3. | SU |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| County APCD's thresholds of significance.<br><br>**AB** Project-related emissions of $PM_{10}$ for the Alternative 1 Land Use Map would exceed the Placer County APCD's thresholds of significance.<br><br>**AC** Project-related emissions of $PM_{10}$ for the Alternative 2 Land Use Map would exceed the Placer County APCD's thresholds of significance. | | | | |
| **Impact 4.6.5 Cumulative Air Quality Impacts**<br><br>**PP** Anticipated development and operational effects associated with subsequent development under the Proposed Land Use Diagram ~~in~~ would contribute local and regional air pollution emissions.<br>**AA** Anticipated development and operational effects associated with subsequent development under the Existing Martis Valley General Plan Land Use Map would contribute local and regional air pollution emissions.<br>**AB** Anticipated development and operational effects associated with subsequent development under the Alternative 1 Land Use Map in would | Policies: 9.H.1, 9.H.4, 9.H.5, 9.H.6, 9.H.8, 9.H.9, 9.H.10, 9.H.11, 9.H.12, 9.H.13, 9.H.14 | CS | Implement Mitigation Measures MM 4.6.1 and 4.6.2. | SU |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| contribute local and regional air pollution emissions.<br><br>**AC** Anticipated development and operational effects associated with subsequent development under the Alternative 2 Land Use Map ~~in~~ would contribute local and regional air pollution emissions. | | | | |
| ***Hydrology and Water Quality*** | | | | |
| **Impact 4.7.1 Construction Water Quality Impacts**<br><br>**PP** Construction activities associated with subsequent development under the Proposed Land Use Diagram could cause accelerated soil erosion and sedimentation or the release of other pollutants to adjacent waterways.<br>**AA** Construction activities associated with subsequent development under the Existing Martis Valley General Plan Land Use Map could cause accelerated soil erosion and sedimentation or the release of other pollutants to adjacent waterways.<br><br>**AB** Construction activities associated with subsequent development under the | Policies: 6.E.3, 6.E.10, 6.E.11, 9.D.1, 9.D.2, 9.D.3, 9.D.4, 9.D.5, 9.D.7, 9.D.8, 9.D.9, 9.D.10, 9.F.2, 9.F.5<br><br>Implementation Programs (Natural Resources Section): 3, 4, 6, 7, 8, 10, 15, 18 | S | MM 4.7.1a The County shall require that each subsequent project applicant shall prepare a spill prevention and countermeasure plan describing measures to ensure proper collection and disposal of all pollutants handled or produced on the site during construction, including sanitary wastes, cement, and petroleum products. The plan shall be incorporated into project improvement plans.<br><br>MM 4.7.1b The County shall require each subsequent project clearly identify specific water | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| Alternative 1 Land Use Map could cause accelerated soil erosion and sedimentation or the release of other pollutants to adjacent waterways.<br><br>**AC** Construction activities associated with subsequent development under the Alternative 2 Land Use Map could cause accelerated soil erosion and sedimentation or the release of other pollutants to adjacent waterways. | | | quality control measures for Plan area waterways during construction activities. Water quality control features and required on-going monitoring and reporting to the County and Lahontan Regional Water Quality Control Board as part of compliance with this measure shall demonstrate that the water quality controls will ensure no increase in predevelopment sediment or other pollutant loads conditions in natural waterways and that storm water discharges are in compliance with all current requirements of the Lahontan Regional Water Quality Control Board (e.g., Water Quality Control Plan for the Lahontan Region).<br><br>MM 4.7.1c Subsequent development activities in the Plan area shall avoid disturbing to the extent feasible or altering existing wetlands, natural waterway courses or channel conditions. Exceptions to this | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | | Resulting Level of Significance |
|---|---|---|---|---|---|
| | | | | policy would include minor stream crossings and improvements to the waterway that enhance the waterways natural condition to convey water and improvE water quality. Exceptions will be considered on a case-by-case basis by the County and the RWQCB and must be in compliance with the Water Quality Control Plan for the Lahontan Region (Basin Plan). | |
| **Impact 4.7.2 Operational Surface Water Quality Impacts**<br><br>**PP** Implementation of the Proposed Land Use Diagram could result in direct and indirect surface water quality impacts from operation of various land uses in the Plan area.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map could result in direct and indirect surface water quality impacts from operation of various land uses in the Plan area. | Policies: 6.E.6, 6.E.8, 6.E.10, 6.E.11, 9.D.1, 9.D.4, 9.D.5, 9.D.9, 9.D.10, 9.F.1, 9.F.2, 9.F.5<br><br>Implementation Programs (Public Facilities and Services and Natural Resources Sections): 1, 15, 16, 17, 18 | S | MM 4.7.2a | The County shall require that each subsequent project develop a surface water quality control program to be incorporated into the project's storm water drainage system design. This program would specify the design of planned water quality facilities to be used in the project's drainage system, including details and methods for intercepting and improving surface water quality as well as maintenance of facilities, | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **AB** Implementation of the Alternative 1 Land Use Map could result in direct and indirect surface water quality impacts from operation of various land uses in the Plan area.<br><br>**AC** Implementation of the Alternative 2 Land Use Map could result in direct and indirect surface water quality impacts from operation of various land uses in the Plan area. | | | correcting deficiencies with water quality control features and monitoring and reporting to the County and Lahontan Regional Water Quality Control Board. Water quality control features (including water quality control features for golf courses [Mitigation Measure MM 4.7.2c]) shall demonstrate that the water quality controls will ensure no increase in predevelopment sediment or other pollutant loads conditions in natural waterways and that storm water discharges are in compliance with all current requirements of the Lahontan Regional Water Quality Control Board.<br><br>MM 4.7.2b In addition to the setback requirements set forth in Policy 9.D.1, subsequent projects will be conditioned to prohibit application of fertilizers, pesticides and herbicides within natural waterway courses and | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | | Resulting Level of Significance |
|---|---|---|---|---|---|
| | | | | wetlands. Exact buffer distances from waterways and wetlands for chemical application shall be determined on a case-by-case basis based on technical analysis of the project and in consultation with the County and the Lahontan Regional Water Quality Control Board. | |
| | | | MM 4.7.2c | The County will require that future golf courses be designed to reduce the threat to surrounding waterways and wetland areas. Specifically by minimizing total acreage of managed turf, the need for fertilizers and chemicals would be minimized and the size of natural areas would be maximized. Natural areas would promote wildlife habitat and provide buffers to the environment from higher trafficked areas. Landscaped areas shall be restricted to only greens, tees, and fairways. ~~The golf~~ | |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | ~~courses shall be designed to retain natural surface drainage patterns with buffer areas and will control and divert runoff away from greens, tee, fairways and other managed turf areas to prevent leaching and erosion of chemicals applied in these areas.~~<br><br>The County shall also require proper chemical management (i.e., Chemical Application Management Plans [CHAMP]) for the operation of new golf courses. New golf courses shall utilize appropriate chemical management objectives via direct application of procedures that ensure water quality objectives are meet as defined by the Lahontan Regional Water Quality Control Board and ~~California Inland Surface Waters Plan~~ the State Water Resources Control Board Policy for Toxic Standards for Inland Surface | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | Waters, Enclosed Bays and Estuaries of California. Specific water quality objectives for new golf courses shall ensure the biostimulatory substances, floating materials, oil and grease, pesticides and sediment shall not be in sufficient concentrations to cause a nuisance, adversely affect the beneficial uses of on-site surface waters, runoff or groundwater or exceed water quality criteria set forth in the Water Quality Control Plan for the Lahontan Region (Basin Plan). Water quality objectives for nine types of element/compounds is set by the Lahontan Regional Water Quality Control Board and are presented in the Basin Plan.<br><br>The CHAMP or similar management plan shall incorporate the following:<br><br>▪ A description of golf course design features that prevent direct | |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | discharges of surface runoff into stream channels and groundwater.<br><br>▪ A description of chemicals authorized for use and approved within the State of California, along with guidelines for their application. Guidelines shall include restrictions on their use near drainage systems. Chemicals include fertilizers, herbicides, fungicides, insecticides and rodenticides.<br><br>▪ Guidelines on the application of fertilizers and soil amendments that take into consideration the physical characteristics and nutrient content of the soil on the golf course site.<br><br>▪ Guidelines for the irrigation of the golf course that take into consideration the field capacity of soil types and the timing with chemical applications.<br><br>▪ A water quality monitoring program that includes sampling would be timed with the application of soil amendments or on a regularly scheduled basis. This monitoring program shall also be implemented | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | with consideration of the RWQCB water quality objectives for the Martis Creek at its confluence the Truckee River.<br><br>▪ Chemical storage requirements and chemical spill response and chemical inventory response plans would be prepared and implemented.<br><br>▪ ~~*Pesticide concentrations shall not be allowed to accumulate in bottom sediments or aquatic life, nor can chlorinated hydrocarbon pesticides be found at detectable concentrations in surface waters.*~~ Maximum Concentration Levels (MCL), per the Water Quality Goals for California Inland Surface Water for Human Health and Freshwater Aquatic Life Protection shall be met for waters in golf course lakes and other surface water bodies including streams and springs. Also, groundwaters shall not contain any chemical contaminants derived from operations in excess of the MCLs specified for domestic drinking water supplies in the CCR, Title 22, Division 4, Chapter 15 for | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| | | | the turf management chemical compounds including, but not limited to, 2,4-D, Atazine, Bentazon, Carbofuran, Glyphosate and Simazine."<br><br>MM 4.7.2d The County shall require that subsequent development projects provide open fencing and signage restricting area residents from intruding in wetlands and providing information regarding the sensitivity of these resources to include requirements for domestic pet control.<br><br>MM 4.7.2e The County shall require that snow storage areas shall be located outside of areas that drain directly into waterways, except where storm drainage and treatment facilities are provided. | |
| **Impact 4.7.3 Groundwater Quality Impacts**<br><br>**PP** Implementation of the Proposed Land Use Diagram could result in the degradation of groundwater quality | Policies: 6.C.6, 6.D.1, 6.D.5, 6.D.6, 6.D.7, 9.D.1, 9.D.4, 9.D.5, 9.D.9, | PS | MM 4.7.3 Future land uses that are anticipated to utilize hazardous materials or waste shall be required to provide adequate containment | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| resulting from future land uses.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map could result in the degradation of groundwater quality resulting from future land uses.<br><br>**AB** Implementation of the Alternative 1 Land Use Map could result in the degradation of groundwater quality resulting from future land uses.<br><br>**AC** Implementation of the Alternative 2 Land Use Map could result in the degradation of groundwater quality resulting from future land uses. | 9.D.10, 9.F.1, 9.F.2, 9.F.5<br><br>Implementation Programs (Public Facilities and Services and Natural Resources Sections); 1,<br><br>8, 12, 13,14, 15, 16, 17, 18 | | facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double-containment, levees to contain spills, and monitoring wells for underground storage tanks, as required by local, state and federal standards. | |
| **Impact 4.7.4 Groundwater Recharge Areas Impacts**<br><br>**PP** Implementation of the Proposed Land Use Diagram would result in the increase of impervious surfaces in the Plan area. However, this increase in impervious surfaces is not expected to substantially impact groundwater recharge.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would result in the increase of | Policies: 6.D.6, 9.D.9, 9.D.10<br><br>Implementation Program (Natural Resources Section): 12 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| impervious surfaces in the Plan area. However, this increase in impervious surfaces is not expected to substantially impact groundwater recharge.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would result in the increase of impervious surfaces in the Plan area. However, this increase in impervious surfaces is not expected to substantially impact groundwater recharge.<br><br>**AC** Implementation of the Alternative 2 Land Use Map would result in the increase of impervious surfaces in the Plan area. However, this increase in impervious surfaces is not expected to substantially impact groundwater recharge. | | | | |
| **Impact 4.7.5 Increased Groundwater Usage Impacts**<br><br>**PP** Implementation of land uses under the Proposed Land Use Diagram would increase groundwater usage in Martis Valley, which could adversely impact groundwater resources as well as interactions between groundwater and surface water. | Policies: 6.C.1, 6.C.4<br><br>Implementation Programs (Public Facilities and Services and Natural Resources Sections): 6, 8, | PS | MM 4.7.5 The County, in coordination with the Placer County Water Agency and the Northstar Community Services District, shall require that proponents of new development demonstrate that new well facilities or expanded operation of existing well facilities will be in | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| surface water.<br><br>**AA** Implementation of land uses under the Existing Martis Valley General Plan Land Use Diagram would increase groundwater usage in Martis Valley, which could adversely impact groundwater resources as well as interactions between groundwater and surface water.<br><br>**AB** Implementation of land uses under the Alternative 1 Land Use Map would increase groundwater usage in Martis Valley, which could adversely impact groundwater resources as well as interactions between groundwater and surface water.<br><br>**AC** Implementation of land uses under the Alternative 2 Land Use Map would increase groundwater usage in Martis Valley, which could adversely impact groundwater resources as well as interactions between groundwater and surface water. | 10, 12, 13 | | compliance with Section 204(c)1(B) of P.L. 101-618 and/or any subsequent standard set forth in the Truckee River Operation Agreement that requires that the placement be designed to avoid substantial effects to surface water flows or conditions. Well tests, identification of setback from waterway, appropriate hydrologic testing and/or reports from qualified professionals shall be provided verifying that no substantial impact to surface waters will occur. | |
| **Impact 4.7.6 Flood Hazard Impacts**<br><br>**PP** Implementation of the Proposed Land Use Diagram would increase impervious surfaces and would alter drainage | Policies: 6.E.2, 6.E.3, 6.E.4, 6.E.7, 6.E.8, 6.E.9, 6.E.10, 6.F.1, 6.F.3, 6.F.4, 6.F.5, | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| conditions and rates in the Plan area, which would result in potential flooding impacts.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would increase impervious surfaces and would alter drainage conditions and rates in the Plan area, which would result in potential flooding impacts.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would increase impervious surfaces and would alter drainage conditions and rates in the Plan area, which would result in potential flooding impacts.<br><br>**AC** Implementation of the Alternative 2 Land Use Map would increase impervious surfaces and would alter drainage conditions and rates in the Plan area, which would result in potential flooding impacts. | 6.F.3, 6.F.4, 6.F.5, 6.F.7, 6.F.9, 6.F.12<br><br>Implementation Programs (Public Facilities and Services): 18, 19, 20, 21 | | | |
| **Impact 4.7.7 Cumulative Water Quality Impacts**<br><br>**PP** Construction activities and operation of land uses under the Proposed Land Use | Policies: 6.D.1, 6.D.5, 6.C.6, 6.D.6, 6.D.7, 6.E.3, 6.E.6, 6.E.8, 6.E.10, 6.E.11, | CS | Implement Mitigation Measures MM 4.7.1a through c, MM 4.7.2a through e and MM 4.7.3 | LS |

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| Diagram would contribute to water quality impacts from development of other projects in the region.<br><br>**AA** Construction activities and operation of land uses under the Existing Martis Valley General Plan Land Use Map would contribute to water quality impacts from development of other projects in the region.<br><br>**AB** Construction activities and operation of land uses under the Alternative 1 Land Use Map would contribute to water quality impacts from development of other projects in the region.<br><br>**AC** Construction activities and operation of land uses under the Alternative 2 Land Use Map would contribute to water quality impacts from development of other projects in the region. | 6.E.10, 6.E.11, 9.D.1, 9.D.2, 9.D.3, 9.D.4, 9.D.5, 9.D.7, 9.D.8, 9.D.9, 9.D.10, 9.F.1, 9.F.2, 9.F.5<br><br>Implementation Programs (Public Facilities and Services and Natural Resources Sections): 3, 4, 6, 7, 8, 10, 12, 13, 14, 15, 16, 17, 18 | | | |
| **Impact 4.7.8 Cumulative Groundwater Recharge Area Impacts**<br><br>**PP** Implementation of the Proposed Land Use Diagram would not contribute to a substantial loss of groundwater recharge area. | Policies: 6.D.6, 9.D.9, 9.D.10<br><br>Implementation Program (Natural Resources Section): 12 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **AA** Implementation of the Existing Martis Valley General Plan Land Use Map would not contribute to a substantial loss of groundwater recharge area.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would not contribute to a substantial loss of groundwater recharge area.<br><br>**AC** Implementation of the Alternative 1 Land Use Map would not contribute to a substantial loss of groundwater recharge area. | | | | |
| **Impact 4.7.9 Cumulative Groundwater Usage Impacts**<br><br>**PP** Implementation of land uses under the Proposed Land Use Diagram would contribute to further increases in groundwater usage in Martis Valley, which could adversely impact groundwater resources.<br><br>**AA** Implementation of land uses under the Existing Martis Valley General Plan Land Use Map would contribute to further increases in groundwater usage in Martis Valley, which could adversely impact | Policies: 6.C.1, 6.C.4<br><br>Implementation Programs (Public Facilities and Services and Natural Resources Sections): 6, 8, 10, 12, 13 | CS | Implement Mitigation Measure MM 4.7.5. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| groundwater resources.<br><br>**AB** Implementation of land uses under the Alternative 1 Land Use Map would contribute to further increases in groundwater usage in Martis Valley, which could adversely impact groundwater resources.<br><br>**AC** Implementation of land uses under the Alternative 2 Land Use Map would contribute to further increases in groundwater usage in Martis Valley, which could adversely impact groundwater resources. | | | | |
| **Impact 4.7.10 Cumulative Flood Hazards**<br><br>**PP** Implementation of the Proposed Land Use Diagram would increase impervious surfaces and alter drainage conditions and rates in the Plan area, which could contribute to regional flooding impacts.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would increase impervious surfaces and alter drainage conditions and rates in the Plan area, which could contribute to regional flooding impacts. | Policies: 6.E.2, 6.E.3, 6.E.4, 6.E.7, 6.E.8, 6.E.9, 6.E.10, 6.F.1, 6.F.3, 6.F.4, 6.F.5, 6.F.7, 6.F.9, 6.F.12<br><br>Implementation Programs (Public Facilities and Services Section): 18, 19, 20, 21 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **AB** Implementation of the Alternative 1 Land Use Map would increase impervious surfaces and alter drainage conditions and rates in the Plan area, which could contribute to regional flooding impacts.<br><br>**AC** Implementation of the Alternative 2 Land Use Map would increase impervious surfaces and alter drainage conditions and rates in the Plan area, which could contribute to regional flooding impacts. | | | | |
| ***Geology and Soils*** | | | | |
| **Impact 4.8.1 Geologic Stability and Suitability of the Martis Valley Community Plan Area**<br><br>**PP** Subsequent development under the Proposed Land Use Diagram could expose future residents and structures to geologic instability. However, Community Plan proposed policies and implementation programs would ensure adequate consideration of geologic stability issues.<br><br>**AA** Subsequent development under the Existing Martis Valley General Plan Land | Policies: 9.A.1, 9.A.2, 9.A.3, 9.A.4, 9.A.5, 9.A.6, 9.A.7, 9.A.9<br><br>Implementation Programs (Natural Resources Section): 2, 3, 4, 6 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| Use Map could expose future residents and structures to geologic instability. However, Community Plan proposed policies and implementation programs would ensure adequate consideration of geologic stability issues.<br><br>**AB** Subsequent development under the Alternative 1 Land Use Map could expose future residents and structures to geologic instability. However, Community Plan proposed policies and implementation programs would ensure adequate consideration of geologic stability issues.<br><br>**AC** Subsequent development under the Alternative 2 Land Use Map could expose future residents and structures to geologic instability. However, Community Plan proposed policies and implementation programs would ensure adequate consideration of geologic stability issues. | | | | |
| **Impact 4.8.2 Seismic Hazards**<br><br>**PP** Subsequent development under the Proposed Land Use Diagram could expose future residents and structures to seismic hazards associated with fault | Policies: 9.A.1, 9.A.7, 9.A.8,<br><br>Implementation Programs (Natural | PS | MM 4.8.2a As part of the geotechnical subsurface investigation work (Geology Implementation Program 2), an onsite seismic hazards analysis for subsequent projects and | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| rupture and ground shaking.<br><br>**AA** Subsequent development under the Existing Martis Valley General Plan Land Use Map could expose future residents and structures to seismic hazards associated with fault rupture and ground shaking.<br><br>**AB** Subsequent development under the Alternative 1 Land Use Map could expose future residents and structures to seismic hazards associated with fault rupture and ground shaking.<br><br>**AC** Subsequent development under the Alternative 2 Land Use Map could expose future residents and structures to seismic hazards associated with fault rupture and ground shaking. | Resources<br><br>Section): 2, 5 | | their supporting infrastructure will be performed to ~~further~~ locate and identify active faults. This information shall be utilized to adjust, if needed, the configuration of subsequent projects to ensure future structures will not be located on or near an active faults. ~~traces. Because of their presence additional exploration will be required across these structures in several locations to accurately map their trends across the region~~. Appropriate setbacks will ~~must then~~ be defined per results of field investigations, and guidelines contained in UBC and CDMG (Fault-Rupture Hazard Zones in California, Special Report 42 standards). No special setbacks or project design modifications will be required if technical studies fail to identify the presence of a suspected fault or if the fault is determined to be inactive. | |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | MM 4.8.2b Future residential units, structures, project utilities, and infrastructure shall be designed to withstand expected seismic forces that could sustain both horizontal and vertical oscillations and net displacements of earth material along local active fault(s). This may include strengthening of foundations, offsets of structures, engineering of flexible utility connections to accommodate warping, and distributive deformation associated with faulting. These designs will meet requirements outlined by Uniform Building Code and California Department of Mines and Geology. | |
| **Impact 4.8.3 Soil Erosion**<br><br>**PP** Subsequent development under the Proposed Land Use Diagram would include minor to major grading over large areas of land that could result in increased soil erosion above existing | Policies: 6.E.3, 6.E.10, 6.E.11, 9.D.1, 9.D.2, 9.D.3, 9.D.4, 9.D.5, 9.D.7, 9.D.8, 9.D.9, 9.D.10, 9.F.2, | PS | Implement Mitigation Measures MM 4.7.1a through c. | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| conditions.<br><br>**AA** Subsequent development under the Existing Martis Valley General Plan would include minor to major grading over large areas of land that could result in increased soil erosion above existing conditions.<br><br>**AB** Subsequent development under the Alternative 1 Land Use Map would include minor to major grading over large areas of land that could result in increased soil erosion above existing conditions.<br><br>**AC** Subsequent development under the Alternative 2 Land Use Map would include minor to major grading over large areas of land that could result in increased soil erosion above existing conditions. | 9.F.5, 9.H.7, 9.H.8<br><br>Implementation Programs (Natural Resources Section): 3, 4, 6, 7, 8, 10, 15, 18 | | | |
| **Impact 4.8.4 Avalanche Hazards**<br><br>**PP** Subsequent development under the Proposed Land Use Diagram may result in the placement structures and residents in areas that could be exposed to avalanche hazards.<br><br>**AA** Subsequent development under the | Policies: 9.B.1, 9.B.2<br><br>Implementation Program (Geology): 6 | PS | MM 4.8.4 During review of any project that would be located along a north-facing slope immediately adjacent to areas with slopes 29~~30~~ percent or greater, Placer County shall require each subsequent project to provide the County with an | LS |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| Existing Martis Valley General Plan Land Use Map may result in the placement structures and residents in areas that could be exposed to avalanche hazards.<br><br>**AB** Subsequent development under the Alternative 1 Land Use Map may result in the placement structures and residents in areas that could be exposed to avalanche hazards.<br><br>**AC** Subsequent development under the Alternative 2 Land Use Map may result in the placement structures and residents in areas that could be exposed to avalanche hazards. | | | provide the County with an avalanche hazard investigation report for their project. This report will document field investigations of surface conditions in areas where construction of all structures is proposed as well as typical snow accumulation and climate conditions. Evaluation of surface materials will be made to evaluate slope stability characteristics of underlying near surface conditions and probable snow conditions that will likely be present during various storm conditions. Avalanche hazard areas shall be mapped and the site design shall be modified to avoid these areas. If avoidance is infeasible, structures to be placed in the avalanche hazard areas shall designed to withstand anticipated snow loads and conditions of an avalanche consistent with the Placer County Avalanche Management | |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | Program. | |
| **Impact 4.8.5 Cumulative Geologic Impacts**<br><br>**PP** Development under the Proposed Land Use Diagram could result in site-specific geologic hazards for area residents.<br><br>**AA** Development under the existing Martis Valley Community Plan Land Use Map could result in site-specific geologic hazards for area residents.<br><br>**AB** Development under the Alternative 1 Land Use Map could result in site-specific geologic hazards for area residents.<br><br>**AC** Development under the Alternative 2 Land Use Map could result in site-specific geologic hazards for area residents. | None required | LS | None required. | LS |
| ***Biological Resources*** | | | | |
| **Impact 4.9.1 Disturbance to Common Plant Communities**<br><br>**PP** Subsequent development under the Proposed Land Use Diagram would result in the loss of vegetation types | Policies: 9.E.1, 9.E.3, 9.E.4, 9.E.5, 9.E.6, 9.E.7, 9.E.8, 9.E.9, 9.E.10, 9.E.11 | LS | None required. | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| common in the region.<br><br>**AA** Subsequent development under the Existing Martis Valley General Plan Land Use Map would result in the loss of vegetation types common in the region.<br><br>**AB** Subsequent development under the Alternative 1 Land Use Map would result in the loss of vegetation types common in the region.<br>**AC** Subsequent development under the Alternative 2 Land Use Map would result in the loss of vegetation types common in the region. | | | | |
| **Impact 4.9.2 Disturbance to Common Wildlife**<br><br>**PP** Subsequent development under the Proposed Land Use Diagram would result in the disturbance and potential loss of wildlife species common in the region.<br><br>**AA** Subsequent development under the Existing Martis Valley General Plan Land Use Map would result in the disturbance and potential loss of wildlife species common in the region.<br><br>**AB** Subsequent development under the | Policies: 9.G.1, 9.G.2, 9.G.3, 9.G.5, 9. G.6, 9.G.9 | LS | None required. | LS |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| Alternative 1 Land Use Map would result in the disturbance and potential loss of wildlife species common in the region.<br><br>**AC** Subsequent development under the Alternative 2 Land Use Map would result in the disturbance and potential loss of wildlife species common in the region. | | | | |
| **Impact 4.9.3 Potential Disturbance to Special-Status Plant Species**<br><br>**PP** Subsequent development under the Proposed Land Use Diagram may impact habitat for special-status plant species.<br><br>**AA** Subsequent development under the Existing Martis Valley General Plan Land Use Map may impact habitat for special-status plant species.<br><br>**AB** Subsequent development under the Alternative 1 Land Use Map may impact habitat for special-status plant species.<br><br>**AC** Subsequent development under the Alternative 2 Land Use Map may impact habitat for special-status plant species. | Policies: 9.E.5, 9.E.10, 9.F.2, 9.F.4, 9.G.10<br><br>Implementation Program (Natural Resources Section): 1 | PS | MM 4.9.3 The County shall require that biotic resources evaluation for subsequent projects required under Policy 9.G.10 to include a focused plant survey for the following special-status plant species: Donner Pass buckwheat, plumas ivesia, Carson Range rock cress, long-petaled lewisia, Munroe's desert mallow, and American manna grass. The survey shall determine the presence/absence of these species on the site. The surveys shall be conducted by a qualified botanist during the blooming season for each species (in general, from May-August). Plant species listed after the | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | adoption of the Martis Valley Community Plan shall also be included in the survey.<br><br>If biotic surveys identify the presence of special-status plant species, the subsequent project will be designed to avoid substantial impacts on the plant population that would impair the population's survival including the provision of adequate buffers. If avoidance is determined ~~deemed~~ infeasible, other mitigation measures ~~options~~ shall be imposed ~~considered by the project~~. These may include, but not limited to, on- or off-site preservation of existing populations, seed and soil collection or plant transplant that ensures that a viable ~~the~~ plant population will survive ~~is maintained~~. Subsequent projects shall submit a mitigation program for impacted special-status plant species that has been prepared by a qualified | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | | Resulting Level of Significance |
|---|---|---|---|---|---|
| | | | | biologist approved by the County and shall include consultation with the appropriate governmental agencies (e.g., U.S. Fish and Wildlife Service, California Department of Fish and Game, Lahontan Regional Water Quality Control Board) as part of plan implementation."<br><br>Responsible Agency/ Department: Planning Department<br><br>Time Frame: On-going<br><br>Funding: Permit Fees | |
| **Impact 4.9.4 Potential Disturbance to Mountain Yellow-Legged Frog**<br><br>**PP** Subsequent development under the Proposed Land Use Diagram may impact suitable habitat for mountain yellow-legged frog.<br><br>**AA** Subsequent development under the Existing Martis Valley General Plan Land Use Map may impact suitable habitat | Policies: 9.E.10, 9.F.1, 9.F.2, 9.F.3, 9.F.4, 9.F.5, 9.F.6, 9.F.7, 9.G.1, 9.G.2, 9.G.3, 9.G.4, 9.G.8, 9.G.9, 9.G.10<br><br>Implementation Program (Natural | PS | MM 4.9.4 | The County shall require that biotic resources evaluation for subsequent projects include a mountain yellow-legged frog habitat suitability assessment be conducted on each parcel proposing a crossing over or development within stream or open water habitat area. The assessment shall include | LS |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| for mountain yellow-legged frog.<br><br>**AB** Subsequent development under the Alternative 1 Land Use Map may impact suitable habitat for mountain yellow-legged frog.<br><br>**AC** Subsequent development under the Alternative 2 Land Use Map may impact suitable habitat for mountain yellow-legged frog. | Resources Section): 1 | | a detailed analysis of the habitat conditions present onsite and shall survey stream conditions 500 feet upstream and downstream from the proposed stream crossing. If the results of the habitat suitability survey indicate that potential habitat for this species is not present within 500 feet up or down stream of the crossing, no further study is required.<br><br>However, if potential habitat for this species is identified during the assessment, County shall condition projects involving disturbance of a waterway channel to perform the following:<br><br>• Conduct pre-construction surveys for the mountain yellow-legged frog during the breeding season by a qualified biologist. If frogs are identified in the construction area, the biologist shall contact CDFG | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | ~~and/or USFWS~~ regarding the proper methods of moving the species an appropriate off-site location prior to the onset of construction activities at the waterways.<br><br>• Monitoring of construction activities within waterways until construction activities in the waterways is complete.<br><br>• Conduct training session for all construction personnel regarding the mountain yellow-legged frog, including a description of the species and its habitat and materials on species in order to assist in identifying species in the field.<br><br>Revegetation and recontouring of channel conditions generally consistent with pre-construction conditions.Responsible Agency/ Department: Planning Department | |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | Time Frame: On-going<br><br>Funding: Permit Fees<br><br>Implement Mitigation Measures MM 4.6.1a through c, and MM 4.7.2a through e. | |
| **Impact 4.9.5 Potential Disturbance to Lahontan Cutthroat Trout**<br><br>**PP** The implementation of the Proposed Land Use Diagram may disturb habitat for Lahontan cutthroat trout and impact current recovery efforts by the U.S. Fish and Wildlife Service.<br><br>**AA** The implementation of the Existing Martis Valley General Plan Land Use Map may disturb habitat for Lahontan cutthroat trout and impact current recovery efforts by the U.S. Fish and Wildlife Service.<br><br>**AB** The implementation of the Alternative 1 Land Use Map may disturb habitat for Lahontan cutthroat trout and impact current recovery efforts by the U.S. Fish and Wildlife Service.<br>**AC** The implementation of the Alternative 2 Land Use Map may disturb habitat for Lahontan cutthroat trout and impact current recovery efforts by the U.S. Fish | Policies: 9.F.1, 9.F.2, 9.F.3, 9.F.4, 9.F.5, 9.F.6, 9.F.7, 9.G.1, 9.G.2, 9.G.3, 9.G.4, 9.G.6, 9.G.8, 9.G.9, 9.G.10<br><br>Implementation Program (Natural Resources Section): 1 | PS | MM 4.9.5a The County shall require that construction activities within the channels of waterways identified to be potential spawning habitat of the Lahontan cutthroat trout shall not materially impair habitat conditions. The County shall cooperate with the U.S. Fish and Wildlife Service if future recovery planning activities for the species includes Plan area waterways. ~~occur during the spawning season (April through July).~~<br><br>MM 4.9.5b No structures shall be permitted in streams or watercourses within the Plan area that would result in the blockage of water flow sufficient to create ~~ing~~ a barrier to fish movement.” | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| and Wildlife Service. | | | barrier to fish movement."<br><br>Implement Mitigation Measures MM 4.6.1a through c, and MM 4.7.2a through e. | |
| **Impact 4.9.6 Potential Disturbance to Nesting Raptors and Other Migratory Birds**<br><br>**PP** Implementation of the Proposed Land Use Diagram could result in the direct and temporary impacts on nesting special-status bird species, raptors, and other migratory birds.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map could result in the direct and temporary impacts on nesting special-status bird species, raptors, and other migratory birds.<br><br>**AB** Implementation of the Alternative 1 Land Use Map could result in the direct and temporary impacts on nesting special-status bird species, raptors, and other migratory birds.<br><br>**AC** Implementation of the Alternative 2 Land Use Map could result in the direct and temporary impacts on nesting special-status bird species, raptors, and other migratory birds. | Policies: 9.E.3, 9.E.4, 9.E.5, 9.E.6, 9.E.7, 9.E.9, 9.E.10, 9.E.12, 9.F.1, 9.F.2, 9.F.4, 9.F.5, 9.F.6, 9.G.1, 9.G.2, 9.G.3, 9.G.4, 9.G.5, 9.G.8, 9.G.9, 9.G.10<br><br>Implementation Program (Natural Resources Section): 1 | PS | MM 4.9.6 If active nests are found during surveys associated with implementation of Policy 9.G.10, the County shall require mapping identifying the locations of identified nests <u>of endangered or threatened bird species or the nests of protected raptors or migratory birds</u>. The subsequent project will be required to conduct focused nest surveys 30 days prior to the beginning of construction activities by a qualified biologist in order to determine if active nests are still present. If active nests are found, the County shall be notified on the status of the nests and no construction activities shall take place within 500 feet of the nest to avoid disturbance until the birds leave the nest, or a time deemed | LS |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| other migratory birds. | | | acceptable (e.g., when the juveniles have fledged) by the biologist. The 500-foot buffer may be reduced based on various factors including, but not limited to, vegetation and topographic screening, sensitivity of the species to disturbance and consultation with California Department of Fish and Game. Monitoring reports summarizing nest activities shall be submitted to the County until the nest is determined to be inactive. Trees containing nest sites that must be removed shall be removed during the non-breeding season.<br><br>If active nests that are identified involve federal and/or state listed species (under the Federal Endangered Species Act and the California Endangered Species Act) within or adjacent to the area of planned disturbance, additional setbacks, | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | | Resulting Level of Significance |
|---|---|---|---|---|---|
| | | | | restrictions and/or mitigation may be required from California Department of Fish and Game and U.S. Fish and Wildlife Service as part of agency permitting to ensure no take of the species. Nest sites of federal and/or state listed species shall not be taken, unless approved by California Department of Fish and Game and U.S. Fish and Wildlife Service.<br><br>Responsible Agency/ Department: Planning Department<br><br>Time Frame: On-going<br><br>Funding: Permit Fees | |
| **Impact 4.9.7 Potential Disturbance to Special-Status Bat Species**<br><br>**PP** The implementation of the Proposed Land Use Diagram may remove potential roosting habitats for special-status bat species. | Policies: 9.E.3, 9.E.4, 9.E.5, 9.E.6, 9.E.7, 9.E.9, 9.E.10, 9.E.12, 9.F.1, 9.F.2, 9.F.4, 9.F.5, 9.F.6, 9.G.1, 9.G.2, 9.G.3, 9.G.4, 9.G.5, | PS | MM 4.9.7 | If bat roosts are identified on site as a result of surveys required by Policy 9.G.10, the County shall require that the bats be safely flushed from the sites where roosting habitat is planned to be removed prior to May of | LS |

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PS-Potentially Significant CS – Cumulative Significant B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **AA** The implementation of the Existing Martis Valley General Plan Land Use Map may remove potential roosting habitats for special-status bat species.<br><br>**AB** The implementation of the Alternative 1 Land Use Map may remove potential roosting habitats for special-status bat species.<br><br>**AC** The implementation of the Alternative 2 Land Use Map may remove potential roosting habitats for special-status bat species. | 9.G.8, 9.G.9, 9.G.10<br><br>Implementation Program (Natural Resources Section): 1,2,3,24 | | each construction phase (maternity roosts are generally occupied from May to August) prior to the onset of construction activities. The removal of the roosting sites shall occur during the time of day when the roost is unoccupied. Replacement roost habitat (e.g., bat boxes) will be provided for roosting sites removed.<br><br>Responsible Agency/ Department: Planning Department<br><br>Time Frame: On-going<br><br>Funding: Permit Fees | |
| **Impact 4.9.8 Potential Disturbance to Sierra Nevada Red Fox, California Wolverine, Sierra Nevada Snowshoe Hare, Pacific Fisher, Sierra Nevada Mountain Beaver, and Pine Marten**<br><br>**PP** The implementation of the Proposed Land Use Diagram may remove potential habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra | Policies: 9.E.3, 9.E.4, 9.E.5, 9.E.6, 9.F.1, 9.F.2, 9.G.1, 9.G.2, 9.G.3, 9.G.4, 9.G.5, 9.G.6, 9.G.7. 9.G.8, 9.G.9, 9.G.10<br><br>Implementation | PS | MM 4.9.8 The County shall require a habitat suitability evaluation or focused surveys for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten as part of surveys required by Policy 9.G.10. Effective | LS |

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PS=Potentially Significant CS – Cumulative Significant B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| Nevada mountain beaver, and pine marten.<br><br>**AA** The implementation of the Existing Martis Valley General Plan Land Use Map may remove potential habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten.<br>**AB** The implementation of the Alternative 1 Land Use Map may remove habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten.<br><br>**AC** The implementation of the Alternative 2 Land Use Map may remove habitat for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten. | Program (Natural Resources Section): 1,2,3,20,23,24 | | Policy 9.G.10. Effective movement corridors will be provided in projects areas with suitable habitat. If active den/burrow sites for the Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and/or pine marten dens/nests are identified, the mitigation plan shall be developed in consultation with the California Department of Fish and Game ~~and/or U.S. Fish and Wildlife Service~~ to ensure no animals are killed and that den/burrow sites are properly addressed. Measures may include, but not limited to, redesign of the project (Placer County General Plan Policy 6.C.6) to provide adequately sized open space areas and corridors around den/burrow sites~~, capture and relocation of the species~~. Subsequent projects shall submit the mitigation plan that has | |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| | | | been reviewed and approved the appropriate governmental agencies (e.g., ~~U.S. Fish and Wildlife Service,~~ California Department of Fish and Game) and the necessary regulatory permits obtained for the Sierra Nevada red fox and California wolverine (California Endangered Species Act) to the County prior to development activities.<br><br>Responsible Agency/ Department: Planning Department<br><br>Time Frame: On-going<br><br>Funding: Permit Fees | |
| **Impact 4.9.9 Disturbance to Riparian Habitat**<br><br>**PP** The implementation of the Proposed Land Use Diagram may remove riparian scrub habitat. However, implementation of proposed Community Plan policies would ensure no net loss of riparian areas. | Policies: 9.E.3, 9.E.10, 9.F.1, 9.F.2, 9.F.4, 9.F.5, 9.F.6<br><br>Implementation Program (Natural Resources Section): 1.2.3.20 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **AA** The implementation of the Existing Martis Valley General Plan Land Use Map may remove riparian scrub habitat. However, implementation of proposed Community Plan policies would ensure no net loss of riparian areas.<br><br>**AB** The implementation of the Alternative 1 Land Use Map may remove riparian scrub habitat. However, implementation of proposed Community Plan policies would ensure no net loss of riparian areas.<br><br>**AC** The implementation of the Alternative 2 Land Use Map may remove riparian scrub habitat. However, implementation of proposed Community Plan policies would ensure no net loss of riparian areas. | Section): 1,2,3,20 | | | |
| **Impact 4.9.10 Loss of Wetland Areas**<br><br>**PP** The implementation of the Proposed Land Use Diagram may disturb wetland areas. However, implementation of proposed Community Plan policies would ensure no net loss of wetland resources.<br><br>**AA** The implementation of the Existing Martis Valley General Plan may disturb | Policies: 9.F.1, 9.F.2, 9.F.3, 9.F.4, 9.F.5, 9.F.6, 9.F.7<br><br>Implementation Program (Natural Resources Section): 1,2,3,20 | LS | None required. | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | | Resulting Level of Significance |
|---|---|---|---|---|---|
| wetland areas. However, implementation of proposed Community Plan policies would ensure no net loss of wetland resources.<br><br>**AB** The implementation of the Alternative 1 Land Use Map may disturb wetland areas. However, implementation of proposed Community Plan policies would ensure no net loss of wetland resources.<br><br>**AC** The implementation of the Alternative 2 Land Use Map may disturb wetland areas. However, implementation of proposed Community Plan policies would ensure no net loss of wetland resources. | | | | | |
| **Impact 4.9.11 Disturbance to Wildlife Movement**<br><br>**PP** The implementation of the Proposed Land Use Diagram may block local wildlife movement as well as established deer migration movement corridors.<br><br>**AA** The implementation of the Existing Martis Valley General Plan Land Use Map may block local wildlife movement as well as established deer migration movement | Policies: 9.D.1, 9.D.4, 9.D.9, 9.D.10, 9.E.3, 9.E.4, 9.E.6, 9.G.1, 9.G.2, 9.G.3, 9.G.5, 9.G.8, 9.G.9, 9.G.10<br><br>Implementation Program (Natural Resources Section): | PS | MM 4.9.11a | The County shall require deer migration surveys for projects located within or adjacent to the 3 corridors identified in Figure 4.9-5 of the Martis Valley Community Plan Update EIR, as part of surveys required by Policy 9.G.10. The surveys shall define the extent of deer movement across the subject property and will refine the extent of | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| corridors.<br><br>**AB** The implementation of the Alternative 1 Land Use Map may block local wildlife movement as well as established deer migration movement corridors.<br><br>**AC** The implementation of the Alternative 2 Land Use Map may block local wildlife movement as well as established deer migration movement corridors. | 1,2,3,19,20 | | the deer corridor onsite. If a deer migration corridor is identified, a functional corridor shall be maintained as open space. The exact width, design and amount of allowed disturbance (e.g., trails, recreation facilities, golf courses) in the corridor shall be based on the results of the survey and shall take into account connections with adjacent open space areas, vegetation and the seasonal cover and forage requirements of the migratory deer. The open space corridor shall be mapped and its design clearly identified.<br><br>Responsible Agency/ Department: Planning Department<br><br>Time Frame: On-going<br><br>Funding: Permit Fees<br><br>MM 4.9.11b The County shall require that subsequent projects | |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| | | | designate building envelopes as the allowed area of disturbance on an individual parcel basis to maximize the preservation of existing vegetation. Where possible, contiguous stands of trees within development areas shall be preserved and incorporated into the project design.<br><br>Fencing shall be limited to the building envelope of the parcel and not along parcel lines. If fencing is required along a parcel boundary, only post and cable, or other fencing methods easily cleared by wildlife, shall be installed.<br><br>Responsible Agency/ Department: Planning Department<br><br>Time Frame: On-going<br><br>Funding: Permit Fees | |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| **Impact 4.9.12 Loss of Special-Status Species and their Habitat, Interference with Wildlife Movement, and Fragmentation of Habitat**<br><br>**PP** Implementation of the Proposed Land Use Diagram would contribute to the loss of habitat and forage lands, habitat degradation due to encroaching urbanization, direct and indirect impacts to sensitive species, habitat fragmentation, obstruction of movement corridors, and conflicts between wildlife and human activity.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would contribute to the loss of habitat and forage lands, habitat degradation due to encroaching urbanization, direct and indirect impacts to sensitive species, habitat fragmentation, obstruction of movement corridors, and conflicts between wildlife and human activity.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would contribute to the loss of habitat and forage lands, habitat degradation due to encroaching urbanization, direct and indirect impacts to sensitive species, habitat fragmentation, obstruction of | Policies: 9.D.1, 9.D.4, 9.D.9, 9.D.10, 9.E.1, 9.E.3, 9.E.4, 9.E.5, 9.E.6, 9.E.7, 9.E.8, 9.E.9, 9.E.10, 9.E.11, 9.F.1, 9.F.2, 9.F.4, 9.F.5, 9.F.6, 9.F.7, 9.G.1, 9.G.2, 9.G.3, 9.G.4, 9.G.5, 9.G.6, 9.G.9, 9.G.10<br><br>Implementation Program (Natural Resources Section): 1,2,3,19,20,23,24 | CS | Implement Mitigation Measures MM 4.9.3, MM 4.9.4, MM 4.9.5a and b, MM 4.9.6, MM 4.9.7, MM 4.9.8 and MM 4.9.11a and b. | SU |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | | Resulting Level of Significance |
|---|---|---|---|---|---|
| movement corridors, and conflicts between wildlife and human activity.<br><br>**AC** Implementation of the Alternative 2 Land Use Map would contribute to the loss of habitat and forage lands, habitat degradation due to encroaching urbanization, direct and indirect impacts to sensitive species, habitat fragmentation, obstruction of movement corridors, and conflicts between wildlife and human activity. | | | | | |
| ***Cultural Resources*** | | | | | |
| **Impact 4.10.1 Impacts to Prehistoric and Historic Resources in the Plan Area**<br><br>**PP** Implementation of the Proposed Land Use Diagram could result in the disturbance of known and undiscovered prehistoric and historic resources in the Plan area.<br><br>**AA** Implementation of the existing Martis Valley General Plan Land Use Map could result in the disturbance of known and undiscovered prehistoric and historic resources in the Plan area.<br><br>**AB** Implementation of the Alternative 1 Land Use Map could result in the disturbance of known and undiscovered | Policies: 8.A.1, 8.A.2, 8.A.3, 8.A.4, 8.A.5, 8.A.6, 8.A.7, 8.A.8, 8.A.9<br><br>Implementation Programs (Cultural Resources Section): 1, 2, 3, 4, 5, 6, 7, 8, 9, | PS | MM 4.10.1 | ~~The County shall require all new development to suspend construction activities and contact the COunty when any cultural resources (e.g., structural features, unusual amounts of bone or shell, human remains, artifacts, human remains, architectural remains or significant paleontological resources) are discovered. In the event cultural resources or paleontological resources are discovered, the County shall retain a qualified~~ | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| disturbance of known and undiscovered prehistoric and historic resources in the Plan area.<br><br>**AC** Implementation of the Alternative 2 Land Use Map could result in the disturbance of known and undiscovered prehistoric and historic resources in the Plan area. | | | ~~cultural resource specialist or paleontologist to assess the finds and develop mitigation measures for the protection, recordation, or removal of the cultural resources or paleontological resources. These measures may also include consultation with local Native American communities and the Native American Commission on cultural resource finds. If human remains are discovered, all work must stop in the immediate vicinity of the find, and the County Coroner must be notified, according to Section 7050.5 of Caolifornia's Health and Safety Code. If the remains are Native American, the coroner will notify the Native American Heritage Commission, which in turn will inform a most likely descendant. The descendant will then recommend to the landowner appropriate disposition of the remains~~ | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | ~~and any grave goods.~~<br><br>Prior to commencing construction, the project applicant shall prepare a mitigation monitoring plan in accordance with the Society of Vertebrate Paleontology guidelines. The mitigation monitoring plan shall include monitoring by a qualified paleontologist during construction and a program for the evaluation of paleontological resources discovered. If paleontological resources are discovered during construction, the paleontologist shall be responsible for recovery of any fossils discovered, determining their significance, identification of potential subsurface investigations based on fossils discovered, and placing the fossils in a museum collection. | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **Impact 4.10.2 Paleontological Resource Impacts**<br><br>**PP** Implementation of the Proposed Land Use Diagram would result in the disturbance of Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units, which have potential to contain paleontological resources.<br><br>**AA** Implementation of the existing Martis Valley General Plan Land Use Map would result in the disturbance of Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units, which have potential to contain paleontological resources.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would result in the disturbance of Pleistocene nonmarine sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units, which have potential to contain paleontological resources.<br><br>**AC** Implementation of the Alternative 2 Land Use Map would result in the disturbance of Pleistocene nonmarine | Policies: 8.A.2, 8.A.5, 8.A.6<br><br>Implementation Programs (Cultural Resources Section): 1, 3, 5 | PS | Implement Mitigation Measure MM 4.10.1. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| sedimentary rocks (Prosser Creek Alluvium) and Quaternary alluvium geologic units, which have potential to contain paleontological resources. | | | | |
| **Impact 4.10.3 Cumulative Impacts to Prehistoric and Historic Resources in the Martis Valley Area**<br><br>**PP** Implementation of the Proposed Land Use Diagram in combination with proposed and planned development in the Martis Valley area could contribute to the disturbance of known and undiscovered prehistoric and historic resources in the Martis Valley area.<br><br>**AA** Implementation of the existing Martis Valley General Plan Land Use Map in combination with proposed and planned development in the Martis Valley area could contribute to the disturbance of known and undiscovered prehistoric and historic resources in the Martis Valley area.<br><br>**AB** Implementation of the Alternative 1 Land Use Map in combination with proposed and planned development in the Martis Valley area could contribute to the disturbance of known and | Policies: 8.A.1, 8.A.2, 8.A.3, 8.A.4, 8.A.5, 8.A.6, 8.A.7, 8.A.8, 8.A.9<br><br>Implementation Programs (Cultural Resources Section): 1, 2, 3, 4, 5, 6, 7, 8, 9, | CS | Implement Mitigation Measure MM 4.10.1. | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| undiscovered prehistoric and historic resources in the Martis Valley area.<br><br>**AC** Implementation of the Alternative 2 Land Use Map in combination with proposed and planned development in the Martis Valley area could contribute to the disturbance of known and undiscovered prehistoric and historic resources in the Martis Valley area. | | | | |
| **Impact 4.10.4 Cumulative Impacts to Paleontological Resource Impacts in the Martis Valley Area**<br><br>**PP** Implementation of the Proposed Land Use Diagram in combination with proposed and planned development in the Martis Valley area could contribute to the loss of paleontological resources in the Martis Valley area.<br><br>**AA** Implementation of the existing Martis Valley General Plan Land Use Map in combination with proposed and planned development in the Martis Valley area could contribute to the loss of paleontological resources in the Martis Valley area.<br><br>**AB** Implementation of the Alternative 1 Land Use Map in combination with | Policies: 8.A.2, 8.A.5, 8.A.6<br><br>Implementation Programs (Cultural Resources Section): 1, 3, 5 | CS | Implement Mitigation Measure MM 4.10.1. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| proposed and planned development in the Martis Valley area could contribute to the loss of paleontological resources in the Martis Valley area.<br><br>**AC** Implementation of the Alternative 2 Land Use Map in combination with proposed and planned development in the Martis Valley area could contribute to the loss of paleontological resources in the Martis Valley area. | | | | |
| ***Public Services*** | | | | |
| **Impact 4.11.1.1 Fire Protection and Emergency Medical Services**<br><br>**PP** Implementation of the Proposed Land Use Diagram would increase the population of the fire protection and emergency medical services providers' service area. The existing facilities, personnel and equipment are sufficient to accommodate the buildout conditions associated with this land use map. Additionally, the existing funding mechanisms are sufficient to pay for increased impacts on services. However, proposed development associated with the Proposed Land Use Diagram are located outside of Truckee | Policies: 6.H.3, 6.H.4, 6.H.5, 6.H.7, 6.H.14<br><br>Implementation Programs (Public Facilities and Services Section): 1, 2, 4 | S | MM 4.11.1.1 The County shall require that property currently located outside of the Truckee Fire Protection District or Northstar CSD's service areas be annexed into one of the fire districts prior to approval of any entitlement that allows development to occur within these sections. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| Fire Protection District and the Northstar CSD's service areas. The areas that would be located outside of the fire protection districts' service areas include: sections 21, 27, 33 and 34 of Township 17 North, Range 17 East. | | | | |
| **AA** Implementation of the Existing Martis Valley General Plan Land Use Map would increase the population of the fire protection and emergency medical services providers' service area. The existing facilities, personnel and equipment are sufficient to accommodate the buildout conditions associated with this alternative. Additionally, the existing funding mechanisms are sufficient to pay for increased impacts on services. However, proposed development associated with Alternative AA are located outside of Truckee Fire Protection District and the Northstar CSD's service areas. The areas that would be located outside of the fire protection districts' service areas include: sections 21, 26, 27, 28, 33, 34 and 35 of Township 17 North, Range 17 East; and sections 4, 5, 8 and 9 of Township 16 North, Range 17 East. | | | | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| **AB** Implementation of the Alternative 1 Land Use Map would increase the population of the fire protection and emergency medical services providers' service area. The existing facilities, personnel and equipment are sufficient to accommodate the buildout conditions associated with this alternative. Additionally, the existing funding mechanisms are sufficient to pay for increased impacts on services. However, proposed development associated with Alternative AB are located outside of Truckee Fire Protection District and the Northstar CSD's service areas. The areas that would be located outside of the fire protection districts' service areas include sections 21 and 28 of Township 17 North, Range 17 East. | | | | |
| **AC** Implementation of the Alternative 2 Land Use Map would increase the population of the fire protection and emergency medical services providers' service area. The existing facilities, personnel and equipment are sufficient to accommodate the buildout conditions associated with this alternative. Additionally, the existing funding mechanisms are sufficient to | | | | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| pay for increased impacts on services. However, proposed development associated with Alternative AC are located outside of Truckee Fire Protection District and the Northstar CSD's service areas. The areas that would be located outside of the fire protection districts' service areas include sections 21 and 28 of Township 17 North, Range 17 East. | | | | |
| **Impact 4.11.1.2 Wildland Fire Hazards**<br><br>**PP** Implementation of the Proposed Land Use Diagram would locate homes and structures in wooded and diverse terrain, which would expose residents to wildland fire hazards.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would locate homes and structures in wooded and diverse terrain, which would expose residents to wildland fire hazards.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would locate homes and structures in wooded and diverse terrain, which would expose residents to wildland fire hazards. | Policies: 6.H.9, 6.H.11, 6.H.12, 6.H.13, 6.H.14, 6.H.15, 6.H.17, 6.H.21, 6.H.22<br><br>Implementation Programs (Public Facilities and Services Section): 24, 25, 26, 27, 28, 29 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **AC** Implementation of the Alternative 2 Land Use Map would locate homes and structures in wooded and diverse terrain, which would expose residents to wildland fire hazards. | | | | |
| **Impact 4.11.1.3 Cumulative Fire Protection and Emergency Medical Services**<br><br>**PP** Implementation of the Proposed Land Use Diagram would result in residential uses outside of local fire district service areas. This would place future residents at risk of a loss resulting from a structural fire and contribute to cumulative fire protection and emergency service demands in the Plan area.<br><br>**AA** Implementation of Alternative AA would result in residential uses outside of local fire district service areas. This would place future residents at risk of a loss resulting from a structural fire and contribute to cumulative fire protection and emergency service demands in the Plan area.<br><br>**AB** Implementation of Alternative AB would result in residential uses outside of local fire district service areas. This would place future residents at risk of a loss | Policies: 6.H.3, 6.H.4, 6.H.5, 6.H.7, 6.H.14<br><br>Implementation Programs (Public Facilities and Services Section): 1, 2, 4 | CS | Implement Mitigation Measure MM 4.11.1.1. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| resulting from a structural fire and contribute to cumulative fire protection and emergency service demands in the Plan area.<br><br>**AC** Implementation of Alternative AC would result in residential uses outside of local fire district service areas. This would place future residents at risk of a loss resulting from a structural fire and contribute to cumulative fire protection and emergency service demands in the Plan area. | | | | |
| **Impact 4.11.1.4 Cumulative Wildland Fire Hazard**<br><br>**PP** Development under the Proposed Land Use Diagram would locate additional residences within wildland fire hazard zones under cumulative conditions.<br><br>**AA** Development under the Existing Martis Valley General Plan Land Use Map would locate additional residences within wildland fire hazard zones under cumulative conditions.<br><br>**AB** Development under the Alternative 1 Land Use Map would locate additional residences within wildland fire hazard | Policies: 6.H.9, 6.H.11, 6.H.12, 6.H.13, 6.H.14, 6.H.15, 6.H.17, 6.H.21, 6.H.22<br><br>Implementation Programs (Public Facilities and Services Section): 24, 25, 26, 27, 28, 29 | LS | None Required. | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| zones under cumulative conditions.<br><br>**AC** Development under the Alternative 2 Land Use Map would locate additional residences within wildland fire hazard zones under cumulative conditions. | | | | |
| **Impact 4.11.2.1 Law Enforcement Services**<br><br>**PP** Implementation of the Proposed Land Use Diagram would result in an increased demand for sheriff/police protection.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would result in an increased demand for sheriff/police protection.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would result in an increased demand for sheriff/police protection.<br><br>**AC** Implementation of the Alternative 2 Land Use Map would result in an increased demand for sheriff/police protection. | Policies: 6.G.1, 6.G.2, 6.G.3, 6.G.4<br><br>Implementation Programs (Public Facilities and Services Section): 22, 23 | LS | None required. | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| **Impact 4.11.2.2 Cumulative Law Enforcement Services**<br><br>**PP** Under cumulative conditions, implementation of the Proposed Land Use Diagram would result in an increased demand for sheriff/police protection in the region.<br><br>**AA** Under cumulative conditions, implementation of the Existing Martis Valley General Plan Land Use Map would result in an increased demand for sheriff/police protection in the region.<br><br>**AB** Under cumulative conditions, implementation of the Alternative 1 Land Use Map would result in an increased demand for sheriff/police protection in the region.<br><br>**AC** Under cumulative conditions, implementation of the Alternative 2 Land Use Map would result in an increased demand for sheriff/police protection in the region. | Policies: 6.G.1, 6.G.2, 6.G.3, 6.G.4<br><br>Implementation Programs (Public Facilities and Services Section): 22, 23 | LS | None required. | LS |
| **Impact 4.11.3.1 Impacts on School Services**<br><br>**PP** Implementation of the Proposed Land Use Diagram would increase student enrollment at the Tahoe Truckee Unified | Policies: 6.I.3, 6.I.4, 6.I.5, 6.I.6, 6.I.7, 6.I.8, 6.I.9<br><br>Implementation | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| School District's schools. Additional development associated with this alternative would impact TTUSD's current school facilities and would require additional schools to serve the growing population. | Programs (Public Facilities and Services Section): 30 | | | |
| **AA** Implementation of the Existing Martis Valley General Plan Land Use Map would increase student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's current school facilities and would require additional schools to serve the growing population. | | | | |
| **AB** Implementation of the Alternative 1 Land Use Map would increase student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's current school facilities and would require additional schools to serve the growing population. | | | | |
| **AC** Implementation of the Alternative 2 Land Use Map would increase student enrollment at the Tahoe Truckee Unified School District's schools. | | | | |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **Impact 4.11.3.2 Cumulative Impacts on School Services**<br><br>**PP** Implementation of the Proposed Land Use Diagram would contribute to a cumulative increase in student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's school facilities and would require additional schools to serve the student population under cumulative conditions.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would contribute to a cumulative increase in student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's school facilities and would require additional schools to serve the student population under cumulative conditions.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would contribute to a cumulative increase in student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this | Policies: 6.I.3, 6.I.4, 6.I.5, 6.I.6, 6.I.7, 6.I.8, 6.I.9<br><br>Implementation Programs (Public Facilities and Services Section): 30 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| alternative would impact TTUSD's current school facilities and would require additional schools to serve the student population under cumulative conditions.<br><br>**AC** Implementation of the Alternative 2 Land Use Map would contribute to a cumulative increase in student enrollment at the Tahoe Truckee Unified School District's schools. Additional development associated with this alternative would impact TTUSD's current school facilities and would require additional schools to serve the student population under cumulative conditions. | | | | |
| **Impact 4.11.4.1 Water Facilities and Distribution Systems**<br><br>**PP** Implementation of the Proposed Land Use Diagram would increase the demand for water facilities and distribution systems in the Plan area, including new systems, supplies, and infrastructure.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would increase the demand for water facilities and distribution systems in the Plan area, including new systems, | Policies: 6.C.1, 6.C.7<br><br>Implementation Programs (Public Facilities and Services Section): 9 and 10 | S | MM 4.11.4.1 The County shall require subsequent projects to demonstrate that adequate water distribution systems and connections to existing systems will be available and will be able to provide adequate flow and water quality consistent with local, state, and federal standards. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| supplies, and infrastructure.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would increase the demand for water facilities and distribution systems in the Plan area, including new systems, supplies, and infrastructure.<br><br>**AC** Implementation of the Alternative 2 Land Use Map would increase the demand for water facilities and distribution systems in the Plan area, including new systems, supplies, and infrastructure. | | | | |
| **Impact 4.11.4.2 Cumulative Impacts on Water Facilities and Distribution Systems**<br><br>**PP** Under cumulative conditions, implementation of the Proposed Land Use Diagram would not increase the demand for water facilities and distribution systems outside of the Plan area, including new systems, supplies, and infrastructure.<br><br>**AA** Under cumulative conditions, implementation of the Existing Martis Valley General Plan Land Use Map would not increase the demand for | Policies: 6.C.1, 6.C.7<br><br>Implementation Programs (Public Facilities and Services Section): 9 and 10 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| water facilities and distribution systems outside of the Plan area, including new systems, supplies, and infrastructure.<br><br>**AB** Under cumulative conditions, implementation of the Alternative 1 Land Use Map would not increase the demand for water facilities and distribution systems outside of the Plan area, including new systems, supplies, and infrastructure.<br><br>**AC** Under cumulative conditions, implementation of the Alternative 2 Land Use Map would not increase the demand for water facilities and distribution systems outside of the Plan area, including new systems, supplies, and infrastructure. | | | | |
| **Impact 4.11.5.1 Wastewater Service**<br><br>**PP** Implementation of the Proposed Land Use Diagram would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would require additional capacity in the | Policies: 6.D.1, 6.D.2, 6.D.3, 6.D.4, 6.D.5, 6.D.6, 6.D.7<br><br>Implementation Programs (Public Facilities and Services Section): 14 and 15 | LS | None required. | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
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| would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area.<br><br>**AC** Implementation of the Alternative 2 Land Use Map would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area. | | | | |
| **Impact 4.11.5.2 Cumulative Wastewater Service**<br><br>**PP** Under cumulative conditions, implementation of the Proposed Land Use Diagram would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area.<br><br>**AA** Under cumulative conditions, | Policies: 6.D.1, 6.D.2, 6.D.3, 6.D.4, 6.D.5, 6.D.6, 6.D.7<br><br>Implementation Programs (Public Facilities and Services Section): 14 and 15 | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| implementation of the Existing Martis Valley General Plan Land Use Map would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area.<br><br>**AB** Under cumulative conditions, implementation of Alternative 1 Land Use Map would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area.<br><br>**AC** Under cumulative conditions, implementation of Alternative 2 Land Use Map would require additional capacity in the WRP and the extension of sewer trunk lines to serve additional residents, businesses, and recreational uses within the Plan area. | | | | |
| **Impact 4.11.6.1 Solid Waste Disposal**<br><br>**PP** The Proposed Land Use Diagram would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of | None required. | LS | None required. | LS |

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|---|---|---|---|---|
| the Plan area.<br><br>**AA** The Existing Martis Valley General Plan Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area.<br><br>**AB** Alternative 1 Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area.<br><br>**AC** Alternative 2 Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area. | | | | |
| **Impact 4.11.6.2 Cumulative Solid Waste Disposal**<br><br>**PP** Under cumulative conditions, the Proposed Land Use Diagram would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is | None required. | LS | None required. | LS |

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|---|---|---|---|---|
| capable of accommodating buildout of the Plan area.<br><br>**AA** Under cumulative conditions, the Existing Martis Valley General Plan Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area.<br><br>**AB** Under cumulative conditions, Alternative 1 Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area.<br><br>**AC** Under cumulative conditions, Alternative 2 Land Use Map would require solid waste disposal services. However, the solid waste provider, Tahoe-Truckee Sierra Disposal (TTSD), is capable of accommodating buildout of the Plan area. | | | | |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| **Impact 4.11.7.1 Availability of Electrical Energy**<br><br>**PP** Development associated with the Proposed Land Use Diagram would increase the demand for electricity.<br><br>**AA** Development associated with the Existing Martis Valley General Plan Land Use Map would increase the demand for electricity.<br><br>**AB** Development associated with Alternative 1 Land Use Map would increase the demand for electricity.<br><br>**AC** Development associated with Alternative 2 Land Use Map would increase the demand for electricity. | • Policy: 2.B.5<br><br>Implementation Programs (Public Facilities and Services Section): 1;<br><br>(General): 2, 5;<br><br>(Utilities): 31 | LS | None required. | LS |
| **Impact 4.11.7.2 Increased Demand for Natural Gas**<br><br>**PP** Development associated with the Proposed Land Use Diagram would increase the demand for natural gas.<br><br>**AA** Development associated with the Existing Martis Valley General Plan Land Use Map would increase the demand for natural gas. | Policy: 2.B.5<br><br>Implementation Programs (Public Facilities and Services Section): 1;<br><br>(General): 2, 5;<br><br>(Utilities): 31 | LS | None required. | LS |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| for natural gas.<br><br>**AB** Development associated with Alternative 1 Land Use Map would increase the demand for natural gas.<br><br>**AC** Development associated with Alternative 2 Land Use Map would increase the demand for natural gas. | | | | |
| **Impact 4.11.7.3 Extension of Electrical, Natural Gas and Telephone Infrastructure**<br><br>**PP** The Proposed Land Use Diagram would result in the extension of substantial electrical, natural gas and telephone infrastructure that may impact the environment.<br><br>**AA** The Existing Martis Valley Land Use Plan would result in the extension of substantial electrical, natural gas and telephone infrastructure that may impact the environment.<br><br>**AB** Alternative 1 Land Use Map would result in the extension of substantial electrical, natural gas and telephone infrastructure that may impact the environment.<br><br>**AC** Alternative 2 Land Use Map would result in the extension of substantial electrical, | Policy: 2.B.5<br><br>Implementation Programs (Public Facilities and Services Section): 1;<br><br>(General): 2, 5;<br><br>(Utilities): 31 | PS | MM 4.11.7.3 The County shall require new utility infrastructure and extensions for electrical, natural gas and telephone services avoid to the extent feasible sensitive natural resources (e.g., wetlands, riparian habitat, sensitive habitats), be located so as to not be visually obtrusive, and, if possible, be located within roadway rights-of-ways or existing utility easements. Infrastructure siting shall comply with the policy and implementation programs set forth in Sections IV, VI, VIII, IX, and X of the Community Plan. | LS |

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B - Beneficial

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| natural gas and telephone infrastructure that may impact the environment. | | | | |
| **Impact 4.11.7.4 Cumulative Availability of Electrical Energy**<br><br>**PP** Under cumulative conditions, development associated with the Proposed Land Use Diagram would increase the demand for electricity.<br><br>**AA** Under cumulative conditions, development associated with the Existing Martis Valley General Plan Land Use Map would increase the demand for electricity.<br><br>**AB** Under cumulative conditions, development associated with Alternative 1 Land Use Map would increase the demand for electricity.<br><br>**AC** Under cumulative conditions, development associated with Alternative 2 Land Use Map would increase the demand for electricity. | Policy: 2.B.5<br><br>Implementation Programs (Public Facilities and Services Section): 1<br><br>(General): 2, 5<br><br>(Utilities): 31 | LS | None required. | LS |
| **Impact 4.11.7.5 Cumulative Demand for Natural Gas**<br><br>**PP** Under cumulative conditions, development associated with the Proposed Land Use Diagram would | Policy: 2.B.5<br><br>Implementation Programs (Public Facilities and Services | LS | None required. | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| increase the demand for natural gas.<br><br>**AA** Under cumulative conditions, development associated with the Existing Martis Valley General Plan Land Use Map would increase the demand for natural gas.<br><br>**AB** Under cumulative conditions, development associated with Alternative 1 Land Use Map would increase the demand for natural gas.<br><br>**AC** Under cumulative conditions, development associated with Alternative 2 Land Use Map would increase the demand for natural gas. | Section):<br><br>• Section IV: 1<br><br>• Section VI (General): 2, 5<br><br>• Section VI (Utilities): 31 | | | |
| **Impact 4.11.8.1 Parks and Recreation Facilities**<br><br>**PP** Implementation of the Proposed Land Use Diagram would increase the demand for parks and recreation facilities.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would increase the demand for parks and recreation facilities.<br><br>**AB** Implementation of the Alternative 1 | Policies: 7.A.1, 7.A.2, 7.A.3, 7.A.4, 7.A.5, 7.B.1, 7.B.2, 7.B.3, 7.B.4, 7.B.5, 7.C.1<br><br>Implementation Programs (Public Facilities and Service Section): 1, 2, 3 | PS | MM 4.11.8.1 Placer County and the Truckee Donner Recreation and Park District shall establish a mechanism for transferring parkland and recreational facilities within the Plan area to TDRPD. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| Land Use Map would increase the demand for parks and recreation facilities.<br><br>**AC** Implementation of the Alternative 2 Land Use Map would increase the demand for parks and recreation facilities. | | | | |
| **Impact 4.11.8.2 Cumulative Impact on Parks and Recreational Facilities**<br><br>**PP** Under cumulative conditions, implementation of the Proposed Land Use Diagram would increase the demand for parks and recreation facilities.<br><br>**AA** Under cumulative conditions, implementation of the Existing Martis Valley General Plan Land Use Map would increase the demand for parks and recreation facilities.<br><br>**AB** Under cumulative conditions, implementation of the Alternative 1 Land Use Map would increase the demand for parks and recreation facilities.<br><br>**AC** Under cumulative conditions, | Policies: 7.A.1, 7.A.2, 7.A.3, 7.A.4, 7.A.5, 7.B.1, 7.B.2, 7.B.3, 7.B.4, 7.B.4, 7.C.1<br><br>Implementation Programs (Recreation and Trails Section): 1, 2, 3 | CS | Implement Mitigation Measure MM 4.11.8.1. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| implementation of the Alternative 2 Land Use Map would increase the demand for parks and recreation facilities. | | | | |
| **Impact 4.11.9.1 Road Maintenance and Snow Removal**<br><br>**PP** Implementation of the Proposed Land Use Diagram would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services.<br><br>**AA** Implementation of the Existing Martis Valley would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services.<br><br>**AB** Implementation of Alternative 1 Land Use Map would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services.<br><br>**AC** Implementation of Alternative 2 Land Use Map would require additional roadways within the plan area, thus requiring roadway maintenance and | None required | LS | None required. | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| snow removal services. | | | | |
| **Impact 4.11.9.2 Cumulative Road Maintenance and Snow Removal**<br><br>**PP** Under cumulative conditions, implementation of the Proposed Land Use Diagram would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services.<br><br>**AA** Under cumulative conditions, implementation of the Existing Martis Valley General Plan Land Use Map would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services.<br><br>**AB** Under cumulative conditions, implementation of Alternative 1 Land Use Map would require additional roadways within the plan area, thus requiring roadway maintenance and snow removal services.<br><br>**AC** Under cumulative conditions, implementation of Alternative 2 Land Use Map would require additional roadways within the plan area, thus requiring roadway maintenance and | None required | LS | None required. | LS |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| snow removal services. | | | | |
| ***Visual Resources*** | | | | |
| **Impact 4.12.1 Alteration of Views from Highways Outside of the Plan Area**<br><br>**PP** Implementation of the Proposed Land Use Diagram would not result in an alteration of views from highways outside of the Plan area.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would not result in an alteration of views from highways outside of the Plan area.<br><br>**AB** Implementation of the Alternative 1 Land Use Map would not result in an alteration of views from highways outside of the Plan area.<br><br>**AC** Implementation of the Alternative 2 Land Use Map would not result in an alteration of views from highways outside of the Plan area. | Policies: 2.B.1, 2.B.2, 2.B.4, 2.B.5, 2.B.6, 2.B.8, 2.B.9<br><br>Implementation Program (Community Design Section): 1 | LS | None required. | LS |
| **Impact 4.12.2 Alteration of Public and Private Views**<br><br>**PP** As viewed from viewpoints in and surrounding the Plan area, implementation of the Proposed Land | Policies: 2.A.1, 2.A.3, 2.A.4, 2.A.5, 2.A.6, 2.A.7, 2.A.8, 2.A.9, 2.B.1, 2.B.2, 2.B.3, 2.B.4, 2.B.5, | S | MM 4.12.2a New hardscape features, such as parking lots and ball courts, and new non-native softscape features, such as golf courses, turf areas, and trails, shall be filtered from | SU |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| Use Diagram would substantially alter the existing landscape characteristics in the Plan area and result in impacts to both public and private views.<br><br>**AA** As viewed from viewpoints in and surrounding the Plan area, implementation of the Existing Martis Valley General Plan Land Use Map would substantially alter the existing landscape characteristics in the Plan area and result in impacts to both public and private views.<br><br>**AB** As viewed from viewpoints in and surrounding the Plan area, implementation of the Alternative 1 Land Use Map would substantially alter the existing landscape characteristics in the Plan area and result in impacts to both public and private views. | 2.B.3, 2.B.4, 2.B.5, 2.B.6, 2.B.7, 2.B.8, 2.B.8, 2.B.9, 2.C.1, 2.C.2, 2.C.3, 2.C.4, 2.C.5, 2.C.6, 2.C.7<br><br>Implementation Programs:<br><br>(Population and Housing Section): 7 ;<br><br>(Community Design Section): 1 and 2 | | trails, shall be filtered from public views from the open valley, SR 267, and public roadways.<br><br>MM 4.12.2b All public and private subsequent projects shall be required to submit detailed architectural renderings, site plans, landscaping plans, and visual simulations demonstrating project consistency with the applicable Martis Valley Community Plan policies and other applicable design guidelines, development standards and policies.<br><br>MM 4.12.2c Plans for fences/walls shall be submitted to the Placer County Planning Department for review during project application processing. Fencing within the Plan area shall follow these guidelines:<br><br>a. All perimeter fencing shall be open fencing that provides adequate spacing for wildlife | |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | | Resulting Level of Significance |
|---|---|---|---|---|---|
| | | | | passage, in consultation with California Department of Fish and Game;<br>b. Use of retaining walls shall be limited to the maximum extent possible and shall be screened with native vegetation and/or designed to provide a natural appearance;<br>c. Solid Walls and fences shall not be visible along the open valley, SR 267, or other public roadways. | |
| **Impact 4.12.3 Daytime Glare**<br>**PP** Implementation of the Proposed Land Use Diagram could introduce new sources of daytime glare into the Plan area.<br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map could introduce new sources of daytime glare into the Plan area.<br>**AB** Implementation of the Alternative 1 Land Use Map could introduce new | Policies: 2.A.1, 2.A.2, 2.A.8, 2.B.1, 2.B.2, 2.B.3, 2.B.5, 2.B.9, 2.C.2, 2.C.3<br>Implementation Programs:<br>(Population and Housing Section): 7 ;<br>(Community | S | MM 4.12.3 | The conditions of approval for subsequent development projects within the Plan area shall prohibit the use of highly reflective surfaces on the exteriors of structures, except for glass associated with windows and doors, which shall be recessed and/or shaded sufficiently to prevent glare visible from SR 267 and to reduce unnecessary glare from any | LS |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| sources of daytime glare into the Plan area.<br><br>**AC** Implementation of the Alternative 2 Land Use Map could introduce new sources of daytime glare into the Plan area. | Design Section): 1 and 2 | | other off-site point. ~~Development within the Plan area shall use non-reflective surfaces on the exterior of structures.~~" | |
| **Impact 4.12.4 Increase Nighttime Lighting**<br><br>**PP** Implementation of the Proposed Land Use Diagram could introduce sources of nighttime light into the Plan area.<br><br>**AA** Implementation of the Existing Martis Valley General Plan Land Use Map could introduce sources of nighttime light into the Plan area.<br><br>**AB** Implementation of the Alternative 1 Land Use Map could introduce sources of nighttime light into the Plan area.<br><br>**AC** Implementation of the Alternative 2 Land Use Map could introduce sources of nighttime light into the Plan area. | Policies: 2.A.1, 2.A.2, 2.A.9, 2.B.5, 2.C.2<br><br>Implementation Programs:<br><br>(Population and Housing Section): 7 ;<br><br>(Community Design Section): 1 and 2 | S | MM 4.12.4a Outdoor light fixtures for subsequent non-residential areas (such as commercial and recreation areas) shall be low-intensity, shielded and/or directed away from residential areas and the night sky. All light fixtures shall be limited ~~to 15 feet~~ in height and shall be installed and shielded in such a manner that no light rays are emitted from the fixture at angles above the horizontal plane. High-intensity discharge lamps, such as mercury, metal halide and high-pressure sodium lamps shall be prohibited. Lighting plans shall be provided as part of improvement plans to the County with supporting documentation that adjacent residential areas | SU |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | | Resulting Level of Significance |
|---|---|---|---|---|---|
| | | | | will not be adversely affected and that offsite illumination will not exceed 1-foot candles from project sources. | |
| | | | MM 4.12.4b | Outdoor light fixtures shall be designed to be turned off when not in use where security and safety is not a concern. This requirement shall be included in lighting plans submitted to the County as part of improvement plans. | |
| | | | MM 4.12.4c | Street light fixtures shall be restricted to roadway intersections and shall be installed and shielded in such a manner that no light rays are emitted from the fixture at angles above the horizontal plane. High-intensity discharge lamps, such as mercury, metal halide and high-pressure sodium lamps shall be prohibited. Offsite illumination shall not exceed 1-foot candles due to lighting | |

| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | sources.<br><br>MM 4.12.4d The County shall require that subsequent residential project design guidelines and/or project CC&Rs shall restrict residences from utilizing flood and/or spot lighting fixtures. All resident light fixtures shall use low-pressure sodium lamps or other similar lighting fixture and shall be shielded away from adjoining residents and the night sky.<br><br>MM 4.12.4e Nighttime lighting shall not be allowed for golf course driving ranges, sports fields, and ski terrain.<br><br>MM 4.12.4f Project design guidelines and/or project CC&Rs shall be submitted by each project applicant to the Placer County Planning Department for review and approval to verify that the lighting standards are in place.<br><br>Responsible | |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| | | | Agency/Department: Planning Department<br><br>Time frame: Ongoing<br><br>Funding: Permit fees | |
| **Impact 4.12.5 Cumulative Visual Impacts**<br><br>**PP** Under cumulative conditions, implementation of the Proposed Land Use Diagram could result in visual impacts, including alteration of viewsheds, increased daytime glare and nighttime lighting.<br><br>**AA** Under cumulative conditions, implementation of the Existing Martis Valley General Plan Land Use Map could result in visual impacts, including alteration of viewsheds, increased daytime glare and nighttime lighting.<br><br>**AB** Under cumulative conditions, implementation of the Alternative 1 Land Use Map could result in visual impacts, including alteration of viewsheds, increased daytime glare and nighttime lighting.<br><br>**AC** Under cumulative conditions, implementation of the Alternative 2 Land Use Map could result in visual | Policies: 2.A.1, 2.A.2, 2.A.3, 2.A.4, 2.A.5, 2.A.6, 2.A.7, 2.A.8, 2.A.8, 2.A.9, 2.B.1, 2.B.2, 2.B.3, 2.B.4, 2.B.5, 2.B.6, 2.B.7, 2.B.8, 2.B.9, 2.C.1, 2.C.2, 2.C.3, 2.C.4, 2.C.5, 2.C.6, 2.C.8<br><br>Implementation Program:<br><br>(Population and Housing Section): 7 ;<br><br>(Community Design Section): 1 and 2 | CS | Implement Mitigation Measures MM 4.12.2a through c, MM 4.12.3, and MM 4.12.4a through f. | SU |

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| Impact | Mitigation Policies and Implementation Programs | Level of Significance Without Mitigation | Mitigation Measure | Resulting Level of Significance |
|---|---|---|---|---|
| impacts, including alteration of viewsheds, increased daytime glare and nighttime lighting. | | | | |

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## 4.1 INTRODUCTION

This document is the Final Mitigation Monitoring and Reporting Program (FMMRP) for the Martis Valley Community Plan Update. This FMMRP has been prepared pursuant to Section 21081.6 of the California Public Resources Code and Article 18.28 of the Placer County Environmental Review Ordinance, which requires public agencies to "adopt a reporting and monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." A FMMRP is required for the proposed project because the EIR has identified significant adverse impacts, and measures have been identified to mitigate those impacts.

The numbering of the individual mitigation measures follows the numbering sequence as found in the EIR. All revisions to mitigation measures that were necessary as a result of responding to public comment and incorporating staff-initiated revisions have been incorporated into this FMMRP.

## 4.2 MITIGATION MONITORING AND REPORTING PROGRAM

The mitigation measures identified in this EIR have been structured to be incorporated as policies and/or implementation programs into the Community Plan policy document and thus, would be implemented as part of consideration of subsequent projects within the Plan area. The DMMRP, as outlined in the following table describes mitigation measures and where they are to be placed in the Martis Valley Community Plan.

Placer County will be the primary agency for monitoring the mitigation measure implementation associated with implementation of the Community Plan.

The FMMRP is presented in tabular form on the following pages and would apply to the Proposed Land Use Diagram and all the alternatives considered.

**TABLE 4.0-1**
**MITIGATION MONITORING AND REPORTING PROGRAM**

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
|---|---|---|---|
| ~~*4.1 Land Use*~~ | | | |
| ~~**MM 4.1.1a**~~ | ~~All development projects shall conform to the provisions of the Tahoe Truckee Airport District Comprehensive Land Use Plan to include, but not be limited to, land use and height restrictions of the CLUP.~~ | ~~*Land Use Section As a Policy Under Goal 1.A.*~~ | |
| ~~**MM 4.1.1b**~~ | ~~Review all development projects for consistency compliance with the goals, policies and specific requirements contained within the Comprehensive Land Use Plan and Airport Master Plan for the Truckee-Tahoe Airport.~~<br>~~Responsible Agency/Department: Planning Department~~<br>~~Time frame: Ongoing~~<br>~~Funding: Application fees~~ | ~~*Land Use Section As an Implementation Program*~~ | |
| ~~*4.2 Population/Housing/Employment*~~ | | | |
| ~~**MM 4.2.2**~~ | ~~As a condition of approval of each housing development in Martis Valley, the project applicant shall construct 5 percent of units affordable to very low income households (0 to 50 percent of area median income) and 5 percent of units affordable to low income households (50 to 80 percent of median income). Where practicable, the County shall require the future developer of each project site to construct affordable housing as early as possible. In instances where the County finds that it is not feasible to construct the affordable units, the developer shall be required to pay a fee as described in Policy 3.A.3.~~<br>~~Responsible Agency/Department: Planning Department~~<br>~~Time frame: Ongoing~~<br>~~Funding: General Fund~~ | ~~*Housing Section As an Implementation Program*~~ | |
| *4.3 Human Health/Risk of Upset* | | | |
| **MM 4.3.1** | Upon the identification of mine facilities on a project site within the Plan area, the County shall require that a detailed survey of the mine features and a hazards assessment be performed and that remedial measures be undertaken in areas of waste rock, mine tailings, and other associated contamination areas. Remediation shall be undertaken in accordance with the requirements of the County, California Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board. Remedial measures that could be implemented include, but are not limited to, the following: 1) fencing the impacted area to prohibit public access, 2) removal of mine wastes to an appropriate landfill facility, 3) consolidate and encapsulate mine wastes, restore the area with vegetation, and re-route drainage, and 4) securing mine sites to | *Natural Resources As a Policy Under Goal 9.A* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
|---|---|---|---|
| | restrict access and subsidence. | | |
| **MM 4.3.2** | Prior to site improvements for properties that are suspected or known to contain hazardous materials and sites that are listed in the hazardous material/waste database search or the California State Water Resources Control Board database, the County shall require that the soil and surrounding area shall be tested and remediated for potential hazardous materials in accordance with local, state, and federal regulations. | *Land Use Section As a Policy Under Goal 1.A.* | |
| **MM 4.3.3a** | The County shall review all development projects in the overflight zones of the Truckee-Tahoe Airport for consistency with its Comprehensive Land Use Plan. | *Transportation and Circulation Section As a Policy Under Goal 5.E.* | |
| **MM 4.3.3b** | The County shall limit land uses in airport safety zones to those uses listed in the applicable airport comprehensive land use plans (CLUPSs) as compatible uses. Exceptions shall be made only as provided for in the CLUPs <u>or State Law</u>. Such uses shall also be regulated to ensure compatibility in terms of location, height, and noise. | *Transportation and Circulation Section As a Policy Under Goal 5.E.* | |
| **MM 4.3.3c** | The County shall ensure that development within the airport approach and departure zones complies with Part 77 of the Federal Aviation Administration Regulations (objects affecting navigable airspace). | *Transportation and Circulation Section As a Policy Under Goal 5.E.* | |
| *4.4 Traffic and Circulation* | | | |
| **MM 4.4.1a** | ~~The County shall establish a capital improvement program for the land use map and roadway improvements ultimately approved by the County for the improvements identified in **Tables 4.4-20** through **4.4-25** (depending on the land use map adopted). This would include funding and coordination for traffic improvements associated with impacts identified in the Town of Truckee as well as to state highway facilities (SR 267 and SR 28).~~<br><u>The County will establish a capital improvement program for the land use and roadway improvements identified in Tables 4.4-20 through 4.4-25 (depending on the land use map adopted) for impacts identified within Placer County's jurisdiction.</u><br><u>The County shall develop a mechanism whereby development within the plan area pays its fair share contributions toward transportation improvements outside of the County's jurisdiction as identified in this environmental document or as defined in project specific environmental impact reports.</u><br><u>The County shall complete a focused transit service plan for the Martis Valley area. This plan shall identify an appropriate and reasonable public transit program</u> | *Transportation and Circulation Section*<br>*As an Implementation Program* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
|---|---|---|---|
| | to accommodate future growth. The transit service plan shall develop a funding mechanism (potentially a CSA) and shall be the basis of developing agreements that provide for input from and coordination with the CSA, Placer County, Town of Truckee, and development stakeholders to ensure coordinated service and connections with adequate capacity and year-round service provisions. This plan shall be conducted after the completion of the Tahoe Area Regional Transit Short Range Transit Plan currently (May, 2003) being conducted by the Tahoe Regional Planning Agency and shall be consistent with this plan. | | |
| **MM 4.4.1b (Optional)** | Reduce Land Use Quantities in Martis Valley Community Plan Area. (See Tables 4.4-26 through 4.4-29) | *Transportation and Circulation Section* *As an Implementation Program* | |
| **MM 4.4.2a** | The Circulation Diagram shall not allow public roadway access to the Sierra Meadows/Ponderosa Palisades area. | *Modification of the Transportation and Circulation Section* | |
| **MM 4.4.2b** | The Northstar Connector (if ultimately included as part of the Circulation Diagram as a public roadway) shall be designed to accommodate projected traffic volumes with minimal local residential roadway connections. Residential lots shall be restricted from having direct access onto the Connector. | *Modification of the Transportation and Circulation Section* | |
| *4.5 Noise* | | | |
| **MM 4.5.1a** | As part of subsequent project approvals, the County shall require that construction activities be prohibited on Sundays and federal holidays and limited to daytime hours (6:00 a.m. to 8:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturdays). | *Noise Section As a Policy Under Goal 10.A.* | |
| **MM 4.5.1b** | As part of subsequent project approvals, the County shall require that stationary construction equipment and construction staging areas be setback from existing noise-sensitive land uses. The setback distance will be considered on a case-by-case basis and will be determined by the County as part of subsequent project review. | *Noise Section As a Policy Under Goal 10.A.* | |
| **MM 4.5.4a** | As part of subsequent residential project approvals, the County shall require that avigation easements be granted to the Truckee-Tahoe Airport District as appropriate. The purpose of the easement is to disclose to future residents that they may be exposed to occasional noise from aircraft utilizing the airport. | *Noise Section As a Policy Under Goal 10.A.* | |
| **MM 4.5.4b** | As part of subsequent residential project submittals for land areas within the designated 55 CNEL contour of the Truckee Tahoe Airport, the County shall require that the applicant incorporate mitigation that is sufficient to bring interior | *Noise Section As a Policy Under Goal 10.A.* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
|---|---|---|---|
| | noise levels to 45 CNEL. | | |
| *4.6 Air Quality* | | | |
| **MM 4.6.1** | The County shall require subsequent projects to fully mitigate their construction air pollutant emissions that are in excess of Placer County Air Pollution Control District's thresholds of significance for emissions. This may include the use of low emission construction equipment, particulate matter control measures, and/or participation in Placer County's Air Pollution Control District's offsite mitigation program.<br>Responsible Agency/Department: Planning Department<br>Time Frame: On-going<br>Funding: Application Fees | *Natural Resources Section As an Implementation Program* | |
| **MM 4.6.3** | "~~County staff will develop, with the advice of the Placer County APCD, a mitigation fee program for indirect sources similar to that in use in western Placer County. Mitigation targets will be identified, appropriate off-site mitigation programs developed, and equitable fees established.~~ The County (in coordination with the Placer County APCD) shall develop an offsite mitigation program to offset the development increases in Nitrogen Oxide, Reactive Organic Gas and Particulate Matter emissions. This may include development of a fee program that could fund activities such as retrofitting existing heavy equipment/vehicles with cleaner burning engines, retrofitting or purchasing new low emission transit vehicles and equipment, providing natural gas fuel infrastructure, implement improved street sweeping and sanding guidelines/procedures, provision of a green waste pick up program as an alternative to burning and replacing non-EPA certified woodstoves with new EPA certified units.<br><br>The County shall promote and encourage new development to utilize non-wood burning devices in the Plan area. Only EPA certified Phase II wood burning devices or their equivalent shall be allowed within the Plan area. The maximum emission potential from each residence shall not exceed 7.5 grams per hour. Outdoor burn pits must be plumbed with natural gas and prohibited from burning wood." | *Natural Resources Section Modification to Policy 9.H.6* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| *4.7 Hydrology and Water Quality* | | | |
| **MM 4.7.1a** | The County shall require that each subsequent project applicant shall prepare a spill prevention and countermeasure plan describing measures to ensure proper collection and disposal of all pollutants handled or produced on the site during construction, including sanitary wastes, cement, and petroleum products. The plan shall be incorporated into project improvement plans. | *Natural Resources Section As a Policy Under Goal 9.D* | |
| **MM 4.7.1b** | The County shall require each subsequent project clearly identify specific water quality control measures for Plan area waterways during construction activities. Water quality control features and required on-going monitoring and reporting to the County and Lahontan Regional Water Quality Control Board as part of compliance with this measure shall demonstrate that the water quality controls will ensure no increase in predevelopment sediment or other pollutant loads conditions in natural waterways and that storm water discharges are in compliance with all current requirements of the Lahontan Regional Water Quality Control Board (e.g., Water Quality Control Plan for the Lahontan Region). | *Natural Resources Section As a Policy Under Goal 9.D* | |
| **MM 4.7.1c** | Subsequent development activities in the Plan area shall avoid disturbing to the extent feasible or altering existing wetlands, natural waterway courses or channel conditions. Exceptions to this policy would include minor stream crossings and improvements to the waterway that enhance the waterways natural condition to convey water and improvE water quality. Exceptions will be considered on a case-by-case basis by the County and the RWQCB and must be in compliance with the Water Quality Control Plan for the Lahontan Region (Basin Plan) | *Natural Resources Section As a Policy Under Goal 9.D* | |
| **MM 4.7.2a** | The County shall require that each subsequent project develop a surface water quality control program to be incorporated into the project's storm water drainage system design. This program would specify the design of planned water quality facilities to be used in the project's drainage system, including details and methods for intercepting and improving surface water quality as well as maintenance of facilities, correcting deficiencies with water quality control features and monitoring and reporting to the County and Lahontan Regional Water Quality Control Board. Water quality control features (including water quality control features for golf courses [Mitigation Measure MM 4.7.2c]) shall demonstrate that the water quality controls will ensure no increase in predevelopment sediment or other pollutant loads conditions in natural waterways and that storm water discharges are in compliance with all current requirements of the Lahontan Regional Water Quality Control Board. | *Public Facilities & Services Section As a Policy Under Goal 6.E* | |
| **MM 4.7.2b** | In addition to the setback requirements set forth in Policy 9.D.1, subsequent | *Natural Resources Section* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| | projects will be conditioned to prohibit application of fertilizers, pesticides and herbicides within natural waterway courses and wetlands. Exact buffer distances from waterways and wetlands for chemical application shall be determined on a case-by-case basis based on technical analysis of the project and in consultation with the County and the Lahontan Regional Water Quality Control Board. | *As a Policy Under Goal 9.D* | |
| **MM 4.7.2c** | The County will require that future golf courses be designed to reduce the threat to surrounding waterways and wetland areas. Specifically by minimizing total acreage of managed turf, the need for fertilizers and chemicals would be minimized and the size of natural areas would be maximized. Natural areas would promote wildlife habitat and provide buffers to the environment from higher trafficked areas. Landscaped areas shall be restricted to only greens, tees, and fairways. ~~The golf courses shall be designed to retain natural surface drainage patterns with buffer areas and will control and divert runoff away from greens, tee, fairways and other managed turf areas to prevent leaching and erosion of chemicals applied in these areas.~~<br><br>The County shall also require proper chemical management (i.e., Chemical Application Management Plans [CHAMP]) for the operation of new golf courses. New golf courses shall utilize appropriate chemical management objectives via direct application of procedures that ensure water quality objectives are meet as defined by the Lahontan Regional Water Quality Control Board and ~~California Inland Surface Waters Plan~~ the State Water Resources Control Board Policy for Toxic Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California. Specific water quality objectives for new golf courses shall ensure the biostimulatory substances, floating materials, oil and grease, pesticides and sediment shall not be in sufficient concentrations to cause a nuisance, adversely affect the beneficial uses of on-site surface waters, runoff or groundwater or exceed water quality criteria set forth in the Water Quality Control Plan for the Lahontan Region (Basin Plan). Water quality objectives for nine types of element/compounds is set by the Lahontan Regional Water Quality Control Board and are presented in the Basin Plan.<br><br>The CHAMP or similar management plan shall incorporate the | *Natural Resources Section As a Policy Under Goal 9.D* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| | following:<br><br>▪ A description of golf course design features that prevent direct discharges of surface runoff into stream channels and groundwater.<br><br>▪ A description of chemicals authorized for use and approved within the State of California, along with guidelines for their application. Guidelines shall include restrictions on their use near drainage systems. Chemicals include fertilizers, herbicides, fungicides, insecticides and rodenticides.<br><br>▪ Guidelines on the application of fertilizers and soil amendments that take into consideration the physical characteristics and nutrient content of the soil on the golf course site.<br><br>▪ Guidelines for the irrigation of the golf course that take into consideration the field capacity of soil types and the timing with chemical applications.<br><br>▪ A water quality monitoring program that includes sampling would be timed with the application of soil amendments or on a regularly scheduled basis. This monitoring program shall also be implemented with consideration of the RWQCB water quality objectives for the Martis Creek at its confluence the Truckee River.<br><br>▪ Chemical storage requirements and chemical spill response and chemical inventory response plans would be prepared and implemented.<br><br>▪ ~~*Pesticide concentrations shall not be allowed to accumulate in bottom sediments or aquatic life, nor can chlorinated hydrocarbon pesticides be found at detectable concentrations in surface waters.*~~ Maximum Concentration Levels (MCL), per the Water Quality Goals for California Inland Surface Water for Human Health and Freshwater Aquatic Life Protection shall be met for waters in golf course lakes and other surface water bodies including streams and springs. Also, groundwaters shall not contain any chemical contaminants derived from operations in excess of the MCLs specified for domestic drinking water supplies in the CCR, Title 22, Division 4, Chapter 15 for the turf management chemical compounds including, but not limited to, 2,4-D, Atazine, Bentazon, Carbofuran, Glyphosate and Simazine." | | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| **MM 4.7.2d** | The County shall require that subsequent development projects provide open fencing and signage restricting area residents from intruding in wetlands and providing information regarding the sensitivity of these resources to include requirements for domestic pet control. | *Natural Resources Section As a Policy Under Goal 9.D* | |
| **MM 4.7.2e** | The County shall require that snow storage areas shall be located outside of areas that drain directly into waterways, except where storm drainage and treatment facilities are provided. | *Natural Resources Section As a Policy Under Goal 9.D* | |
| **MM 4.7.3** | Future land uses that are anticipated to utilize hazardous materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double-containment, levees to contain spills, and monitoring wells for underground storage tanks, as required by local, state and federal standards. | *Natural Resources Section As a Policy Under Goal 9.D* | |
| **MM 4.7.5** | The County, in coordination with the Placer County Water Agency and the Northstar Community Services District, shall require that proponents of new development demonstrate that new well facilities or expanded operation of existing well facilities will be in compliance with Section 204(c)1(B) of P.L. 101-618 and/or any subsequent standard set forth in the Truckee River Operation Agreement that requires that the placement be designed to avoid substantial effects to surface water flows or conditions. Well tests, identification of setback from waterway, appropriate hydrologic testing and/or reports from qualified professionals shall be provided verifying that no substantial impact to surface waters will occur. | *Public Facilities and Service Section As a Policy Under Goal 6.C* | |
| *4.8 Geology and Soils* | | | |
| **MM 4.8.2a** | As part of the geotechnical subsurface investigation work (Geology Implementation Program 2), an onsite seismic hazards analysis for subsequent projects and their supporting infrastructure will be performed to ~~further~~ locate and identify active faults. This information shall be utilized to adjust, if needed, the configuration of subsequent projects to ensure future structures will not be located on or near an active faults. ~~traces. Because of their presence additional exploration will be required across these structures in several locations to accurately map their trends across the region~~. Appropriate setbacks will ~~must then~~ be defined per results of field investigations, and guidelines contained in UBC and CDMG (Fault-Rupture Hazard Zones in California, Special Report 42 standards). No special setbacks or project design modifications will be required if technical studies fail to identify the presence of a suspected fault or if the fault is | *Natural Resources Section As an Implementation Program* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| | determined to be inactive. | | |
| **MM 4.8.2b** | Future residential units, structures, project utilities, and infrastructure shall be designed to withstand expected seismic forces that could sustain both horizontal and vertical oscillations and net displacements of earth material along local active fault(s). This may include strengthening of foundations, offsets of structures, engineering of flexible utility connections to accommodate warping, and distributive deformation associated with faulting. These designs will meet requirements outlined by Uniform Building Code and California Department of Mines and Geology. | *Natural Resources Section As a Policy Under Goal 9.A* | |
| **MM 4.8.4** | During review of any project that would be located along a north-facing slope immediately adjacent to areas with slopes 29~~30~~ percent or greater, Placer County shall require each subsequent project to provide the County with an avalanche hazard investigation report for their project. This report will document field investigations of surface conditions in areas where construction of all structures is proposed as well as typical snow accumulation and climate conditions. Evaluation of surface materials will be made to evaluate slope stability characteristics of underlying near surface conditions and probable snow conditions that will likely be present during various storm conditions. Avalanche hazard areas shall be mapped and the site design shall be modified to avoid these areas. If avoidance is infeasible, structures to be placed in the avalanche hazard areas shall designed to withstand anticipated snow loads and conditions of an avalanche consistent with the Placer County Avalanche Management Program. | *Natural Resources Section As an Implementation program* | |
| *4.9 Biological Resources* | | | |
| **MM 4.9.3** | The County shall require that biotic resources evaluation for subsequent projects required under Policy 9.G.10 to include a focused plant survey for the following special-status plant species: Donner Pass buckwheat, plumas ivesia, Carson Range rock cress, long-petaled lewisia, Munroe's desert mallow, and American manna grass. The survey shall determine the presence/absence of these species on the site. The surveys shall be conducted by a qualified botanist during the blooming season for each species (in general, from May-August). Plant species listed after the adoption of the Martis Valley Community Plan shall also be included in the survey.<br><br>If biotic surveys identify the presence of special-status plant species, the subsequent project will be designed to avoid substantial impacts on the plant population that would impair the population's survival including the provision of adequate buffers. If avoidance is determined ~~deemed~~ infeasible, other | *Natural Resources Section As an Implementation program* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| | mitigation measures ~~options~~ shall be imposed ~~considered by the project~~. These may include, but not limited to, on- or off-site preservation of existing populations, seed and soil collection or plant transplant that ensures that a viable ~~the~~ plant population will survive ~~is maintained~~. Subsequent projects shall submit a mitigation program for impacted special-status plant species that has been prepared by a qualified biologist approved by the County and shall include consultation with the appropriate governmental agencies (e.g., U.S. Fish and Wildlife Service, California Department of Fish and Game, Lahontan Regional Water Quality Control Board) as part of plan implementation."<br>Time Frame: On-going<br>Funding: Permit Fees | | |
| **MM 4.9.4** | The County shall require that biotic resources evaluation for subsequent projects include a mountain yellow-legged frog habitat suitability assessment be conducted on each parcel proposing a crossing over or development within stream or open water habitat area. The assessment shall include a detailed analysis of the habitat conditions present onsite and shall survey stream conditions 500 feet upstream and downstream from the proposed stream crossing. If the results of the habitat suitability survey indicate that potential habitat for this species is not present within 500 feet up or down stream of the crossing, no further study is required.<br><br>However, if potential habitat for this species is identified during the assessment, County shall condition projects involving disturbance of a waterway channel to perform the following:<br><br>• Conduct pre-construction surveys for the mountain yellow-legged frog during the breeding season by a qualified biologist. If frogs are identified in the construction area, the biologist shall contact CDFG ~~and/or USFWS~~ regarding the proper methods of moving the species an appropriate off-site location prior to the onset of construction activities at the waterways.<br>• Monitoring of construction activities within waterways until construction activities in the waterways is complete.<br>• Conduct training session for all construction personnel regarding the mountain yellow-legged frog, including a description of the species and its habitat and materials on species in order to assist in identifying species in the field.<br>• Revegetation and recontouring of channel conditions generally consistent with pre-construction conditions.<br>Responsible Agency/Department: Planning Department<br>Time Frame: On-going | *Natural Resources Section As an Implementation Program* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| | Funding: Permit Fees | | |
| **MM 4.9.5a** | The County shall require that construction activities within the channels of waterways identified to be potential spawning habitat of the Lahontan cutthroat trout shall not materially impair habitat conditions. The County shall cooperate with the U.S. Fish and Wildlife Service if future recovery planning activities for the species includes Plan area waterways. ~~occur during the spawning season (April through July).~~ | *Natural Resources Section As a Policy Under Goal 9.G* | |
| **MM 4.9.5b** | No structures shall be permitted in streams or watercourses within the Plan area that would result in the blockage of water flow sufficient to create ~~ing~~ a barrier to fish movement. | *Natural Resources Section As a Policy Under Goal 9.G* | |
| **MM 4.9.6** | If active nests are found during surveys associated with implementation of Policy 9.G.10, the County shall require mapping identifying the locations of identified nests of endangered or threatened bird species or the nests of protected raptors or migratory birds. The subsequent project will be required to conduct focused nest surveys 30 days prior to the beginning of construction activities by a qualified biologist in order to determine if active nests are still present. If active nests are found, the County shall be notified on the status of the nests and no construction activities shall take place within 500 feet of the nest to avoid disturbance until the birds leave the nest, or a time deemed acceptable (e.g., when the juveniles have fledged) by the biologist. The 500-foot buffer may be reduced based on various factors including, but not limited to, vegetation and topographic screening, sensitivity of the species to disturbance and consultation with California Department of Fish and Game. Monitoring reports summarizing nest activities shall be submitted to the County until the nest is determined to be inactive. Trees containing nest sites that must be removed shall be removed during the non-breeding season.<br><br>If active nests that are identified involve federal and/or state listed species (under the Federal Endangered Species Act and the California Endangered Species Act) within or adjacent to the area of planned disturbance, additional setbacks, restrictions and/or mitigation may be required from California Department of Fish and Game and U.S. Fish and Wildlife Service as part of agency permitting to ensure no take of the species. Nest sites of federal and/or state listed species shall not be taken, unless approved by California Department of Fish and Game and U.S. Fish and Wildlife Service.<br>Responsible Agency/Department: Planning Department<br>Time Frame: On-going | *Natural Resources Section As an Implementation Program* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| | Funding: Permit Fees | | |
| **MM 4.9.7** | If bat roosts are identified on site as a result of surveys required by Policy 9.G.10, the County shall require that the bats be safely flushed from the sites where roosting habitat is planned to be removed prior to May of each construction phase (maternity roosts are generally occupied from May to August) prior to the onset of construction activities. The removal of the roosting sites shall occur during the time of day when the roost is unoccupied.<br>Responsible Agency/Department: Planning Department<br>Time Frame: On-going<br>Funding: Permit Fees | *Natural Resources Section As an Implementation Program* | |
| **MM 4.9.8** | The County shall require a habitat suitability evaluation or focused surveys for Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and pine marten as part of surveys required by Policy 9.G.10. Effective movement corridors will be provided in projects areas with suitable habitat. If active den/burrow sites for the Sierra Nevada red fox, California wolverine, Sierra Nevada snowshoe hare, pacific fisher, Sierra Nevada mountain beaver, and/or pine marten dens/nests are identified, the mitigation plan shall be developed in consultation with the California Department of Fish and Game ~~and/or U.S. Fish and Wildlife Service~~ to ensure no animals are killed and that den/burrow sites are properly addressed. Measures may include, but not limited to, redesign of the project (Placer County General Plan Policy 6.C.6) to provide adequately sized open space areas and corridors around den/burrow sites~~, capture and relocation of the species~~. Subsequent projects shall submit the mitigation plan that has been reviewed and approved the appropriate governmental agencies (e.g., ~~U.S. Fish and Wildlife Service,~~ California Department of Fish and Game) and the necessary regulatory permits obtained for the Sierra Nevada red fox and California wolverine (California Endangered Species Act) to the County prior to development activities.<br>Responsible Agency/Department: Planning Department<br>Time Frame: On-going<br>Funding: Permit Fees | *Natural Resources Section As an Implementation Program* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| **MM 4.9.11a** | The County shall require deer migration surveys for projects located within or adjacent to the 3 corridors identified in Figure 4.9-5 of the Martis Valley Community Plan Update EIR, as part of surveys required by Policy 9.G.10. The surveys shall define the extent of deer movement across the subject property and will refine the extent of the deer corridor onsite. If a deer migration corridor is identified, a functional corridor corridor shall be maintained as open space. The exact width, design and amount of allowed disturbance (e.g., trails, recreation facilities, golf courses) in the corridor shall be based on the results of the survey and shall take into account connections with adjacent open space areas, vegetation and the seasonal cover and forage requirements of the migratory deer. The open space corridor shall be mapped and its design clearly identified.<br>Responsible Agency/Department: Planning Department<br>Time Frame: On-going<br>Funding: Permit Fees | *Natural Resources Section As an Implementation Program* | |
| **MM 4.9.11b** | The County shall require that subsequent projects designate building envelopes as the allowed area of disturbance on an individual parcel basis to maximize the preservation of existing vegetation. Where possible, contiguous stands of trees within development areas shall be preserved and incorporated into the project design.<br><br>Fencing shall be limited to the building envelope of the parcel and not along parcel lines. If fencing is required along a parcel boundary, only post and cable, or other fencing methods easily cleared by wildlife, shall be installed.<br>Responsible Agency/Department: Planning Department<br>Time Frame: On-going<br>Funding: Permit Fees | *Natural Resources Section As an Implementation Program* | |
| *4.10 Cultural and Paleontological Resources* | | | |
| **MM 4.10.1** | ~~The County shall require all new development to suspend construction activities and contact the COunty when any cultural resources (e.g., structural features, unusual amounts of bone or shell, human remains, artifacts, human remains, architectural remains or significant paleontological resources) are discovered. In the event cultural resources or paleontological resources are discovered, the County shall retain a qualified cultural resource specialist or paleontologist to assess the finds and develop mitigation measures for the protection, recordation, or removal of the cultural resources or paleontological resources. These measures may also include consultation with local Native American communities and the Native American Commission on cultural resource finds. If human remains are discovered, all work must stop in the immediate vicinity of the find, and the~~ | *Cultural Resources Section As a Policy Under Goal 8.A* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| | ~~County Coroner must be notified, according to Section 7050.5 of Caolifornia's Health and Safety Code. If the remains are Native American, the coroner will notify the Native American Heritage Commission, which in turn will inform a most likely descendant. The descendant will then recommend to the landowner appropriate disposition of the remains and any grave goods.~~<br><br>Prior to commencing construction, the project applicant shall prepare a mitigation monitoring plan in accordance with the Society of Vertebrate Paleontology guidelines. The mitigation monitoring plan shall include monitoring by a qualified paleontologist during construction and a program for the evaluation of paleontological resources discovered. If paleontological resources are discovered during construction, the paleontologist shall be responsible for recovery of any fossils discovered, determining their significance, identification of potential subsurface investigations based on fossils discovered, and placing the fossils in a museum collection. | | |
| *4.11 Public Services and Utilities* | | | |
| **MM 4.11.1.1** | The County shall require that property currently located outside of the Truckee Fire Protection District or Northstar CSD's service areas be annexed into one of the fire districts prior to approval of any entitlement that allows development to occur within these sections. | *Public Facilities and Services Section As a Policy Under Goal 6.I* | |
| **MM 4.11.4.1** | The County shall require subsequent projects to demonstrate that adequate water distribution systems and connections to existing systems will be available and will be able to provide adequate flow and water quality consistent with local, state, and federal standards. | *Public Facilities and Services Section As a Policy Under Goal 6.C* | |
| **MM 4.11.7.3** | The County shall require new utility infrastructure and extensions for electrical, natural gas and telephone services avoid to the extent feasible sensitive natural resources (e.g., wetlands, riparian habitat, sensitive habitats), be located so as to not be visually obtrusive, and, if possible, be located within roadway rights-of-ways or existing utility easements. Infrastructure siting shall comply with the policy and implementation programs set forth in Sections IV, VI, VIII, IX, and X of the Community Plan. | *Public Facilities and Services Section As a Policy* | |
| **MM 4.11.8.1** | Placer County and the Truckee Donner Recreation and Park District shall establish a mechanism for transferring parkland and recreational facilities within the Plan area to TDRPD. | *Recreation and Trails Section As a Policy Under Goal 7A* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| *4.12 Visual Resources* | | | |
| **MM 4.12.2a** | New hardscape features, such as parking lots and ball courts, and new non-native softscape features, such as golf courses, turf areas, and trails, shall be filtered from public views from the open valley, SR 267, and public roadways. | *Community Design Section As a Policy Under Goal 2C* | |
| **MM 4.12.2b** | All public and private subsequent projects shall be required to submit detailed architectural renderings, site plans, landscaping plans, and visual simulations demonstrating project consistency with the applicable Martis Valley Community Plan policies and other applicable design guidelines, development standards and policies. | *Community Design Section As a Policy Under Goal 2A* | |
| **MM 4.12.2c** | Plans for fences/walls shall be submitted to the Placer County Planning Department for review during project application processing. Fencing within the Plan area shall follow these guidelines:<br><br>a. All perimeter fencing shall be open fencing that provides adequate spacing for wildlife passage, in consultation with California Department of Fish and Game;<br>b. Use of retaining walls shall be limited to the maximum extent possible and shall be screened with native vegetation and/or designed to provide a natural appearance;<br>c. Solid walls and fences shall not be visible along the open valley, SR 267, or other public roadways. | *Community Design Section As a Policy Under Goal 2A* | |
| **MM 4.12.3** | The conditions of approval for subsequent development projects within the Plan area shall prohibit the use of highly reflective surfaces on the exteriors of structures, except for glass associated with windows and doors, which shall be recessed and/or shaded sufficiently to prevent glare visible from SR 267 and to reduce unnecessary glare from any other off-site point. ~~Development within the Plan area shall use non-reflective surfaces on the exterior of structures.~~" | *Community Design Section As a Policy Under Goal 2A* | |
| **MM 4.12.4a** | Outdoor light fixtures for subsequent non-residential areas (such as commercial and recreation areas) shall be low-intensity, shielded and/or directed away from residential areas and the night sky. All light fixtures shall be limited ~~to 15 feet~~ in height and shall be installed and shielded in such a manner that no light rays are emitted from the fixture at angles above the horizontal plane. High-intensity discharge lamps, such as mercury, metal halide and high-pressure sodium lamps shall be prohibited. Lighting plans shall be provided as part of improvement plans to the County with supporting documentation that adjacent residential areas will not be adversely affected and that offsite illumination will not exceed 1-foot | *Community Design Section As a Policy Under Goal 2A* | |

| Proposed Mitigation | Mitigation Measure Description | Placement in Community Plan | Verification |
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| | candles from project sources. | | |
| **MM 4.12.4b** | Outdoor light fixtures shall be designed to be turned off when not in use where security and safety is not a concern. This requirement shall be included in lighting plans submitted to the County as part of improvement plans. | *Community Design Section As a Policy Under Goal 2A* | |
| **MM 4.12.4c** | Street light fixtures shall be restricted to roadway intersections and shall be installed and shielded in such a manner that no light rays are emitted from the fixture at angles above the horizontal plane. High-intensity discharge lamps, such as mercury, metal halide and high-pressure sodium lamps shall be prohibited. Offsite illumination shall not exceed 1-foot candles due to lighting sources. | *Community Design Section As a Policy Under Goal 2A* | |
| **MM 4.12.4d** | The County shall require that subsequent residential project design guidelines and/or project CC&Rs shall restrict residences from utilizing flood and/or spot lighting fixtures. All resident light fixtures shall use low-pressure sodium lamps or other similar lighting fixture and shall be shielded away from adjoining residents and the night sky. | *Community Design Section As a Policy Under Goal 2A* | |
| **MM 4.12.4e** | Nighttime lighting shall not be allowed for golf course driving ranges, sports fields, and ski terrain. | *Community Design Section As a Policy Under Goal 2A* | |
| **MM 4.12.4f** | Project design guidelines and/or project CC&Rs shall be submitted by each project applicant to the Placer County Planning Department for review and approval to verify that lighting standards are in place. | *Community Design Section As an Implementation Program* | |

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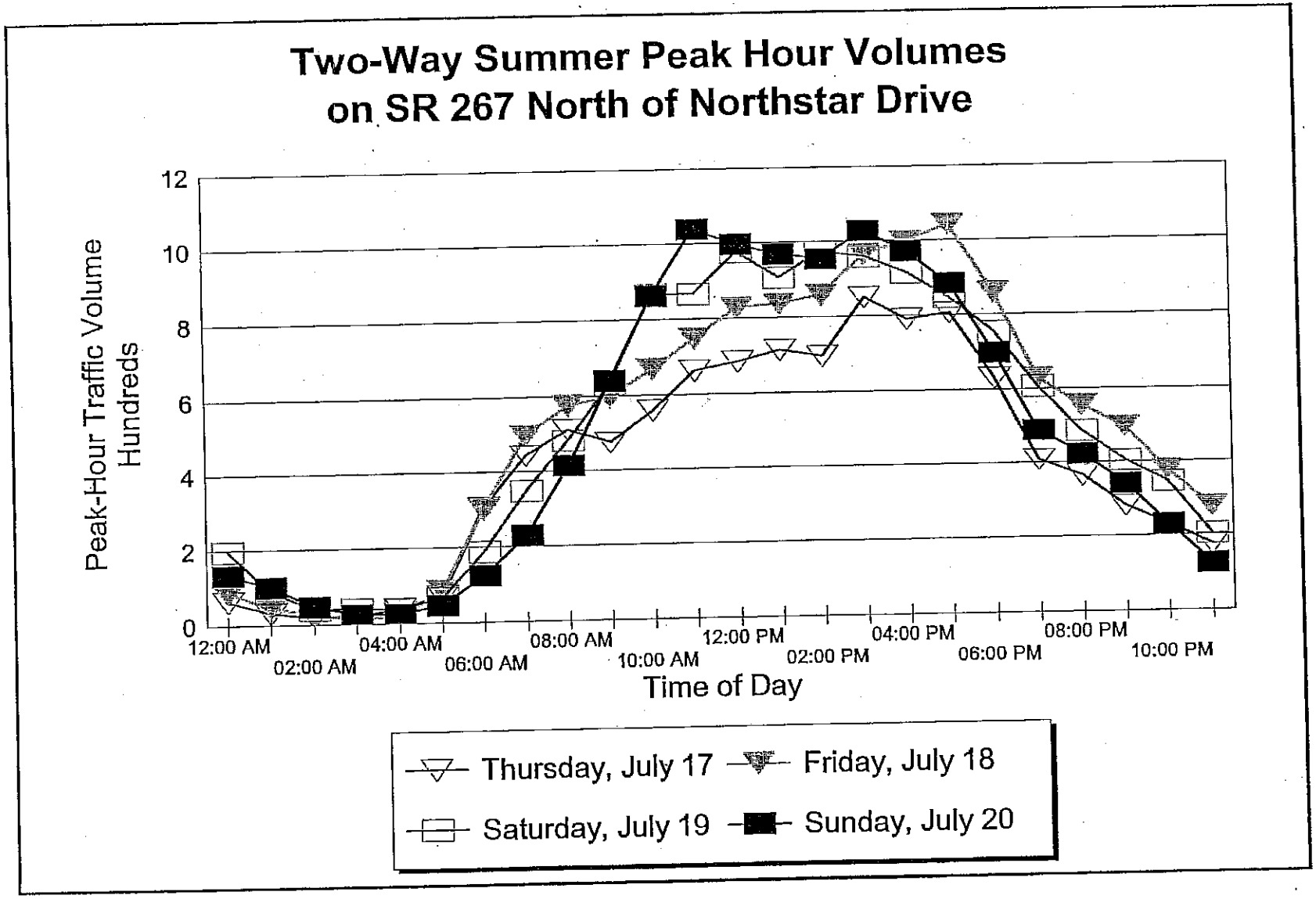
Two-Way Summer Peak Hour Volumes
on SR 267 North of Northstar Drive
Peak-Hour Traffic Volume
Hundreds
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Time of Day
Thursday, July 17
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Sunday, July 20

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CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 267 | | 3.760 | B |

Location Description
NORTH STAR DRIVE

Traffic Station: 930
Location Type: Control Station
Lanes: 1
Lane Code: 1

Direction of Count ~~East~~ SB

| Year | Thu | Fri | Sat | Sun | Mon | Tue |
|---|---|---|---|---|---|---|
| 1997 | JUL 17 | JUL 18 | JUL 19 | JUL 20 | JUL 21 | JUL 22 |
| 0-1 | 34 A | 41 A | 140 A | 53 A | 39 A | 26 A |
| 1-2 | 14 A | 29 A | 53 A | 42 A | 13 A | 12 A |
| 2-3 | 8 A | 10 A | 18 A | 14 A | 20 A | 9 A |
| 3-4 | 13 A | 13 A | 21 A | 12 A | 13 A | 15 A |
| 4-5 | 11 A | 7 A | 18 A | 13 A | 12 A | 13 A |
| 5-6 | 34 A | 46 A | 27 A | 19 A | 41 A | 30 A |
| 6-7 | 191 A | 192 A | 109 A | 65 A | 187 A | 175 A |
| 7-8 | 267 A | 285 A | 186 A | 104 A | 287 A | 325 A |
| 8-9 | 301 A | 334 A | 245 A | 196 A | 288 A | 298 A |
| 9-10 | 213 A | 283 A | 302 A | 254 A | 243 A | 243 A |
| 10-11 | 260 A | 311 A | 455 A | 343 A | 309 A | 321 A |
| 11-12 | 353 A | 401 A | 486 A | 456 A | 312 A | 294 A |
| 12-13 | 358 A | 433 A | 557 A | 473 A | 367 A | 368 A |
| 13-14 | 343 A | 446 A | 525 A | 434 A | 369 A | 314 A |
| 14-15 | 357 A | 488 A | 578 A | 424 A | 349 A | 343 C |
| 15-16 | 404 A | 502 A | 550 A | 440 A | 332 A | 292 C |
| 16-17 | 412 A | 487 A | 475 A | 361 A | 314 A | 350 C |
| 17-18 | 363 A | 586 A | 416 A | 361 A | 353 A | 325 C |
| 18-19 | 339 A | 484 A | 365 A | 272 A | 264 A | 209 C |
| 19-20 | 233 A | 375 A | 287 A | 203 A | 196 A | 215 C |
| 20-21 | 215 A | 361 A | 248 A | 195 A | 170 A | 140 C |
| 21-22 | 149 A | 352 A | 206 A | 147 A | 125 A | 128 C |
| 22-23 | 144 A | 277 A | 154 A | 108 A | 107 A | 90 C |
| 23-24 | 100 A | 201 A | 82 A | 58 A | 57 A | 82 C |
| Day Total | 5116 A | 6944 A | 6503 A | 5047 A | 4767 A | 4617 C |
| AM Peak Hour | 11-12 | 11-12 | 11-12 | 11-12 | 11-12 | 07-08 |
| AM Peak Traffic | 353 | 401 | 486 | 456 | 312 | 325 |
| PM Peak Hour | 16-17 | 17-18 | 14-15 | 12-13 | 13-14 | 12-13 |
| PM Peak Traffic | 412 | 586 | 578 | 473 | 369 | 368 |

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08/14/2000
09:17:07

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 267 | | 3.760 | B |

Location Description
NORTH STAR DRIVE

Traffic Station: 930
Location Type: Control Station
Lanes: 1
Lane Code: 1

Direction of Count ~~West~~ NB

| Year | Thu | Fri | Sat | Sun | Mon | Tue |
|---|---|---|---|---|---|---|
| 1997 | JUL 17 | JUL 18 | JUL 19 | JUL 20 | JUL 21 | JUL 22 |
| 0-1 | 29 A | 45 A | 57 A | 80 A | 38 A | 26 A |
| 1-2 | 17 A | 17 A | 34 A | 39 A | 14 A | 16 A |
| 2-3 | 12 A | 15 A | 23 A | 33 A | 13 A | 21 A |
| 3-4 | 8 A | 6 A | 20 A | 13 A | 21 A | 7 A |
| 4-5 | 18 A | 10 A | 20 A | 12 A | 35 A | 19 A |
| 5-6 | 37 A | 40 A | 39 A | 27 A | 70 A | 38 A |
| 6-7 | 114 A | 108 A | 79 A | 59 A | 148 A | 123 A |
| 7-8 | 176 A | 214 A | 162 A | 125 A | 243 A | 200 A |
| 8-9 | 204 A | 241 A | 237 A | 218 A | 290 A | 255 A |
| 9-10 | 263 A | 314 A | 329 A | 385 A | 307 A | 289 A |
| 10-11 | 299 A | 357 A | 411 A | 519 A | 369 A | 321 A |
| 11-12 | 309 A | 346 A | 379 A | 582 A | 375 A | 326 A |
| 12-13 | 326 A | [illegible] A | 418 A | 523 A | 352 A | 298 A |
| 13-14 | 369 A | 389 A | 380 A | 533 A | 331 A | 288 A |
| 14-15 | 337 A | 369 A | 394 A | 529 A | 261 A | 343 C |
| 15-16 | 445 A | 463 A | 408 A | 588 A | 302 A | 405 C |
| 16-17 | 377 A | 511 A | 439 A | 590 A | 325 A | 363 C |
| 17-18 | 442 A | 457 A | 430 A | 512 A | 421 A | 386 C |
| 18-19 | 290 A | 375 A | 368 A | 425 A | 251 A | 286 C |
| 19-20 | 175 A | 254 A | 321 A | 287 A | 200 A | 182 C |
| 20-21 | 150 A | 195 A | 239 A | 229 A | 148 A | 140 C |
| 21-22 | 132 A | 146 A | 199 A | 194 A | 115 A | 134 C |
| 22-23 | 96 A | 100 A | 192 A | 122 A | 85 A | 97 C |
| 23-24 | 76 A | 76 A | 123 A | 67 A | 51 A | 65 C |
| Day Total | 4701 A | 5442 A | 5701 A | 6691 A | 4765 A | 4630 C |
| AM Peak Hour | 11-12 | 10-11 | 10-11 | 11-12 | 11-12 | 11-12 |
| AM Peak Traffic | 309 | 357 | 411 | 582 | 375 | 326 |
| PM Peak Hour | 15-16 | 16-17 | 16-17 | 16-17 | 17-18 | 15-16 |
| PM Peak Traffic | 445 | 511 | 439 | [illegible] | 421 | 405 |

## *Hourly Traffic Volumes Along SR 267 North of Northstar Drive (January 10 - January 12)*

| Time | EAST | | | WEST | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| Beginning | Friday | Sat | Sun | Friday | Sat | Sun | Friday | Sat | Sun |
| 12:00 AM | 67 | 411 | 50 | 20 | 28 | 44 | 87 | 439 | 94 |
| 01:00 AM | 35 | 186 | 30 | 15 | 18 | 31 | 50 | 204 | 61 |
| 02:00 AM | 13 | 34 | 14 | 16 | 19 | 14 | 29 | 53 | 28 |
| 03:00 AM | 13 | 8 | 7 | 11 | 8 | 12 | 24 | 16 | 19 |
| 04:00 AM | 11 | 11 | 16 | 13 | 16 | 14 | 24 | 27 | 30 |
| 05:00 AM | 27 | 23 | 18 | 31 | 17 | 23 | 58 | 40 | 41 |
| 06:00 AM | 173 | 110 | 80 | 101 | 47 | 49 | 274 | 157 | 129 |
| 07:00 AM | 367 | 465 | 406 | 189 | 125 | 184 | 556 | 590 | 590 |
| 08:00 AM | 439 | 852 | 783 | 218 | 195 | 238 | 657 | 1,047 | 1,021 |
| 09:00 AM | 485 | 566 | 519 | 221 | 274 | 297 | 706 | 840 | 816 |
| 10:00 AM | 403 | 570 | 380 | 298 | 395 | 424 | 701 | 965 | 804 |
| 11:00 AM | 292 | 367 | 278 | 287 | 408 | 431 | 579 | 775 | 709 |
| 12:00 PM | 315 | 313 | 303 | 328 | 326 | 501 | 643 | 639 | 804 |
| 01:00 PM | 296 | 284 | 253 | 318 | 307 | 641 | 614 | 591 | 894 |
| 02:00 PM | 335 | 301 | 244 | 419 | 374 | 695 | 754 | 675 | 939 |
| 03:00 PM | 444 | 342 | 252 | 512 | 511 | 827 | 956 | 853 | 1,079 |
| 04:00 PM | 417 | 395 | 228 | 644 | 763 | 891 | 1,061 | 1,158 | 1,119 |
| 05:00 PM | 369 | 320 | 247 | 459 | 834 | 668 | 828 | 1,154 | 915 |
| 06:00 PM | 287 | 217 | 176 | 248 | 289 | 245 | 535 | 506 | 421 |
| 07:00 PM | 168 | 159 | 127 | 130 | 150 | 135 | 298 | 309 | 262 |
| 08:00 PM | 113 | 142 | 100 | 75 | 96 | 81 | 188 | 238 | 181 |
| 09:00 PM | 188 | 145 | 106 | 93 | 102 | 59 | 281 | 247 | 165 |
| 10:00 PM | 204 | 97 | 68 | 47 | 91 | 51 | 251 | 188 | 119 |
| 11:00 PM | 272 | 64 | 42 | 31 | 55 | 26 | 303 | 119 | 68 |
| Maximum | 485 | 852 | 783 | 644 | 834 | 891 | 1,061 | 1,158 | 1,119 |

Source: Caltrans

otmtv
05/01/2003
08:17:53

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 267 | | 3.760 | B |

Location Description
NORTH STAR DRIVE

Traffic Station: 930
Location Type: Control Station
Lanes: 1
Lane Code: 1

Direction of Count: East

| Year | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 07 | JAN 08 | JAN 09 | JAN 10 | JAN 11 | JAN 12 | JAN 13 | JAN 14 |
| 0-1 | | 21 A | 29 A | 67 A | 411 A | 50 A | 29 A | 23 A |
| 1-2 | | 18 A | 14 A | 35 A | 186 A | 30 A | 11 A | 15 A |
| 2-3 | | 9 A | 11 A | 13 A | 34 A | 14 A | 5 A | 12 A |
| 3-4 | | 5 A | 10 A | 13 A | 8 A | 7 A | 13 A | 6 A |
| 4-5 | | 11 A | 7 A | 11 A | 11 A | 16 A | 13 A | 10 A |
| 5-6 | | 33 A | 29 A | 27 A | 23 A | 18 A | 30 A | 26 A |
| 6-7 | | 174 A | 179 A | 173 A | 110 A | 80 A | 155 A | 179 A |
| 7-8 | | 415 A | 397 A | 367 A | 465 A | 406 A | 396 A | 359 A |
| 8-9 | | 542 A | 545 A | 439 A | 852 A | 783 A | 435 A | 497 A |
| 9-10 | | 566 A | 484 A | 485 A | 566 A | 519 A | 440 A | 473 A |
| 10-11 | | 426 A | 396 A | 403 A | 570 A | 380 A | 342 A | 382 A |
| 11-12 | | 358 A | 364 A | 292 A | 367 A | 278 A | 277 A | 264 A |
| 12-13 | | 295 A | 303 A | 315 A | 313 A | 303 A | 235 A | 272 A |
| 13-14 | | 245 A | 278 A | 296 A | 284 A | 253 A | 250 A | 256 A |
| 14-15 | 268 A | 262 A | 266 A | 335 A | 301 A | 244 A | 239 A | 292 A |
| 15-16 | 322 A | 302 A | 326 A | 444 A | 342 A | 252 A | 269 A | 307 A |
| 16-17 | 364 A | 358 A | 356 A | 417 A | 395 A | 228 A | 299 A | 340 A |
| 17-18 | 300 A | 309 A | 262 A | 369 A | 320 A | 247 A | 302 A | 276 A |
| 18-19 | 199 A | 193 A | 165 A | 287 A | 217 A | 176 A | 180 A | 192 A |
| 19-20 | 143 A | 125 A | 166 A | 168 A | 159 A | 127 A | 128 A | 117 A |
| 20-21 | 107 A | 134 A | 94 A | 113 A | 142 A | 100 A | 104 A | 81 A |
| 21-22 | 101 A | 139 A | 105 A | 188 A | 145 A | 106 A | 74 A | 89 A |
| 22-23 | 64 A | 92 A | 93 A | 204 A | 97 A | 68 A | 67 A | 93 A |
| 23-24 | 46 A | 52 A | 72 A | 272 A | 64 A | 42 A | 40 A | 44 A |
| Day Total | 1914 P | 5084 A | 4951 A | 5733 A | 6382 A | 4727 A | 4333 A | 4605 A |
| AM Peak Hour | - | 09-10 | 08-09 | 09-10 | 08-09 | 08-09 | 09-10 | 08-09 |
| AM Peak Traffic | | 566 | 545 | 485 | 852 | 783 | 440 | 497 |
| PM Peak Hour | 16-17 | 16-17 | 16-17 | 15-16 | 16-17 | 12-13 | 17-18 | 16-17 |
| PM Peak Traffic | 364 | 358 | 356 | 444 | 395 | 303 | 302 | 340 |

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05/01/2003
08:17:53

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 267 | | 3.760 | B |

Location Description
NORTH STAR DRIVE

Traffic Station: 930
Location Type: Control Station
Lanes: 1
Lane Code: 1

Direction of Count: West

| Year | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 07 | JAN 08 | JAN 09 | JAN 10 | JAN 11 | JAN 12 | JAN 13 | JAN 14 |
| 0-1 | | 22 A | 35 A | 20 A | 28 A | 44 A | 31 A | 19 A |
| 1-2 | | 11 A | 20 A | 15 A | 18 A | 31 A | 11 A | 15 A |
| 2-3 | | 9 A | 15 A | 16 A | 19 A | 14 A | 7 A | 7 A |
| 3-4 | | 9 A | 8 A | 11 A | 8 A | 12 A | 9 A | 8 A |
| 4-5 | | 10 A | 12 A | 13 A | 16 A | 14 A | 15 A | 9 A |
| 5-6 | | 32 A | 34 A | 31 A | 17 A | 23 A | 33 A | 31 A |
| 6-7 | | 118 A | 107 A | 101 A | 47 A | 49 A | 114 A | 129 A |
| 7-8 | | 206 A | 205 A | 189 A | 125 A | 184 A | 222 A | 209 A |
| 8-9 | | 250 A | 246 A | 218 A | 195 A | 238 A | 256 A | 223 A |
| 9-10 | | 259 A | 259 A | 221 A | 274 A | 297 A | 268 A | 218 A |
| 10-11 | | 290 A | 301 A | 298 A | 395 A | 424 A | 281 A | 251 A |
| 11-12 | | 263 A | 359 A | 287 A | 408 A | 431 A | 309 A | 263 A |
| 12-13 | | 302 A | 394 A | 328 A | 326 A | 501 A | 296 A | 292 A |
| 13-14 | | 355 A | 405 A | 318 A | 307 A | 641 A | 343 A | 319 A |
| 14-15 | 478 A | 490 A | 415 A | 419 A | 374 A | 695 A | 387 A | 443 A |
| 15-16 | 656 A | 615 A | 518 A | 512 A | 511 A | 827 A | 510 A | 576 A |
| 16-17 | 770 A | 755 A | 617 A | 644 A | 763 A | 891 A | 624 A | 610 A |
| 17-18 | 497 A | 509 A | 432 A | 459 A | 834 A | 668 A | 397 A | 383 A |
| 18-19 | 238 A | 242 A | 201 A | 248 A | 289 A | 245 A | 201 A | 170 A |
| 19-20 | 103 A | 122 A | 105 A | 130 A | 150 A | 135 A | 112 A | 96 A |
| 20-21 | 91 A | 79 A | 66 A | 75 A | 96 A | 81 A | 90 A | 82 A |
| 21-22 | 64 A | 83 A | 56 A | 93 A | 102 A | 59 A | 61 A | 69 A |
| 22-23 | 42 A | 44 A | 26 A | 47 A | 91 A | 51 A | 37 A | 42 A |
| 23-24 | 36 A | 33 A | 22 A | 31 A | 55 A | 26 A | 42 A | 33 A |
| Day Total | 2975 P | 5108 A | 4858 A | 4724 A | 5448 A | 6581 A | 4656 A | 4497 A |
| AM Peak Hour | - | 10-11 | 11-12 | 10-11 | 11-12 | 11-12 | 11-12 | 11-12 |
| AM Peak Traffic | | 290 | 359 | 298 | 408 | 431 | 309 | 263 |
| PM Peak Hour | 16-17 | 16-17 | 16-17 | 16-17 | 17-18 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 770 | 755 | 617 | 644 | 834 | 891 | 624 | 610 |

## *Hourly Traffic Volumes Along SR 267 at Martis Peak Road (January 10 - January 12)*

| Time | EAST | | | WEST | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| Beginning | Friday | Sat | Sun | Friday | Sat | Sun | Friday | Sat | Sun |
| 12:00 AM | 55 | 304 | 47 | 19 | 26 | 46 | 74 | 330 | 93 |
| 01:00 AM | 28 | 201 | 30 | 11 | 18 | 20 | 39 | 219 | 50 |
| 02:00 AM | 17 | 29 | 16 | 19 | 19 | 18 | 36 | 48 | 34 |
| 03:00 AM | 11 | 13 | 6 | 11 | 11 | 8 | 22 | 24 | 14 |
| 04:00 AM | 8 | 11 | 13 | 16 | 15 | 13 | 24 | 26 | 26 |
| 05:00 AM | 19 | 13 | 12 | 31 | 20 | 23 | 50 | 33 | 35 |
| 06:00 AM | 103 | 45 | 30 | 134 | 75 | 71 | 237 | 120 | 101 |
| 07:00 AM | 161 | 89 | 41 | 256 | 244 | 298 | 417 | 333 | 339 |
| 08:00 AM | 164 | 128 | 99 | 297 | 413 | 459 | 461 | 541 | 558 |
| 09:00 AM | 158 | 139 | 136 | 313 | 524 | 475 | 471 | 663 | 611 |
| 10:00 AM | 184 | 273 | 173 | 315 | 361 | 443 | 499 | 634 | 616 |
| 11:00 AM | 202 | 266 | 162 | 241 | 312 | 410 | 443 | 578 | 572 |
| 12:00 PM | 240 | 226 | 214 | 261 | 262 | 380 | 501 | 488 | 594 |
| 01:00 PM | 248 | 258 | 229 | 204 | 208 | 386 | 452 | 466 | 615 |
| 02:00 PM | 323 | 313 | 289 | 237 | 213 | 295 | 560 | 526 | 584 |
| 03:00 PM | 474 | 381 | 314 | 256 | 217 | 284 | 730 | 598 | 598 |
| 04:00 PM | 552 | 599 | 418 | 259 | 248 | 231 | 811 | 847 | 649 |
| 05:00 PM | 401 | 632 | 339 | 241 | 199 | 267 | 642 | 831 | 606 |
| 06:00 PM | 258 | 258 | 177 | 164 | 137 | 169 | 422 | 395 | 346 |
| 07:00 PM | 146 | 160 | 118 | 103 | 103 | 112 | 249 | 263 | 230 |
| 08:00 PM | 93 | 125 | 81 | 68 | 79 | 74 | 161 | 204 | 155 |
| 09:00 PM | 140 | 120 | 102 | 69 | 78 | 49 | 209 | 198 | 151 |
| 10:00 PM | 173 | 91 | 64 | 42 | 86 | 44 | 215 | 177 | 108 |
| 11:00 PM | 196 | 50 | 36 | 35 | 53 | 32 | 231 | 103 | 68 |
| Maximum | 552 | 632 | 418 | 315 | 524 | 475 | 811 | 847 | 649 |

Source: Caltrans

otmtv
05/01/2003
08:17:53

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 267 | | 6.230 | B |

Location Description
MARTIS PEAK ROAD

Traffic Station: 931
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: East

| Year | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 07 | JAN 08 | JAN 09 | JAN 10 | JAN 11 | JAN 12 | JAN 13 | JAN 14 |
| 0-1 | | 24 A | 30 A | 55 A | 304 A | 47 A | 28 A | 19 A |
| 1-2 | | 18 A | 15 A | 28 A | 201 A | 30 A | 11 A | 16 A |
| 2-3 | | 6 A | 8 A | 17 A | 29 A | 16 A | 5 A | 12 A |
| 3-4 | | 5 A | 9 A | 11 A | 13 A | 6 A | 12 A | 6 A |
| 4-5 | | 10 A | 5 A | 8 A | 11 A | 13 A | 11 A | 7 A |
| 5-6 | | 25 A | 22 A | 19 A | 13 A | 12 A | 27 A | 21 A |
| 6-7 | | 121 A | 115 A | 103 A | 45 A | 30 A | 112 A | 131 A |
| 7-8 | | 196 A | 168 A | 161 A | 89 A | 41 A | 195 A | 170 A |
| 8-9 | | 178 A | 206 A | 164 A | 128 A | 99 A | 175 A | 195 A |
| 9-10 | | 187 A | 191 A | 158 A | 139 A | 136 A | 181 A | 173 A |
| 10-11 | | 176 A | 193 A | 184 A | 273 A | 173 A | 172 A | 169 A |
| 11-12 | | 210 A | 237 A | 202 A | 266 A | 162 A | 159 A | 175 A |
| 12-13 | | 202 A | 249 A | 240 A | 226 A | 214 A | 197 A | 194 A |
| 13-14 | | 227 A | 231 A | 248 A | 258 A | 229 A | 207 A | 236 A |
| 14-15 | 315 A | 293 A | 286 A | 323 A | 313 A | 289 A | 244 A | 360 A |
| 15-16 | 426 A | 407 A | 358 A | 474 A | 381 A | 314 A | 356 A | 376 A |
| 16-17 | 554 A | 555 A | 464 A | 552 A | 599 A | 418 A | 418 A | 494 A |
| 17-18 | 362 A | 383 A | 312 A | 401 A | 632 A | 339 A | 340 A | 304 A |
| 18-19 | 191 A | 192 A | 172 A | 258 A | 258 A | 177 A | 185 A | 186 A |
| 19-20 | 122 A | 109 A | 149 A | 146 A | 160 A | 118 A | 123 A | 106 A |
| 20-21 | 98 A | 108 A | 76 A | 93 A | 125 A | 81 A | 95 A | 86 A |
| 21-22 | 88 A | 124 A | 87 A | 140 A | 120 A | 102 A | 72 A | 79 A |
| 22-23 | 68 A | 71 A | 79 A | 173 A | 91 A | 64 A | 55 A | 83 A |
| 23-24 | 43 A | 47 A | 57 A | 196 A | 50 A | 36 A | 42 A | 41 A |
| Day Total | 2267 P | 3874 A | 3719 A | 4354 A | 4724 A | 3146 A | 3422 A | 3639 A |
| AM Peak Hour | - | 11-12 | 11-12 | 11-12 | 00-01 | 10-11 | 07-08 | 08-09 |
| AM Peak Traffic | | 210 | 237 | 202 | 304 | 173 | 195 | 195 |
| PM Peak Hour | 16-17 | 16-17 | 16-17 | 16-17 | 17-18 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 554 | 555 | 464 | 552 | 632 | 418 | 418 | 494 |

otmtv
05/01/2003
08:17:53

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



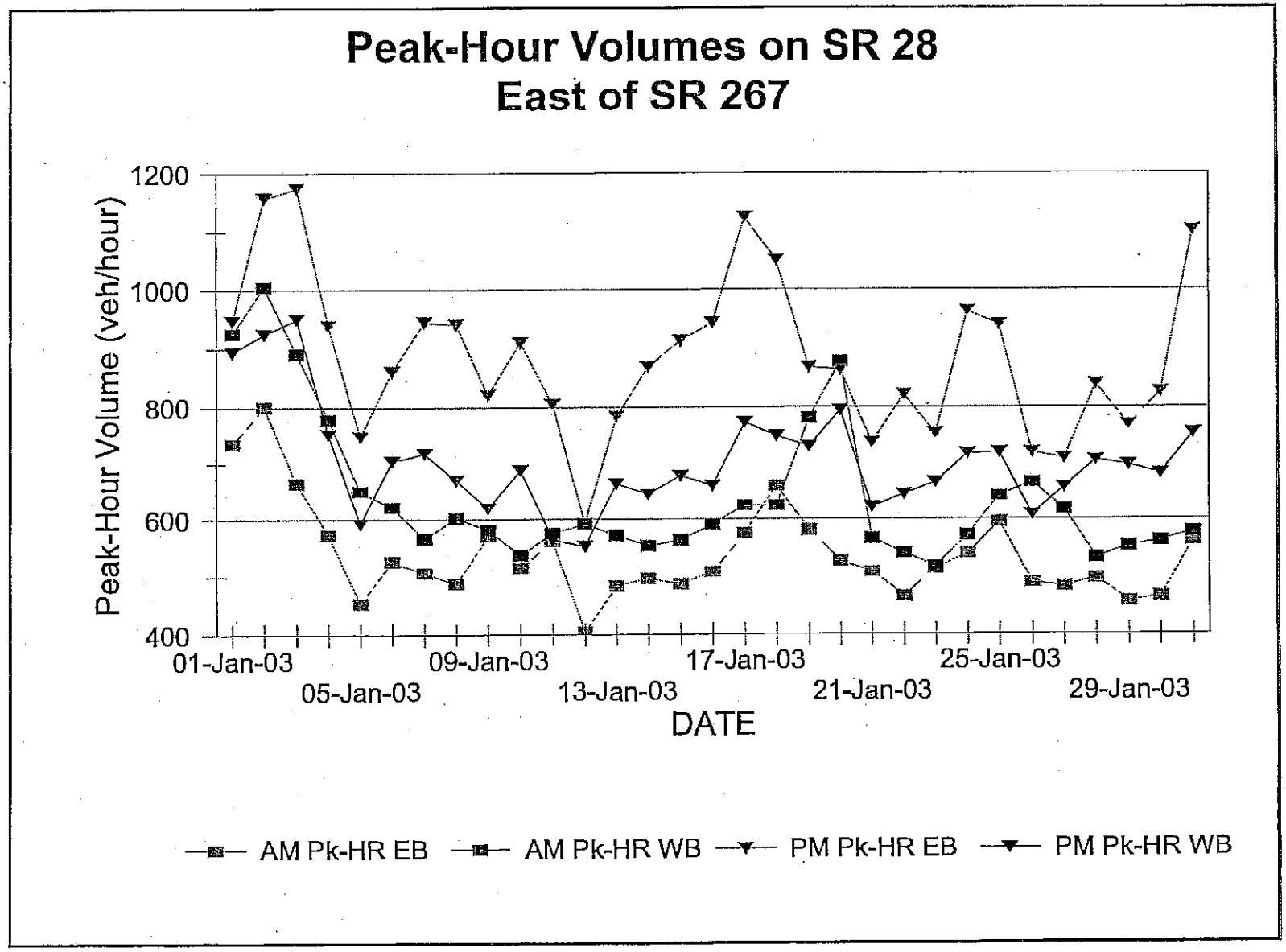
| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 267 | | 6.230 | B |

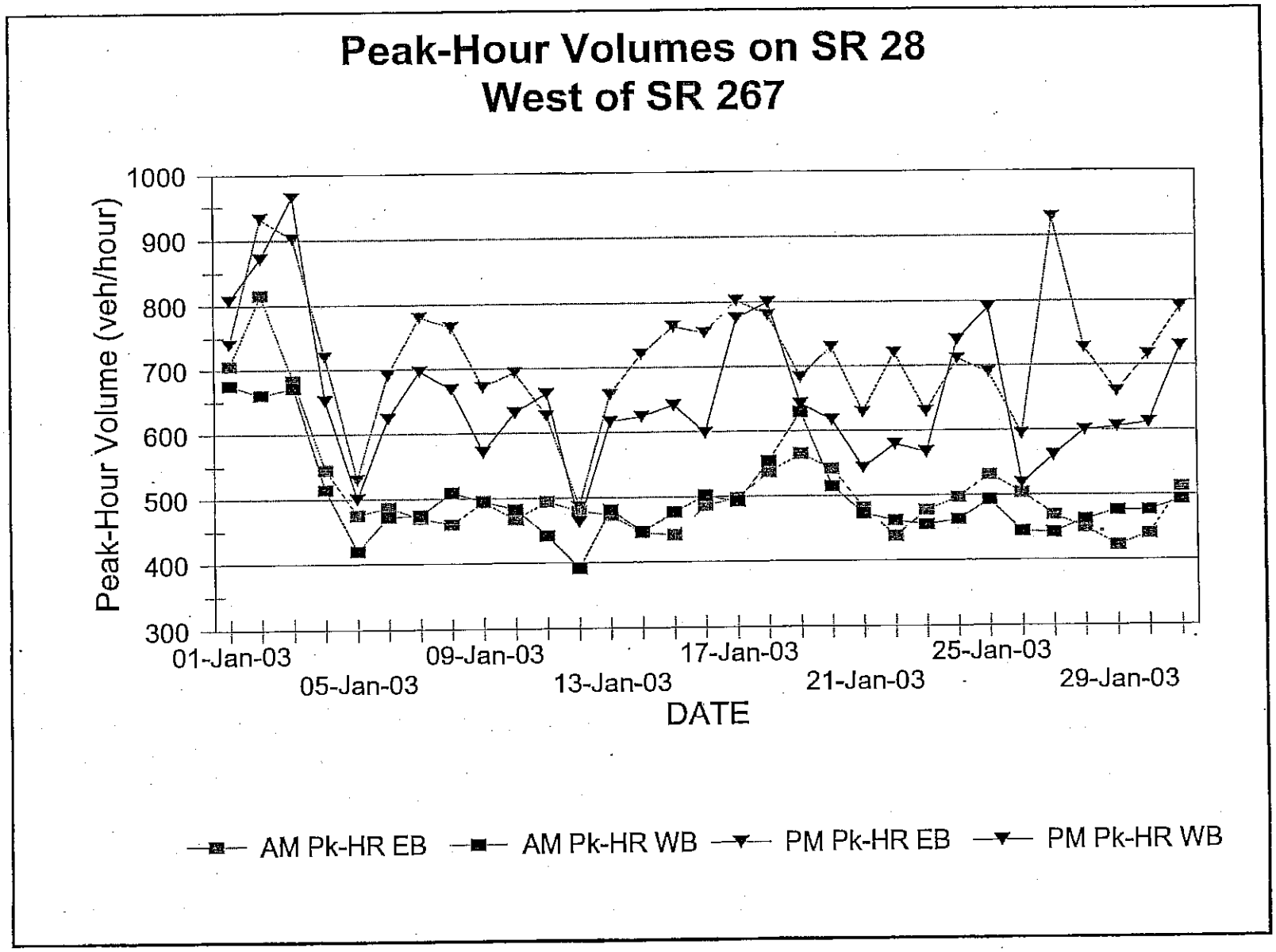
Location Description
MARTIS PEAK ROAD

Traffic Station: 931
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: West

| Year | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 07 | JAN 08 | JAN 09 | JAN 10 | JAN 11 | JAN 12 | JAN 13 | JAN 14 |
| 0-1 | | 18 A | 22 A | 19 A | 26 A | 46 A | 23 A | 18 A |
| 1-2 | | 9 A | 13 A | 11 A | 18 A | 20 A | 9 A | 9 A |
| 2-3 | | 13 A | 15 A | 19 A | 19 A | 18 A | 12 A | 7 A |
| 3-4 | | 8 A | 6 A | 11 A | 11 A | 8 A | 9 A | 9 A |
| 4-5 | | 11 A | 12 A | 16 A | 15 A | 13 A | 13 A | 9 A |
| 5-6 | | 31 A | 35 A | 31 A | 20 A | 23 A | 41 A | 39 A |
| 6-7 | | 149 A | 126 A | 134 A | 75 A | 71 A | 129 A | 132 A |
| 7-8 | | 291 A | 302 A | 256 A | 244 A | 298 A | 284 A | 292 A |
| 8-9 | | 399 A | 363 A | 297 A | 413 A | 459 A | 364 A | 322 A |
| 9-10 | | 384 A | 366 A | 313 A | 524 A | 475 A | 328 A | 327 A |
| 10-11 | | 342 A | 329 A | 315 A | 361 A | 443 A | 323 A | 298 A |
| 11-12 | | 261 A | 270 A | 241 A | 312 A | 410 A | 290 A | 247 A |
| 12-13 | | 218 A | 224 A | 261 A | 262 A | 380 A | 242 A | 239 A |
| 13-14 | | 218 A | 226 A | 204 A | 208 A | 386 A | 194 A | 190 A |
| 14-15 | 231 A | 267 A | 231 A | 237 A | 213 A | 295 A | 186 A | 218 A |
| 15-16 | 297 A | 282 A | 252 A | 256 A | 217 A | 284 A | 256 A | 281 A |
| 16-17 | 311 A | 259 A | 244 A | 259 A | 248 A | 231 A | 258 A | 249 A |
| 17-18 | 278 A | 276 A | 239 A | 241 A | 199 A | 267 A | 228 A | 254 A |
| 18-19 | 170 A | 178 A | 135 A | 164 A | 137 A | 169 A | 149 A | 139 A |
| 19-20 | 88 A | 97 A | 94 A | 103 A | 103 A | 112 A | 100 A | 95 A |
| 20-21 | 84 A | 75 A | 50 A | 68 A | 79 A | 74 A | 72 A | 63 A |
| 21-22 | 63 A | 72 A | 51 A | 69 A | 78 A | 49 A | 64 A | 62 A |
| 22-23 | 40 A | 48 A | 24 A | 42 A | 86 A | 44 A | 37 A | 37 A |
| 23-24 | 27 A | 26 A | 18 A | 35 A | 53 A | 32 A | 39 A | 32 A |
| Day Total | 1589 P | 3932 A | 3647 A | 3602 A | 3921 A | 4607 A | 3650 A | 3568 A |
| AM Peak Hour | - | 08-09 | 09-10 | 10-11 | 09-10 | 09-10 | 08-09 | 09-10 |
| AM Peak Traffic | | 399 | 366 | 315 | 524 | 475 | 364 | 327 |
| PM Peak Hour | 16-17 | 15-16 | 15-16 | 12-13 | 12-13 | 13-14 | 16-17 | 15-16 |
| PM Peak Traffic | 311 | 282 | 252 | 261 | 262 | 386 | 258 | 281 |


Peak-Hour Volumes on SR 28
East of SR 267
Peak-Hour Volume (veh/hour)
1200
1000
800
600
400
01-Jan-03
05-Jan-03
09-Jan-03
13-Jan-03
17-Jan-03
21-Jan-03
25-Jan-03
29-Jan-03
DATE
AM Pk-HR EB
AM Pk-HR WB
PM Pk-HR EB
PM Pk-HR WB


Peak-Hour Volumes on SR 28
West of SR 267
Peak-Hour Volume (veh/hour)
1000
900
800
700
600
500
400
300
01-Jan-03
05-Jan-03
09-Jan-03
13-Jan-03
17-Jan-03
21-Jan-03
25-Jan-03
29-Jan-03
DATE
AM Pk-HR EB
AM Pk-HR WB
PM Pk-HR EB
PM Pk-HR WB

CALTRANS TRAFFIC VOLUMES

REPORT : OTM32580

REPORT TITLE : DETAIL ALL VEHICLE HOURLY COUNT REPORT

PARAMETERS

From Date : 01/01/2003

To Date : 01/31/2003

***Stations :*** Dist. 03

Traffic Stations :

164,165

W. of 267

***Other :***

| | PK | WK |
|---|---|---|
| EB | 1174 | 990 |
| WB | 1005 | 891 |

03/13/2003

08:26:19

# CALTRANS TRAFFIC VOLUMES

## Detail All Vehicle Hourly Count Report

| Dist | Sta | Co | Rte | Postmile | Leg | Type | Description | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 03 | 164 | PLA | 028 | 009.340 | -B | C | KINGS BEACH, JCT. RTE. 267 NORTH | | | | E-W | | | | | | | | |
| 03 | 165 | PLA | 028 | 009.340 | -A | C | KINGS BEACH, JCT. RTE. 267 NORTH | | | | E-W | | | | | | | | |

CALTRANS TRAFFIC VOLUMES

REPORT : OTM32520

REPORT TITLE : Detail All Vehicle Hourly Count

***PARAMETERS :***

FROM DATE : 01/01/2003

TO DATE : 01/31/2003

***Stations :*** Dist. 03

Traffic Stations :

164,165

***Other :***

otmtv
03/13/2003
08:26:41

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | B |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 164
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: East

| Year | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 01 | JAN 02 | JAN 03 | JAN 04 | JAN 05 | JAN 06 | JAN 07 | JAN 08 |
| 0-1 | 163 A | 57 A | 72 A | 79 A | 71 A | 23 A | 29 A | 40 A |
| 1-2 | 160 A | 36 A | 45 A | 59 A | 44 A | 18 A | 18 A | 23 A |
| 2-3 | 124 A | 15 A | 21 A | 35 A | 27 A | 12 A | 18 A | 21 A |
| 3-4 | 66 A | 19 A | 10 A | 12 A | 15 A | 12 A | 6 A | 23 A |
| 4-5 | 50 A | 29 A | 24 A | 20 A | 15 A | 9 A | 9 A | 12 A |
| 5-6 | 36 A | 55 A | 40 A | 40 A | 23 A | 28 A | 35 A | 26 A |
| 6-7 | 81 A | 171 A | 144 A | 121 A | 73 A | 135 A | 145 A | 176 A |
| 7-8 | 316 A | 467 A | 444 A | 264 A | 192 A | 343 A | 340 A | 345 A |
| 8-9 | 462 A | 672 A | 618 A | 462 A | 349 A | 431 A | 470 A | 457 A |
| 9-10 | 552 A | 726 A | 647 A | 492 A | 453 A | 468 A | 451 A | 460 A |
| 10-11 | 563 A | 734 A | 641 A | 531 A | 447 A | 441 A | 402 A | 453 A |
| 11-12 | 706 A | 816 A | 683 A | 545 A | 475 A | 486 A | 460 A | 442 A |
| 12-13 | 665 A | 814 A | 691 A | 596 A | 491 A | 520 A | 489 A | 490 A |
| 13-14 | 633 A | 796 A | 705 A | 580 A | 453 A | 515 A | 492 A | 463 A |
| 14-15 | 662 A | 727 A | 721 A | 554 A | 431 A | 520 A | 520 A | 528 A |
| 15-16 | 683 A | 852 A | 853 A | 653 A | 487 A | 688 A | 692 A | 650 A |
| 16-17 | 711 A | 932 A | 902 A | 720 A | 530 A | 691 A | 781 A | 765 A |
| 17-18 | 740 A | 873 A | 841 A | 674 A | 475 A | 679 A | 688 A | 702 A |
| 18-19 | 613 A | 683 A | 615 A | 511 A | 392 A | 360 A | 439 A | 371 A |
| 19-20 | 437 A | 530 A | 408 A | 371 A | 257 A | 272 A | 273 A | 255 A |
| 20-21 | 344 A | 351 A | 339 A | 313 A | 215 A | 202 A | 208 A | 197 A |
| 21-22 | 321 A | 318 A | 299 A | 240 A | 130 A | 160 A | 190 A | 169 A |
| 22-23 | 203 A | 221 A | 263 A | 178 A | 91 A | 133 A | 120 A | 128 A |
| 23-24 | 142 A | 145 A | 177 A | 122 A | 56 A | 61 A | 72 A | 73 A |
| Day Total | 9433 A | 11039 A | 10203 A | 8172 A | 6192 A | 7207 A | 7347 A | 7269 A |
| AM Peak Hour | 11-12 | 11-12 | 11-12 | 11-12 | 11-12 | 11-12 | 08-09 | 09-10 |
| AM Peak Traffic | 706 | 816 | 683 | 545 | 475 | 486 | 470 | 460 |
| PM Peak Hour | 17-18 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 740 | 932 | 902 | 720 | 530 | 691 | 781 | 765 |

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CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | B |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 164
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: East

| Year | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 09 | JAN 10 | JAN 11 | JAN 12 | JAN 13 | JAN 14 | JAN 15 | JAN 16 |
| 0-1 | 27 A | 60 A | 83 A | 78 A | 31 A | 27 A | 38 A | 33 A |
| 1-2 | 21 A | 15 A | 78 A | 49 A | 21 A | 17 A | 18 A | 29 A |
| 2-3 | 14 A | 26 A | 35 A | 36 A | 12 A | 18 A | 14 A | 17 A |
| 3-4 | 9 A | 15 A | 24 A | 28 A | 9 A | 14 A | 12 A | 10 A |
| 4-5 | 16 A | 23 A | 19 A | 16 A | 17 A | 9 A | 10 A | 10 A |
| 5-6 | 32 A | 37 A | 21 A | 21 A | 29 A | 37 A | 35 A | 35 A |
| 6-7 | 145 A | 150 A | 101 A | 70 A | 143 A | 150 A | 148 A | 125 A |
| 7-8 | 354 A | 347 A | 227 A | 212 A | 343 A | 359 A | 353 A | 357 A |
| 8-9 | 480 A | 415 A | 395 A | 356 A | 473 A | 438 A | 438 A | 486 A |
| 9-10 | 467 A | 396 A | 478 A | 479 A | 406 A | 428 A | 438 A | 454 A |
| 10-11 | 416 A | 403 A | 455 A | | 379 A | 367 A | 410 A | 418 A |
| 11-12 | 494 A | 467 A | 494 A | 410 A | 447 A | 445 A | 441 A | 449 A |
| 12-13 | 506 A | 452 A | 517 A | 477 A | 459 A | 476 A | 462 A | 539 A |
| 13-14 | 454 A | 524 A | 453 A | 486 A | 443 A | 482 A | 453 A | 457 A |
| 14-15 | 527 A | 511 A | 410 A | 420 A | 473 A | 534 A | 496 A | 488 A |
| 15-16 | 615 A | 622 A | 566 A | 459 A | 594 A | 610 A | 632 A | 624 A |
| 16-17 | 672 A | 694 A | 604 A | 448 A | 658 A | 721 A | 764 A | 754 A |
| 17-18 | 621 A | 651 A | 626 A | 472 A | 631 A | 615 A | 658 A | 709 A |
| 18-19 | 372 A | 447 A | 474 A | 334 A | 360 A | 362 A | 359 A | 419 A |
| 19-20 | 266 A | 324 A | 337 A | 217 A | 216 A | 246 A | 261 A | 297 A |
| 20-21 | 173 A | 262 A | 251 A | 162 A | 174 A | 170 A | 206 A | 214 A |
| 21-22 | 135 A | 223 A | 263 A | 143 A | 128 A | 169 A | 172 A | 167 A |
| 22-23 | 145 A | 179 A | 220 A | 99 A | 110 A | 124 A | 136 A | 126 A |
| 23-24 | 93 A | 97 A | 131 A | 39 A | 56 A | 55 A | 69 A | 59 A |
| Day Total | 7054 A | 7340 A | 7262 A | 5511 P | 6612 A | 6873 A | 7023 A | 7276 A |
| AM Peak Hour | 11-12 | 11-12 | 11-12 | 09-10 | 08-09 | 11-12 | 11-12 | 08-09 |
| AM Peak Traffic | 494 | 467 | 494 | 479 | 473 | 445 | 441 | 486 |
| PM Peak Hour | 16-17 | 16-17 | 17-18 | 13-14 | 16-17 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 672 | 694 | 626 | 486 | 658 | 721 | 764 | 754 |

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CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | B |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 164
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: East

| Year | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 17 | JAN 18 | JAN 19 | JAN 20 | JAN 21 | JAN 22 | JAN 23 | JAN 24 |
| 0-1 | 31 A | 118 A | 124 A | 55 A | 28 A | 29 A | 36 A | 37 A |
| 1-2 | 20 A | 72 A | 61 A | 29 A | 17 A | 26 A | 16 A | 28 A |
| 2-3 | 16 A | 33 A | 33 A | 33 A | 12 A | 8 A | 21 A | 14 A |
| 3-4 | 8 A | 19 A | 20 A | 22 A | 5 A | 12 A | 12 A | 13 A |
| 4-5 | 22 A | 20 A | 20 A | 14 A | 16 A | 8 A | 17 A | 13 A |
| 5-6 | 33 A | 29 A | 17 A | 39 A | 36 A | 26 A | 24 A | 28 A |
| 6-7 | 154 A | 93 A | 61 A | 130 A | 151 A | 143 A | 159 A | 144 A |
| 7-8 | 343 A | 269 A | 238 A | 295 A | 339 A | 322 A | 359 A | 318 A |
| 8-9 | 485 A | 423 A | 421 A | 454 A | 444 A | 420 A | 427 A | 497 A |
| 9-10 | 460 A | 474 A | 540 A | 495 A | 426 A | 401 A | 414 A | 465 A |
| 10-11 | 434 A | 461 A | 564 A | 542 A | 410 A | 374 A | 411 A | 386 A |
| 11-12 | 498 A | 537 A | 565 A | 525 A | 482 A | 437 A | 477 A | 462 A |
| 12-13 | 502 A | 528 A | 641 A | 601 A | 531 A | 454 A | 492 A | 502 A |
| 13-14 | 491 A | 598 A | 522 A | 558 A | 470 A | 495 A | 454 A | 476 A |
| 14-15 | 596 A | 646 A | 589 A | 527 A | 463 A | 500 A | 543 A | 545 A |
| 15-16 | 685 A | 700 A | 683 A | 606 A | 566 A | 657 A | 620 A | 656 A |
| 16-17 | 803 A | 781 A | 674 A | 730 A | 628 A | 721 A | 629 A | 711 A |
| 17-18 | 745 A | 693 A | 630 A | 627 A | 623 A | 534 A | 551 A | 690 A |
| 18-19 | 494 A | 743 A | 484 A | 396 A | 335 A | 354 A | 345 A | 507 A |
| 19-20 | 376 A | 486 A | 397 A | 261 A | 221 A | 230 A | 225 A | 351 A |
| 20-21 | 334 A | 366 A | 328 A | 198 A | 166 A | 191 A | 197 A | 289 A |
| 21-22 | 270 A | 326 A | 232 A | 137 A | 151 A | 120 A | 190 A | 246 A |
| 22-23 | 255 A | 260 A | 183 A | 120 A | 87 A | 114 A | 112 A | 204 A |
| 23-24 | 159 A | 180 A | 96 A | 45 A | 45 A | 61 A | 81 A | 132 A |
| Day Total | 8214 A | 8855 A | 8123 A | 7439 A | 6652 A | 6637 A | 6812 A | 7714 A |
| AM Peak Hour | 11-12 | 11-12 | 11-12 | 10-11 | 11-12 | 11-12 | 11-12 | 08-09 |
| AM Peak Traffic | 498 | 537 | 565 | 542 | 482 | 437 | 477 | 497 |
| PM Peak Hour | 16-17 | 16-17 | 15-16 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 803 | 781 | 683 | 730 | 628 | 721 | 629 | 711 |

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CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | B |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 164
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: East

| Year | Sat | Sun | Mon | Tue | Wed | Thu | Fri |
|---|---|---|---|---|---|---|---|
| 2003 | JAN 25 | JAN 26 | JAN 27 | JAN 28 | JAN 29 | JAN 30 | JAN 31 |
| 0-1 | 76 A | 90 A | 28 A | 44 A | 28 A | 37 A | 33 A |
| 1-2 | 93 A | 49 A | 26 A | 35 A | 15 A | 21 A | 27 A |
| 2-3 | 55 A | 39 A | 15 A | 15 A | 8 A | 21 A | 8 A |
| 3-4 | 23 A | 22 A | 13 A | 19 A | 10 A | 6 A | 12 A |
| 4-5 | 14 A | 16 A | 15 A | 10 A | 10 A | 17 A | 18 A |
| 5-6 | 38 A | 28 A | 41 A | 32 A | 26 A | 25 A | 24 A |
| 6-7 | 93 A | 75 A | 162 A | 141 A | 168 A | 159 A | 151 A |
| 7-8 | 219 A | 224 A | 340 A | 350 A | 367 A | 337 A | 353 A |
| 8-9 | 458 A | 394 A | 469 A | 449 A | 422 A | 410 A | 482 A |
| 9-10 | 532 A | 504 A | 434 A | 421 A | 400 A | 440 A | 442 A |
| 10-11 | 501 A | 503 A | 434 A | 380 A | 361 A | 418 A | 424 A |
| 11-12 | 512 A | 471 A | 469 A | 429 A | 410 A | 416 A | 512 A |
| 12-13 | 519 A | 563 A | 546 A | 438 A | 470 A | 465 A | 536 A |
| 13-14 | 552 A | 506 A | 489 A | 458 A | 471 A | 498 A | 486 A |
| 14-15 | 524 A | 594 A | 497 A | 478 A | 473 A | 472 A | 563 A |
| 15-16 | 598 A | 466 A | 607 A | 626 A | 591 A | 615 A | 696 A |
| 16-17 | 690 A | 328 A | 627 A | 728 A | 659 A | 717 A | 791 A |
| 17-18 | 690 A | 308 A | 517 A | 650 A | 653 A | 670 A | 722 A |
| 18-19 | 567 A | 219 A | 287 A | 383 A | 363 A | 391 A | 491 A |
| 19-20 | 398 A | 287 A | 210 A | 255 A | 232 A | 286 A | 374 A |
| 20-21 | 324 A | 220 A | 157 A | 171 A | 175 A | 205 A | 288 A |
| 21-22 | 319 A | 177 A | 152 A | 180 A | 175 A | 149 A | 307 A |
| 22-23 | 258 A | 86 A | 104 A | 91 A | 95 A | 110 A | 300 A |
| 23-24 | 131 A | 45 A | 52 A | 61 A | 61 A | 70 A | 156 A |
| Day Total | 8184 A | 6214 A | 6691 A | 6844 A | 6643 A | 6955 A | 8196 A |
| AM Peak Hour | 09-10 | 09-10 | 08-09 | 08-09 | 08-09 | 09-10 | 11-12 |
| AM Peak Traffic | 532 | 504 | 469 | 449 | 422 | 440 | 512 |
| PM Peak Hour | 16-17 | 14-15 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 690 | 594 | 627 | 728 | 659 | 717 | 791 |

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CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | B |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 164
Location Type: Control Station
Lanes: 2
Lane Code: 1

7-Day Periods

EAST

| | 7-Day Total | Daily Average |
|---|---|---|
| 1st | 52976 | 7568 |
| 2nd | 49652 | 7093 |
| 3rd | | |
| 4th | | |

5-Day Periods

EAST

| | 5-Day Total | Weekday Average |
|---|---|---|
| 1st | 35998 | 7200 |
| 2nd | 35254 | 7051 |
| 3rd | | |
| 4th | | |

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03/13/2003
08:26:41

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | B |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 164
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: West

| Year | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 01 | JAN 02 | JAN 03 | JAN 04 | JAN 05 | JAN 06 | JAN 07 | JAN 08 |
| 0-1 | 183 A | 91 A | 100 A | 117 A | 88 A | 38 A | 28 A | 43 A |
| 1-2 | 181 A | 56 A | 32 A | 60 A | 57 A | 13 A | 28 A | 36 A |
| 2-3 | 141 A | 31 A | 36 A | 42 A | 30 A | 10 A | 15 A | 26 A |
| 3-4 | 120 A | 18 A | 29 A | 27 A | 20 A | 20 A | 15 A | 24 A |
| 4-5 | 67 A | 28 A | 27 A | 20 A | 20 A | 14 A | 13 A | 12 A |
| 5-6 | 86 A | 69 A | 69 A | 49 A | 41 A | 45 A | 53 A | 61 A |
| 6-7 | 116 A | 278 A | 235 A | 147 A | 103 A | 226 A | 236 A | 260 A |
| 7-8 | 338 A | 574 A | 487 A | 325 A | 224 A | 472 A | 474 A | 509 A |
| 8-9 | 383 A | 634 A | 589 A | 412 A | 335 A | 467 A | 440 A | 467 A |
| 9-10 | 370 A | 570 A | 542 A | 456 A | 419 A | 450 A | 419 A | 439 A |
| 10-11 | 443 A | 607 A | 546 A | 487 A | 381 A | 431 A | 409 A | 435 A |
| 11-12 | 675 A | 660 A | 671 A | 514 A | 404 A | 425 A | 405 A | 415 A |
| 12-13 | 695 A | 789 A | 653 A | 563 A | 415 A | 518 A | 494 A | 495 A |
| 13-14 | 728 A | 774 A | 647 A | 542 A | 463 A | 464 A | 442 A | 454 A |
| 14-15 | 690 A | 694 A | 672 A | 532 A | 414 A | 504 A | 492 A | 466 A |
| 15-16 | 707 A | 798 A | 771 A | 646 A | 458 A | 613 A | 611 A | 596 A |
| 16-17 | 762 A | 854 A | 964 A | 651 A | 500 A | 623 A | 697 A | 668 A |
| 17-18 | 808 A | 872 A | 789 A | 605 A | 458 A | 612 A | 553 A | 566 A |
| 18-19 | 583 A | 620 A | 534 A | 487 A | 316 A | 412 A | 442 A | 371 A |
| 19-20 | 439 A | 452 A | 404 A | 304 A | 264 A | 272 A | 301 A | 252 A |
| 20-21 | 280 A | 292 A | 264 A | 289 A | 182 A | 183 A | 195 A | 191 A |
| 21-22 | 252 A | 240 A | 285 A | 218 A | 153 A | 131 A | 171 A | 172 A |
| 22-23 | 229 A | 188 A | 266 A | 186 A | 77 A | 104 A | 140 A | 115 A |
| 23-24 | 137 A | 165 A | 199 A | 146 A | 68 A | 75 A | 66 A | 83 A |
| Day Total | 9413 A | 10354 A | 9811 A | 7825 A | 5890 A | 7122 A | 7139 A | 7156 A |
| AM Peak Hour | 11-12 | 11-12 | 11-12 | 11-12 | 09-10 | 07-08 | 07-08 | 07-08 |
| AM Peak Traffic | 675 | 660 | 671 | 514 | 419 | 472 | 474 | 509 |
| PM Peak Hour | 17-18 | 17-18 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 808 | 872 | 964 | 651 | 500 | 623 | 697 | 668 |

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03/13/2003
08:26:41

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | B |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 164
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: West

| Year | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 09 | JAN 10 | JAN 11 | JAN 12 | JAN 13 | JAN 14 | JAN 15 | JAN 16 |
| 0-1 | 43 A | 57 A | 147 A | 75 A | 41 A | 32 A | 45 A | 48 A |
| 1-2 | 25 A | 33 A | 138 A | 51 A | 25 A | 22 A | 24 A | 23 A |
| 2-3 | 9 A | 22 A | 39 A | 40 A | 11 A | 22 A | 22 A | 19 A |
| 3-4 | 14 A | 23 A | 29 A | 27 A | 14 A | 15 A | 14 A | 15 A |
| 4-5 | 20 A | 25 A | 27 A | 35 A | 19 A | 18 A | 21 A | 20 A |
| 5-6 | 53 A | 68 A | 50 A | 44 A | 52 A | 54 A | 45 A | 48 A |
| 6-7 | 268 A | 251 A | 138 A | 97 A | 229 A | 227 A | 257 A | 245 A |
| 7-8 | 495 A | 483 A | 294 A | 245 A | 424 A | 446 A | 476 A | 502 A |
| 8-9 | 456 A | 444 A | 391 A | 308 A | 481 A | 443 A | 456 A | 464 A |
| 9-10 | 440 A | 408 A | 383 A | 391 A | 386 A | 431 A | 449 A | 457 A |
| 10-11 | 425 A | 372 A | 440 A | | 379 A | 365 A | 412 A | 427 A |
| 11-12 | 439 A | 390 A | 441 A | 372 A | 394 A | 372 A | 397 A | 442 A |
| 12-13 | 510 A | 436 A | 446 A | 418 A | 422 A | 461 A | 487 A | 503 A |
| 13-14 | 442 A | 463 A | 410 A | 409 A | 443 A | 449 A | 427 A | 417 A |
| 14-15 | 512 A | 512 A | 471 A | 383 A | 455 A | 492 A | 438 A | 463 A |
| 15-16 | 549 A | 608 A | 538 A | 421 A | 562 A | 573 A | 556 A | 576 A |
| 16-17 | 571 A | 631 A | 635 A | 463 A | 616 A | 624 A | 641 A | 598 A |
| 17-18 | 566 A | 564 A | 660 A | 412 A | 484 A | 539 A | 582 A | 554 A |
| 18-19 | 353 A | 440 A | 461 A | 283 A | 370 A | 371 A | 342 A | 380 A |
| 19-20 | 264 A | 326 A | 325 A | 231 A | 238 A | 251 A | 259 A | 314 A |
| 20-21 | 178 A | 233 A | 209 A | 162 A | 174 A | 180 A | 205 A | 219 A |
| 21-22 | 153 A | 206 A | 233 A | 123 A | 116 A | 137 A | 170 A | 188 A |
| 22-23 | 116 A | 187 A | 191 A | 98 A | 93 A | 124 A | 109 A | 145 A |
| 23-24 | 71 A | 166 A | 120 A | 60 A | 61 A | 70 A | 69 A | 87 A |
| Day Total | 6972 A | 7348 A | 7216 A | 5148 P | 6489 A | 6718 A | 6903 A | 7154 A |
| AM Peak Hour | 07-08 | 07-08 | 11-12 | 09-10 | 08-09 | 07-08 | 07-08 | 07-08 |
| AM Peak Traffic | 495 | 483 | 441 | 391 | 481 | 446 | 476 | 502 |
| PM Peak Hour | 16-17 | 16-17 | 17-18 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 571 | 631 | 660 | 463 | 616 | 624 | 641 | 598 |

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03/13/2003
08:26:41

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | B |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 164
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: West

| Year | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 17 | JAN 18 | JAN 19 | JAN 20 | JAN 21 | JAN 22 | JAN 23 | JAN 24 |
| 0-1 | 44 A | 186 A | 107 A | 75 A | 31 A | 34 A | 40 A | 54 A |
| 1-2 | 18 A | 99 A | 78 A | 34 A | 16 A | 23 A | 29 A | 37 A |
| 2-3 | 19 A | 44 A | 48 A | 33 A | 12 A | 16 A | 23 A | 21 A |
| 3-4 | 23 A | 34 A | 45 A | 25 A | 11 A | 17 A | 18 A | 14 A |
| 4-5 | 11 A | 26 A | 32 A | 35 A | 26 A | 15 A | 15 A | 15 A |
| 5-6 | 57 A | 43 A | 39 A | 50 A | 40 A | 50 A | 66 A | 52 A |
| 6-7 | 256 A | 146 A | 108 A | 213 A | 254 A | 274 A | 280 A | 261 A |
| 7-8 | 481 A | 319 A | 277 A | 399 A | 473 A | 461 A | 455 A | 460 A |
| 8-9 | 477 A | 443 A | 430 A | 433 A | 466 A | 459 A | 437 A | 463 A |
| 9-10 | 453 A | 463 A | 526 A | 515 A | 413 A | 368 A | 401 A | 418 A |
| 10-11 | 418 A | 517 A | 517 A | 502 A | 392 A | 401 A | 374 A | 373 A |
| 11-12 | 492 A | 554 A | 629 A | 477 A | 374 A | 377 A | 389 A | 410 A |
| 12-13 | 498 A | 588 A | 580 A | 525 A | 497 A | 458 A | 485 A | 517 A |
| 13-14 | 480 A | 564 A | 570 A | 511 A | 467 A | 419 A | 456 A | 467 A |
| 14-15 | 528 A | 613 A | 569 A | 470 A | 460 A | 451 A | 473 A | 514 A |
| 15-16 | 679 A | 696 A | 576 A | 514 A | 528 A | 536 A | 567 A | 596 A |
| 16-17 | 776 A | 788 A | 642 A | 617 A | 543 A | 579 A | 477 A | 741 A |
| 17-18 | 742 A | 800 A | 543 A | 473 A | 457 A | 474 A | 493 A | 612 A |
| 18-19 | 516 A | 595 A | 391 A | 365 A | 329 A | 341 A | 359 A | 437 A |
| 19-20 | 367 A | 477 A | 384 A | 267 A | 243 A | 252 A | 239 A | 377 A |
| 20-21 | 266 A | 332 A | 275 A | 177 A | 169 A | 176 A | 216 A | 345 A |
| 21-22 | 333 A | 291 A | 226 A | 127 A | 134 A | 148 A | 168 A | 337 A |
| 22-23 | 288 A | 260 A | 207 A | 102 A | 91 A | 137 A | 133 A | 257 A |
| 23-24 | 245 A | 206 A | 138 A | 45 A | 45 A | 60 A | 76 A | 178 A |
| Day Total | 8467 A | 9084 A | 7937 A | 6984 A | 6471 A | 6526 A | 6669 A | 7956 A |
| AM Peak Hour | 11-12 | 11-12 | 11-12 | 09-10 | 07-08 | 07-08 | 07-08 | 08-09 |
| AM Peak Traffic | 492 | 554 | 629 | 515 | 473 | 461 | 455 | 463 |
| PM Peak Hour | 16-17 | 17-18 | 16-17 | 16-17 | 16-17 | 16-17 | 15-16 | 16-17 |
| PM Peak Traffic | 776 | 800 | 642 | 617 | 543 | 579 | 567 | 741 |

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03/13/2003
08:26:41

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | B |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 164
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: West

| Year | Sat | Sun | Mon | Tue | Wed | Thu | Fri |
|---|---|---|---|---|---|---|---|
| 2003 | JAN 25 | JAN 26 | JAN 27 | JAN 28 | JAN 29 | JAN 30 | JAN 31 |
| 0-1 | 99 A | 101 A | 39 A | 35 A | 38 A | 39 A | 31 A |
| 1-2 | 60 A | 64 A | 34 A | 31 A | 19 A | 28 A | 31 A |
| 2-3 | 57 A | 46 A | 23 A | 23 A | 16 A | 16 A | 18 A |
| 3-4 | 34 A | 58 A | 20 A | 15 A | 16 A | 13 A | 12 A |
| 4-5 | 17 A | 32 A | 14 A | 18 A | 10 A | 19 A | 20 A |
| 5-6 | 44 A | 51 A | 56 A | 50 A | 51 A | 48 A | 55 A |
| 6-7 | 133 A | 110 A | 227 A | 225 A | 259 A | 269 A | 260 A |
| 7-8 | 252 A | 213 A | 442 A | 463 A | 476 A | 476 A | 493 A |
| 8-9 | 391 A | 320 A | 429 A | 441 A | 449 A | 442 A | 461 A |
| 9-10 | 443 A | 428 A | 412 A | 418 A | 381 A | 404 A | 447 A |
| 10-11 | 448 A | 411 A | 420 A | 357 A | 412 A | 360 A | 413 A |
| 11-12 | 493 A | 444 A | 398 A | 418 A | 382 A | 436 A | 453 A |
| 12-13 | 496 A | 464 A | 445 A | 425 A | 483 A | 430 A | 542 A |
| 13-14 | 495 A | 505 A | 429 A | 382 A | 390 A | 425 A | 472 A |
| 14-15 | 533 A | 518 A | 469 A | 481 A | 436 A | 484 A | 499 A |
| 15-16 | 612 A | 434 A | 544 A | 555 A | 497 A | 578 A | 675 A |
| 16-17 | 791 A | 335 A | 561 A | 600 A | 605 A | 611 A | 730 A |
| 17-18 | 734 A | 283 A | 483 A | 580 A | 500 A | 492 A | 656 A |
| 18-19 | 512 A | 184 A | 327 A | 329 A | 373 A | 385 A | 502 A |
| 19-20 | 380 A | 295 A | 231 A | 266 A | 238 A | 298 A | 419 A |
| 20-21 | 302 A | 248 A | 154 A | 185 A | 182 A | 203 A | 291 A |
| 21-22 | 258 A | 150 A | 146 A | 159 A | 158 A | 172 A | 297 A |
| 22-23 | 214 A | 103 A | 93 A | 108 A | 114 A | 151 A | 304 A |
| 23-24 | 150 A | 65 A | 54 A | 50 A | 53 A | 71 A | 233 A |
| Day Total | 7948 A | 5862 A | 6450 A | 6614 A | 6538 A | 6850 A | 8314 A |
| AM Peak Hour | 11-12 | 11-12 | 07-08 | 07-08 | 07-08 | 07-08 | 07-08 |
| AM Peak Traffic | 493 | 444 | 442 | 463 | 476 | 476 | 493 |
| PM Peak Hour | 16-17 | 14-15 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 791 | 518 | 561 | 600 | 605 | 611 | 730 |

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | B |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 164
Location Type: Control Station
Lanes: 2
Lane Code: 1

7-Day Periods

WEST

| | 7-Day Total | Daily Average |
|---|---|---|
| 1st | 52752 | 7536 |
| 2nd | 48416 | 6917 |
| 3rd | | |
| 4th | | |

5-Day Periods

WEST

| | 5-Day Total | Weekday Average |
|---|---|---|
| 1st | 35731 | 7146 |
| 2nd | 34606 | 6921 |
| 3rd | | |
| 4th | | |

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | A |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 165
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: East

| Year | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 01 | JAN 02 | JAN 03 | JAN 04 | JAN 05 | JAN 06 | JAN 07 | JAN 08 |
| 0-1 | 160 A | 71 A | 84 A | 88 A | 87 A | 37 A | 38 A | 44 A |
| 1-2 | 162 A | 36 A | 31 A | 68 A | 43 A | 31 A | 22 A | 32 A |
| 2-3 | 104 A | 15 A | 23 A | 35 A | 31 A | 11 A | 20 A | 24 A |
| 3-4 | 64 A | 21 A | 9 A | 21 A | 14 A | 12 A | 7 A | 19 A |
| 4-5 | 42 A | 21 A | 23 A | 25 A | 15 A | 9 A | 15 A | 14 A |
| 5-6 | 49 A | 46 A | 48 A | 35 A | 32 A | 43 A | 38 A | 37 A |
| 6-7 | 67 A | 151 A | 163 A | 140 A | 86 A | 179 A | 176 A | 192 A |
| 7-8 | 180 A | 407 A | 357 A | 201 A | 170 A | 387 A | 384 A | 402 A |
| 8-9 | 268 A | 541 A | 469 A | 349 A | 265 A | 396 A | 507 A | 462 A |
| 9-10 | 330 A | 564 A | 559 A | 428 A | 369 A | 439 A | 451 A | 443 A |
| 10-11 | 445 A | 606 A | 600 A | 541 A | 379 A | 455 A | 409 A | 488 A |
| 11-12 | 735 A | 800 A | 664 A | 573 A | 454 A | 527 A | 502 A | 475 A |
| 12-13 | 743 A | 888 A | 762 A | 618 A | 528 A | 604 A | 561 A | 543 A |
| 13-14 | 731 A | 886 A | 764 A | 629 A | 554 A | 599 A | 552 A | 515 A |
| 14-15 | 799 A | 809 A | 817 A | 670 A | 522 A | 639 A | 614 A | 592 A |
| 15-16 | 827 A | 983 A | 988 A | 779 A | 580 A | 811 A | 788 A | 765 A |
| 16-17 | 946 A | 1158 A | 1174 A | 939 A | 748 A | 861 A | 945 A | 941 A |
| 17-18 | 937 A | 1132 A | 1087 A | 845 A | 594 A | 756 A | 761 A | 772 A |
| 18-19 | 755 A | 815 A | 713 A | 592 A | 409 A | 426 A | 453 A | 411 A |
| 19-20 | 492 A | 570 A | 470 A | 419 A | 291 A | 274 A | 288 A | 285 A |
| 20-21 | 381 A | 353 A | 355 A | 357 A | 226 A | 196 A | 234 A | 201 A |
| 21-22 | 335 A | 332 A | 346 A | 254 A | 170 A | 190 A | 200 A | 202 A |
| 22-23 | 238 A | 251 A | 300 A | 204 A | 130 A | 152 A | 132 A | 142 A |
| 23-24 | 165 A | 162 A | 198 A | 125 A | 90 A | 72 A | 96 A | 87 A |
| Day Total | 9955 A | 11618 A | 11004 A | 8935 A | 6787 A | 8106 A | 8193 A | 8088 A |
| AM Peak Hour | 11-12 | 11-12 | 11-12 | 11-12 | 11-12 | 11-12 | 08-09 | 10-11 |
| AM Peak Traffic | 735 | 800 | 664 | 573 | 454 | 527 | 507 | 488 |
| PM Peak Hour | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 946 | 1158 | 1174 | 939 | 748 | 861 | 945 | 941 |

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CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | A |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 165
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: East

| Year | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 09 | JAN 10 | JAN 11 | JAN 12 | JAN 13 | JAN 14 | JAN 15 | JAN 16 |
| 0-1 | 30 A | 67 A | 206 A | 81 A | 49 A | 30 A | 37 A | 35 A |
| 1-2 | 16 A | 34 A | 180 A | 58 A | 18 A | 17 A | 23 A | 33 A |
| 2-3 | 19 A | 28 A | 36 A | 36 A | 15 A | 20 A | 17 A | 16 A |
| 3-4 | 15 A | 22 A | 25 A | 30 A | 12 A | 18 A | 19 A | 10 A |
| 4-5 | 15 A | 15 A | 22 A | 18 A | 18 A | 12 A | 14 A | 12 A |
| 5-6 | 38 A | 32 A | 23 A | 24 A | 42 A | 39 A | 44 A | 33 A |
| 6-7 | 174 A | 161 A | 95 A | 73 A | 169 A | 179 A | 186 A | 158 A |
| 7-8 | 376 A | 363 A | 206 A | 155 A | 386 A | 384 A | 420 A | 394 A |
| 8-9 | 478 A | 445 A | 328 A | 255 A | 484 A | 497 A | 477 A | 476 A |
| 9-10 | 468 A | 397 A | 381 A | 401 A | 419 A | 447 A | 457 A | 423 A |
| 10-11 | 445 A | 424 A | 536 A | | 437 A | 386 A | 424 A | 411 A |
| 11-12 | 571 A | 516 A | 562 A | 404 A | 469 A | 467 A | 487 A | 509 A |
| 12-13 | 571 A | 510 A | 559 A | 482 A | 528 A | 510 A | 545 A | 613 A |
| 13-14 | 523 A | 602 A | 534 A | 512 A | 526 A | 535 A | 517 A | 544 A |
| 14-15 | 580 A | 603 A | 527 A | 510 A | 567 A | 657 A | 603 A | 586 A |
| 15-16 | 684 A | 768 A | 642 A | 529 A | 687 A | 728 A | 750 A | 807 A |
| 16-17 | 821 A | 910 A | 768 A | 593 A | 783 A | 868 A | 913 A | 943 A |
| 17-18 | 649 A | 745 A | 805 A | 540 A | 684 A | 656 A | 667 A | 767 A |
| 18-19 | 388 A | 500 A | 540 A | 376 A | 412 A | 395 A | 414 A | 490 A |
| 19-20 | 289 A | 351 A | 360 A | 232 A | 247 A | 257 A | 268 A | 319 A |
| 20-21 | 188 A | 239 A | 291 A | 174 A | 176 A | 175 A | 240 A | 250 A |
| 21-22 | 157 A | 260 A | 291 A | 155 A | 144 A | 156 A | 224 A | 210 A |
| 22-23 | 168 A | 260 A | 226 A | 136 A | 119 A | 142 A | 154 A | 190 A |
| 23-24 | 121 A | 187 A | 137 A | 65 A | 69 A | 77 A | 83 A | 100 A |
| Day Total | 7784 A | 8439 A | 8280 A | 5839 P | 7460 A | 7652 A | 7983 A | 8329 A |
| AM Peak Hour | 11-12 | 11-12 | 11-12 | 11-12 | 08-09 | 08-09 | 11-12 | 11-12 |
| AM Peak Traffic | 571 | 516 | 562 | 404 | 484 | 497 | 487 | 509 |
| PM Peak Hour | 16-17 | 16-17 | 17-18 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 821 | 910 | 805 | 593 | 783 | 868 | 913 | 943 |

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | A |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 165
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: East

| Year | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 17 | JAN 18 | JAN 19 | JAN 20 | JAN 21 | JAN 22 | JAN 23 | JAN 24 |
| 0-1 | 49 A | 281 A | 145 A | 64 A | 33 A | 29 A | 38 A | 48 A |
| 1-2 | 30 A | 125 A | 67 A | 30 A | 17 A | 28 A | 17 A | 26 A |
| 2-3 | 22 A | 34 A | 47 A | 34 A | 16 A | 8 A | 14 A | 20 A |
| 3-4 | 8 A | 26 A | 25 A | 17 A | 9 A | 13 A | 11 A | 11 A |
| 4-5 | 20 A | 28 A | 25 A | 18 A | 18 A | 8 A | 17 A | 11 A |
| 5-6 | 42 A | 35 A | 23 A | 43 A | 43 A | 32 A | 43 A | 37 A |
| 6-7 | 168 A | 96 A | 57 A | 167 A | 184 A | 170 A | 183 A | 176 A |
| 7-8 | 384 A | 205 A | 192 A | 311 A | 393 A | 391 A | 423 A | 373 A |
| 8-9 | 497 A | 355 A | 344 A | 399 A | 490 A | 446 A | 478 A | 478 A |
| 9-10 | 461 A | 492 A | 450 A | 449 A | 468 A | 414 A | 434 A | 442 A |
| 10-11 | 452 A | 546 A | 574 A | 460 A | 449 A | 406 A | 463 A | 435 A |
| 11-12 | 575 A | 659 A | 581 A | 528 A | 509 A | 466 A | 515 A | 540 A |
| 12-13 | 586 A | 710 A | 683 A | 656 A | 566 A | 516 A | 547 A | 535 A |
| 13-14 | 592 A | 713 A | 643 A | 613 A | 535 A | 557 A | 546 A | 568 A |
| 14-15 | 771 A | 768 A | 654 A | 610 A | 535 A | 605 A | 634 A | 631 A |
| 15-16 | 850 A | 842 A | 757 A | 696 A | 683 A | 750 A | 708 A | 841 A |
| 16-17 | 1124 A | 1050 A | 867 A | 863 A | 738 A | 821 A | 754 A | 963 A |
| 17-18 | 900 A | 990 A | 797 A | 709 A | 612 A | 530 A | 641 A | 882 A |
| 18-19 | 654 A | 903 A | 553 A | 420 A | 354 A | 390 A | 413 A | 659 A |
| 19-20 | 472 A | 554 A | 451 A | 289 A | 233 A | 264 A | 278 A | 429 A |
| 20-21 | 426 A | 392 A | 375 A | 205 A | 197 A | 203 A | 236 A | 370 A |
| 21-22 | 396 A | 374 A | 259 A | 170 A | 161 A | 148 A | 232 A | 349 A |
| 22-23 | 414 A | 296 A | 195 A | 130 A | 107 A | 127 A | 154 A | 306 A |
| 23-24 | 302 A | 194 A | 128 A | 59 A | 57 A | 62 A | 120 A | 228 A |
| Day Total | 10195 A | 10668 A | 8892 A | 7940 A | 7407 A | 7384 A | 7899 A | 9358 A |
| AM Peak Hour | 11-12 | 11-12 | 11-12 | 11-12 | 11-12 | 11-12 | 11-12 | 11-12 |
| AM Peak Traffic | 575 | 659 | 581 | 528 | 509 | 466 | 515 | 540 |
| PM Peak Hour | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 1124 | 1050 | 867 | 863 | 738 | 821 | 754 | 963 |

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | A |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 165
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: East

| Year | Sat | Sun | Mon | Tue | Wed | Thu | Fri |
|---|---|---|---|---|---|---|---|
| 2003 | JAN 25 | JAN 26 | JAN 27 | JAN 28 | JAN 29 | JAN 30 | JAN 31 |
| 0-1 | 116 A | 103 A | 38 A | 38 A | 30 A | 41 A | 50 A |
| 1-2 | 105 A | 53 A | 32 A | 47 A | 21 A | 33 A | 32 A |
| 2-3 | 61 A | 52 A | 11 A | 22 A | 12 A | 16 A | 16 A |
| 3-4 | 25 A | 28 A | 11 A | 14 A | 10 A | 10 A | 13 A |
| 4-5 | 14 A | 19 A | 17 A | 10 A | 11 A | 19 A | 14 A |
| 5-6 | 38 A | 29 A | 45 A | 38 A | 34 A | 37 A | 33 A |
| 6-7 | 90 A | 63 A | 187 A | 168 A | 171 A | 167 A | 181 A |
| 7-8 | 179 A | 173 A | 381 A | 370 A | 457 A | 417 A | 401 A |
| 8-9 | 351 A | 275 A | 473 A | 497 A | 446 A | 441 A | 497 A |
| 9-10 | 460 A | 372 A | 433 A | 455 A | 424 A | 451 A | 450 A |
| 10-11 | 515 A | 451 A | 447 A | 383 A | 410 A | 444 A | 445 A |
| 11-12 | 595 A | 490 A | 483 A | 463 A | 443 A | 465 A | 563 A |
| 12-13 | 616 A | 596 A | 605 A | 519 A | 580 A | 541 A | 623 A |
| 13-14 | 632 A | 625 A | 584 A | 534 A | 532 A | 556 A | 567 A |
| 14-15 | 656 A | 720 A | 583 A | 579 A | 560 A | 557 A | 654 A |
| 15-16 | 758 A | 512 A | 709 A | 743 A | 721 A | 761 A | 837 A |
| 16-17 | 940 A | 443 A | 702 A | 839 A | 769 A | 825 A | 1011 A |
| 17-18 | 882 A | 395 A | 526 A | 693 A | 705 A | 693 A | 922 A |
| 18-19 | 653 A | 248 A | 315 A | 396 A | 406 A | 459 A | 592 A |
| 19-20 | 436 A | 287 A | 211 A | 270 A | 257 A | 298 A | 446 A |
| 20-21 | 336 A | 254 A | 182 A | 199 A | 217 A | 235 A | 380 A |
| 21-22 | 343 A | 206 A | 156 A | 176 A | 166 A | 185 A | 376 A |
| 22-23 | 290 A | 119 A | 115 A | 114 A | 112 A | 157 A | 372 A |
| 23-24 | 164 A | 52 A | 69 A | 70 A | 64 A | 114 A | 249 A |
| Day Total | 9255 A | 6565 A | 7315 A | 7637 A | 7558 A | 7922 A | 9724 A |
| AM Peak Hour | 11-12 | 11-12 | 11-12 | 08-09 | 07-08 | 11-12 | 11-12 |
| AM Peak Traffic | 595 | 490 | 483 | 497 | 457 | 465 | 563 |
| PM Peak Hour | 16-17 | 14-15 | 15-16 | 16-17 | 16-17 | 16-17 | 16-17 |
| PM Peak Traffic | 940 | 720 | 709 | 839 | 769 | 825 | 1011 |

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | A |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 165
Location Type: Control Station
Lanes: 2
Lane Code: 1

7-Day Periods

EAST

| | 7-Day Total | Daily Average |
|---|---|---|
| 1st | 61179 | 8740 |
| 2nd | 55808 | 7973 |
| 3rd | | |
| 4th | | |

5-Day Periods

EAST

| | 5-Day Total | Weekday Average |
|---|---|---|
| 1st | 41619 | 8324 |
| 2nd | 39988 | 7998 |
| 3rd | | |
| 4th | | |

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report

'2003
:41

| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | A |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 165
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: West

| Year | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 01 | JAN 02 | JAN 03 | JAN 04 | JAN 05 | JAN 06 | JAN 07 | JAN 08 |
| 0-1 | 210 A | 121 A | 132 A | 128 A | 103 A | 50 A | 34 A | 51 A |
| 1-2 | 211 A | 62 A | 49 A | 66 A | 63 A | 15 A | 25 A | 32 A |
| 2-3 | 208 A | 45 A | 45 A | 51 A | 48 A | 12 A | 18 A | 29 A |
| 3-4 | 144 A | 27 A | 32 A | 33 A | 22 A | 22 A | 18 A | 21 A |
| 4-5 | 84 A | 40 A | 31 A | 35 A | 30 A | 20 A | 16 A | 23 A |
| 5-6 | 99 A | 76 A | 78 A | 55 A | 50 A | 62 A | 54 A | 60 A |
| 6-7 | 139 A | 269 A | 279 A | 187 A | 148 A | 247 A | 260 A | 292 A |
| 7-8 | 417 A | 706 A | 689 A | 459 A | 385 A | 512 A | 524 A | 566 A |
| 8-9 | 639 A | 934 A | 830 A | 622 A | 569 A | 542 A | 549 A | 594 A |
| 9-10 | 657 A | 918 A | 784 A | 671 A | 650 A | 621 A | 557 A | 569 A |
| 10-11 | 747 A | 901 A | 853 A | 778 A | 601 A | 600 A | 566 A | 602 A |
| 11-12 | 925 A | 1005 A | 891 A | 757 A | 624 A | 577 A | 512 A | 508 A |
| 12-13 | 893 A | 915 A | 823 A | 726 A | 592 A | 649 A | 599 A | 564 A |
| 13-14 | 840 A | 876 A | 777 A | 752 A | 590 A | 564 A | 545 A | 543 A |
| 14-15 | 807 A | 836 A | 800 A | 619 A | 536 A | 606 A | 547 A | 531 A |
| 15-16 | 828 A | 924 A | 888 A | 712 A | 587 A | 704 A | 699 A | 636 A |
| 16-17 | 769 A | 879 A | 950 A | 690 A | 528 A | 640 A | 718 A | 670 A |
| 17-18 | 749 A | 836 A | 773 A | 648 A | 540 A | 617 A | 643 A | 624 A |
| 18-19 | 598 A | 633 A | 594 A | 511 A | 377 A | 457 A | 486 A | 427 A |
| 19-20 | 504 A | 481 A | 450 A | 355 A | 331 A | 313 A | 328 A | 311 A |
| 20-21 | 350 A | 358 A | 338 A | 310 A | 229 A | 220 A | 244 A | 226 A |
| 21-22 | 288 A | 292 A | 317 A | 263 A | 175 A | 182 A | 203 A | 194 A |
| 22-23 | 248 A | 223 A | 269 A | 229 A | 120 A | 120 A | 146 A | 149 A |
| 23-24 | 172 A | 192 A | 188 A | 165 A | 65 A | 83 A | 79 A | 82 A |
| Day Total | 11526 A | 12549 A | 11860 A | 9822 A | 7963 A | 8435 A | 8370 A | 8304 A |
| AM Peak Hour | 11-12 | 11-12 | 11-12 | 10-11 | 09-10 | 09-10 | 10-11 | 10-11 |
| AM Peak Traffic | 925 | 1005 | 891 | 778 | 650 | 621 | 566 | 602 |
| PM Peak Hour | 12-13 | 15-16 | 16-17 | 13-14 | 12-13 | 15-16 | 16-17 | 16-17 |
| PM Peak Traffic | 893 | 924 | 950 | 752 | 592 | 704 | 718 | 670 |

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CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | A |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 165
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: West

| Year | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 09 | JAN 10 | JAN 11 | JAN 12 | JAN 13 | JAN 14 | JAN 15 | JAN 16 |
| 0-1 | 52 A | 58 A | 88 A | 87 A | 52 A | 41 A | 58 A | 55 A |
| 1-2 | 25 A | 27 A | 65 A | 63 A | 22 A | 28 A | 26 A | 34 A |
| 2-3 | 12 A | 29 A | 43 A | 52 A | 17 A | 20 A | 25 A | 23 A |
| 3-4 | 11 A | 23 A | 26 A | 30 A | 18 A | 19 A | 17 A | 18 A |
| 4-5 | 24 A | 28 A | 33 A | 41 A | 23 A | 27 A | 27 A | 20 A |
| 5-6 | 63 A | 72 A | 49 A | 53 A | 60 A | 54 A | 49 A | 52 A |
| 6-7 | 293 A | 290 A | 156 A | 123 A | 262 A | 253 A | 296 A | 282 A |
| 7-8 | 542 A | 498 A | 402 A | 389 A | 484 A | 462 A | 521 A | 516 A |
| 8-9 | 555 A | 538 A | 532 A | 487 A | 572 A | 554 A | 543 A | 533 A |
| 9-10 | 542 A | 508 A | 576 A | 592 A | 520 A | 547 A | 564 A | 591 A |
| 10-11 | 581 A | 494 A | 546 A | | 529 A | 489 A | 561 A | 519 A |
| 11-12 | 530 A | 506 A | 532 A | 571 A | 546 A | 460 A | 484 A | 524 A |
| 12-13 | 591 A | 516 A | 528 A | 529 A | 551 A | 557 A | 578 A | 579 A |
| 13-14 | 524 A | 492 A | 497 A | 553 A | 511 A | 478 A | 525 A | 471 A |
| 14-15 | 574 A | 570 A | 509 A | 498 A | 548 A | 571 A | 510 A | 518 A |
| 15-16 | 619 A | 638 A | 506 A | 476 A | 636 A | 635 A | 621 A | 623 A |
| 16-17 | 598 A | 688 A | 565 A | 488 A | 663 A | 645 A | 673 A | 660 A |
| 17-18 | 595 A | 591 A | 525 A | 455 A | 529 A | 596 A | 678 A | 618 A |
| 18-19 | 386 A | 420 A | 410 A | 329 A | 446 A | 387 A | 438 A | 455 A |
| 19-20 | 277 A | 341 A | 326 A | 276 A | 257 A | 308 A | 289 A | 374 A |
| 20-21 | 200 A | 243 A | 234 A | 200 A | 207 A | 190 A | 245 A | 248 A |
| 21-22 | 161 A | 219 A | 259 A | 144 A | 151 A | 164 A | 191 A | 184 A |
| 22-23 | 115 A | 174 A | 233 A | 123 A | 111 A | 148 A | 119 A | 153 A |
| 23-24 | 83 A | 147 A | 159 A | 72 A | 87 A | 77 A | 81 A | 79 A |
| Day Total | 7953 A | 8110 A | 7799 A | 6631 P | 7802 A | 7710 A | 8119 A | 8129 A |
| AM Peak Hour | 10-11 | 08-09 | 09-10 | 09-10 | 08-09 | 08-09 | 09-10 | 09-10 |
| AM Peak Traffic | 581 | 538 | 576 | 592 | 572 | 554 | 564 | 591 |
| PM Peak Hour | 15-16 | 16-17 | 16-17 | 13-14 | 16-17 | 16-17 | 17-18 | 16-17 |
| PM Peak Traffic | 619 | 688 | 565 | 553 | 663 | 645 | 678 | 660 |

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | A |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 165
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: West

| Year | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri |
|---|---|---|---|---|---|---|---|---|
| 2003 | JAN 17 | JAN 18 | JAN 19 | JAN 20 | JAN 21 | JAN 22 | JAN 23 | JAN 24 |
| 0-1 | 48 A | 142 A | 150 A | 97 A | 45 A | 39 A | 52 A | 61 A |
| 1-2 | 23 A | 86 A | 89 A | 48 A | 27 A | 24 A | 22 A | 35 A |
| 2-3 | 17 A | 41 A | 71 A | 42 A | 17 A | 13 A | 17 A | 29 A |
| 3-4 | 22 A | 38 A | 64 A | 40 A | 16 A | 17 A | 10 A | 16 A |
| 4-5 | 19 A | 34 A | 42 A | 41 A | 34 A | 19 A | 19 A | 21 A |
| 5-6 | 63 A | 52 A | 42 A | 58 A | 63 A | 52 A | 66 A | 64 A |
| 6-7 | 288 A | 160 A | 134 A | 269 A | 286 A | 283 A | 298 A | 287 A |
| 7-8 | 516 A | 431 A | 406 A | 537 A | 545 A | 471 A | 469 A | 488 A |
| 8-9 | 624 A | 603 A | 610 A | 667 A | 566 A | 541 A | 518 A | 558 A |
| 9-10 | 585 A | 584 A | 781 A | 835 A | 513 A | 489 A | 485 A | 535 A |
| 10-11 | 575 A | 624 A | 729 A | 877 A | 508 A | 490 A | 424 A | 475 A |
| 11-12 | 597 A | 621 A | 774 A | 726 A | 500 A | 473 A | 497 A | 572 A |
| 12-13 | 644 A | 656 A | 730 A | 794 A | 620 A | 519 A | 566 A | 585 A |
| 13-14 | 575 A | 619 A | 649 A | 696 A | 523 A | 490 A | 556 A | 538 A |
| 14-15 | 596 A | 592 A | 653 A | 642 A | 522 A | 530 A | 540 A | 559 A |
| 15-16 | 721 A | 749 A | 653 A | 660 A | 601 A | 603 A | 666 A | 632 A |
| 16-17 | 773 A | 709 A | 627 A | 696 A | 621 A | 645 A | 567 A | 717 A |
| 17-18 | 686 A | 693 A | 608 A | 546 A | 559 A | 547 A | 596 A | 620 A |
| 18-19 | 498 A | 574 A | 450 A | 420 A | 361 A | 386 A | 396 A | 469 A |
| 19-20 | 373 A | 444 A | 451 A | 310 A | 269 A | 273 A | 290 A | 353 A |
| 20-21 | 249 A | 353 A | 364 A | 223 A | 193 A | 208 A | 233 A | 340 A |
| 21-22 | 298 A | 324 A | 254 A | 148 A | 182 A | 184 A | 197 A | 303 A |
| 22-23 | 233 A | 309 A | 242 A | 122 A | 111 A | 143 A | 138 A | 251 A |
| 23-24 | 172 A | 244 A | 166 A | 52 A | 61 A | 75 A | 83 A | 150 A |
| Day Total | 9195 A | 9682 A | 9739 A | 9546 A | 7743 A | 7514 A | 7705 A | 8658 A |
| AM Peak Hour | 08-09 | 10-11 | 09-10 | 10-11 | 08-09 | 08-09 | 08-09 | 11-12 |
| AM Peak Traffic | 624 | 624 | 781 | 877 | 566 | 541 | 518 | 572 |
| PM Peak Hour | 16-17 | 15-16 | 12-13 | 12-13 | 16-17 | 16-17 | 15-16 | 16-17 |
| PM Peak Traffic | 773 | 749 | 730 | 794 | 621 | 645 | 666 | 717 |

otmtv
03/13/2003
08:26:41

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | A |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 165
Location Type: Control Station
Lanes: 2
Lane Code: 1

Direction of Count: West

| Year | Sat | Sun | Mon | Tue | Wed | Thu | Fri |
|---|---|---|---|---|---|---|---|
| 2003 | JAN 25 | JAN 26 | JAN 27 | JAN 28 | JAN 29 | JAN 30 | JAN 31 |
| 0-1 | 83 A | 138 A | 49 A | 47 A | 57 A | 51 A | 37 A |
| 1-2 | 67 A | 73 A | 81 A | 30 A | 21 A | 28 A | 27 A |
| 2-3 | 57 A | 60 A | 27 A | 21 A | 18 A | 14 A | 25 A |
| 3-4 | 37 A | 62 A | 33 A | 15 A | 18 A | 13 A | 12 A |
| 4-5 | 24 A | 38 A | 28 A | 22 A | 14 A | 24 A | 23 A |
| 5-6 | 54 A | 57 A | 79 A | 55 A | 53 A | 51 A | 57 A |
| 6-7 | 168 A | 122 A | 264 A | 259 A | 302 A | 292 A | 306 A |
| 7-8 | 343 A | 348 A | 516 A | 474 A | 504 A | 491 A | 520 A |
| 8-9 | 641 A | 564 A | 569 A | 534 A | 553 A | 562 A | 570 A |
| 9-10 | 598 A | 666 A | 581 A | 517 A | 534 A | 498 A | 578 A |
| 10-11 | 581 A | 664 A | 617 A | 479 A | 512 A | 502 A | 501 A |
| 11-12 | 579 A | 628 A | 566 A | 487 A | 492 A | 507 A | 519 A |
| 12-13 | 575 A | 607 A | 595 A | 550 A | 547 A | 520 A | 651 A |
| 13-14 | 573 A | 601 A | 545 A | 464 A | 475 A | 501 A | 548 A |
| 14-15 | 561 A | 561 A | 542 A | 527 A | 501 A | 515 A | 550 A |
| 15-16 | 650 A | 445 A | 657 A | 626 A | 612 A | 681 A | 753 A |
| 16-17 | 720 A | 341 A | 642 A | 678 A | 697 A | 649 A | 710 A |
| 17-18 | 643 A | 306 A | 531 A | 706 A | 589 A | 580 A | 652 A |
| 18-19 | 475 A | 244 A | 356 A | 376 A | 423 A | 466 A | 519 A |
| 19-20 | 396 A | 437 A | 264 A | 307 A | 310 A | 320 A | 404 A |
| 20-21 | 337 A | 313 A | 187 A | 237 A | 239 A | 236 A | 290 A |
| 21-22 | 311 A | 180 A | 158 A | 185 A | 207 A | 170 A | 261 A |
| 22-23 | 257 A | 137 A | 122 A | 125 A | 118 A | 150 A | 260 A |
| 23-24 | 184 A | 80 A | 65 A | 66 A | 63 A | 83 A | 183 A |
| Day Total | 8914 A | 7672 A | 8074 A | 7787 A | 7859 A | 7904 A | 8956 A |
| AM Peak Hour | 08-09 | 09-10 | 10-11 | 08-09 | 08-09 | 08-09 | 09-10 |
| AM Peak Traffic | 641 | 666 | 617 | 534 | 553 | 562 | 578 |
| PM Peak Hour | 16-17 | 12-13 | 15-16 | 17-18 | 16-17 | 15-16 | 15-16 |
| PM Peak Traffic | 720 | 607 | 657 | 706 | 697 | 681 | 753 |

CALTRANS TRAFFIC VOLUMES
Detail All Vehicle Hourly Count Report



| District | County | Route | Prefix | Postmile | Leg |
|---|---|---|---|---|---|
| 03 | PLA | 028 | | 9.340 | A |

Location Description
KINGS BEACH, JCT. RTE. 267

Traffic Station: 165
Location Type: Control Station
Lanes: 2
Lane Code: 1

7-Day Periods

WEST

| | 7-Day Total | Daily Average |
|---|---|---|
| 1st | 60376 | 8625 |
| 2nd | 57752 | 8250 |
| 3rd | | |
| 4th | | |

5-Day Periods

WEST

| | 5-Day Total | Weekday Average |
|---|---|---|
| 1st | 40955 | 8191 |
| 2nd | 41166 | 8233 |
| 3rd | | |
| 4th | | |

**Scenario # E** ESTIMATED TURNING-MOVEMENT VOLUMES *Martis Valley Community Plan EIR*

Year: 2021

Land Use: Impact of Revised Proposed Land Use Diagram (Plus Project minus No Project)

Roadway Network: Four Lane SR 267

Time Period: Summer

| Intersection | NODE # | Northbound LT | Northbound T | Northbound RT | Southbound LT | Southbound T | Southbound RT | Eastbound LT | Eastbound T | Eastbound RT | Westbound LT | Westbound T | Westbound RT | Total Intersection Approach Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SR 89/SR 267 Bypass/I-80 Westbound | 311 | 242 | 54 | — | — | 61 | 0 | — | — | — | 256 | — | 0 | 924 |
| SR 89/SR 267 Bypass/I-80 Eastbound | 310 | — | 296 | 233 | 11 | 306 | — | 0 | — | 209 | — | — | — | 1,365 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Westbound | 266 | -2 | -4 | — | — | 17 | 4 | — | — | — | — | — | — | 281 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Eastbound | 286 | — | 3 | — | — | 17 | — | -9 | — | -13 | — | — | — | 284 |
| Glenshire Drive/Donner Pass Road (Existing SR 267) | 145 | 20 | — | 11 | — | — | — | — | -1 | 26 | 129 | -138 | — | 192 |
| Bridge Street/Donner Pass Road | 143 | 4 | 19 | 42 | 0 | 10 | -2 | 1 | -45 | 6 | 75 | -23 | 0 | 230 |
| Bridge Street/West River Street | 160 | 190 | 61 | 4 | -5 | 91 | 5 | 10 | 7 | 146 | 7 | -2 | -6 | 668 |
| Brockway Road (Existing SR 267)/Palisades Drive | 162 | -3 | 234 | — | — | 224 | -8 | 20 | — | -3 | — | — | — | 626 |
| Brockway Road (Existing SR 267)/Martis Valley Road | 164 | 38 | 245 | 0 | 0 | 245 | -26 | -2 | 0 | 23 | 0 | 0 | 0 | 687 |
| SR 267 Bypass/SR 267/Brockway Road (Existing SR 267)/Joerger Drive | 166 | 288 | 539 | 0 | 0 | 513 | 2 | -10 | 0 | 290 | 0 | 0 | 0 | 1,788 |
| SR 267/Airport Road/Schaffer Mill Road | 167 | 71 | 515 | 58 | 50 | 484 | 269 | 255 | 39 | 68 | 66 | 70 | 57 | 2,169 |
| SR 267/Northstar Drive | 230 | 63 | 70 | 61 | 189 | 59 | 255 | 325 | 79 | 35 | 46 | 43 | 0 | 1,455 |
| SR 267/SR 28 | — | 0 | 0 | 0 | 47 | 0 | 61 | 49 | 0 | 0 | 0 | 0 | 100 | 257 |
| SR 89 South/Donner Pass Road | 137 | 18 | 3 | -6 | 0 | -4 | 4 | -4 | -3 | 23 | 8 | -9 | 0 | 167 |

***Scenario # F***

ESTIMATED TURNING-MOVEMENT VOLUMES

Year: 2021

Land Use: Impact of Revised Proposed Land Use Diagram (Plus Project minus No Project)

Roadway Network: Four Lane SR 267

Time Period: 30th Highest Winter Peak Hour

| Intersection | NODE # | Northbound LT | Northbound T | Northbound RT | Southbound LT | Southbound T | Southbound RT | Eastbound LT | Eastbound T | Eastbound RT | Westbound LT | Westbound T | Westbound RT | Total Intersection Approach Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SR 89/SR 267 Bypass/I-80 Westbound | 311 | 170 | 48 | — | — | 416 | 0 | — | — | — | 87 | — | 0 | 1,032 |
| SR 89/SR 267 Bypass/I-80 Eastbound | 310 | — | 218 | 142 | 1 | 415 | — | 0 | — | 84 | — | — | — | 1,170 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Westbound | 266 | -2 | 16 | — | — | 86 | 4 | — | — | — | — | — | — | 370 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Eastbound | 286 | — | 14 | — | — | 86 | — | -9 | — | -4 | — | — | — | 373 |
| Glenshire Drive/Donner Pass Road (Existing SR 267) | 145 | 21 | — | 6 | — | — | — | — | 8 | 26 | 120 | -38 | — | 288 |
| Bridge Street/Donner Pass Road | 143 | 5 | 20 | 54 | 0 | 10 | -2 | 1 | -20 | 7 | 44 | -17 | 0 | 245 |
| Bridge Street/West River Street | 160 | 199 | 63 | 6 | -4 | 63 | 2 | 22 | 7 | 232 | 8 | -3 | -6 | 749 |
| Brockway Road (Existing SR 267)/Palisades Drive | 162 | -3 | 250 | — | — | 141 | -9 | 18 | — | -3 | — | — | — | 556 |
| Brockway Road (Existing SR 267)/Martis Valley Road | 164 | 26 | 249 | 0 | 0 | 167 | -29 | -2 | 0 | 11 | 0 | 0 | 0 | 586 |
| SR 267 Bypass/SR 267/Brockway Road (Existing SR 267)/Joerger Drive | 166 | 274 | 367 | 0 | 0 | 499 | 1 | -7 | 0 | 185 | 0 | 0 | 0 | 1,485 |
| SR 267/Airport Road/Schaffer Mill Road | 167 | 41 | 329 | 34 | 57 | 358 | 269 | 255 | 39 | 45 | 30 | 70 | 57 | 1,751 |
| SR 267/Northstar Drive | 230 | 52 | 27 | 61 | 189 | 88 | 156 | 429 | 79 | 42 | 46 | 43 | 0 | 1,442 |
| SR 267/SR 28 | — | 0 | 0 | 0 | 47 | 0 | 59 | 54 | 0 | 0 | 0 | 0 | 99 | 259 |
| SR 89 South/Donner Pass Road | 137 | 9 | 4 | -17 | 0 | -7 | 0 | -5 | -2 | 23 | 8 | -7 | 0 | 143 |

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Phone (916) 553-5900
www.ucfinc.com

"BRINGING THE BEST IN WORKPLACE INNOVATION AND SERVICE"
Steelcase Exemplary Performance Award Dealer
Steelcase Design Partnership

# Quotation



| Quote Number | Quote Date | Customer Order Number | Customer Number | Account Representative | Proj No. |
|---|---|---|---|---|---|
| 38366 | 5/20/2003 | | PAC010 | GWEN GRIMM-LAURIDSON | |

**QUOTE TO:** ACCOUNTS PAYABLE
PACIFIC MUNICIPAL CONSULTANTS
10461 OLD PLACERVILLE RD # 110
SACRAMENTO, CA 95827

P: 1.916.361.8384
F: 1.916.361.1574

**SHIP TO:** JENNIFER LeBEOUF
PACIFIC MUNICIPAL CONSULTANTS
10461 OLD PLACERVILLE RD # 110
SACRAMENTO, CA 95827

P: 1.916.361.8384 X205
F: 1.916.361.1574

**Terms** NET 10 DAYS

| Line | Quantity | Catalog Number / Description | Unit Price | Extended Amount |
|---|---|---|---|---|
| | | QUOTE VALID FOR 30 DAYS<br>REVISED ON 5/21/03 -<br>DISCOUNT IS 37.47% OFF LIST PRICING<br><br>Thank you for your interest in utilizing United Corporate Furnishings for your workplace needs. Sincerely, Gwen Grimm-Lauridson (916)553-5900 x241<br><br>Please review this quote carefully. If you don't understand something or have any questions, let us know immediately. This product is manufactured especially for you and cannot be returned. | | |
| BEG | Subsection | HILARY & BETH | | |
| 1 | 1.00 | WBHS DETAILS<br>BINDER HOLDER- SLATWALL<br><br>BASIC :9215 SHADE | 12.94 | 12.94 |
| | Tag For: | HILARY & BETH | | |
| 2 | 2.00 | CFTR DETAILS<br>FOOT REST<br><br>BASIC :5103 CHARCOAL | 51.75 | 103.50 |
| | Tag For: | HILARY & BETH | | |
| 3 | 2.00 | WLTS DETAILS<br>LETTER TRAY - SLATWALL/FREE<br>10 X 2 1/4 X 12 1/2<br>BASIC :9215 SHADE | 12.94 | 25.88 |
| | Tag For: | HILARY & BETH | | |
| 4 | 9.00 | WPFS DETAILS<br>PAPERFLO MANAGER - 11" SLATWAL | 35.44 | 318.96 |

ACCEPTED BY_____ TITLE_____ DATE_____

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# Quotation



| Quote Number | Quote Date | Customer Order Number | Customer Number | Account Representative | Proj No. |
|---|---|---|---|---|---|
| 38366 | 5/20/200 | | PAC010 | GWEN GRIMM-LAURIDSON | |

| Line | Quantity | Catalog Number / Description | Unit Price | Extended Amount |
|---|---|---|---|---|
| | | 11 X 10 X 14 3/8<br>BASIC :9215 SHADE<br>BRACKET :5052 PEWTER | | |
| | Tag For: | HILARY & BETH | | |
| 5 | 2.00 | WPCS DETAILS<br>PEN/PENCIL CUP - SLATWALL<br>3 1/8 X 3 1/2 X 5 1/4<br>BASIC :9215 SHADE<br>BRACKET :5052 PEWTER | 14.06 | 28.12 |
| | Tag For: | HILARY & BETH | | |
| 6 | 2.00 | LPISA DETAILS<br>PISA LIGHT - FREESTANDING<br>BASIC :3763 VENETIAN GOLD | 72.56 | 145.12 |
| | Tag For: | FINISH TBD BY CLIENT<br>HILARY & BETH | | |
| 7 | 4.00 | WS48 DETAILS<br>SLATWALL - 48"<br>48 X 1 1/8 X 12<br>BASIC :5052 PEWTER | 78.75 | 315.00 |
| | Tag For: | HILARY & BETH | | |
| 8 | 6.00 | WMEDIA DETAILS<br>SLATWALL MEDIA HOLDER<br>BASIC :5052 PEWTER | 14.06 | 84.36 |
| | Tag For: | HILARY & BETH | | |
| 9 | 2.00 | LT2R DETAILS<br>T2 LIGHT 24" RECESSED MOUNT<br>BASIC :835 BLACK | 120.94 | 241.88 |
| | Tag For: | HILARY & BETH | | |
| 10 | 2.00 | WTCS DETAILS<br>TELEPHONE CADDY-SLATWALL<br>9 X 10 3/8 X 3 1/4<br>BASIC :5052 PEWTER | 37.13 | 74.26 |
| | Tag For: | HILARY & BETH | | |
| 11 | 2.00 | MBB4216 STEELCAS<br>BIN-STORAGE,15-5/8X41-3/4X17-1/8<br>BASIC :4799 PLATINUM | 235.69 | 471.38 |
| | Tag For: | HILARY & BETH | | |
| 12 | 2.00 | PWCHB42 STEELCAS<br>BRACE-HORIZONTAL,42W | 35.00 | 70.00 |

ACCEPTED BY_____ TITLE_____ DATE_____

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# Quotation



| Quote Number | Quote Date | Customer Order Number | Customer Number | Account Representative | Proj No. |
|---|---|---|---|---|---|
| 38366 | 5/20/200 | | PAC010 | GWEN GRIMM-LAURIDSON | |

| Line | Quantity | Catalog Number / Description | Unit Price | Extended Amount |
|---|---|---|---|---|
| | | BASIC :4799 PLATINUM | | |
| | Tag For: | HILARY & BETH | | |
| 13 | 2.00 | PWC80 STEELCAS<br>CHANNELS-WALL,64-3/4L | 46.88 | 93.76 |
| | | BASIC :4799 PLATINUM | | |
| | Tag For: | HILARY & BETH | | |
| 14 | 1.00 | 98512A STEELCAS<br>DIVIDER-STORAGE,CTN/4,<br>10-3/4X4X4-1/2 | 23.13 | 23.13 |
| | Tag For: | HILARY & BETH | | |
| 15 | 2.00 | MHBS4216 STEELCAS<br>SHELF-BOOKSHELF,HALF HEIGHT,<br>14-3/4X42X7-1/2<br>BASIC :4798 STERLING | 109.38 | 218.76 |
| | Tag For: | HILARY & BETH | | |
| 16 | 1.00 | 742541 STEELCAS<br>BOOKCASE-OPEN,2 ADJ SHELVES,<br>15X42X41-1/4<br>BASIC :4798 STERLING | 313.88 | 313.88 |
| | Tag For: | HILARY & BETH | | |
| 17 | 2.00 | 827CW STEELCAS<br>COUNTERWEIGHT-LATERAL FILE | 46.13 | 92.26 |
| | Tag For: | HILARY & BETH | | |
| 18 | 1.00 | 847CW STEELCAS<br>COUNTERWEIGHT-LATERAL FILE | 57.94 | 57.94 |
| | Tag For: | HILARY & BETH | | |
| 19 | 1.00 | 830561RW STEELCAS<br>FILE-LAT,REC HDWE,1 SHELF,4<br>DWR,RAILS,LK,18X30X64 11/16<br>BASIC :4799 PLATINUM<br>LOCK :9201 POLISHED CHROME<br>PULL :4799 PLATINUM<br>KEYS :SK SPEC<br>1-PLUG | 626.63 | 626.63 |
| | Tag For: | HILARY & BETH | | |
| 20 | 1.00 | 830361RW STEELCAS<br>FILE-LATERAL,REC HDWE,3 DWR,<br>RAILS,LK,18X30X41 1/4<br>BASIC :4798 STERLING | 420.19 | 420.19 |

ACCEPTED BY_____ TITLE_____ DATE_____

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# Quotation



| Quote Number | Quote Date | Customer Order Number | Customer Number | Account Representative | Proj No. |
|---|---|---|---|---|---|
| 38366 | 5/20/200: | | PAC010 | GWEN GRIMM-LAURIDSON | |

| Line | Quantity | Catalog Number / Description | Unit Price | Extended Amount |
|---|---|---|---|---|
| | | LOCK :9201 POLISHED CHROME<br>PULL :4798 STERLING<br>KEYS :SK SPEC<br>1-PLUG | | |
| | Tag For: | HILARY & BETH | | |
| 21 | 1.00 | 842511DV STEELCAS<br>FILE-LATERAL,REC HDWE,5 SHELF,<br>DIV,LK,18X42X64 11/16<br>BASIC :4799 PLATINUM<br>LOCK :9201 POLISHED CHROME<br>PULL :4799 PLATINUM<br>KEYS :SK SPEC<br>1-PLUG | 883.69 | 883.69 |
| | Tag For: | HILARY & BETH | | |
| 22 | 2.00 | 142HF STEELCAS<br>HANGING FOLDER FRAME-42W | 5.63 | 11.26 |
| | Tag For: | HILARY & BETH | | |
| 23 | 2.00 | TB4222 STEELCAS<br>TACKBOARD-AVENIR APPL,22X42<br>TKBD :P361 LUPINE | 124.38 | 248.76 |
| | Tag For: | FINISH TBD BY CLIENT<br>HILARY & BETH | | |
| 24 | 6.00 | LOCK9201FR STEELCAS<br>LOCK CYLINDER-FR SERIES,<br>POLISHED CHROME<br>LOCK :9201 POLISHED CHROME<br>KEYS :SK SPEC<br>1-FR315<br>1-FR316<br>4-FR317 | N/C | N/C |
| | Tag For: | HILARY & BETH | | |
| 25 | 1.00 | TS5YMB212 STEELCAS<br>TS BRACKETS-MOUNTING,HARDWARE,<br>SET/2,12H<br>BASIC :4798 STERLING | 49.50 | 49.50 |
| | Tag For: | HILARY & BETH | | |
| 26 | 2.00 | TS5YMFUPVP STEELCAS<br>TS FILE UNIT-M,PERF FR/CASE,<br>V TP,18-1/4X30-1/2X23-1/4<br>PULL :9211 NICKEL<br>TOP-SURF:2313 NATURAL | 598.50 | 1,197.00 |
| | Tag For: | HILARY & BETH | | |
| 27 | 1.00 | TS5YMPPFBF STEELCAS | 466.50 | 466.50 |

ACCEPTED BY_____ TITLE_____ DATE_____

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Steelcase Design Partnership

# Quotation



| Quote Number | Quote Date | Customer Order Number | Customer Number | Account Representative | Proj No. |
|---|---|---|---|---|---|
| 38366 | 5/20/200: | | PAC010 | GWEN GRIMM-LAURIDSON | |

| Line | Quantity | Catalog Number / Description | Unit Price | Extended Amount |
|---|---|---|---|---|
| | | TS PEDESTAL-MBL,BX/FL,PERF FR<br>/CASE,FLOATING TP,22X18X27-5/8<br>PULL :9211 NICKEL<br>TOP-SURF:2313 NATURAL | | |
| | Tag For: | HILARY & BETH | | |
| 28 | 5.00 | TS2PPT STEELCAS<br>TS PENCIL TRAY-STORAGE APPL | 5.00 | 25.00 |
| | Tag For: | HILARY & BETH | | |
| 29 | 1.00 | TS5YSL1218 STEELCAS<br>TS SCREEN-SLATWALL,12X18<br><br>SURFACE :8043 CLEAR ANODIZED ALUMINUM | 47.00 | 47.00 |
| | Tag For: | HILARY & BETH | | |
| 30 | 1.00 | TS33667 STEELCAS<br>TS STOOL-CRUSH CAN,MEDIUM,24"<br><br>BODY :5B66 PLUM<br>TOP/BTM :5809 BLACK<br>OPTIONS * * OPTIONS * *<br>HANDLE *OPT:HANDLE OPTION | 81.00 | 81.00 |
| | Tag For: | HILARY & BETH | | |
| 31 | 2.00 | TS5YMT2436 STEELCAS<br>TS TABLE DESK-MOBILE,<br>RECTANGULAR,FLOATER,24X36<br>BASIC :4798 STERLING<br>TOP-SURF:2313 NATURAL<br>OPTIONS * * OPTIONS * *<br>LEGS *OPT:LEG OPTIONS<br>LEGS STD:STANDARD LEGS | 251.00 | 502.00 |
| | Tag For: | HILARY & BETH | | |
| 32 | 1.00 | TS5YMTOV42 STEELCAS<br>TS TABLE DESK-MOBILE,OVAL,<br>CONFERENCING,42<br>BASIC :4798 STERLING<br>TOP-SURF:2313 NATURAL<br>OPTIONS * * OPTIONS * *<br>LEGS *OPT:LEG OPTIONS<br>LEGS STD:STANDARD LEGS | 284.50 | 284.50 |
| | Tag For: | HILARY & BETH | | |
| 33 | 2.00 | TS5YMT66R STEELCAS<br>TS TABLE DESK-MOBILE,RIGHT<br>HAND,66W<br>BASIC :4798 STERLING<br>TOP-SURF:2313 NATURAL<br>OPTIONS * * OPTIONS * * | 352.00 | 704.00 |

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| | | LEGS *OPT:LEG OPTIONS<br>LEGS STD:STANDARD LEGS | | |
| | Tag For: | HILARY & BETH | | |
| 34 | 2.00 | TS38002 STEELCAS<br>TS CHAIR-SPRINGBOARD,TASK,<br>LUMBAR HGT ADJ,UPRIGHT LOCK<br>PLASTIC :6205 BLACK<br>UPHLSTRY:5B66 PLUM<br>OPTIONS * * OPTIONS * *<br>SEAT *OPT:SEAT OPTIONS<br>ADJ SEAT SLIDING SEAT DEPTH<br>ARMS *OPT:ARM OPTIONS<br>T HW ADJ TASK ARM, HGT/WDTH ADJ | 358.50 | 717.00 |
| 35 | 1.00 | TS5LEGCLP STEELCAS<br>TS WIRE MANAGER KIT-LEG CLIP/<br>UNDER WORKSURFACE,SET/6<br>BASIC :6000 BLACK | 16.50 | 16.50 |
| | Tag For: | HILARY & BETH | | |
| 36 | 2.00 | TS5SKLBNE STEELCAS<br>TS WIRE MANAGER-SKELETON BONE<br>BASIC :6000 BLACK | 47.00 | 94.00 |
| | Tag For: | HILARY & BETH | | |
| | | Subsection | Sub Total | 9,065.66 |
| | | SACRAMENTO COUNTY SALES TAX 7.75% | | 702.59 |
| | | Included In Grand Total | Total | 9,768.25 |
| END | Subsection | HILARY & BETH | | |
| BEG | Subsection | PAT | | |
| 37 | 1.00 | WSWANS DETAILS<br>BRACKET - SLATWALL, ANSWER<br>12 1/2" X 3" X 2"<br>BASIC :5052 PEWTER | 13.50 | 13.50 |
| | Tag For: | PAT | | |
| 38 | 3.00 | WPFS DETAILS<br>PAPERFLO MANAGER - 11" SLATWAL<br>11 X 10 X 14 3/8<br>BASIC :9216 RAIN<br>BRACKET :5052 PEWTER | 35.44 | 106.32 |
| | Tag For: | PAT | | |
| 39 | 1.00 | WPCS DETAILS<br>PEN/PENCIL CUP - SLATWALL<br>3 1/8 X 3 1/2 X 5 1/4<br>BASIC :9216 RAIN<br>BRACKET :5052 PEWTER | 14.06 | 14.06 |

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|---|---|---|---|---|
| | Tag For: | PAT | | |
| 40 | 1.00 | WS60 DETAILS<br>SLATWALL - 60"<br><br>BASIC :5052 PEWTER | 98.44 | 98.44 |
| | Tag For: | PAT | | |
| 41 | 1.00 | 736580 STEELCAS<br>BOOKCASE-OPEN,5 ADJ SHELVES,<br>15X36X80-1/2<br>BASIC :0835 BLACK(TRANSITIONAL) | 448.31 | 448.31 |
| | Tag For: | PAT | | |
| 42 | 1.00 | 827CW STEELCAS<br>COUNTERWEIGHT-LATERAL FILE | 46.13 | 46.13 |
| | Tag For: | PAT | | |
| 43 | 1.00 | 136561 STEELCAS<br>FILE-LATERAL,REC PULL,1 SHELF,<br>4 DWR,LK,18X36X63-19/32<br>BASIC :0835 BLACK(TRANSITIONAL)<br>LOCK :9201 POLISHED CHROME<br>KEYS :SK SPEC<br>1-PLUG<br>OPTIONS * * OPTIONS * *<br>OPT ACC *OPT:OPTIONAL ACCESSORIES<br>800RW ADJUSTABLE RAILS | 664.88 | 664.88 |
| | Tag For: | PAT | | |
| 44 | 3.00 | TS40007 STEELCAS<br>TS MARKER BOARD-GROUP WORK,<br>HANGING<br>SURFACE :2728 UV CLOUD | 97.50 | 292.50 |
| | Tag For: | PAT | | |
| 45 | 2.00 | TS40008 STEELCAS<br>TS TACK BOARD-GROUP WORK,<br>HANGING<br>BASIC :6000 BLACK | 84.50 | 169.00 |
| | Tag For: | PAT | | |
| 46 | 2.00 | TS40006 STEELCAS<br>TS WALL TRACK-GROUP WORK,<br>4X96X3<br>BASIC :6000 BLACK | 61.50 | 123.00 |
| | Tag For: | PAT | | |
| 47 | 1.00 | TS760HB STEELCAS<br>HORIZONTAL BRACE-60W | 33.75 | 33.75 |

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|---|---|---|---|---|
| | | BASIC :4762 CREAM(TRANSITIONAL) | | |
| | Tag For: | PAT | | |
| 49 | 2.00 | TS71530MBB STEELCAS<br>MARKERBOARD-BINDER BIN DR<br>APPL,15-1/2X30<br>PLASTIC :6650 (TRANSITIONAL) SODIUM | 43.04 | 86.08 |
| | Tag For: | PAT | | |
| 50 | 1.00 | TS7060BL STEELCAS<br>OVERHEAD STORAGE BIN-60W<br><br>BASIC :4762 CREAM(TRANSITIONAL)<br>LOCK :9201 POLISHED CHROME<br>KEYS :SK SPEC<br>1-PLUG<br>OPTIONS * * OPTIONS * *<br>DOOR *OPT:DOOR OPTIONS<br>STL DOOR STD:STEEL DOOR<br>OPT ACC *OPT:OPTIONAL ACCESSORIES<br>DIVIDER DIVIDER | 333.63 | 333.63 |
| | Tag For: | PAT | | |
| 51 | 1.00 | TS7BSWHC STEELCAS<br>WALL HANGING CHANNEL,66H<br><br>BASIC :4762 CREAM(TRANSITIONAL) | 26.04 | 26.04 |
| | Tag For: | PAT | | |
| | | Subsection | Sub Total | 2,455.64 |
| | | SACRAMENTO COUNTY SALES TAX 7.75% | | 190.31 |
| | | Included In Grand Total | Total | 2,645.95 |
| END | Subsection | PAT | | |
| BEG | Subsection | CONFERENCE ROOM | | |
| 52 | 4.00 | TS40007 STEELCAS<br>TS MARKER BOARD-GROUP WORK,<br>HANGING<br>SURFACE :2728 UV CLOUD | 97.50 | 390.00 |
| | Tag For: | CONFERENCE ROOM | | |
| 53 | 2.00 | TS40008 STEELCAS<br>TS TACK BOARD-GROUP WORK,<br>HANGING<br>BASIC :6000 BLACK | 84.50 | 169.00 |
| | Tag For: | CONFERENCE ROOM | | |
| 54 | 2.00 | TS40006 STEELCAS<br>TS WALL TRACK-GROUP WORK, | 61.50 | 123.00 |

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|---|---|---|---|---|
| | | 4X96X3<br>BASIC :6000 BLACK | | |
| | Tag For: | CONFERENCE ROOM | | |
| | | Subsection | Sub Total | 682.00 |
| | | SACRAMENTO COUNTY SALES TAX 7.75% | | 52.86 |
| | | Included In Grand Total | Total | 734.86 |
| END | Subsection | CONFERENCE ROOM | | |
| BEG | Subsection | PHASE 2 WORKSTATION RECONFIGURE | | |
| 55 | 1.00 | FBC30SR STEELCAS<br>BASE COVER-DUPLEX/TRIPLEX,30W | 21.88 | 21.88 |
| | | BASIC :4762 CREAM(TRANSITIONAL) | | |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 56 | 1.00 | FBC42SR STEELCAS<br>BASE COVER-DUPLEX/TRIPLEX,42W | 25.00 | 25.00 |
| | | BASIC :4762 CREAM(TRANSITIONAL) | | |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 57 | 8.00 | WPFS DETAILS<br>PAPERFLO MANAGER - 11" SLATWAL<br>11 X 10 X 14 3/8<br>BASIC :9216 RAIN<br>BRACKET :5052 PEWTER | 35.44 | 283.52 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 58 | 5.00 | WPCS DETAILS<br>PEN/PENCIL CUP - SLATWALL<br>3 1/8 X 3 1/2 X 5 1/4<br>BASIC :9216 RAIN<br>BRACKET :5052 PEWTER | 14.06 | 70.30 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 59 | 6.00 | WS36 DETAILS<br>SLATWALL - 36"<br>36 X 1 1/8 X 12<br>BASIC :5052 PEWTER | 59.63 | 357.78 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 60 | 6.00 | WSWUSA DETAILS<br>USA MOUNTING BRACKET<br>2 7/8 X 12 3/4 X 2 1/8<br>BASIC :5052 PEWTER | 13.50 | 81.00 |
| | Tag For: | PHASE 2 WORKSTATION | | |

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| | | RECONFIGURE | | |
| 61 | 1.00 | MBB3616 STEELCAS<br>BIN-STORAGE,15-5/8X35-3/4X17-1/8<br>BASIC :4762 CREAM(TRANSITIONAL) | 253.75 | 253.75 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 62 | 4.00 | MBB4216 STEELCAS<br>BIN-STORAGE,15-5/8X41-3/4X17-1/8<br>BASIC :4762 CREAM(TRANSITIONAL) | 261.88 | 1,047.52 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 63 | 1.00 | MBB4816 STEELCAS<br>BIN-STORAGE,15-5/8X47-3/4X17-1/8<br>BASIC :4762 CREAM(TRANSITIONAL) | 269.38 | 269.38 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 64 | 1.00 | PAB253 STEELCAS<br>BRACKET-2 DIFF HGT PNLS,END TO END,SM PNL 53H,PAIR<br>BASIC :4762 CREAM(TRANSITIONAL) | 15.63 | 15.63 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 65 | 1.00 | MSS STEELCAS<br>BRACKET-SIDE SUPPORT | 10.00 | 10.00 |
| | Tag For: | EXISTING PRINTER/FAX STATION<br>PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 66 | 1.00 | PCWS24CR STEELCAS<br>CANTILEVER-RH,24D<br>BASIC :4773 BALTIC(TRANSITIONAL) | 52.50 | 52.50 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 67 | 1.00 | PCSB18S STEELCAS<br>CANTILEVER-SHARED,24D WKSF APPL,18D<br>BASIC :4773 BALTIC(TRANSITIONAL) | 52.50 | 52.50 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 68 | 1.00 | LSM24KF STEELCAS<br>LIGHT-SHELF,ECONOMIZER ELEK BLST,17 WATT,LAMP,9' CORD,25W | 203.75 | 203.75 |

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| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 69 | 1.00 | LSM36KF STEELCAS<br>LIGHT-SHELF,ECONOMIZER ELEK<br>BLST,25 WATT,LAMP,9' CORD,37W | 216.88 | 216.88 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 71 | 1.00 | MPTAM6536P3 STEELCAS<br>PANEL-TACK ACOUST,3 CIRCT,MED<br>TOP CAP,36-5/16X64-11/16<br>BASIC :4762 CREAM(TRANSITIONAL)<br>SURF-1 :5683 (TRANSITIONAL) QUINCE<br>SURF-2 :5683 (TRANSITIONAL) QUINCE | 437.50 | 437.50 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 72 | 1.00 | MPTAM6548P3 STEELCAS<br>PANEL-TACK ACOUST,3 CIRCT,MED<br>TOP CAP,48-5/16X64-11/16<br>BASIC :4762 CREAM(TRANSITIONAL)<br>SURF-1 :5683 (TRANSITIONAL) QUINCE<br>SURF-2 :5683 (TRANSITIONAL) QUINCE | 502.50 | 502.50 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 73 | 1.00 | MPTAM5330 STEELCAS<br>PANEL-TACK ACOUST,MED TOP CAP,<br>30-5/16X52-3/8<br>BASIC :4762 CREAM(TRANSITIONAL)<br>SURF-1 :5683 (TRANSITIONAL) QUINCE<br>SURF-2 :5683 (TRANSITIONAL) QUINCE | 293.75 | 293.75 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 74 | 1.00 | MPTAM6536 STEELCAS<br>PANEL-TACK ACOUST,MED TOP CAP,<br>36-5/16X64-11/16<br>BASIC :4762 CREAM(TRANSITIONAL)<br>SURF-1 :5683 (TRANSITIONAL) QUINCE<br>SURF-2 :5683 (TRANSITIONAL) QUINCE | 354.38 | 354.38 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 75 | 1.00 | MPTAM5348 STEELCAS<br>PANEL-TACK ACOUST,MED TOP CAP,<br>48 5/16X52 3/8<br>BASIC :4762 CREAM(TRANSITIONAL)<br>SURF-1 :5683 (TRANSITIONAL) QUINCE<br>SURF-2 :5683 (TRANSITIONAL) QUINCE | 368.13 | 368.13 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |

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| 76 | 1.00 | MP2824BBFL STEELCAS<br>PEDESTAL-FREESTANDING,2 BOX,1<br>FL DWR,LK,AVENIR PULL,24X15X27<br>BASIC :4773 BALTIC(TRANSITIONAL)<br>LOCK :9201 POLISHED CHROME<br>PULL :4773 BALTIC(TRANSITIONAL)<br>KEYS :SK SPEC<br>1-PLUG<br>OPTIONS * * OPTIONS * *<br>OPT ACC *OPT:OPTIONAL ACCESSORIES<br>99465 CONVENIENCE TRAY | 353.13 | 353.13 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 77 | 3.00 | MP2824FF STEELCAS<br>PEDESTAL-FREESTANDING,2 FILE<br>DWR,AVENIR PULL,24X15X27<br>BASIC :4773 BALTIC(TRANSITIONAL)<br>PULL :4773 BALTIC(TRANSITIONAL) | 308.75 | 926.25 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 78 | 1.00 | PP365A STEELCAS<br>POWER POLE-3 CIRCUIT,65H<br>BASIC :4762 CREAM(TRANSITIONAL)<br>UPRIGHT :5683 (TRANSITIONAL) QUINCE<br>OPTIONS * * OPTIONS * *<br>WIRE OPT *OPT:WIRING OPTIONS<br>SHRD PWY STD:3 CIRCUIT, SHARED NE | 234.38 | 234.38 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 79 | 1.00 | FPW330 STEELCAS<br>POWERWAY-3 CIRCUIT,30W | 83.13 | 83.13 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 80 | 1.00 | FPW342 STEELCAS<br>POWERWAY-3 CIRCUIT,42W | 83.13 | 83.13 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 81 | 1.00 | 986831DA15S STEELCAS<br>RECEPTACLE-DUP,3 CKT,SHRD NEUT<br>/4 CKT,3+D,15 AMP,LINE 1,CTN/6<br>PLASTIC :6608 DRIFTWOOD | 91.88 | 91.88 |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| 82 | 1.00 | 986832DA15S STEELCAS<br>RECEPTACLE-DUP,3 CKT,SHRD NEUT<br>/4 CKT,3+D,15 AMP,LINE 2,CTN/6 | 91.88 | 91.88 |

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| | | PLASTIC :6608 DRIFTWOOD | | |
| | Tag For: | PHASE 2 WORKSTATION RECONFIGURE | | |
| 83 | 1.00 | 986833DA15S STEELCAS<br>RECEPTACLE-DUP,3 CKT,SHRD NEUT /4 CKT,3+D,15 AMP,LINE 3,CTN/6<br>PLASTIC :6608 DRIFTWOOD | 91.88 | 91.88 |
| | Tag For: | PHASE 2 WORKSTATION RECONFIGURE | | |
| 84 | 5.00 | MHBS4816 STEELCAS<br>SHELF-BOOKSHELF,HALF HEIGHT, 14-3/4X48X7-1/2<br>BASIC :4762 CREAM(TRANSITIONAL) | 121.25 | 606.25 |
| | Tag For: | PHASE 2 WORKSTATION RECONFIGURE | | |
| 85 | 1.00 | PVWMM STEELCAS<br>WIRE MGR-VERTICAL,PLASTIC, MED TOP CAP PNL APPL,49 11/16<br>PLASTIC :6655 WARM WHITE | 25.00 | 25.00 |
| | Tag For: | PHASE 2 WORKSTATION RECONFIGURE | | |
| 86 | 1.00 | PCWRC3624 STEELCAS<br>WORKSURFACE-CURVILINEAR,CORNER ,LAM,24X36<br>EDGE :6654 SAND (VANADIUM)<br>TOP-SURF:2825 VANADIUM SPECKLE | 275.63 | 275.63 |
| | Tag For: | PHASE 2 WORKSTATION RECONFIGURE | | |
| 87 | 1.00 | PWRC3624 STEELCAS<br>WORKSURFACE-STRAIGHT,LAM, 24X36,CURVILINEAR APPLICATION<br>EDGE :6654 SAND (VANADIUM)<br>TOP-SURF:2825 VANADIUM SPECKLE | 179.38 | 179.38 |
| | Tag For: | PHASE 2 WORKSTATION RECONFIGURE | | |
| 88 | 1.00 | PWRC4824 STEELCAS<br>WORKSURFACE-STRAIGHT,LAM, 24X48,CURVILINEAR APPLICATION<br>EDGE :6654 SAND (VANADIUM)<br>TOP-SURF:2825 VANADIUM SPECKLE | 220.63 | 220.63 |
| | Tag For: | PHASE 2 WORKSTATION RECONFIGURE | | |
| 89 | 1.00 | TS7CL STEELCAS<br>LEG-C | 103.60 | 103.60 |
| | | LEGS :4773 BALTIC(TRANSITIONAL) | | |
| | Tag For: | PHASE 2 WORKSTATION | | |

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| | | RECONFIGURE | | |
| 90 | 2.00 | TS7SPL STEELCAS<br>LEG-SINGLE POST | 32.94 | 65.88 |
| | | LEGS :4773 BALTIC(TRANSITIONAL) | | |
| | Tag For: | PHASE 2 WORKSTATION<br>RECONFIGURE | | |
| | | Subsection | Sub Total | 8,349.68 |
| | | SACRAMENTO COUNTY SALES TAX 7.75% | | 647.10 |
| | | Included In Grand Total | Total | 8,996.78 |
| END | Subsection | PHASE 2 WORKSTATION RECONFIGURE | | |
| 91 | 1.00 | INSTALLATION UNITED C<br>INSTALLATION SERVICES FOR UCF TO PERFORM<br>THE FOLLOWING:<br>* LABOR TO CUT WALL TRACK RAIL FROM 96" TO 48"<br><br>* RECEIVE, INSPECT, DELIVER, ASSEMBLE AND INSTALL PRODUCT.<br><br>* ALL PROJECTS REQUIRE A REQUESTED INSTALLATION DATE AT THE TIME THE ORDER IS PLACED.<br><br>* ANY CHANGE TO THE REQUESTED INSTALLATION DATE WITH LESS THAN ONE WEEK NOTICE WILL RESULT IN THE PROJECT BEING RESCHEDULED NO SOONER THAN ONE WEEK FROM THE ORIGINAL REQUESTED DATE AND MAY INCUR ADDITIONAL CHARGES.<br><br>*CUSTOMER TO PROVIDE A CERTIFIED ELECTRICIAN AT TIME OF INSTALLATION TO DO THE HARDWIRING OF BASE POWER INS TO BUILDING POWER SOURCE.<br><br>* CUSTOMER TO REMOVE EXISTING FURNITURE & EQUIPMENT IN AREAS TO BE BUILT.<br><br>* CUSTOMER RESPONSIBLE FOR REMOVAL OR INSTALLATION OF ALL PHONE AND DATA CABLES.<br><br>* UCF NOT RESPONSIBLE FOR SEISMIC BRACING OF POWER POLES.<br><br>* UCF NOT RESPONSIBLE FOR CUTTING | 2,029.00 | 2,029.00 |

ACCEPTED BY_____ TITLE_____ DATE_____

UNITED CORPORATE FURNISHINGS
1780 No. Market Blvd.
Sacramento, CA 95834-1912
Fax (916) 553-5800
Phone (916) 553-5900
www.ucfinc.com

"BRINGING THE BEST IN WORKPLACE INNOVATION AND SERVICE"
Steelcase Exemplary Performance Award Dealer
Steelcase Design Partnership

# Quotation



| Quote Number | Quote Date | Customer Order Number | Customer Number | Account Representative | Proj No. |
|---|---|---|---|---|---|
| 38366 | 5/20/200: | | PAC010 | GWEN GRIMM-LAURIDSON | |

| Line | Quantity | Catalog Number / Description | Unit Price | Extended Amount |
|---|---|---|---|---|
| | | CEILING TILES TO FIT THE INSTALLATION OF POWER POLES. | | |
| | | * INSTALLATION TO BE PERFORMEDDURING NORMAL BUSINESS HOURS. | | |
| 92 | 1.00 | PM HOURS UNITED C<br>PROJECT MANAGEMENT TECHNICAL SERVICES TO RECONFIGURE SIX STATION AREA.<br><br>COORDINATION BETWEEN SUB-CONTRACTORS, DATA, VOICE AND ELECTRICIAN AND UCF. | 165.00 | 165.00 |
| | | | Sub Total | 22,746.98 |
| | | SACRAMENTO COUNTY SALES TAX 7.75% | | 1,762.89 |
| | | | Grand Total | 24,509.87 |
| | | *******End of Quotation******* | | |

ACCEPTED BY_____ TITLE_____ DATE_____

# Revised Proposed Land Use Diagram
# Turning-Movement Volumes

**Scenario # A**

ESTIMATED TURNING-MOVEMENT VOLUMES

*Martis Valley Community Plan EIR*

Year: 2021
Land Use: Revised Proposed Land Use Diagram
Roadway Network: Four Lane SR 267
Time Period: Summer

| Intersection | NODE # | Northbound LT | Northbound T | Northbound RT | Southbound LT | Southbound T | Southbound RT | Eastbound LT | Eastbound T | Eastbound RT | Westbound LT | Westbound T | Westbound RT | Total Intersection Approach Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SR 89/SR 267 Bypass/I-80 Westbound | 311 | 716 | 335 | — | — | 574 | 10 | — | — | — | 489 | — | 479 | 2,914 |
| SR 89/SR 267 Bypass/I-80 Eastbound | 310 | — | 1,051 | 430 | 382 | 681 | — | 0 | — | 547 | — | — | — | 3,401 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Westbound | 266 | 221 | 958 | — | — | 582 | 348 | — | — | — | — | — | — | 2,375 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Eastbound | 286 | — | 817 | — | — | 530 | — | 362 | — | 279 | — | — | — | 2,274 |
| Glenshire Drive/Donner Pass Road (Existing SR 267) | 145 | 268 | — | 323 | — | — | — | — | 517 | 368 | 269 | 390 | — | 2,280 |
| Bridge Street/Donner Pass Road | 143 | 167 | 449 | 574 | 9 | 280 | 26 | 48 | 459 | 142 | 678 | 445 | 10 | 3,430 |
| Bridge Street/West River Street | 160 | 448 | 927 | 25 | 52 | 812 | 236 | 219 | 20 | 516 | 26 | 15 | 44 | 3,500 |
| Brockway Road (Existing SR 267)/Palisades Drive | 162 | 69 | 1,058 | — | — | 854 | 370 | 250 | — | 73 | — | — | — | 2,836 |
| Brockway Road (Existing SR 267)/Martis Valley Road | 164 | 291 | 886 | 0 | 16 | 629 | 156 | 113 | 0 | 176 | 0 | 0 | 14 | 2,445 |
| SR 267 Bypass/SR 267/Brockway Road (Existing SR 267)/Joerger Drive | 166 | 1,101 | 1,353 | 14 | 55 | 1,057 | 116 | 93 | 5 | 999 | 10 | 5 | 35 | 5,009 |
| SR 267/Airport Road/Schaffer Mill Road | 167 | 96 | 1,440 | 141 | 381 | 1,372 | 313 | 397 | 43 | 129 | 171 | 76 | 631 | 5,357 |
| SR 267/Northstar Drive | 230 | 170 | 1,151 | 14 | 12 | 1,035 | 519 | 468 | 24 | 190 | 2 | 1 | 2 | 3,818 |
| SR 267/SR 28 | — | 1 | 0 | 2 | 492 | 1 | 508 | 359 | 825 | 1 | 2 | 610 | 725 | 3,526 |
| SR 89 South/Donner Pass Road | 137 | 571 | 48 | 43 | 10 | 197 | 182 | 91 | 195 | 543 | 86 | 390 | 10 | 2,503 |

**Scenario # B** ESTIMATED TURNING-MOVEMENT VOLUMES *Martis Valley Community Plan EIR*

Year: 2021
Land Use: Revised Proposed Land Use Diagram
Roadway Network: Four Lane SR 267
Time Period: 30th Highest Winter Peak Hour

| Intersection | NODE # | Northbound LT | Northbound T | Northbound RT | Southbound LT | Southbound T | Southbound RT | Eastbound LT | Eastbound T | Eastbound RT | Westbound LT | Westbound T | Westbound RT | Total Intersection Approach Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SR 89/SR 267 Bypass/I-80 Westbound | 311 | 459 | 233 | — | — | 834 | 5 | — | — | — | 175 | — | 125 | 2,142 |
| SR 89/SR 267 Bypass/I-80 Eastbound | 310 | — | 904 | 339 | 57 | 903 | — | 0 | — | 230 | — | — | — | 2,743 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Westbound | 266 | 254 | 234 | — | — | 276 | 341 | — | — | — | — | — | — | 1,371 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Eastbound | 286 | — | 488 | — | — | 276 | — | 362 | — | 81 | — | — | — | 1,493 |
| Glenshire Drive/Donner Pass Road (Existing SR 267) | 145 | 271 | — | 162 | — | — | — | — | 326 | 368 | 250 | 107 | — | 1,629 |
| Bridge Street/Donner Pass Road | 143 | 215 | 467 | 488 | 9 | 272 | 27 | 48 | 197 | 182 | 400 | 325 | 10 | 2,783 |
| Bridge Street/West River Street | 160 | 496 | 662 | 38 | 45 | 708 | 101 | 469 | 20 | 824 | 30 | 20 | 39 | 3,612 |
| Brockway Road (Existing SR 267)/Palisades Drive | 162 | 68 | 976 | — | — | 750 | 411 | 220 | — | 72 | — | — | — | 2,659 |
| Brockway Road (Existing SR 267)/Martis Valley Road | 164 | 206 | 935 | 0 | 16 | 638 | 168 | 95 | 0 | 83 | 0 | 0 | 14 | 2,319 |
| SR 267 Bypass/SR 267/Brockway Road (Existing SR 267)/Joerger Drive | 166 | 1,108 | 1,010 | 14 | 44 | 1,133 | 28 | 71 | 5 | 645 | 10 | 5 | 35 | 4,274 |
| SR 267/Airport Road/Schaffer Mill Road | 167 | 56 | 1,054 | 82 | 434 | 1,038 | 316 | 447 | 43 | 113 | 77 | 76 | 631 | 4,534 |
| SR 267/Northstar Drive | 230 | 152 | 450 | 14 | 12 | 876 | 340 | 878 | 24 | 353 | 2 | 1 | 2 | 3,334 |
| SR 267/SR 28 | — | 1 | 0 | 1 | 581 | 2 | 551 | 399 | 842 | 1 | 1 | 946 | 726 | 4,051 |
| SR 89 South/Donner Pass Road | 137 | 286 | 75 | 122 | 11 | 307 | 18 | 108 | 150 | 527 | 89 | 308 | 10 | 2,148 |

**Scenario # C** ESTIMATED TURNING-MOVEMENT VOLUMES *Martis Valley Community Plan EIR*

Year: 2021
Land Use: Revised Proposed Land Use Diagram
Roadway Network: Four Lane SR 267 with All Schaffer Mill Road Connections
Time Period: Summer

| Intersection | NODE # | Northbound LT | Northbound T | Northbound RT | Southbound LT | Southbound T | Southbound RT | Eastbound LT | Eastbound T | Eastbound RT | Westbound LT | Westbound T | Westbound RT | Total Intersection Approach Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SR 89/SR 267 Bypass/I-80 Westbound | 311 | 709 | 327 | — | — | 569 | 10 | — | — | — | 489 | — | 478 | 2,893 |
| SR 89/SR 267 Bypass/I-80 Eastbound | 310 | — | 1,036 | 433 | 381 | 677 | — | 0 | — | 550 | — | — | — | 3,387 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Westbound | 266 | 221 | 959 | — | — | 578 | 348 | — | — | — | — | — | — | 2,372 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Eastbound | 286 | — | 820 | — | — | 526 | — | 360 | — | 283 | — | — | — | 2,275 |
| Glenshire Drive/Donner Pass Road (Existing SR 267) | 145 | 268 | — | 323 | — | — | — | — | 519 | 367 | 263 | 392 | — | 2,277 |
| Bridge Street/Donner Pass Road | 143 | 174 | 450 | 575 | 9 | 284 | 26 | 47 | 458 | 144 | 682 | 445 | 10 | 3,447 |
| Bridge Street/West River Street | 160 | 450 | 938 | 19 | 58 | 815 | 237 | 217 | 17 | 518 | 26 | 15 | 44 | 3,514 |
| Brockway Road (Existing SR 267)/Palisades Drive | 162 | 68 | 1,047 | — | — | 826 | 394 | 273 | — | 76 | — | — | — | 2,846 |
| Brockway Road (Existing SR 267)/Martis Valley Road | 164 | 277 | 873 | 0 | 16 | 608 | 155 | 114 | 0 | 154 | 0 | 0 | 14 | 2,375 |
| SR 267 Bypass/SR 267/Brockway Road (Existing SR 267)/Joerger Drive | 166 | 1,069 | 1,338 | 14 | 55 | 1,053 | 119 | 96 | 5 | 956 | 10 | 5 | 35 | 4,921 |
| SR 267/Airport Road/Schaffer Mill Road | 167 | 75 | 1,279 | 138 | 377 | 1,247 | 395 | 510 | 45 | 104 | 158 | 89 | 632 | 5,216 |
| SR 267/Northstar Drive | 230 | 177 | 1,112 | 11 | 6 | 1,004 | 381 | 320 | 23 | 194 | 2 | 1 | 1 | 3,462 |
| SR 267/SR 28 | — | 1 | 0 | 2 | 483 | 1 | 496 | 350 | 825 | 1 | 2 | 610 | 707 | 3,478 |
| SR 89 South/Donner Pass Road | 137 | 572 | 48 | 43 | 10 | 198 | 180 | 91 | 192 | 544 | 85 | 393 | 10 | 2,503 |

**Scenario # D**

ESTIMATED TURNING-MOVEMENT VOLUMES

*Martis Valley Community Plan EIR*

Year: 2021
Land Use: Revised Proposed Land Use Diagram
Roadway Network: Four Lane SR 267 with All Schaffer Mill Road Connections
Time Period: 30th Highest Winter Peak Hour

| Intersection | NODE # | Northbound LT | Northbound T | Northbound RT | Southbound LT | Southbound T | Southbound RT | Eastbound LT | Eastbound T | Eastbound RT | Westbound LT | Westbound T | Westbound RT | Total Intersection Approach Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SR 89/SR 267 Bypass/I-80 Westbound | 311 | 406 | 226 | — | — | 847 | 5 | — | — | — | 175 | — | 124 | 2,094 |
| SR 89/SR 267 Bypass/I-80 Eastbound | 310 | — | 844 | 341 | 57 | 915 | — | 0 | — | 231 | — | — | — | 2,698 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Westbound | 266 | 254 | 230 | — | — | 270 | 341 | — | — | — | — | — | — | 1,361 |
| Donner Pass Road (Existing SR 267/SR 89)/I-80 Eastbound | 286 | — | 484 | — | — | 270 | — | 360 | — | 82 | — | — | — | 1,482 |
| Glenshire Drive/Donner Pass Road (Existing SR 267) | 145 | 271 | — | 162 | — | — | — | — | 322 | 367 | 245 | 107 | — | 1,619 |
| Bridge Street/Donner Pass Road | 143 | 223 | 468 | 483 | 9 | 275 | 27 | 47 | 197 | 185 | 402 | 325 | 10 | 2,794 |
| Bridge Street/West River Street | 160 | 499 | 671 | 29 | 50 | 710 | 102 | 464 | 17 | 828 | 30 | 20 | 39 | 3,619 |
| Brockway Road (Existing SR 267)/Palisades Drive | 162 | 67 | 959 | — | — | 732 | 437 | 240 | — | 75 | — | — | — | 2,672 |
| Brockway Road (Existing SR 267)/Martis Valley Road | 164 | 196 | 916 | 0 | 16 | 624 | 167 | 96 | 0 | 72 | 0 | 0 | 14 | 2,265 |
| SR 267 Bypass/SR 267/Brockway Road (Existing SR 267)/Joerger Drive | 166 | 1,078 | 950 | 14 | 44 | 1,146 | 29 | 73 | 5 | 618 | 10 | 5 | 35 | 4,173 |
| SR 267/Airport Road/Schaffer Mill Road | 167 | 44 | 850 | 80 | 430 | 946 | 398 | 560 | 45 | 97 | 71 | 89 | 632 | 4,409 |
| SR 267/Northstar Drive | 230 | 158 | 435 | 11 | 6 | 853 | 255 | 682 | 23 | 358 | 2 | 1 | 1 | 3,015 |
| SR 267/SR 28 | — | 1 | 0 | 1 | 572 | 2 | 539 | 389 | 842 | 1 | 1 | 946 | 708 | 4,002 |
| SR 89 South/Donner Pass Road | 137 | 286 | 75 | 122 | 11 | 309 | 18 | 108 | 148 | 528 | 88 | 310 | 10 | 2,150 |

# Revised Proposed Land Use Diagram Roadway LOS

## *PROPOSED LAND USE - 2021 ROADWAY LOS*

| | | | 2021 4-Lane SR 267 Roadway Alt | | | | 2021 4-Lane SR 267 and Palisades and Northstar Connector Roadway Alt | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Roadway Segment | Jurisdiction | Applicable LOS Standard | Peak Direction Peak Hour Volume (per lane) | ADT | Roadway LOS | LOS Threshold Exceeded? | Peak Direction Peak Hour Volume (per lane) | ADT | Roadway LOS | LOS Threshold Exceeded? |
| SR 89 North of Bypass | Truckee | D | 814 | 11,740 | A | – | 805 | 11,630 | A | – |
| Donner Pass Road North of I-80 (East) | Truckee | D | 958 | 15,860 | A | – | 959 | 15,830 | A | – |
| Donner Pass Road South of I-80 (East) | Truckee | D | 817 | 16,750 | A | – | 820 | 16,780 | A | – |
| Donner Pass Road East of Bridge Street | Truckee | D | 1,133 | 22,400 | A | – | 1,137 | 22,440 | A | – |
| Donner Pass Road West of Bridge Street | Truckee | D | 649 | 13,260 | A | – | 649 | 13,330 | A | – |
| Bridge Street South of Donner Pass Road | Truckee | D | 1,190 | 23,130 | A | – | 1,199 | 23,320 | A | – |
| Brockway Road South of West River Street | Truckee | D | 1,400 | 25,340 | B | – | 1,407 | 25,450 | B | – |
| Brockway Road South of Palisades Drive | Truckee | D | 1,127 | 18,900 | A | – | 1,115 | 18,560 | A | – |
| Brockway Road South of Martis Valley Road | Truckee | D | 1,177 | 18,230 | A | – | 1,150 | 17,590 | A | – |
| SR 267 Bypass South of I-80 | Truckee | D | 889 | 27,360 | A | – | 881 | 27,230 | A | – |
| SR 267 South of Brockway Road and SR 267 Bypass | Placer County | E | 1,481 | 37,180 | E | – | 1,453 | 36,410 | E | – |
| SR 267 South of Airport Road/Schaffer Mill Road (1) | Placer County | E | 1,006 | 27,460 | D | – | 896 | 24,490 | D | – |
| SR 267 South of Northstar Drive | Placer County | E | 1,569 | 17,000 | E | – | 1,389 | 17,420 | E | – |
| SR 267 North of SR 28 | Placer County | E | 975 | 19,370 | E | – | 948 | 18,890 | E | – |
| SR 28 East of SR 267 | Placer County | E | 1,264 | 23,500 | D | – | 1,255 | 23,260 | D | – |
| SR 28 West of SR 267 | Placer County | E | 1,149 | 17,540 | C | – | 1,140 | 17,380 | C | – |
| West River Street West of SR 267 | Truckee | D | 755 | 10,180 | A | – | 752 | 10,180 | A | – |
| Palisades Drive West of SR 267 | Truckee | D | 439 | 6,860 | A | – | 462 | 7,300 | A | – |
| Martis Valley Road West of SR 267 | Truckee | D | 447 | 6,620 | A | – | 432 | 6,300 | A | – |
| Schaffer Mill Road West of SR 267 | Placer County | D | 569 | 12,650 | C | – | 658 | 14,600 | D | – |
| Airport Road East of SR 267 | Placer County | D | 878 | 11,690 | B | – | 880 | 11,790 | B | – |
| Northstar Drive West of SR 267 | Placer County | D | 700 | 16,730 | E | X | 558 | 13,260 | C | – |
| SR 89 S South of Donner Pass Road | Truckee | D | 826 | 12,800 | A | – | 827 | 12,810 | A | – |
| Donner Pass Road East of SR 89 South | Truckee | D | 486 | 8,810 | A | – | 488 | 8,800 | A | – |
| Donner Pass Road West of SR 89 South | Truckee | D | 1,143 | 20,900 | A | – | 1,145 | 20,900 | A | – |

*Note 1: Four-Lane SR 267 not required from Northstar Drive to Schaffer Mill Road if Northstar Connector is built.*

# LOS Calculations for Revised Proposed Land Use Diagram

Default Scenario Wed May 21, 2003 13:39:35 Page 1-1

Scenario Report

| | |
|---|---|
| Scenario: | Default Scenario |
| Command: | Default Command |
| Volume: | Proposed Rev |
| Geometry: | Proposed Rev |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | Default Trip Generation |
| Trip Distribution: | Default Trip Distribution |
| Paths: | Default Paths |
| Routes: | Default Routes |
| Configuration: | Default Configuration |





Default Scenario Wed May 21, 2003 13:39:39 Page 2-1

Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 1 SR 267 Bypass/I-80 WB | F | 114.9 | 1.191 | F | 114.9 | 1.191 | + 0.000 D/V |
| # 2 SR 267 Bypass/I-80 EB | F | 127.7 | 1.320 | F | 127.7 | 1.320 | + 0.000 D/V |
| # 3 I-80 WB/DPR | B | 12.5 | 0.000 | B | 12.5 | 0.000 | + 0.000 V/C |
| # 4 I-80 EB/DPR | F | 967.9 | 0.000 | F | 967.9 | 0.000 | + 0.000 V/C |
| # 5 DPR/Glenshire Drive | F | 689.6 | 0.000 | F | 689.6 | 0.000 | + 0.000 V/C |
| # 6 DPR/Bridge Street | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 7 Bridge Street West River St | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 8 Brockway Road/Palisades Drive | B | 19.1 | 0.861 | B | 19.1 | 0.861 | + 0.000 D/V |
| # 9 Brockway Road/Martis Valley Ro | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 10 SR 267/Brockway Road/Joerger D | F | 417.7 | 2.047 | F | 417.7 | 2.047 | + 0.000 D/V |
| # 11 SR 267/Airport Road/Schaffer M | F | 403.9 | 2.113 | F | 403.9 | 2.113 | + 0.000 D/V |
| # 12 SR 267/Northstar Drive | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 13 SR 28/SR 267 | E | 61.9 | 1.095 | E | 61.9 | 1.095 | + 0.000 D/V |
| # 14 SR 89/Donner Pass Road | E | 74.3 | 1.067 | E | 74.3 | 1.067 | + 0.000 D/V |

Default Scenario  Wed May 21, 2003 13:39:39  Page 3-1

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

Intersection #1 SR 267 Bypass/I-80 WB

Cycle (sec): 100  Critical Vol./Cap. (X): 1.191
Loss Time (sec): 12 (Y+R = 4 sec)  Average Delay (sec/veh): 114.9
Optimal Cycle: 180  Level Of Service: F

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 1 | 0 | 0 | 0 | 0 1 | 0 | 1 | 0 | 0 0 | 0 | 0 | 0 | 1 0 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 716 | 335 | 0 | | 0 | 574 | 10 | | 0 | 0 | 0 | | 489 | 0 | 479 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 716 | 335 | 0 | | 0 | 574 | 10 | | 0 | 0 | 0 | | 489 | 0 | 479 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 754 | 353 | 0 | | 0 | 604 | 11 | | 0 | 0 | 0 | | 515 | 0 | 504 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 754 | 353 | 0 | | 0 | 604 | 11 | | 0 | 0 | 0 | | 515 | 0 | 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 | |
| Final Vol.: | 754 | 353 | 0 | | 0 | 604 | 11 | | 0 | 0 | 0 | | 515 | 0 | 504 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.95 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | | 0.95 | 1.00 | 0.85 | |
| Lanes: | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 1.00 | |
| Final Sat.: | 1805 | 1900 | 0 | | 0 | 1900 | 1615 | | 0 | 0 | 0 | | 1809 | 0 | 1615 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.42 | 0.19 | 0.00 | | 0.00 | 0.32 | 0.01 | | 0.00 | 0.00 | 0.00 | | 0.28 | 0.00 | 0.31 | |
| Crit Moves: | **** | | | | | **** | | | | | | | | | **** | |
| Green/Cycle: | 0.35 | 0.62 | 0.00 | | 0.00 | 0.27 | 0.27 | | 0.00 | 0.00 | 0.00 | | 0.26 | 0.00 | 0.26 | |
| Volume/Cap: | 1.19 | 0.30 | 0.00 | | 0.00 | 1.19 | 0.03 | | 0.00 | 0.00 | 0.00 | | 1.09 | 0.00 | 1.19 | |
| Uniform Del: | 32.5 | 9.0 | 0.0 | | 0.0 | 36.6 | 27.0 | | 0.0 | 0.0 | 0.0 | | 36.9 | 0.0 | 36.9 | |
| IncremntDel: | 100.9 | 0.1 | 0.0 | | 0.0 | 104 | 0.0 | | 0.0 | 0.0 | 0.0 | | 66.6 | 0.0 | 107.0 | |
| Delay Adj: | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 1.00 | |
| Delay/Veh: | 133.3 | 9.1 | 0.0 | | 0.0 | 141 | 27.1 | | 0.0 | 0.0 | 0.0 | | 103.5 | 0.0 | 143.9 | |
| 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: | 133.3 | 9.1 | 0.0 | | 0.0 | 141 | 27.1 | | 0.0 | 0.0 | 0.0 | | 103.5 | 0.0 | 143.9 | |
| DesignQueue: | 30 | 8 | 0 | | 0 | 27 | 0 | | 0 | 0 | 0 | | 23 | 0 | 22 | |





Default Scenario  Wed May 21, 2003 13:39:39  Page 4-1

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

Intersection #2 SR 267 Bypass/I-80 EB

Cycle (sec): 100  Critical Vol./Cap. (X): 1.320
Loss Time (sec): 12 (Y+R = 4 sec)  Average Delay (sec/veh): 127.7
Optimal Cycle: 180  Level Of Service: F

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 1 | 0 | 1 | 1 | 0 1 | 0 | 0 | 0 | 1 0 | 0 | 1 | 0 | 0 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 1051 | 430 | | 382 | 681 | 0 | | 0 | 0 | 547 | | 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 | 1051 | 430 | | 382 | 681 | 0 | | 0 | 0 | 547 | | 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: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 0 | 1106 | 453 | | 402 | 717 | 0 | | 0 | 0 | 576 | | 0 | 0 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 0 | 1106 | 453 | | 402 | 717 | 0 | | 0 | 0 | 576 | | 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 | |
| Final Vol.: | 0 | 1106 | 453 | | 402 | 717 | 0 | | 0 | 0 | 576 | | 0 | 0 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 1.00 | 1.00 | 0.85 | | 0.95 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | |
| Lanes: | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Final Sat.: | 0 | 1900 | 1615 | | 1805 | 1900 | 0 | | 0 | 1900 | 1615 | | 0 | 0 | 0 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.58 | 0.28 | | 0.22 | 0.38 | 0.00 | | 0.00 | 0.00 | 0.36 | | 0.00 | 0.00 | 0.00 | |
| Crit Moves: | | **** | | | **** | | | | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.44 | 0.44 | | 0.17 | 0.61 | 0.00 | | 0.00 | 0.00 | 0.27 | | 0.00 | 0.00 | 0.00 | |
| Volume/Cap: | 0.00 | 1.32 | 0.64 | | 1.32 | 0.62 | 0.00 | | 0.00 | 0.00 | 1.32 | | 0.00 | 0.00 | 0.00 | |
| Uniform Del: | 0.0 | 27.9 | 21.7 | | 41.6 | 12.2 | 0.0 | | 0.0 | 0.0 | 36.5 | | 0.0 | 0.0 | 0.0 | |
| IncremntDel: | 0.0 | 152 | 1.9 | | 165.2 | 1.0 | 0.0 | | 0.0 | 0.0 | 159.3 | | 0.0 | 0.0 | 0.0 | |
| Delay Adj: | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Delay/Veh: | 0.0 | 180 | 23.6 | | 206.7 | 13.3 | 0.0 | | 0.0 | 0.0 | 195.8 | | 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 | 180 | 23.6 | | 206.7 | 13.3 | 0.0 | | 0.0 | 0.0 | 195.8 | | 0.0 | 0.0 | 0.0 | |
| DesignQueue: | 0 | 41 | 15 | | 20 | 17 | 0 | | 0 | 0 | 25 | | 0 | 0 | 0 | |

```
Default Scenario          Wed May 21, 2003 13:39:39                Page 5-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #3 I-80 WB/DPR
*******************************************************************************
Average Delay (sec/veh):     12.5          Worst Case Level Of Service:      B
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        1  0  1  0  0    0  0  1  0  1    0  0  0  0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     221  958     0     0  582   348     0    0     0     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:  221  958     0     0  582   348     0    0     0     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:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:   233 1008     0     0  613   366     0    0     0     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:   233 1008     0     0  613   366     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  979 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  713 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    713 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 12.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 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
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx            xxxxxx
ApproachLOS:       *                 *                 *                 *
```





```
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #4 I-80 EB/DPR
*******************************************************************************
Average Delay (sec/veh):    967.9          Worst Case Level Of Service:      F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  1  0  0    0  0  1  0  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  817     0     0  530     0   362    0   279     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  817     0     0  530     0   362    0   279     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:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:     0  860     0     0  558     0   381    0   294     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:     0  860     0     0  558     0   381    0   294     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  1418 xxxx   558  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx   152 xxxx   533  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   152 xxxx   533  xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped 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  xxxx xxxx xxxxx  xxxx  221 xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  968 xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *     *     *    F     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            967.9             xxxxxx
ApproachLOS:       *                 *                 F                 *
```

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 DPR/Glenshire Drive

Average Delay (sec/veh): 689.6 Worst Case Level Of Service: F

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Lanes: | 1 | 0 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | 0 | | 1 | 0 | 1 | 0 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 268 | | 0 | | 323 | | 0 | | 0 | | 0 | | 0 | | 517 | | 368 | | 269 | | 390 | | 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: | 268 | | 0 | | 323 | | 0 | | 0 | | 0 | | 0 | | 517 | | 368 | | 269 | | 390 | | 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: | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | |
| PHF Volume: | 282 | | 0 | | 340 | | 0 | | 0 | | 0 | | 0 | | 544 | | 387 | | 283 | | 411 | | 0 | |
| Reduct Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Final Vol.: | 282 | | 0 | | 340 | | 0 | | 0 | | 0 | | 0 | | 544 | | 387 | | 283 | | 411 | | 0 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | 6.4 | xxxx | | | 6.2 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | | | | | 4.1 | xxxx | xxxxx | | | |
| FollowUpTim: | 3.5 | xxxx | | | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | | | | | 2.2 | xxxx | xxxxx | | | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1715 | xxxx | | | 738 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | | | | | 932 | xxxx | xxxxx | | | |
| Potent Cap.: | 100 | xxxx | | | 421 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | | | | | 743 | xxxx | xxxxx | | | |
| Move Cap.: | 71 | xxxx | | | 421 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | | | | | 743 | xxxx | xxxxx | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Del: | 1471 | xxxx | | | 40.8 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | | | | | 12.8 | xxxx | xxxxx | | | |
| LOS by Move: | F | | * | | E | * | * | * | * | * | * | | | | | | | | 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 | | | |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | | | | | xxxxx | xxxx | xxxxx | | | |
| Shared LOS: | * | | * | | * | * | * | * | * | * | * | | | | | | | | * | * | * | | | |
| ApproachDel: | | | 689.6 | | | | | xxxxxx | | | | | | xxxxxx | | | | | | xxxxxx | | | | |
| ApproachLOS: | | | F | | | | | * | | | | | | * | | | | | | * | | | | |

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 DPR/Bridge Street

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Lanes: | 0 | 1 | 0 | 0 | 1 | | 0 | 0 | 1! | 0 | 0 | | 1 | 0 | 1 | 0 | 1 | | 1 | 0 | 1 | 0 | 1 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 167 | 449 | | 574 | | | 9 | 280 | | 26 | | | 48 | 459 | | 142 | | | 678 | 445 | | 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: | 167 | 449 | | 574 | | | 9 | 280 | | 26 | | | 48 | 459 | | 142 | | | 678 | 445 | | 10 | | |
| User Adj: | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | |
| PHF Adj: | 0.95 | 0.95 | | 0.95 | | | 0.95 | 0.95 | | 0.95 | | | 0.95 | 0.95 | | 0.95 | | | 0.95 | 0.95 | | 0.95 | | |
| PHF Volume: | 176 | 473 | | 604 | | | 9 | 295 | | 27 | | | 51 | 483 | | 149 | | | 714 | 468 | | 11 | | |
| Reduct Vol: | 0 | 0 | | 0 | | | 0 | 0 | | 0 | | | 0 | 0 | | 0 | | | 0 | 0 | | 0 | | |
| Final Vol.: | 176 | 473 | | 604 | | | 9 | 295 | | 27 | | | 51 | 483 | | 149 | | | 714 | 468 | | 11 | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | 7.1 | 6.5 | | 6.2 | | | 7.1 | 6.5 | | 6.2 | | | 4.1 | xxxx | xxxxx | | | | 4.1 | xxxx | xxxxx | | | |
| FollowUpTim: | 3.5 | 4.0 | | 3.3 | | | 3.5 | 4.0 | | 3.3 | | | 2.2 | xxxx | xxxxx | | | | 2.2 | xxxx | xxxxx | | | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 2646 | 2491 | | 483 | | | 3093 | 2629 | | 468 | | | 479 | xxxx | xxxxx | | | | 633 | xxxx | xxxxx | | | |
| Potent Cap.: | 16 | 30 | | 588 | | | 7 | 24 | | 599 | | | 1094 | xxxx | xxxxx | | | | 960 | xxxx | xxxxx | | | |
| Move Cap.: | 0 | 7 | | 588 | | | 0 | 6 | | 599 | | | 1094 | xxxx | xxxxx | | | | 960 | xxxx | xxxxx | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Del: | xxxxx | xxxx | | 71.1 | | | xxxxx | xxxx | xxxxx | | | | 8.5 | xxxx | xxxxx | | | | 18.8 | xxxx | xxxxx | | | |
| LOS by Move: | * | * | | F | | | * | * | * | | | | A | * | * | | | | C | * | * | | | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | 0 | xxxx | xxxxx | | | | xxxx | 0 | xxxxx | | | | xxxx | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | |
| Shared LOS: | * | * | | * | | | * | * | * | | | | * | * | * | | | | * | * | * | | | |
| ApproachDel: | | xxxxxx | | | | | | xxxxxx | | | | | | xxxxxx | | | | | | xxxxxx | | | | |
| ApproachLOS: | | F | | | | | | F | | | | | | * | | | | | | * | | | | |

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Default Scenario          Wed May 21, 2003 13:39:39                Page 9-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #7 Bridge Street West River St
*******************************************************************************
Average Delay (sec/veh): OVERFLOW          Worst Case Level Of Service:      F
*******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        1  0  0  1  0    1  0  0  1  0    0  1  0  0  1    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      448  927   25    52  812  236   219   20  516    26   15   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:   448  927   25    52  812  236   219   20  516    26   15   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:      0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:    472  976   26    55  855  248   231   21  543    27   16   46
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:    472  976   26    55  855  248   231   21  543    27   16   46
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:   4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5  6.2   7.1  6.5  6.2
FollowUpTim:   2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0  3.3   3.5  4.0  3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1103 xxxx xxxxx  1002 xxxx xxxxx  3052 3034  979  3303 3145  989
Potent Cap.:  640 xxxx xxxxx   699 xxxx xxxxx     8   13  306     5   11  302
Move Cap.:    640 xxxx xxxxx   699 xxxx xxxxx     0    3  306     0    3  302
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 24.7 xxxx xxxxx  10.6 xxxx xxxxx xxxxx xxxx 390.2 xxxxx xxxx xxxxx
LOS by Move:   C    *     *     B    *     *     *    *     F     *    *     *
Movement:     LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx  xxxx    0 xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx            xxxxxx
ApproachLOS:       *                 *                 F                 F
```





```
Default Scenario          Wed May 21, 2003 13:39:39                Page 10-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #8 Brockway Road/Palisades Drive
*******************************************************************************
Cycle (sec):          80                Critical Vol./Cap. (X):          0.861
Loss Time (sec):      12 (Y+R =  4 sec) Average Delay (sec/veh):          19.1
Optimal Cycle:        85                Level Of Service:                    B
*******************************************************************************
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        Split Phase      Split Phase
Rights:           Include          Include          Include          Include
Min. Green:      0    0    0     0    0    0     0    0    0     0    0    0
Lanes:        1  0  1  0  0    0  0  1  0  1    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       69 1058    0     0  854  370   250    0   73     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:    69 1058    0     0  854  370   250    0   73     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:      0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:     73 1114    0     0  899  389   263    0   77     0    0    0
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    73 1114    0     0  899  389   263    0   77     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
Final Vol.:     73 1114    0     0  899  389   263    0   77     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.95 1.00 1.00  1.00 1.00 0.85  0.95 1.00 0.85  1.00 1.00 1.00
Lanes:        1.00 1.00 0.00  0.00 1.00 1.00  1.00 0.00 1.00  0.00 0.00 0.00
Final Sat.:   1805 1900    0     0 1900 1615  1805    0 1615     0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.04 0.59 0.00  0.00 0.47 0.24  0.15 0.00 0.05  0.00 0.00 0.00
Crit Moves:        ****       ****            ****
Green/Cycle:  0.05 0.68 0.00  0.00 0.63 0.63  0.17 0.00 0.17  0.00 0.00 0.00
Volume/Cap:   0.75 0.86 0.00  0.00 0.75 0.38  0.86 0.00 0.28  0.00 0.00 0.00
Uniform Del:  37.3  9.9  0.0   0.0 10.6  7.3  32.3  0.0 29.0   0.0  0.0  0.0
IncremntDel:  28.1  6.1  0.0   0.0  2.8  0.2  21.2  0.0  0.6   0.0  0.0  0.0
Delay Adj:    1.00 1.00 0.00  0.00 1.00 1.00  1.00 0.00 1.00  0.00 0.00 0.00
Delay/Veh:    65.4 16.0  0.0   0.0 13.3  7.6  53.6  0.0 29.6   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:   65.4 16.0  0.0   0.0 13.3  7.6  53.6  0.0 29.6   0.0  0.0  0.0
DesignQueue:     3   19    0     0   17    7   10    0    3     0    0    0
*******************************************************************************
```

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Brockway Road/Martis Valley Road

Average Delay (sec/veh): 1208.1  Worst Case Level Of Service: F

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Uncontrolled | | | | | | Uncontrolled | | | | | | Stop Sign | | | | | | Stop Sign | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Lanes: | 1 | 0 | 0 | 1 | 0 | | 0 | 0 | 1! | 0 | 0 | | 0 | 1 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | 1 | |
| **Volume Module:** | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 291 | 886 | | 0 | | | 16 | 629 | | 156 | | | 113 | | 0 | 176 | | | 0 | | 0 | 14 | | |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 1.00 | | |
| Initial Bse: | 291 | 886 | | 0 | | | 16 | 629 | | 156 | | | 113 | | 0 | 176 | | | 0 | | 0 | 14 | | |
| User Adj: | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | | 1.00 | 1.00 | | | 1.00 | | 1.00 | 1.00 | | |
| PHF Adj: | 0.95 | 0.95 | | 0.95 | | | 0.95 | 0.95 | | 0.95 | | | 0.95 | | 0.95 | 0.95 | | | 0.95 | | 0.95 | 0.95 | | |
| PHF Volume: | 306 | 933 | | 0 | | | 17 | 662 | | 164 | | | 119 | | 0 | 185 | | | 0 | | 0 | 15 | | |
| Reduct Vol: | 0 | 0 | | 0 | | | 0 | 0 | | 0 | | | 0 | | 0 | 0 | | | 0 | | 0 | 0 | | |
| Final Vol.: | 306 | 933 | | 0 | | | 17 | 662 | | 164 | | | 119 | | 0 | 185 | | | 0 | | 0 | 15 | | |
| **Critical Gap Module:** | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | | | 4.1 | xxxx | xxxxx | | | | 7.1 | xxxx | | 6.2 | xxxxx | xxxx | | | | 6.2 | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | | | 2.2 | xxxx | xxxxx | | | | 3.5 | xxxx | | 3.3 | xxxxx | xxxx | | | | 3.3 | | |
| **Capacity Module:** | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 826 | xxxx | xxxxx | | | | 933 | xxxx | xxxxx | | | | 2331 | xxxx | | 744 | xxxx | xxxx | | | | 933 | | |
| Potent Cap.: | 813 | xxxx | xxxxx | | | | 742 | xxxx | xxxxx | | | | 26 | xxxx | | 418 | xxxx | xxxx | | | | 326 | | |
| Move Cap.: | 813 | xxxx | xxxxx | | | | 742 | xxxx | xxxxx | | | | 17 | xxxx | | 418 | xxxx | xxxx | | | | 326 | | |
| **Level Of Service Module:** | | | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Del: | 12.1 | xxxx | xxxxx | | | | 9.9 | xxxx | xxxxx | xxxxx | xxxx | | 20.3 | xxxxx | xxxx | | | | 16.6 | | | | | |
| LOS by Move: | B | * | | * | | | A | * | | * | | | * | | * | C | | | * | | * | C | | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | | 17 | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | | 3058 | xxxx | xxxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | |
| Shared LOS: | * | | * | | * | | * | | * | | * | | F | | * | | * | | * | | * | | * | |
| ApproachDel: | xxxxxx | | | | | | xxxxxx | | | | | | 1208.1 | | | | | | 16.6 | | | | | |
| ApproachLOS: | * | | | | | | * | | | | | | F | | | | | | C | | | | | |





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

Intersection #10 SR 267/Brockway Road/Joerger Drive

Cycle (sec): 180  Critical Vol./Cap. (X): 2.047
Loss Time (sec): 12 (Y+R = 4 sec)  Average Delay (sec/veh): 417.7
Optimal Cycle: 180  Level Of Service: F

| 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 | | | | | | Split Phase | | | | | | Split Phase | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Min. Green: | 0 | 0 | | 0 | | | 0 | 0 | | 0 | | | 0 | 0 | | 0 | | | 0 | 0 | | 0 | | |
| Lanes: | 1 | 0 | 0 | 1 | 0 | | 1 | 0 | 1 | 0 | 1 | | 0 | 1 | 0 | 0 | 1 | | 0 | 0 | 1! | 0 | 0 | |
| **Volume Module:** | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 1101 | 1353 | | 14 | | | 55 | 1057 | | 116 | | | 93 | | 5 | 999 | | | 10 | | 5 | 35 | | |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | |
| Initial Bse: | 1101 | 1353 | | 14 | | | 55 | 1057 | | 116 | | | 93 | | 5 | 999 | | | 10 | | 5 | 35 | | |
| User Adj: | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | |
| PHF Adj: | 0.95 | 0.95 | | 0.95 | | | 0.95 | 0.95 | | 0.95 | | | 0.95 | 0.95 | | 0.95 | | | 0.95 | 0.95 | | 0.95 | | |
| PHF Volume: | 1159 | 1424 | | 15 | | | 58 | 1113 | | 122 | | | 98 | | 5 | 1052 | | | 11 | | 5 | 37 | | |
| Reduct Vol: | 0 | 0 | | 0 | | | 0 | 0 | | 0 | | | 0 | | 0 | 0 | | | 0 | | 0 | 0 | | |
| Reduced Vol: | 1159 | 1424 | | 15 | | | 58 | 1113 | | 122 | | | 98 | | 5 | 1052 | | | 11 | | 5 | 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 | | |
| Final Vol.: | 1159 | 1424 | | 15 | | | 58 | 1113 | | 122 | | | 98 | | 5 | 1052 | | | 11 | | 5 | 37 | | |
| **Saturation Flow Module:** | | | | | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | | | 1900 | 1900 | | 1900 | | | 1900 | 1900 | | 1900 | | | 1900 | 1900 | | 1900 | | |
| Adjustment: | 0.95 | 1.00 | | 1.00 | | | 0.95 | 1.00 | | 0.85 | | | 0.96 | 0.96 | | 0.85 | | | 0.90 | 0.90 | | 0.90 | | |
| Lanes: | 1.00 | 0.99 | | 0.01 | | | 1.00 | 1.00 | | 1.00 | | | 0.95 | 0.05 | | 1.00 | | | 0.21 | 0.09 | | 0.70 | | |
| Final Sat.: | 1805 | 1878 | | 20 | | | 1805 | 1900 | | 1615 | | | 1726 | | 88 | 1615 | | | 354 | | 161 | 1190 | | |
| **Capacity Analysis Module:** | | | | | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.64 | 0.76 | | 0.76 | | | 0.03 | 0.59 | | 0.08 | | | 0.06 | 0.06 | | 0.65 | | | 0.03 | 0.03 | | 0.03 | | |
| Crit Moves: | **** | | | | | | | **** | | | | | | | | **** | | | **** | | | | | |
| Green/Cycle: | 0.31 | 0.58 | | 0.58 | | | 0.02 | 0.29 | | 0.29 | | | 0.32 | 0.32 | | 0.32 | | | 0.02 | 0.02 | | 0.02 | | |
| Volume/Cap: | 2.05 | 1.32 | | 1.32 | | | 1.32 | 2.05 | | 0.26 | | | 0.18 | 0.18 | | 2.05 | | | 2.05 | 2.05 | | 2.05 | | |
| Uniform Del: | 61.8 | 38.2 | | 38.2 | | | 87.8 | 64.2 | | 49.6 | | | 44.3 | 44.3 | | 61.4 | | | 88.6 | 88.6 | | 88.6 | | |
| IncremntDel: | 477.2 | 149 | | 149.3 | | | 242.7 | 477 | | 0.3 | | | 0.1 | 0.1 | | 477.8 | | | 581.2 | 581 | | 581.2 | | |
| Delay Adj: | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | |
| Delay/Veh: | 539.0 | 188 | | 187.5 | | | 330.5 | 542 | | 49.9 | | | 44.5 | 44.5 | | 539.2 | | | 669.9 | 670 | | 669.9 | | |
| 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: | 539.0 | 188 | | 187.5 | | | 330.5 | 542 | | 49.9 | | | 44.5 | 44.5 | | 539.2 | | | 669.9 | 670 | | 669.9 | | |
| DesignQueue: | 95 | 76 | | 1 | | | 6 | 94 | | 9 | | | 7 | | 0 | 84 | | | 1 | | 0 | 4 | | |

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

Intersection #11 SR 267/Airport Road/Schaffer Mill Road

Cycle (sec): 100  Critical Vol./Cap. (X): 2.113
Loss Time (sec): 16 (Y+R = 4 sec)  Average Delay (sec/veh): 403.9
Optimal Cycle: 180  Level Of Service: F

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 0 | 1 0 | 1 | 0 | 1 | 0 1 | 0 | 1 | 0 | 0 1 | 0 | 1 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 96 | 1440 | 141 | | 381 | 1372 | 313 | | 397 | 43 | 129 | | 171 | 76 | 631 | |
| Growth Adj: | 1.00 | 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 | 1440 | 141 | | 381 | 1372 | 313 | | 397 | 43 | 129 | | 171 | 76 | 631 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 101 | 1516 | 148 | | 401 | 1444 | 329 | | 418 | 45 | 136 | | 180 | 80 | 664 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 101 | 1516 | 148 | | 401 | 1444 | 329 | | 418 | 45 | 136 | | 180 | 80 | 664 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 101 | 1516 | 148 | | 401 | 1444 | 329 | | 418 | 45 | 136 | | 180 | 80 | 664 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.95 | 0.99 | 0.99 | | 0.95 | 1.00 | 0.85 | | 0.96 | 0.96 | 0.85 | | 0.97 | 0.97 | 0.85 | |
| Lanes: | 1.00 | 0.91 | 0.09 | | 1.00 | 1.00 | 1.00 | | 0.90 | 0.10 | 1.00 | | 0.69 | 0.31 | 1.00 | |
| Final Sat.: | 1805 | 1709 | 167 | | 1805 | 1900 | 1615 | | 1642 | 177 | 1615 | | 1272 | 565 | 1615 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.89 | 0.89 | | 0.22 | 0.76 | 0.20 | | 0.25 | 0.25 | 0.08 | | 0.14 | 0.14 | 0.41 | |
| Crit Moves: | | **** | | | **** | | | | **** | | | | | | **** | |
| Green/Cycle: | 0.04 | 0.42 | 0.42 | | 0.11 | 0.49 | 0.49 | | 0.12 | 0.12 | 0.12 | | 0.19 | 0.19 | 0.19 | |
| Volume/Cap: | 1.55 | 2.11 | 2.11 | | 2.11 | 1.55 | 0.42 | | 2.11 | 2.11 | 0.70 | | 0.73 | 0.73 | 2.11 | |
| Uniform Del: | 48.2 | 29.0 | 29.0 | | 44.7 | 25.6 | 16.4 | | 44.0 | 44.0 | 42.2 | | 37.8 | 37.8 | 40.3 | |
| IncremntDel: | 311.6 | 505 | 505.3 | | 518.4 | 255 | 0.4 | | 516.2 | 516 | 10.7 | | 7.3 | 7.3 | 511.7 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 359.8 | 534 | 534.3 | | 563.2 | 280 | 16.8 | | 560.1 | 560 | 52.9 | | 45.1 | 45.1 | 552.0 | |
| 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: | 359.8 | 534 | 534.3 | | 563.2 | 280 | 16.8 | | 560.1 | 560 | 52.9 | | 45.1 | 45.1 | 552.0 | |
| DesignQueue: | 5 | 64 | 6 | | 21 | 51 | 10 | | 22 | 2 | 7 | | 8 | 4 | 33 | |





Default Scenario  Wed May 21, 2003 13:39:39  Page 14-1

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 SR 267/Northstar Drive

Average Delay (sec/veh): 2805.2  Worst Case Level Of Service: F

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Stop Sign | | | | Stop Sign | | | | Uncontrolled | | | | Uncontrolled | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Lanes: | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 0 1 | 0 | 1 | 0 | 0 1 | 0 | 0 | 1! | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 170 | 1151 | 14 | | 12 | 1035 | 519 | | 468 | 25 | 190 | | 2 | 1 | 2 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 170 | 1151 | 14 | | 12 | 1035 | 519 | | 468 | 25 | 190 | | 2 | 1 | 2 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 179 | 1212 | 15 | | 13 | 1089 | 546 | | 493 | 26 | 200 | | 2 | 1 | 2 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Final Vol.: | 179 | 1212 | 15 | | 13 | 1089 | 546 | | 493 | 26 | 200 | | 2 | 1 | 2 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 | | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 | | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1836 | 1019 | 26 | | 1731 | 1218 | 2 | | 3 | xxxx | xxxxx | | 226 | xxxx | xxxxx | |
| Potent Cap.: | 59 | 239 | 1055 | | 70 | 182 | 1088 | | 1632 | xxxx | xxxxx | | 1354 | xxxx | xxxxx | |
| Move Cap.: | 0 | 139 | 1055 | | 0 | 106 | 1088 | | 1632 | xxxx | xxxxx | | 1354 | xxxx | xxxxx | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| Stopped Del: | 0.0 | 1570 | xxxxx | | 0.0 | 4239 | 11.6 | | 7.2 | xxxx | xxxxx | | 7.7 | xxxx | xxxxx | |
| LOS by Move: | * | F | * | | * | F | B | | A | * | * | | A | * | * | |
| Movement: | LT | - LTR | - RT | | LT | - LTR | - RT | | LT | - LTR | - RT | | LT | - LTR | - RT | |
| Shared Cap.: | xxxx | xxxx | 142 | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| Shrd StpDel: | xxxxx | xxxx | 1575 | | xxxxx | xxxx | xxxxx | | 8.2 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | F | | * | * | * | | A | * | * | | * | * | * | |
| ApproachDel: | 1372.0 | | | | 2805.2 | | | | xxxxxx | | | | xxxxxx | | | |
| ApproachLOS: | F | | | | F | | | | * | | | | * | | | |

Default Scenario Wed May 21, 2003 13:39:39 Page 15-1

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

**Intersection #13 SR 28/SR 267**

Cycle (sec): 110 Critical Vol./Cap. (X): 1.095
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 61.9
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 1 | 0 | 2 | 436 | 1 | 433 | 323 | 825 | 1 | 2 | 610 | 652 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1 | 0 | 2 | 436 | 1 | 433 | 323 | 825 | 1 | 2 | 610 | 652 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 1 | 0 | 2 | 459 | 1 | 456 | 340 | 868 | 1 | 2 | 642 | 686 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 1 | 0 | 2 | 459 | 1 | 456 | 340 | 868 | 1 | 2 | 642 | 686 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 1 | 0 | 2 | 459 | 1 | 456 | 340 | 868 | 1 | 2 | 642 | 686 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.86 | 1.00 | 0.86 | 0.71 | 0.71 | 0.85 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.81 |
| Lanes: | 0.33 | 0.00 | 0.67 | 0.99 | 0.01 | 1.00 | 1.00 | 1.99 | 0.01 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 542 | 0 | 1084 | 1350 | 3 | 1615 | 1805 | 3606 | 4 | 1805 | 1805 | 1534 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.34 | 0.34 | 0.28 | 0.19 | 0.24 | 0.24 | 0.00 | 0.36 | 0.45 |
| Crit Moves: | | | | | **** | | **** | | | | | **** |
| Green/Cycle: | 0.31 | 0.00 | 0.31 | 0.31 | 0.31 | 0.31 | 0.17 | 0.58 | 0.58 | 0.00 | 0.41 | 0.41 |
| Volume/Cap: | 0.01 | 0.00 | 0.01 | 1.09 | 1.09 | 0.91 | 1.09 | 0.42 | 0.42 | 0.42 | 0.87 | 1.09 |
| Uniform Del: | 26.2 | 0.0 | 26.2 | 37.9 | 37.9 | 36.4 | 45.5 | 12.9 | 12.9 | 54.8 | 29.9 | 32.5 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 72.0 | 72.0 | 20.5 | 78.9 | 0.1 | 0.1 | 49.6 | 5.8 | 55.8 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 26.2 | 0.0 | 26.2 | 110.0 | 110 | 56.9 | 124.5 | 13.1 | 13.1 | 104.3 | 35.6 | 88.4 |
| 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: | 26.2 | 0.0 | 26.2 | 110.0 | 110 | 56.9 | 124.5 | 13.1 | 13.1 | 104.3 | 35.6 | 88.4 |
| DesignQueue: | 0 | 0 | 0 | 21 | 0 | 21 | 18 | 24 | 0 | 0 | 25 | 27 |





Default Scenario Wed May 21, 2003 13:39:39 Page 16-1

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

**Intersection #14 SR 89/Donner Pass Road**

Cycle (sec): 100 Critical Vol./Cap. (X): 1.067
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 74.3
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 1 | 0 1 | 0 | 0 1 | 0 1 | 0 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 571 | 48 | 43 | 10 | 197 | 182 | 91 | 195 | 543 | 86 | 390 | 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: | 571 | 48 | 43 | 10 | 197 | 182 | 91 | 195 | 543 | 86 | 390 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 601 | 51 | 45 | 11 | 207 | 192 | 96 | 205 | 572 | 91 | 411 | 11 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 601 | 51 | 45 | 11 | 207 | 192 | 96 | 205 | 572 | 91 | 411 | 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 |
| Final Vol.: | 601 | 51 | 45 | 11 | 207 | 192 | 96 | 205 | 572 | 91 | 411 | 11 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.90 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.95 | 0.95 | 0.81 | 0.95 | 0.95 | 0.95 |
| Lanes: | 1.00 | 0.53 | 0.47 | 0.05 | 1.01 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 1.95 | 0.05 |
| Final Sat.: | 1715 | 892 | 787 | 90 | 1693 | 1571 | 1805 | 1805 | 1534 | 1805 | 3502 | 94 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.35 | 0.06 | 0.06 | 0.12 | 0.12 | 0.12 | 0.05 | 0.11 | 0.37 | 0.05 | 0.12 | 0.12 |
| Crit Moves: | **** | | | **** | | | | | **** | **** | | |
| Green/Cycle: | 0.33 | 0.33 | 0.33 | 0.11 | 0.11 | 0.11 | 0.12 | 0.35 | 0.35 | 0.05 | 0.27 | 0.27 |
| Volume/Cap: | 1.07 | 0.17 | 0.17 | 1.07 | 1.07 | 1.07 | 0.43 | 0.32 | 1.07 | 1.07 | 0.43 | 0.43 |
| Uniform Del: | 33.6 | 23.9 | 23.9 | 44.3 | 44.3 | 44.3 | 40.5 | 23.9 | 32.5 | 47.6 | 29.9 | 29.9 |
| IncremntDel: | 54.3 | 0.0 | 0.0 | 64.7 | 64.7 | 64.7 | 1.3 | 0.1 | 52.6 | 116.7 | 0.3 | 0.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 87.9 | 23.9 | 23.9 | 109.0 | 109 | 109.0 | 41.9 | 23.9 | 85.1 | 164.4 | 30.2 | 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: | 87.9 | 23.9 | 23.9 | 109.0 | 109 | 109.0 | 41.9 | 23.9 | 85.1 | 164.4 | 30.2 | 30.2 |
| DesignQueue: | 24 | 2 | 2 | 1 | 10 | 10 | 5 | 8 | 22 | 5 | 17 | 0 |

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Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 1 SR 267 Bypass/I-80 WB | D | 43.4 | 0.926 | D | 43.4 | 0.926 | + 0.000 D/V |
| # 2 SR 267 Bypass/I-80 EB | B | 17.9 | 0.753 | B | 17.9 | 0.753 | + 0.000 D/V |
| # 3 I-80 WB/DPR | B | 10.3 | 0.000 | B | 10.3 | 0.000 | + 0.000 V/C |
| # 4 I-80 EB/DPR | F | 137.8 | 0.000 | F | 137.8 | 0.000 | + 0.000 V/C |
| # 5 DPR/Glenshire Drive | F | 258.4 | 0.000 | F | 258.4 | 0.000 | + 0.000 V/C |
| # 6 DPR/Bridge Street | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 7 Bridge Street West River St | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 8 Brockway Road/Palisades Drive | B | 18.1 | 0.743 | B | 18.1 | 0.743 | + 0.000 D/V |
| # 9 Brockway Road/Martis Valley Ro | F | 979.0 | 0.000 | F | 979.0 | 0.000 | + 0.000 V/C |
| # 10 SR 267/Brockway Road/Joerger D | F | 351.7 | 1.961 | F | 351.7 | 1.961 | + 0.000 D/V |
| # 11 SR 267/Airport Road/Schaffer M | F | 289.5 | 1.715 | F | 289.5 | 1.715 | + 0.000 D/V |
| # 12 SR 267/Northstar Drive | F | 115.5 | 1.227 | F | 115.5 | 1.227 | + 0.000 D/V |
| # 13 SR 28/SR 267 | F | 114.0 | 1.224 | F | 114.0 | 1.224 | + 0.000 D/V |
| # 14 SR 89/Donner Pass Road | D | 38.3 | 0.820 | D | 38.3 | 0.820 | + 0.000 D/V |





Default Scenario Wed May 21, 2003 13:42:16 Page 3-1

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

Intersection #1 SR 267 Bypass/I-80 WB

Cycle (sec): 95 Critical Vol./Cap. (X): 0.926
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 43.4
Optimal Cycle: 119 Level Of Service: D

| 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 | | | | | | Split Phase | | | | | | Split Phase | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Min. Green: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Lanes: | 1 | 0 | 1 | 0 | 0 | | 0 | 0 | 1 | 0 | 1 | | 0 | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 1 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 420 | 233 | | 0 | | 0 | 834 | | 5 | | 0 | | 0 | | 0 | | 175 | | 0 | | 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: | 420 | 233 | | 0 | | 0 | 834 | | 5 | | 0 | | 0 | | 0 | | 175 | | 0 | | 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: | 0.95 | 0.95 | | 0.95 | | 0.95 | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | | 0.95 | | | |
| PHF Volume: | 442 | 245 | | 0 | | 0 | 878 | | 5 | | 0 | | 0 | | 0 | | 184 | | 0 | | 132 | | | |
| Reduct Vol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | | |
| Reduced Vol: | 442 | 245 | | 0 | | 0 | 878 | | 5 | | 0 | | 0 | | 0 | | 184 | | 0 | | 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 | | | |
| Final Vol.: | 442 | 245 | | 0 | | 0 | 878 | | 5 | | 0 | | 0 | | 0 | | 184 | | 0 | | 132 | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | | 1900 | 1900 | | 1900 | | 1900 | | 1900 | | 1900 | | 1900 | | 1900 | | 1900 | | | |
| Adjustment: | 0.95 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 0.85 | | 1.00 | | 1.00 | | 1.00 | | 0.95 | | 1.00 | | 0.85 | | | |
| Lanes: | 1.00 | 1.00 | | 0.00 | | 0.00 | 1.00 | | 1.00 | | 0.00 | | 0.00 | | 0.00 | | 1.00 | | 0.00 | | 1.00 | | | |
| Final Sat.: | 1805 | 1900 | | 0 | | 0 | 1900 | | 1615 | | 0 | | 0 | | 0 | | 1809 | | 0 | | 1615 | | | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.24 | 0.13 | | 0.00 | | 0.00 | 0.46 | | 0.00 | | 0.00 | | 0.00 | | 0.00 | | 0.10 | | 0.00 | | 0.08 | | | |
| Crit Moves: | **** | | | | | | **** | | | | | | | | | | **** | | | | | | | |
| Green/Cycle: | 0.26 | 0.76 | | 0.00 | | 0.00 | 0.50 | | 0.50 | | 0.00 | | 0.00 | | 0.00 | | 0.11 | | 0.00 | | 0.11 | | | |
| Volume/Cap: | 0.93 | 0.17 | | 0.00 | | 0.00 | 0.93 | | 0.01 | | 0.00 | | 0.00 | | 0.00 | | 0.93 | | 0.00 | | 0.74 | | | |
| Uniform Del: | 34.0 | 3.0 | | 0.0 | | 0.0 | 22.1 | | 11.9 | | 0.0 | | 0.0 | | 0.0 | | 41.9 | | 0.0 | | 41.0 | | | |
| IncremntDel: | 24.0 | 0.1 | | 0.0 | | 0.0 | 14.5 | | 0.0 | | 0.0 | | 0.0 | | 0.0 | | 43.3 | | 0.0 | | 15.6 | | | |
| Delay Adj: | 1.00 | 1.00 | | 0.00 | | 0.00 | 1.00 | | 1.00 | | 0.00 | | 0.00 | | 0.00 | | 1.00 | | 0.00 | | 1.00 | | | |
| Delay/Veh: | 58.1 | 3.1 | | 0.0 | | 0.0 | 36.7 | | 12.0 | | 0.0 | | 0.0 | | 0.0 | | 85.2 | | 0.0 | | 56.6 | | | |
| 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: | 58.1 | 3.1 | | 0.0 | | 0.0 | 36.7 | | 12.0 | | 0.0 | | 0.0 | | 0.0 | | 85.2 | | 0.0 | | 56.6 | | | |
| DesignQueue: | 18 | 3 | | 0 | | 0 | 26 | | 0 | | 0 | | 0 | | 0 | | 9 | | 0 | | 6 | | | |

Default Scenario  Wed May 21, 2003 13:42:16  Page 4-1

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

Intersection #2 SR 267 Bypass/I-80 EB

Cycle (sec): 100  Critical Vol./Cap. (X): 0.753
Loss Time (sec): 12 (Y+R = 4 sec)  Average Delay (sec/veh): 17.9
Optimal Cycle: 68  Level Of Service: B

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 0 | 1 | 0 | 1 | 1 0 | 1 | 0 | 0 | 0 1 | 0 | 0 | 1 | 0 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 865 | 339 | | 57 | 903 | 0 | | 0 | 0 | 230 | | 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 | 865 | 339 | | 57 | 903 | 0 | | 0 | 0 | 230 | | 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: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 0 | 911 | 357 | | 60 | 951 | 0 | | 0 | 0 | 242 | | 0 | 0 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 0 | 911 | 357 | | 60 | 951 | 0 | | 0 | 0 | 242 | | 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 | |
| Final Vol.: | 0 | 911 | 357 | | 60 | 951 | 0 | | 0 | 0 | 242 | | 0 | 0 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 1.00 | 1.00 | 0.85 | | 0.95 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | |
| Lanes: | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Final Sat.: | 0 | 1900 | 1615 | | 1805 | 1900 | 0 | | 0 | 1900 | 1615 | | 0 | 0 | 0 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.48 | 0.22 | | 0.03 | 0.50 | 0.00 | | 0.00 | 0.00 | 0.15 | | 0.00 | 0.00 | 0.00 | |
| Crit Moves: | | **** | | | **** | | | | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.64 | 0.64 | | 0.04 | 0.68 | 0.00 | | 0.00 | 0.00 | 0.20 | | 0.00 | 0.00 | 0.00 | |
| Volume/Cap: | 0.00 | 0.75 | 0.35 | | 0.75 | 0.74 | 0.00 | | 0.00 | 0.00 | 0.75 | | 0.00 | 0.00 | 0.00 | |
| Uniform Del: | 0.0 | 12.7 | 8.5 | | 47.3 | 10.2 | 0.0 | | 0.0 | 0.0 | 37.7 | | 0.0 | 0.0 | 0.0 | |
| IncremntDel: | 0.0 | 2.7 | 0.2 | | 32.7 | 2.2 | 0.0 | | 0.0 | 0.0 | 9.6 | | 0.0 | 0.0 | 0.0 | |
| Delay Adj: | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Delay/Veh: | 0.0 | 15.4 | 8.7 | | 79.9 | 12.4 | 0.0 | | 0.0 | 0.0 | 47.4 | | 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 | 15.4 | 8.7 | | 79.9 | 12.4 | 0.0 | | 0.0 | 0.0 | 47.4 | | 0.0 | 0.0 | 0.0 | |
| DesignQueue: | 0 | 21 | 8 | | 3 | 19 | 0 | | 0 | 0 | 11 | | 0 | 0 | 0 | |





Default Scenario  Wed May 21, 2003 13:42:16  Page 5-1

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 I-80 WB/DPR

Average Delay (sec/veh): 10.3  Worst Case Level Of Service: B

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | | L | - T | - R | | L | - T | - R | | L | - T | - R | |
| Control: | Uncontrolled | | | | Uncontrolled | | | | Stop Sign | | | | Stop Sign | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Lanes: | 1 0 | 1 | 0 | 0 | 0 0 | 1 | 0 | 1 | 0 0 | 0 | 0 | 0 | 0 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 254 | 234 | 0 | | 0 | 276 | 341 | | 0 | 0 | 0 | | 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: | 254 | 234 | 0 | | 0 | 276 | 341 | | 0 | 0 | 0 | | 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: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 267 | 246 | 0 | | 0 | 291 | 359 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Final Vol.: | 267 | 246 | 0 | | 0 | 291 | 359 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 649 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| Potent Cap.: | 946 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| Move Cap.: | 946 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| Stopped Del: | 10.3 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | 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 | |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | * | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | | xxxxxx | | | |
| ApproachLOS: | * | | | | * | | | | * | | | | * | | | |

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #4 I-80 EB/DPR
*******************************************************************************
Average Delay (sec/veh):    137.8           Worst Case Level Of Service:      F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Lanes:        0  0  1  0  0    0  0  1  0  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  488     0     0  276     0   362     0    81     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  488     0     0  276     0   362     0    81     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:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:     0  514     0     0  291     0   381     0    85     0     0     0
Reduct Vol:     0    0     0     0    0     0     0     0     0     0     0     0
Final Vol.:     0  514     0     0  291     0   381     0    85     0     0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx   804 xxxx   291  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx   355 xxxx   753  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   355 xxxx   753  xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped 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  xxxx xxxx xxxxx  xxxx  393 xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx  138 xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    F     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx            137.8           xxxxxx
ApproachLOS:       *                *                F               *
```





```
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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #5 DPR/Glenshire Drive
*******************************************************************************
Average Delay (sec/veh):    258.4           Worst Case Level Of Service:      F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign      Uncontrolled     Uncontrolled
Rights:          Include          Include          Include          Include
Lanes:        1  0  0  0  1    0  0  0  0  0    0  0  0  1  0    1  0  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     271     0   162     0     0     0     0   326   368   250   107     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:  271     0   162     0     0     0     0   326   368   250   107     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:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:   285     0   171     0     0     0     0   343   387   263   113     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Final Vol.:   285     0   171     0     0     0     0   343   387   263   113     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.4 xxxx   6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5 xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1176 xxxx   537  xxxx xxxx xxxxx  xxxx xxxx xxxxx   731 xxxx xxxxx
Potent Cap.:  213 xxxx   548  xxxx xxxx xxxxx  xxxx xxxx xxxxx   883 xxxx xxxxx
Move Cap.:    164 xxxx   548  xxxx xxxx xxxxx  xxxx xxxx xxxxx   883 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:404.1 xxxx  14.5 xxxxx xxxx xxxxx xxxxx xxxx xxxxx  10.8 xxxx xxxxx
LOS by Move:    F     *     B     *     *     *     *     *     *     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
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *     *     *     *     *     *     *     *     *     *     *     *
ApproachDel:     258.4           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:       F                *                *                *
```

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 DPR/Bridge Street

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Stop Sign | | | Stop Sign | | | Uncontrolled | | | Uncontrolled | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 | 1 0 | 1 0 | 1 | 1 0 | 1 0 | 1 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 215 | 467 | 488 | 9 | 272 | 27 | 48 | 197 | 182 | 400 | 325 | 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: | 215 | 467 | 488 | 9 | 272 | 27 | 48 | 197 | 182 | 400 | 325 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 226 | 492 | 514 | 9 | 286 | 28 | 51 | 207 | 192 | 421 | 342 | 11 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Final Vol.: | 226 | 492 | 514 | 9 | 286 | 28 | 51 | 207 | 192 | 421 | 342 | 11 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 1655 | 1503 | 207 | 2091 | 1684 | 342 | 353 | xxxx | xxxxx | 399 | xxxx | xxxxx |
| Potent Cap.: | 79 | 123 | 838 | 39 | 95 | 705 | 1217 | xxxx | xxxxx | 1171 | xxxx | xxxxx |
| Move Cap.: | 0 | 75 | 838 | 0 | 58 | 705 | 1217 | xxxx | xxxxx | 1171 | xxxx | xxxxx |
| **Level Of Service Module:** | | | | | | | | | | | | |
| Stopped Del: | xxxxx | xxxx | 15.8 | xxxxx | xxxx | xxxxx | 8.1 | xxxx | xxxxx | 9.8 | xxxx | xxxxx |
| LOS by Move: | * | * | C | * | * | * | A | * | * | A | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | 0 | xxxx | xxxxx | xxxx | 0 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | F | | | F | | | * | | | * | | |





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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Bridge Street West River St

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 496 | 662 | 38 | 45 | 708 | 101 | 469 | 20 | 824 | 30 | 20 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 496 | 662 | 38 | 45 | 708 | 101 | 469 | 20 | 824 | 30 | 20 | 39 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 522 | 697 | 40 | 47 | 745 | 106 | 494 | 21 | 867 | 32 | 21 | 41 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Final Vol.: | 522 | 697 | 40 | 47 | 745 | 106 | 494 | 21 | 867 | 32 | 21 | 41 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 852 | xxxx | xxxxx | 737 | xxxx | xxxxx | 2685 | 2674 | 798 | 3098 | 2707 | 717 |
| Potent Cap.: | 796 | xxxx | xxxxx | 878 | xxxx | xxxxx | 15 | 23 | 389 | 7 | 21 | 433 |
| Move Cap.: | 796 | xxxx | xxxxx | 878 | xxxx | xxxxx | 0 | 7 | 389 | 0 | 7 | 433 |
| **Level Of Service Module:** | | | | | | | | | | | | |
| Stopped Del: | 17.7 | xxxx | xxxxx | 9.3 | xxxx | xxxxx | xxxxx | xxxx | 584.1 | xxxxx | xxxx | xxxxx |
| LOS by Move: | C | * | * | A | * | * | * | * | F | * | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0 | xxxx | xxxxx | xxxx | 0 | xxxxx |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | F | | | F | | |

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

Intersection #8 Brockway Road/Palisades Drive

Cycle (sec): 120  Critical Vol./Cap. (X): 0.743
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 18.1
Optimal Cycle:OPTIMIZED  Level Of Service: B

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 0 0 | 0 | 0 | 1 | 0 1 | 1 | 0 | 0 | 0 1 | 0 | 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 68 | 976 | 0 | | 0 | 750 | 411 | | 220 | 0 | 72 | | 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 | 976 | 0 | | 0 | 750 | 411 | | 220 | 0 | 72 | | 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: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 72 | 1027 | 0 | | 0 | 789 | 433 | | 232 | 0 | 76 | | 0 | 0 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 72 | 1027 | 0 | | 0 | 789 | 433 | | 232 | 0 | 76 | | 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 | |
| Final Vol.: | 72 | 1027 | 0 | | 0 | 789 | 433 | | 232 | 0 | 76 | | 0 | 0 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.95 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 0.95 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | |
| Lanes: | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Final Sat.: | 1805 | 1900 | 0 | | 0 | 1900 | 1615 | | 1805 | 0 | 1615 | | 0 | 0 | 0 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.54 | 0.00 | | 0.00 | 0.42 | 0.27 | | 0.13 | 0.00 | 0.05 | | 0.00 | 0.00 | 0.00 | |
| Crit Moves: | | **** | | | **** | | | | **** | | | | | | | |
| Green/Cycle: | 0.06 | 0.73 | 0.00 | | 0.00 | 0.66 | 0.66 | | 0.17 | 0.00 | 0.17 | | 0.00 | 0.00 | 0.00 | |
| Volume/Cap: | 0.63 | 0.74 | 0.00 | | 0.00 | 0.63 | 0.40 | | 0.74 | 0.00 | 0.27 | | 0.00 | 0.00 | 0.00 | |
| Uniform Del: | 54.8 | 9.7 | 0.0 | | 0.0 | 11.6 | 9.3 | | 47.1 | 0.0 | 43.1 | | 0.0 | 0.0 | 0.0 | |
| IncremntDel: | 10.4 | 2.2 | 0.0 | | 0.0 | 1.0 | 0.3 | | 9.3 | 0.0 | 0.5 | | 0.0 | 0.0 | 0.0 | |
| Delay Adj: | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Delay/Veh: | 65.2 | 11.9 | 0.0 | | 0.0 | 12.6 | 9.5 | | 56.4 | 0.0 | 43.6 | | 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: | 65.2 | 11.9 | 0.0 | | 0.0 | 12.6 | 9.5 | | 56.4 | 0.0 | 43.6 | | 0.0 | 0.0 | 0.0 | |
| DesignQueue: | 5 | 22 | 0 | | 0 | 20 | 10 | | 13 | 0 | 4 | | 0 | 0 | 0 | |





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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Brockway Road/Martis Valley Road

Average Delay (sec/veh): 979.0  Worst Case Level Of Service: F

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Uncontrolled | | | | Uncontrolled | | | | Stop Sign | | | | Stop Sign | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Lanes: | 1 | 0 | 0 | 1 0 | 0 | 0 | 1! | 0 0 | 0 | 1 | 0 | 0 1 | 0 | 0 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 206 | 935 | 0 | | 16 | 638 | 168 | | 95 | 0 | 83 | | 0 | 0 | 14 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 206 | 935 | 0 | | 16 | 638 | 168 | | 95 | 0 | 83 | | 0 | 0 | 14 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 217 | 984 | 0 | | 17 | 672 | 177 | | 100 | 0 | 87 | | 0 | 0 | 15 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Final Vol.: | 217 | 984 | 0 | | 17 | 672 | 177 | | 100 | 0 | 87 | | 0 | 0 | 15 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | | 4.1 | xxxx | xxxxx | | 7.1 | xxxx | 6.2 | | xxxxx | xxxx | 6.2 | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | | 2.2 | xxxx | xxxxx | | 3.5 | xxxx | 3.3 | | xxxxx | xxxx | 3.3 | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 848 | xxxx | xxxxx | | 984 | xxxx | xxxxx | | 2219 | xxxx | 760 | | xxxx | xxxx | 984 | |
| Potent Cap.: | 798 | xxxx | xxxxx | | 710 | xxxx | xxxxx | | 32 | xxxx | 409 | | xxxx | xxxx | 304 | |
| Move Cap.: | 798 | xxxx | xxxxx | | 710 | xxxx | xxxxx | | 23 | xxxx | 409 | | xxxx | xxxx | 304 | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| Stopped Del: | 11.2 | xxxx | xxxxx | | 10.1 | xxxx | xxxxx | | xxxxx | xxxx | 16.2 | | xxxxx | xxxx | 17.4 | |
| LOS by Move: | B | * | * | | B | * | * | | * | * | C | | * | * | C | |
| Movement: | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | | LT - | LTR - | RT | |
| Shared Cap.: | xxxx | xxxx | xxxxx | | xxxx | xxxx | xxxxx | | 23 | xxxx | xxxxx | | xxxx | xxxx | xxxxx | |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | | 1820 | xxxx | xxxxx | | xxxxx | xxxx | xxxxx | |
| Shared LOS: | * | * | * | | * | * | * | | F | * | * | | * | * | * | |
| ApproachDel: | xxxxxx | | | | xxxxxx | | | | 979.0 | | | | 17.4 | | | |
| ApproachLOS: | * | | | | * | | | | F | | | | C | | | |

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

Intersection #10 SR 267/Brockway Road/Joerger Drive

Cycle (sec): 100  Critical Vol./Cap. (X): 1.961
Loss Time (sec): 12 (Y+R = 4 sec)  Average Delay (sec/veh): 351.7
Optimal Cycle: 180  Level Of Service: F

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 0 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 1108 | 971 | 14 | 44 | 1133 | 28 | 71 | 5 | 645 | 10 | 5 | 35 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1108 | 971 | 14 | 44 | 1133 | 28 | 71 | 5 | 645 | 10 | 5 | 35 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 1166 | 1022 | 15 | 46 | 1193 | 29 | 75 | 5 | 679 | 11 | 5 | 37 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 1166 | 1022 | 15 | 46 | 1193 | 29 | 75 | 5 | 679 | 11 | 5 | 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 |
| Final Vol.: | 1166 | 1022 | 15 | 46 | 1193 | 29 | 75 | 5 | 679 | 11 | 5 | 37 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 0.85 | 0.96 | 0.96 | 0.85 | 0.90 | 0.90 | 0.90 |
| Lanes: | 1.00 | 0.99 | 0.01 | 1.00 | 1.00 | 1.00 | 0.94 | 0.06 | 1.00 | 0.21 | 0.09 | 0.70 |
| Final Sat.: | 1805 | 1869 | 27 | 1805 | 1900 | 1615 | 1701 | 113 | 1615 | 354 | 161 | 1190 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.65 | 0.55 | 0.55 | 0.03 | 0.63 | 0.02 | 0.04 | 0.04 | 0.42 | 0.03 | 0.03 | 0.03 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green/Cycle: | 0.33 | 0.62 | 0.62 | 0.03 | 0.32 | 0.32 | 0.21 | 0.21 | 0.21 | 0.02 | 0.02 | 0.02 |
| Volume/Cap: | 1.96 | 0.88 | 0.88 | 0.88 | 1.96 | 0.06 | 0.21 | 0.21 | 1.96 | 1.96 | 1.96 | 1.96 |
| Uniform Del: | 33.5 | 15.9 | 15.9 | 48.4 | 34.0 | 23.5 | 32.3 | 32.3 | 39.3 | 49.2 | 49.2 | 49.2 |
| IncremntDel: | 438.4 | 8.0 | 8.0 | 81.8 | 438 | 0.0 | 0.3 | 0.3 | 442.7 | 540.9 | 541 | 540.9 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 471.9 | 23.8 | 23.8 | 130.1 | 472 | 23.6 | 32.5 | 32.5 | 482.0 | 590.1 | 590 | 590.1 |
| 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: | 471.9 | 23.8 | 23.8 | 130.1 | 472 | 23.6 | 32.5 | 32.5 | 482.0 | 590.1 | 590 | 590.1 |
| DesignQueue: | 52 | 25 | 0 | 2 | 54 | 1 | 3 | 0 | 33 | 1 | 0 | 2 |





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

Intersection #11 SR 267/Airport Road/Schaffer Mill Road

Cycle (sec): 180  Critical Vol./Cap. (X): 1.715
Loss Time (sec): 16 (Y+R = 4 sec)  Average Delay (sec/veh): 289.5
Optimal Cycle: 180  Level Of Service: F

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 0 | 1 | 0 1 | 0 0 | 1 | 0 1 | 0 0 | 1 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 56 | 1015 | 82 | 434 | 1038 | 316 | 447 | 43 | 113 | 77 | 76 | 631 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 56 | 1015 | 82 | 434 | 1038 | 316 | 447 | 43 | 113 | 77 | 76 | 631 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 59 | 1068 | 86 | 457 | 1093 | 333 | 471 | 45 | 119 | 81 | 80 | 664 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 59 | 1068 | 86 | 457 | 1093 | 333 | 471 | 45 | 119 | 81 | 80 | 664 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 59 | 1068 | 86 | 457 | 1093 | 333 | 471 | 45 | 119 | 81 | 80 | 664 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 0.99 | 0.99 | 0.95 | 1.00 | 0.85 | 0.96 | 0.96 | 0.85 | 0.98 | 0.98 | 0.85 |
| Lanes: | 1.00 | 0.93 | 0.07 | 1.00 | 1.00 | 1.00 | 0.91 | 0.09 | 1.00 | 0.50 | 0.50 | 1.00 |
| Final Sat.: | 1805 | 1739 | 140 | 1805 | 1900 | 1615 | 1658 | 158 | 1615 | 932 | 920 | 1615 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.61 | 0.61 | 0.25 | 0.58 | 0.21 | 0.28 | 0.28 | 0.07 | 0.09 | 0.09 | 0.41 |
| Crit Moves: | | **** | | **** | | | | **** | | | | **** |
| Green/Cycle: | 0.03 | 0.36 | 0.36 | 0.15 | 0.48 | 0.48 | 0.17 | 0.17 | 0.17 | 0.24 | 0.24 | 0.24 |
| Volume/Cap: | 1.20 | 1.71 | 1.71 | 1.71 | 1.20 | 0.43 | 1.71 | 1.71 | 0.44 | 0.36 | 0.36 | 1.71 |
| Uniform Del: | 87.6 | 57.8 | 57.8 | 76.7 | 46.9 | 30.8 | 75.1 | 75.1 | 67.6 | 57.0 | 57.0 | 68.4 |
| IncremntDel: | 193.5 | 328 | 328.0 | 337.2 | 102 | 0.4 | 335.5 | 336 | 1.2 | 0.5 | 0.5 | 332.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 281.0 | 386 | 385.8 | 413.9 | 148 | 31.2 | 410.6 | 411 | 68.8 | 57.5 | 57.5 | 401.0 |
| 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: | 281.0 | 386 | 385.8 | 413.9 | 148 | 31.2 | 410.6 | 411 | 68.8 | 57.5 | 57.5 | 401.0 |
| DesignQueue: | 6 | 82 | 7 | 42 | 67 | 18 | 42 | 4 | 10 | 6 | 6 | 56 |

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

Intersection #12 SR 267/Northstar Drive

Cycle (sec): 155  Critical Vol./Cap. (X): 1.227
Loss Time (sec): 16 (Y+R = 4 sec)  Average Delay (sec/veh): 115.5
Optimal Cycle: 180  Level Of Service: F

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 0 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 152 | 450 | 14 | 12 | 876 | 340 | 878 | 24 | 353 | 2 | 1 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 152 | 450 | 14 | 12 | 876 | 340 | 878 | 24 | 353 | 2 | 1 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 160 | 474 | 15 | 13 | 922 | 358 | 924 | 25 | 372 | 2 | 1 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 160 | 474 | 15 | 13 | 922 | 358 | 924 | 25 | 372 | 2 | 1 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 160 | 474 | 15 | 13 | 922 | 358 | 924 | 25 | 372 | 2 | 1 | 2 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.85 | 0.95 | 0.95 | 0.85 | 0.93 | 0.93 | 0.93 |
| Lanes: | 1.00 | 1.94 | 0.06 | 1.00 | 1.00 | 1.00 | 0.97 | 0.03 | 1.00 | 0.40 | 0.20 | 0.40 |
| Final Sat.: | 1805 | 3482 | 110 | 1805 | 1900 | 1615 | 1765 | 48 | 1615 | 705 | 352 | 705 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.14 | 0.14 | 0.01 | 0.49 | 0.22 | 0.52 | 0.52 | 0.23 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.07 | 0.44 | 0.44 | 0.02 | 0.40 | 0.40 | 0.43 | 0.43 | 0.43 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 1.23 | 0.31 | 0.31 | 0.31 | 1.23 | 0.56 | 1.23 | 1.23 | 0.54 | 1.23 | 1.23 | 1.23 |
| Uniform Del: | 71.9 | 27.7 | 27.7 | 74.4 | 46.8 | 36.4 | 44.4 | 44.4 | 33.1 | 77.3 | 77.3 | 77.3 |
| IncremntDel: | 152.2 | 0.1 | 0.1 | 4.1 | 114 | 1.1 | 113.5 | 113 | 0.9 | 547.5 | 548 | 547.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 224.1 | 27.8 | 27.8 | 78.5 | 161 | 37.5 | 157.9 | 158 | 34.0 | 624.9 | 625 | 624.9 |
| 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: | 224.1 | 27.8 | 27.8 | 78.5 | 161 | 37.5 | 157.9 | 158 | 34.0 | 624.9 | 625 | 624.9 |
| DesignQueue: | 13 | 23 | 1 | 1 | 55 | 20 | 53 | 1 | 19 | 0 | 0 | 0 |





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

Intersection #13 SR 28/SR 267

Cycle (sec): 135  Critical Vol./Cap. (X): 1.224
Loss Time (sec): 12 (Y+R = 4 sec)  Average Delay (sec/veh): 114.0
Optimal Cycle: 180  Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 1 1 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 1 | 0 | 1 | 525 | 2 | 479 | 359 | 842 | 1 | 1 | 946 | 653 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1 | 0 | 1 | 525 | 2 | 479 | 359 | 842 | 1 | 1 | 946 | 653 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 1 | 0 | 1 | 553 | 2 | 504 | 378 | 886 | 1 | 1 | 996 | 687 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 1 | 0 | 1 | 553 | 2 | 504 | 378 | 886 | 1 | 1 | 996 | 687 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 1 | 0 | 1 | 553 | 2 | 504 | 378 | 886 | 1 | 1 | 996 | 687 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.86 | 1.00 | 0.86 | 0.71 | 0.71 | 0.85 | 0.95 | 0.95 | 0.95 | 0.95 | 0.89 | 0.89 |
| Lanes: | 0.50 | 0.00 | 0.50 | 0.99 | 0.01 | 1.00 | 1.00 | 1.99 | 0.01 | 1.00 | 1.18 | 0.82 |
| Final Sat.: | 816 | 0 | 816 | 1350 | 5 | 1615 | 1805 | 3606 | 4 | 1805 | 2006 | 1384 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.41 | 0.41 | 0.31 | 0.21 | 0.25 | 0.25 | 0.00 | 0.50 | 0.50 |
| Crit Moves: | | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.33 | 0.00 | 0.33 | 0.33 | 0.33 | 0.33 | 0.17 | 0.58 | 0.58 | 0.00 | 0.41 | 0.41 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 1.22 | 1.22 | 0.93 | 1.22 | 0.43 | 0.43 | 0.43 | 1.22 | 1.22 |
| Uniform Del: | 29.9 | 0.0 | 29.9 | 44.9 | 44.9 | 43.4 | 56.0 | 16.1 | 16.1 | 67.4 | 40.1 | 40.1 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 119.3 | 119 | 23.3 | 126.4 | 0.1 | 0.1 | 92.8 | 108 | 107.7 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 29.9 | 0.0 | 29.9 | 164.2 | 164 | 66.7 | 182.4 | 16.3 | 16.3 | 160.1 | 148 | 147.8 |
| 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: | 29.9 | 0.0 | 29.9 | 164.2 | 164 | 66.7 | 182.4 | 16.3 | 16.3 | 160.1 | 148 | 147.8 |
| DesignQueue: | 0 | 0 | 0 | 30 | 0 | 27 | 25 | 30 | 0 | 0 | 50 | 35 |

Proposed Land Use Diagram - LOS Calculations - Winter



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

Intersection #14 SR 89/Donner Pass Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.820
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 38.3
Optimal Cycle: 91 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 1 0 | 1 0 | | 0 1 0 | 1 0 | | 1 0 1 | 1 0 | | 1 0 1 | 1 0 | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 286 | 75 | 122 | 11 | 307 | 18 | 108 | 150 | 527 | 89 | 308 | 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: | 286 | 75 | 122 | 11 | 307 | 18 | 108 | 150 | 527 | 89 | 308 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 301 | 79 | 128 | 12 | 323 | 19 | 114 | 158 | 555 | 94 | 324 | 11 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 301 | 79 | 128 | 12 | 323 | 19 | 114 | 158 | 555 | 94 | 324 | 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 |
| Final Vol.: | 301 | 79 | 128 | 12 | 323 | 19 | 114 | 158 | 555 | 94 | 324 | 11 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.90 | 0.86 | 0.86 | 0.94 | 0.94 | 0.94 | 0.95 | 0.95 | 0.81 | 0.95 | 0.95 | 0.95 |
| Lanes: | 1.00 | 0.38 | 0.62 | 0.07 | 1.82 | 0.11 | 1.00 | 1.00 | 1.00 | 1.00 | 1.93 | 0.07 |
| Final Sat.: | 1715 | 625 | 1012 | 121 | 3261 | 192 | 1805 | 1805 | 1534 | 1805 | 3474 | 118 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.18 | 0.13 | 0.13 | 0.10 | 0.10 | 0.10 | 0.06 | 0.09 | 0.36 | 0.05 | 0.09 | 0.09 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green/Cycle: | 0.21 | 0.21 | 0.21 | 0.12 | 0.12 | 0.12 | 0.20 | 0.44 | 0.44 | 0.06 | 0.30 | 0.30 |
| Volume/Cap: | 0.82 | 0.59 | 0.59 | 0.82 | 0.82 | 0.82 | 0.31 | 0.20 | 0.82 | 0.82 | 0.31 | 0.31 |
| Uniform Del: | 37.4 | 35.3 | 35.3 | 42.9 | 42.9 | 42.9 | 33.8 | 17.1 | 24.4 | 46.3 | 26.9 | 26.9 |
| IncremntDel: | 8.5 | 1.1 | 1.1 | 11.8 | 11.8 | 11.8 | 0.5 | 0.0 | 6.2 | 35.3 | 0.2 | 0.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 45.9 | 36.4 | 36.4 | 54.6 | 54.6 | 54.6 | 34.3 | 17.1 | 30.7 | 81.6 | 27.1 | 27.1 |
| 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: | 45.9 | 36.4 | 36.4 | 54.6 | 54.6 | 54.6 | 34.3 | 17.1 | 30.7 | 81.6 | 27.1 | 27.1 |
| DesignQueue: | 14 | 4 | 6 | 1 | 16 | 1 | 5 | 5 | 19 | 5 | 13 | 0 |

Default Scenario Wed May 21, 2003 13:47:06 Page 1-1

Scenario Report

| | |
|---|---|
| Scenario: | Default Scenario |
| Command: | Default Command |
| Volume: | Proposed Rev |
| Geometry: | Proposed Rev |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | Default Trip Generation |
| Trip Distribution: | Default Trip Distribution |
| Paths: | Default Paths |
| Routes: | Default Routes |
| Configuration: | Default Configuration |





Default Scenario Wed May 21, 2003 13:47:10 Page 2-1

Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 1 SR 267 Bypass/I-80 WB | F | 112.4 | 1.182 | F | 112.4 | 1.182 | + 0.000 D/V |
| # 2 SR 267 Bypass/I-80 EB | F | 125.6 | 1.312 | F | 125.6 | 1.312 | + 0.000 D/V |
| # 3 I-80 WB/DPR | B | 12.4 | 0.000 | B | 12.4 | 0.000 | + 0.000 V/C |
| # 4 I-80 EB/DPR | F | 419.2 | 0.000 | F | 419.2 | 0.000 | + 0.000 V/C |
| # 5 DPR/Glenshire Drive | F | 671.0 | 0.000 | F | 671.0 | 0.000 | + 0.000 V/C |
| # 6 DPR/Bridge Street | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 7 Bridge Street West River St | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 8 Brockway Road/Palisades Drive | B | 20.0 | 0.869 | B | 20.0 | 0.869 | + 0.000 D/V |
| # 9 Brockway Road/Martis Valley Ro | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 10 SR 267/Brockway Road/Joerger D | F | 396.9 | 1.993 | F | 396.9 | 1.993 | + 0.000 D/V |
| # 11 SR 267/Airport Road/Schaffer M | F | 389.2 | 2.094 | F | 389.2 | 2.094 | + 0.000 D/V |
| # 12 SR 267/Northstar Drive | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 13 SR 28/SR 267 | E | 57.1 | 1.069 | E | 57.1 | 1.069 | + 0.000 D/V |
| # 14 SR 89/Donner Pass Road | E | 74.0 | 1.066 | E | 74.0 | 1.066 | + 0.000 D/V |

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

Intersection #1 SR 267 Bypass/I-80 WB

Cycle (sec): 100 Critical Vol./Cap. (X): 1.182
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 112.4
Optimal Cycle: 180 Level Of Service: F

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 1 | 0 | 0 | 0 | 0 1 | 0 | 1 | 0 | 0 0 | 0 | 0 | 0 | 1 0 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 709 | 327 | 0 | | 0 | 569 | 10 | | 0 | 0 | 0 | | 489 | 0 | 478 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 709 | 327 | 0 | | 0 | 569 | 10 | | 0 | 0 | 0 | | 489 | 0 | 478 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 746 | 344 | 0 | | 0 | 599 | 11 | | 0 | 0 | 0 | | 515 | 0 | 503 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 746 | 344 | 0 | | 0 | 599 | 11 | | 0 | 0 | 0 | | 515 | 0 | 503 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 746 | 344 | 0 | | 0 | 599 | 11 | | 0 | 0 | 0 | | 515 | 0 | 503 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.95 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | | 0.95 | 1.00 | 0.85 | |
| Lanes: | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 1.00 | |
| Final Sat.: | 1805 | 1900 | 0 | | 0 | 1900 | 1615 | | 0 | 0 | 0 | | 1809 | 0 | 1615 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.41 | 0.18 | 0.00 | | 0.00 | 0.32 | 0.01 | | 0.00 | 0.00 | 0.00 | | 0.28 | 0.00 | 0.31 | |
| Crit Moves: | **** | | | | | **** | | | | | | | | | **** | |
| Green/Cycle: | 0.35 | 0.62 | 0.00 | | 0.00 | 0.27 | 0.27 | | 0.00 | 0.00 | 0.00 | | 0.26 | 0.00 | 0.26 | |
| Volume/Cap: | 1.18 | 0.29 | 0.00 | | 0.00 | 1.18 | 0.03 | | 0.00 | 0.00 | 0.00 | | 1.08 | 0.00 | 1.18 | |
| Uniform Del: | 32.5 | 9.0 | 0.0 | | 0.0 | 36.7 | 27.1 | | 0.0 | 0.0 | 0.0 | | 36.8 | 0.0 | 36.8 | |
| IncremntDel: | 97.4 | 0.1 | 0.0 | | 0.0 | 101 | 0.0 | | 0.0 | 0.0 | 0.0 | | 64.6 | 0.0 | 103.5 | |
| Delay Adj: | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 1.00 | |
| Delay/Veh: | 129.9 | 9.1 | 0.0 | | 0.0 | 137 | 27.1 | | 0.0 | 0.0 | 0.0 | | 101.4 | 0.0 | 140.4 | |
| 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: | 129.9 | 9.1 | 0.0 | | 0.0 | 137 | 27.1 | | 0.0 | 0.0 | 0.0 | | 101.4 | 0.0 | 140.4 | |
| DesignQueue: | 30 | 8 | 0 | | 0 | 27 | 0 | | 0 | 0 | 0 | | 23 | 0 | 22 | |





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

Intersection #2 SR 267 Bypass/I-80 EB

Cycle (sec): 100 Critical Vol./Cap. (X): 1.312
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 125.6
Optimal Cycle: 180 Level Of Service: F

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 1 | 0 | 1 | 1 | 0 1 | 0 | 0 | 0 | 1 0 | 0 | 1 | 0 | 0 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 1036 | 433 | | 381 | 677 | 0 | | 0 | 0 | 550 | | 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 | 1036 | 433 | | 381 | 677 | 0 | | 0 | 0 | 550 | | 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: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 0 | 1091 | 456 | | 401 | 713 | 0 | | 0 | 0 | 579 | | 0 | 0 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 0 | 1091 | 456 | | 401 | 713 | 0 | | 0 | 0 | 579 | | 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 | |
| Final Vol.: | 0 | 1091 | 456 | | 401 | 713 | 0 | | 0 | 0 | 579 | | 0 | 0 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 1.00 | 1.00 | 0.85 | | 0.95 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | |
| Lanes: | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Final Sat.: | 0 | 1900 | 1615 | | 1805 | 1900 | 0 | | 0 | 1900 | 1615 | | 0 | 0 | 0 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.57 | 0.28 | | 0.22 | 0.38 | 0.00 | | 0.00 | 0.00 | 0.36 | | 0.00 | 0.00 | 0.00 | |
| Crit Moves: | | **** | | | **** | | | | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.44 | 0.44 | | 0.17 | 0.61 | 0.00 | | 0.00 | 0.00 | 0.27 | | 0.00 | 0.00 | 0.00 | |
| Volume/Cap: | 0.00 | 1.31 | 0.65 | | 1.31 | 0.62 | 0.00 | | 0.00 | 0.00 | 1.31 | | 0.00 | 0.00 | 0.00 | |
| Uniform Del: | 0.0 | 28.1 | 22.0 | | 41.5 | 12.4 | 0.0 | | 0.0 | 0.0 | 36.3 | | 0.0 | 0.0 | 0.0 | |
| IncremntDel: | 0.0 | 149 | 2.1 | | 162.0 | 1.0 | 0.0 | | 0.0 | 0.0 | 156.0 | | 0.0 | 0.0 | 0.0 | |
| Delay Adj: | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Delay/Veh: | 0.0 | 177 | 24.1 | | 203.6 | 13.4 | 0.0 | | 0.0 | 0.0 | 192.4 | | 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 | 177 | 24.1 | | 203.6 | 13.4 | 0.0 | | 0.0 | 0.0 | 192.4 | | 0.0 | 0.0 | 0.0 | |
| DesignQueue: | 0 | 40 | 15 | | 20 | 17 | 0 | | 0 | 0 | 25 | | 0 | 0 | 0 | |

```
Default Scenario          Wed May 21, 2003 13:47:10                Page 5-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #3 I-80 WB/DPR
*******************************************************************************
Average Delay (sec/veh):      12.4          Worst Case Level Of Service:      B
*******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled     Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        1  0  1  0  0    0  0  1  0  1    0  0  0  0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     221  959     0     0  578   348     0    0     0     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:  221  959     0     0  578   348     0    0     0     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:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:   233 1009     0     0  608   366     0    0     0     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:   233 1009     0     0  608   366     0    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  975 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  716 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    716 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 12.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 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
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx            xxxxxx
ApproachLOS:        *                 *                 *                 *
```





```
Default Scenario          Wed May 21, 2003 13:47:10                Page 6-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #4 I-80 EB/DPR
*******************************************************************************
Average Delay (sec/veh):    419.2           Worst Case Level Of Service:      F
*******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled     Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:        0  0  1  0  0    0  0  1  0  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  820     0     0  526     0   360    0   283     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  820     0     0  526     0   360    0   283     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:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:     0  863     0     0  554     0   379    0   298     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Final Vol.:     0  863     0     0  554     0   379    0   298     0    0     0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   6.4 xxxx   6.2 xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  1417 xxxx   554  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx   153 xxxx   536  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   153 xxxx   536  xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 733.3 xxxx  19.8 xxxxx xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     F    *     C     *    *     *
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
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            419.2             xxxxxx
ApproachLOS:        *                 *                 F                 *
```

```
Default Scenario          Wed May 21, 2003 13:47:10                Page 7-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #5 DPR/Glenshire Drive
*******************************************************************************
Average Delay (sec/veh):    671.0          Worst Case Level Of Service:      F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        1  0  0  0  1    0  0  0  0  0    0  0  0  1  0    1  0  1  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     268    0   323      0    0    0      0  519   367  263  392    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:  268    0   323      0    0    0      0  519   367  263  392    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:     0.95 0.95  0.95   0.95 0.95 0.95   0.95 0.95  0.95 0.95 0.95 0.95
PHF Volume:   282    0   340      0    0    0      0  546   386  277  413    0
Reduct Vol:     0    0     0      0    0    0      0    0     0    0    0    0
Final Vol.:   282    0   340      0    0    0      0  546   386  277  413    0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  6.4 xxxx   6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5 xxxx   3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1706 xxxx   739  xxxx xxxx xxxxx  xxxx xxxx xxxxx   933 xxxx xxxxx
Potent Cap.:  102 xxxx   420  xxxx xxxx xxxxx  xxxx xxxx xxxxx   742 xxxx xxxxx
Move Cap.:     72 xxxx   420  xxxx xxxx xxxxx  xxxx xxxx xxxxx   742 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 1430 xxxx  41.0 xxxxx xxxx xxxxx xxxxx xxxx xxxxx  12.7 xxxx xxxxx
LOS by Move:   F    *     E     *    *    *     *    *    *     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
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *    *     *    *    *     *    *    *
ApproachDel:     671.0           xxxxxx          xxxxxx          xxxxxx
ApproachLOS:       F                 *               *               *
```





```
Default Scenario          Wed May 21, 2003 13:47:10                Page 8-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #6 DPR/Bridge Street
*******************************************************************************
Average Delay (sec/veh): OVERFLOW          Worst Case Level Of Service:      F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign       Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        0  1  0  0  1    0  0  1! 0  0    1  0  1  0  1    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     174  450   575      9  284   26     47  458   144  682  445   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:  174  450   575      9  284   26     47  458   144  682  445   10
User Adj:    1.00 1.00  1.00   1.00 1.00 1.00   1.00 1.00  1.00 1.00 1.00 1.00
PHF Adj:     0.95 0.95  0.95   0.95 0.95 0.95   0.95 0.95  0.95 0.95 0.95 0.95
PHF Volume:   183  474   605      9  299   27     49  482   152  718  468   11
Reduct Vol:     0    0     0      0    0    0      0    0     0    0    0    0
Final Vol.:   183  474   605      9  299   27     49  482   152  718  468   11
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  7.1  6.5   6.2    7.1  6.5  6.2    4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:  3.5  4.0   3.3    3.5  4.0  3.3    2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 2654 2496   482   3101 2637  468    479 xxxx xxxxx   634 xxxx xxxxx
Potent Cap.:   15   29   588      7   24  599   1094 xxxx xxxxx   959 xxxx xxxxx
Move Cap.:      0    7   588      0    6  599   1094 xxxx xxxxx   959 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx  71.2 xxxxx xxxx xxxxx    8.4 xxxx xxxxx  19.0 xxxx xxxxx
LOS by Move:    *    *     F     *    *    *     A    *    *     C    *    *
Movement:     LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.:    0 xxxx xxxxx  xxxx    0 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:     *    *     *     *    *    *     *    *    *     *    *    *
ApproachDel:    xxxxxx          xxxxxx          xxxxxx          xxxxxx
ApproachLOS:       F                 F               *               *
```

```
Default Scenario          Wed May 21, 2003 13:47:10                Page 9-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #7 Bridge Street West River St
*******************************************************************************
Average Delay (sec/veh): OVERFLOW          Worst Case Level Of Service:      F
*******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Lanes:        1  0  0  1  0    1  0  0  1  0    0  1  0  0  1    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     450  938   19    58  815  237   217   17  518    26   15   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:  450  938   19    58  815  237   217   17  518    26   15   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:     0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:   474  987   20    61  858  249   228   18  545    27   16   46
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:   474  987   20    61  858  249   228   18  545    27   16   46
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1  6.5   6.2   7.1  6.5   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5  4.0   3.3   3.5  4.0   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: 1107 xxxx xxxxx  1007 xxxx xxxxx  3081 3059   983  3331 3174   997
Potent Cap.:  638 xxxx xxxxx   696 xxxx xxxxx     7   13   305     5   11   299
Move Cap.:    638 xxxx xxxxx   696 xxxx xxxxx     0    3   305     0    2   299
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 25.1 xxxx xxxxx  10.7 xxxx xxxxx xxxxx xxxx 397.2 xxxxx xxxx xxxxx
LOS by Move:   D    *     *     B    *     *     *    *     F     *    *     *
Movement:     LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx     0 xxxx xxxxx  xxxx    0 xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            xxxxxx            xxxxxx
ApproachLOS:       *                 *                 F                 F
```





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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #8 Brockway Road/Palisades Drive
*******************************************************************************
Cycle (sec):          80                Critical Vol./Cap. (X):          0.869
Loss Time (sec):      12 (Y+R =  4 sec) Average Delay (sec/veh):          20.0
Optimal Cycle:        87                Level Of Service:                     B
*******************************************************************************
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        Split Phase      Split Phase
Rights:          Include          Include          Include          Include
Min. Green:     0    0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        1  0  1  0  0    0  0  1  0  1    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      68 1047    0     0  826  394   273    0   76     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 1047    0     0  826  394   273    0   76     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:     0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:    72 1102    0     0  869  415   287    0   80     0    0    0
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   72 1102    0     0  869  415   287    0   80     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
Final Vol.:    72 1102    0     0  869  415   287    0   80     0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:  0.95 1.00 1.00  1.00 1.00 0.85  0.95 1.00 0.85  1.00 1.00 1.00
Lanes:       1.00 1.00 0.00  0.00 1.00 1.00  1.00 0.00 1.00  0.00 0.00 0.00
Final Sat.:  1805 1900    0     0 1900 1615  1805    0 1615     0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.58 0.00  0.00 0.46 0.26  0.16 0.00 0.05  0.00 0.00 0.00
Crit Moves:       ****       ****            ****
Green/Cycle: 0.05 0.67 0.00  0.00 0.61 0.61  0.18 0.00 0.18  0.00 0.00 0.00
Volume/Cap:  0.75 0.87 0.00  0.00 0.75 0.42  0.87 0.00 0.27  0.00 0.00 0.00
Uniform Del: 37.3 10.6  0.0   0.0 11.0  8.0  31.8  0.0 28.1   0.0  0.0  0.0
IncremntDel: 26.7  6.7  0.0   0.0  2.7  0.3  21.1  0.0  0.5   0.0  0.0  0.0
Delay Adj:   1.00 1.00 0.00  0.00 1.00 1.00  1.00 0.00 1.00  0.00 0.00 0.00
Delay/Veh:   64.0 17.3  0.0   0.0 13.7  8.3  52.9  0.0 28.6   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:  64.0 17.3  0.0   0.0 13.7  8.3  52.9  0.0 28.6   0.0  0.0  0.0
DesignQueue:    3   19    0     0   17    8   11    0    3     0    0    0
*******************************************************************************
```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #9 Brockway Road/Martis Valley Road
*******************************************************************************
Average Delay (sec/veh):   1131.3           Worst Case Level Of Service:       F
*******************************************************************************
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled      Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Lanes:        1  0  0  1  0    0  0  1! 0  0    0  1  0  0  1    0  0  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     277  873     0   16  608   155  114     0  154     0     0    14
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00
Initial Bse:  277  873     0   16  608   155  114     0  154     0     0    14
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95 0.95 0.95 0.95  0.95
PHF Volume:   292  919     0   17  640   163  120     0  162     0     0    15
Reduct Vol:     0    0     0    0    0     0    0     0    0     0     0     0
Final Vol.:   292  919     0   17  640   163  120     0  162     0     0    15
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx   4.1 xxxx xxxxx   7.1 xxxx   6.2 xxxxx xxxx   6.2
FollowUpTim:  2.2 xxxx xxxxx   2.2 xxxx xxxxx   3.5 xxxx   3.3 xxxxx xxxx   3.3
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  803 xxxx xxxxx   919 xxxx xxxxx  2265 xxxx   722  xxxx xxxx   919
Potent Cap.:  830 xxxx xxxxx   751 xxxx xxxxx    29 xxxx   430  xxxx xxxx   332
Move Cap.:    830 xxxx xxxxx   751 xxxx xxxxx    20 xxxx   430  xxxx xxxx   332
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 11.7 xxxx xxxxx   9.8 xxxx xxxxx xxxxx xxxx  18.3 xxxxx xxxx  16.4
LOS by Move:   B    *     *     A    *     *     *    *     C     *    *     C
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx    20 xxxx xxxxx  xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  2635 xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     F    *     *     *    *     *
ApproachDel:    xxxxxx            xxxxxx            1131.3            16.4
ApproachLOS:       *                 *                 F                 C
```





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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #10 SR 267/Brockway Road/Joerger Drive
*******************************************************************************
Cycle (sec):        180                Critical Vol./Cap. (X):          1.993
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):        396.9
Optimal Cycle:      180                Level Of Service:                    F
*******************************************************************************
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        Split Phase      Split Phase
Rights:          Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        1  0  0  1  0    1  0  1  0  1    0  1  0  0  1    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:    1069 1338    14   55 1053   119   96    5  956    10    5    35
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00
Initial Bse: 1069 1338    14   55 1053   119   96    5  956    10    5    35
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95 0.95 0.95 0.95  0.95
PHF Volume:  1125 1408    15   58 1108   125  101    5 1006    11    5    37
Reduct Vol:     0    0     0    0    0     0    0    0    0     0    0     0
Reduced Vol: 1125 1408    15   58 1108   125  101    5 1006    11    5    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
Final Vol.:  1125 1408    15   58 1108   125  101    5 1006    11    5    37
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900 1900 1900 1900  1900
Adjustment:  0.95 1.00  1.00 0.95 1.00  0.85 0.96 0.96 0.85 0.90 0.90  0.90
Lanes:       1.00 0.99  0.01 1.00 1.00  1.00 0.95 0.05 1.00 0.21 0.09  0.70
Final Sat.:  1805 1876    20 1805 1900  1615 1729   86 1615  354  161  1190
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.62 0.75  0.75 0.03 0.58  0.08 0.06 0.06 0.62 0.03 0.03  0.03
Crit Moves:  ****                 ****                      ****  ****
Green/Cycle: 0.31 0.58  0.58 0.02 0.29  0.29 0.31 0.31 0.31 0.02 0.02  0.02
Volume/Cap:  1.99 1.29  1.29 1.29 1.99  0.26 0.19 0.19 1.99 1.99 1.99  1.99
Uniform Del: 61.9 37.8  37.8 87.8 63.7  48.8 45.2 45.2 61.9 88.6 88.6  88.6
IncremntDel:453.3  139 138.7 232.4  453   0.3  0.2  0.2 454.0 556.2  556 556.2
Delay Adj:   1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00 1.00 1.00 1.00  1.00
Delay/Veh:  515.2  176 176.5 320.1  517  49.1 45.3 45.3 515.9 644.8  645 644.8
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: 515.2  176 176.5 320.1  517  49.1 45.3 45.3 515.9 644.8  645 644.8
DesignQueue:   92   74     1    6   93     9    7    0   80    1    0     4
*******************************************************************************
```

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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #11 SR 267/Airport Road/Schaffer Mill Road
*******************************************************************************
Cycle (sec):        100                 Critical Vol./Cap. (X):        2.094
Loss Time (sec):     16 (Y+R =  4 sec) Average Delay (sec/veh):        389.2
Optimal Cycle:      180                 Level Of Service:                  F
*******************************************************************************
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        Split Phase      Split Phase
Rights:           Include          Include          Include          Include
Min. Green:     0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        1  0  0  1  0    1  0  1  0  1    0  1  0  0  1    0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       72 1281  139   391 1232  396   509   45  104   158   91  631
Growth Adj:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    72 1281  139   391 1232  396   509   45  104   158   91  631
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:     76 1348  146   412 1297  417   536   47  109   166   96  664
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    76 1348  146   412 1297  417   536   47  109   166   96  664
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Final Vol.:     76 1348  146   412 1297  417   536   47  109   166   96  664
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment:   0.95 0.99 0.99  0.95 1.00 0.85  0.96 0.96 0.85  0.97 0.97 0.85
Lanes:        1.00 0.90 0.10  1.00 1.00 1.00  0.92 0.08 1.00  0.63 0.37 1.00
Final Sat.:   1805 1689  183  1805 1900 1615  1670  146 1615  1166  675 1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.04 0.80 0.80  0.23 0.68 0.26  0.32 0.32 0.07  0.14 0.14 0.41
Crit Moves:        ****       ****                ****                    ****
Green/Cycle:  0.03 0.38 0.38  0.11 0.46 0.46  0.15 0.15 0.15  0.20 0.20 0.20
Volume/Cap:   1.48 2.09 2.09  2.09 1.48 0.56  2.09 2.09 0.44  0.72 0.72 2.09
Uniform Del:  48.6 30.9 30.9  44.5 26.9 19.5  42.3 42.3 38.4  37.6 37.6 40.2
IncremntDel:294.3  497 496.9 509.1  221  1.0 504.2  504  1.3   7.1  7.1 502.8
Delay Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Delay/Veh:   342.8  528 527.9 553.6  248 20.5 546.5  547 39.7  44.8 44.8 543.0
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:  342.8  528 527.9 553.6  248 20.5 546.5  547 39.7  44.8 44.8 543.0
DesignQueue:    4   59    6    22   47   13   27    2    5    8    4   33
*******************************************************************************
```





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-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
             2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #12 SR 267/Northstar Drive
*******************************************************************************
Average Delay (sec/veh):   1368.5           Worst Case Level Of Service:     F
*******************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign      Uncontrolled     Uncontrolled
Rights:           Include          Include          Include          Include
Lanes:        1  0  1  1  0    1  0  1  0  1    0  1  0  0  1    0  1  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      177 1112   11     6 1004  381   320   23  194     2    1    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:   177 1112   11     6 1004  381   320   23  194     2    1    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:      0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95
PHF Volume:    186 1171   12     6 1057  401   337   24  204     2    1    0
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Final Vol.:    186 1171   12     6 1057  401   337   24  204     2    1    0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:   7.1  6.5  6.2   7.1  6.5  6.2   4.1 xxxx xxxxx   4.1 xxxx xxxxx
FollowUpTim:   3.5  4.0  3.3   3.5  4.0  3.3   2.2 xxxx xxxxx   2.2 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  1432  703   24  1396  907    1     1 xxxx xxxxx   228 xxxx xxxxx
Potent Cap.:   113  364 1058   120  278 1089  1635 xxxx xxxxx  1352 xxxx xxxxx
Move Cap.:       0  272 1058     0  207 1089  1635 xxxx xxxxx  1352 xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:   0.0  562 xxxxx   0.0 1892  10.2   7.2 xxxx xxxxx   7.7 xxxx xxxxx
LOS by Move:     *    F     *     *    F     B     A    *     *     A    *     *
Movement:     LT - LTR - RT   LT - LTR - RT   LT - LTR - RT   LT - LTR - RT
Shared Cap.: xxxx xxxx   276 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx xxxx 566.0 xxxxx xxxx xxxxx  7.8 xxxx xxxxx   7.7 xxxx xxxxx
Shared LOS:      *    *     F     *    *     *     A    *     *     A    *     *
ApproachDel:      487.1            1368.5           xxxxxx           xxxxxx
ApproachLOS:        F                 F                *                *
```

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

Intersection #13 SR 28/SR 267

Cycle (sec): 110 Critical Vol./Cap. (X): 1.069
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 57.1
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Permitted | | | | Permitted | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 1! | 0 0 | 0 | 1 | 0 | 0 1 | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 1 | 0 | 2 | 428 | 1 | 422 | 314 | 825 | 1 | 2 | 610 | 634 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 1 | 0 | 2 | 428 | 1 | 422 | 314 | 825 | 1 | 2 | 610 | 634 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | | | | |
| PHF Volume: | 1 | 0 | 2 | 451 | 1 | 444 | 331 | 868 | 1 | 2 | 642 | 667 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Reduced Vol: | 1 | 0 | 2 | 451 | 1 | 444 | 331 | 868 | 1 | 2 | 642 | 667 | | | | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Final Vol.: | 1 | 0 | 2 | 451 | 1 | 444 | 331 | 868 | 1 | 2 | 642 | 667 | | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | | |
| Adjustment: | 0.86 | 1.00 | 0.86 | 0.71 | 0.71 | 0.85 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.81 | | | | |
| Lanes: | 0.33 | 0.00 | 0.67 | 0.99 | 0.01 | 1.00 | 1.00 | 1.99 | 0.01 | 1.00 | 1.00 | 1.00 | | | | |
| Final Sat.: | 542 | 0 | 1085 | 1350 | 3 | 1615 | 1805 | 3606 | 4 | 1805 | 1805 | 1534 | | | | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.33 | 0.33 | 0.27 | 0.18 | 0.24 | 0.24 | 0.00 | 0.36 | 0.43 | | | | |
| Crit Moves: | | | | | **** | | **** | | | | | **** | | | | |
| Green/Cycle: | 0.31 | 0.00 | 0.31 | 0.31 | 0.31 | 0.31 | 0.17 | 0.58 | 0.58 | 0.00 | 0.41 | 0.41 | | | | |
| Volume/Cap: | 0.01 | 0.00 | 0.01 | 1.07 | 1.07 | 0.88 | 1.07 | 0.42 | 0.42 | 0.42 | 0.87 | 1.07 | | | | |
| Uniform Del: | 26.0 | 0.0 | 26.0 | 37.8 | 37.8 | 35.8 | 45.6 | 13.0 | 13.0 | 54.8 | 30.0 | 32.6 | | | | |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 63.3 | 63.3 | 16.2 | 70.6 | 0.1 | 0.1 | 50.0 | 6.0 | 46.3 | | | | |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Delay/Veh: | 26.0 | 0.0 | 26.0 | 101.1 | 101 | 52.0 | 116.1 | 13.2 | 13.2 | 104.7 | 36.1 | 78.9 | | | | |
| 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: | 26.0 | 0.0 | 26.0 | 101.1 | 101 | 52.0 | 116.1 | 13.2 | 13.2 | 104.7 | 36.1 | 78.9 | | | | |
| DesignQueue: | 0 | 0 | 0 | 20 | 0 | 20 | 18 | 24 | 0 | 0 | 26 | 27 | | | | |





Default Scenario Wed May 21, 2003 13:47:10 Page 16-1

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

Intersection #14 SR 89/Donner Pass Road

Cycle (sec): 100 Critical Vol./Cap. (X): 1.066
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 74.0
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 1 | 0 | 1 0 | 0 | 1 | 0 | 1 0 | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 572 | 48 | 43 | 10 | 198 | 180 | 91 | 192 | 544 | 85 | 393 | 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: | 572 | 48 | 43 | 10 | 198 | 180 | 91 | 192 | 544 | 85 | 393 | 10 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | | | | |
| PHF Volume: | 602 | 51 | 45 | 11 | 208 | 189 | 96 | 202 | 573 | 89 | 414 | 11 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Reduced Vol: | 602 | 51 | 45 | 11 | 208 | 189 | 96 | 202 | 573 | 89 | 414 | 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 | | | | |
| Final Vol.: | 602 | 51 | 45 | 11 | 208 | 189 | 96 | 202 | 573 | 89 | 414 | 11 | | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | | |
| Adjustment: | 0.90 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.95 | 0.95 | 0.81 | 0.95 | 0.95 | 0.95 | | | | |
| Lanes: | 1.00 | 0.53 | 0.47 | 0.05 | 1.02 | 0.93 | 1.00 | 1.00 | 1.00 | 1.00 | 1.95 | 0.05 | | | | |
| Final Sat.: | 1715 | 892 | 787 | 91 | 1712 | 1555 | 1805 | 1805 | 1534 | 1805 | 3502 | 93 | | | | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.35 | 0.06 | 0.06 | 0.12 | 0.12 | 0.12 | 0.05 | 0.11 | 0.37 | 0.05 | 0.12 | 0.12 | | | | |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | | | | | |
| Green/Cycle: | 0.33 | 0.33 | 0.33 | 0.11 | 0.11 | 0.11 | 0.12 | 0.35 | 0.35 | 0.05 | 0.27 | 0.27 | | | | |
| Volume/Cap: | 1.07 | 0.17 | 0.17 | 1.07 | 1.07 | 1.07 | 0.43 | 0.32 | 1.07 | 1.07 | 0.43 | 0.43 | | | | |
| Uniform Del: | 33.5 | 23.9 | 23.9 | 44.3 | 44.3 | 44.3 | 40.6 | 23.8 | 32.5 | 47.7 | 29.9 | 29.9 | | | | |
| IncremntDel: | 54.1 | 0.0 | 0.0 | 64.6 | 64.6 | 64.6 | 1.3 | 0.1 | 52.3 | 117.6 | 0.3 | 0.3 | | | | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Delay/Veh: | 87.6 | 23.9 | 23.9 | 108.9 | 109 | 108.9 | 42.0 | 23.8 | 84.8 | 165.3 | 30.2 | 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: | 87.6 | 23.9 | 23.9 | 108.9 | 109 | 108.9 | 42.0 | 23.8 | 84.8 | 165.3 | 30.2 | 30.2 | | | | |
| DesignQueue: | 24 | 2 | 2 | 1 | 11 | 10 | 5 | 8 | 22 | 5 | 17 | 0 | | | | |

Scenario Report

| | |
|---|---|
| Scenario: | Default Scenario |
| Command: | Default Command |
| Volume: | Revised Proposed |
| Geometry: | Revised Proposed |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | Default Trip Generation |
| Trip Distribution: | Default Trip Distribution |
| Paths: | Default Paths |
| Routes: | Default Routes |
| Configuration: | Default Configuration |





Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 1 SR 267 Bypass/I-80 WB | D | 40.1 | 0.906 | D | 40.1 | 0.906 | + 0.000 D/V |
| # 2 SR 267 Bypass/I-80 EB | B | 17.6 | 0.751 | B | 17.6 | 0.751 | + 0.000 D/V |
| # 3 I-80 WB/DPR | B | 10.3 | 0.000 | B | 10.3 | 0.000 | + 0.000 V/C |
| # 4 I-80 EB/DPR | F | 80.7 | 0.000 | F | 80.7 | 0.000 | + 0.000 V/C |
| # 5 DPR/Glenshire Drive | F | 244.3 | 0.000 | F | 244.3 | 0.000 | + 0.000 V/C |
| # 6 DPR/Bridge Street | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 7 Bridge Street West River St | F | OVRFL | 0.000 | F | OVRFL | 0.000 | + 0.000 V/C |
| # 8 Brockway Road/Palisades Drive | B | 19.0 | 0.746 | B | 19.0 | 0.746 | + 0.000 D/V |
| # 9 Brockway Road/Martis Valley Ro | F | 924.0 | 0.000 | F | 924.0 | 0.000 | + 0.000 V/C |
| # 10 SR 267/Brockway Road/Joerger D | F | 344.6 | 1.933 | F | 344.6 | 1.933 | + 0.000 D/V |
| # 11 SR 267/Airport Road/Schaffer M | F | 276.9 | 1.674 | F | 276.9 | 1.674 | + 0.000 D/V |
| # 12 SR 267/Northstar Drive | F | 80.6 | 1.102 | F | 80.6 | 1.102 | + 0.000 D/V |
| # 13 SR 28/SR 267 | F | 107.6 | 1.204 | F | 107.6 | 1.204 | + 0.000 D/V |
| # 14 SR 89/Donner Pass Road | D | 38.3 | 0.820 | D | 38.3 | 0.820 | + 0.000 D/V |

Default Scenario  Wed May 21, 2003 13:48:07  Page 3-1

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

Intersection #1 SR 267 Bypass/I-80 WB

Cycle (sec): 95  Critical Vol./Cap. (X): 0.906
Loss Time (sec): 12 (Y+R = 4 sec)  Average Delay (sec/veh): 40.1
Optimal Cycle: 109  Level Of Service: D

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 372 | 226 | 0 | | 0 | 853 | 5 | | 0 | 0 | 0 | | 175 | 0 | 124 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 372 | 226 | 0 | | 0 | 853 | 5 | | 0 | 0 | 0 | | 175 | 0 | 124 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 392 | 238 | 0 | | 0 | 898 | 5 | | 0 | 0 | 0 | | 184 | 0 | 131 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 392 | 238 | 0 | | 0 | 898 | 5 | | 0 | 0 | 0 | | 184 | 0 | 131 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 392 | 238 | 0 | | 0 | 898 | 5 | | 0 | 0 | 0 | | 184 | 0 | 131 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.95 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | | 0.95 | 1.00 | 0.85 | |
| Lanes: | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 1.00 | |
| Final Sat.: | 1805 | 1900 | 0 | | 0 | 1900 | 1615 | | 0 | 0 | 0 | | 1809 | 0 | 1615 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.22 | 0.13 | 0.00 | | 0.00 | 0.47 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.10 | 0.00 | 0.08 | |
| Crit Moves: | **** | | | | | **** | | | | | | | **** | | | |
| Green/Cycle: | 0.24 | 0.76 | 0.00 | | 0.00 | 0.52 | 0.52 | | 0.00 | 0.00 | 0.00 | | 0.11 | 0.00 | 0.11 | |
| Volume/Cap: | 0.91 | 0.16 | 0.00 | | 0.00 | 0.91 | 0.01 | | 0.00 | 0.00 | 0.00 | | 0.91 | 0.00 | 0.72 | |
| Uniform Del: | 35.1 | 3.1 | 0.0 | | 0.0 | 20.6 | 10.9 | | 0.0 | 0.0 | 0.0 | | 41.7 | 0.0 | 40.7 | |
| IncremntDel: | 22.3 | 0.1 | 0.0 | | 0.0 | 11.7 | 0.0 | | 0.0 | 0.0 | 0.0 | | 38.1 | 0.0 | 13.3 | |
| Delay Adj: | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 1.00 | |
| Delay/Veh: | 57.4 | 3.1 | 0.0 | | 0.0 | 32.3 | 10.9 | | 0.0 | 0.0 | 0.0 | | 79.8 | 0.0 | 54.1 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 57.4 | 3.1 | 0.0 | | 0.0 | 32.3 | 10.9 | | 0.0 | 0.0 | 0.0 | | 79.8 | 0.0 | 54.1 | |
| DesignQueue: | 17 | 3 | 0 | | 0 | 26 | 0 | | 0 | 0 | 0 | | 9 | 0 | 6 | |





Default Scenario  Wed May 21, 2003 13:48:08  Page 4-1

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

Intersection #2 SR 267 Bypass/I-80 EB

Cycle (sec): 100  Critical Vol./Cap. (X): 0.751
Loss Time (sec): 12 (Y+R = 4 sec)  Average Delay (sec/veh): 17.6
Optimal Cycle: 67  Level Of Service: B

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 810 | 341 | | 57 | 921 | 0 | | 0 | 0 | 231 | | 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 | 810 | 341 | | 57 | 921 | 0 | | 0 | 0 | 231 | | 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: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 0 | 853 | 359 | | 60 | 969 | 0 | | 0 | 0 | 243 | | 0 | 0 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 0 | 853 | 359 | | 60 | 969 | 0 | | 0 | 0 | 243 | | 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 | |
| Final Vol.: | 0 | 853 | 359 | | 60 | 969 | 0 | | 0 | 0 | 243 | | 0 | 0 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 1.00 | 1.00 | 0.85 | | 0.95 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | |
| Lanes: | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Final Sat.: | 0 | 1900 | 1615 | | 1805 | 1900 | 0 | | 0 | 1900 | 1615 | | 0 | 0 | 0 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.45 | 0.22 | | 0.03 | 0.51 | 0.00 | | 0.00 | 0.00 | 0.15 | | 0.00 | 0.00 | 0.00 | |
| Crit Moves: | **** | | | | | **** | | | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.63 | 0.63 | | 0.05 | 0.68 | 0.00 | | 0.00 | 0.00 | 0.20 | | 0.00 | 0.00 | 0.00 | |
| Volume/Cap: | 0.00 | 0.71 | 0.35 | | 0.71 | 0.75 | 0.00 | | 0.00 | 0.00 | 0.75 | | 0.00 | 0.00 | 0.00 | |
| Uniform Del: | 0.0 | 12.2 | 8.7 | | 47.0 | 10.5 | 0.0 | | 0.0 | 0.0 | 37.6 | | 0.0 | 0.0 | 0.0 | |
| IncremntDel: | 0.0 | 2.0 | 0.2 | | 24.3 | 2.5 | 0.0 | | 0.0 | 0.0 | 9.4 | | 0.0 | 0.0 | 0.0 | |
| Delay Adj: | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Delay/Veh: | 0.0 | 14.2 | 8.9 | | 71.3 | 13.0 | 0.0 | | 0.0 | 0.0 | 47.0 | | 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 | 14.2 | 8.9 | | 71.3 | 13.0 | 0.0 | | 0.0 | 0.0 | 47.0 | | 0.0 | 0.0 | 0.0 | |
| DesignQueue: | 0 | 20 | 8 | | 3 | 20 | 0 | | 0 | 0 | 11 | | 0 | 0 | 0 | |

```
Default Scenario          Wed May 21, 2003 13:48:08                Page 5-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #3 I-80 WB/DPR
*******************************************************************************
Average Delay (sec/veh):     10.3          Worst Case Level Of Service:      B
*******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled     Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:       1  0  1  0  0    0  0  1  0  1    0  0  0  0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     254  230    0    0  270  341    0    0    0    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:  254  230    0    0  270  341    0    0    0    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:     0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:   267  242    0    0  284  359    0    0    0    0    0    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:   267  242    0    0  284  359    0    0    0    0    0    0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:  4.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:  2.2 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol:  643 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.:  951 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:    951 xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del: 10.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx 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
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx           xxxxxx           xxxxxx
ApproachLOS:       *                *                *                *
```





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Default Scenario          Wed May 21, 2003 13:48:08                Page 6-1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
                    Level Of Service Computation Report
            2000 HCM Unsignalized Method (Base Volume Alternative)
*******************************************************************************
Intersection #4 I-80 EB/DPR
*******************************************************************************
Average Delay (sec/veh):     80.7          Worst Case Level Of Service:      F
*******************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Uncontrolled     Uncontrolled     Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Lanes:       0  0  1  0  0    0  0  1  0  0    1  0  0  0  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  484    0    0  270    0  360    0   82    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  484    0    0  270    0  360    0   82    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:     0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:     0  509    0    0  284    0  379    0   86    0    0    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Final Vol.:     0  509    0    0  284    0  379    0   86    0    0    0
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  6.4 xxxx  6.2 xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx  3.5 xxxx  3.3 xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx  xxxx xxxx xxxxx  794 xxxx  284  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  xxxx xxxx xxxxx  360 xxxx  760  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  xxxx xxxx xxxxx  360 xxxx  760  xxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 96.7 xxxx 10.3 xxxxx xxxx xxxxx
LOS by Move:    *    *     *     *    *     *    F    *    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
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    *     *     *    *     *     *    *     *
ApproachDel:    xxxxxx           xxxxxx            80.7            xxxxxx
ApproachLOS:       *                *                F                *
```

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 DPR/Glenshire Drive

Average Delay (sec/veh): 244.3  Worst Case Level Of Service: F

| Approach: | North Bound | | | | | South Bound | | | | | East Bound | | | | | West Bound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R |
| Control: | Stop Sign | | | | | Stop Sign | | | | | Uncontrolled | | | | | Uncontrolled | | | | |
| Rights: | Include | | | | | Include | | | | | Include | | | | | Include | | | | |
| Lanes: | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 271 | | 0 | 162 | | 0 | | 0 | | 0 | 0 | 322 | | 367 | | 245 | 107 | | | 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: | 271 | | 0 | 162 | | 0 | | 0 | | 0 | 0 | 322 | | 367 | | 245 | 107 | | | 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: | 0.95 | 0.95 | | 0.95 | | 0.95 | 0.95 | | 0.95 | | 0.95 | 0.95 | | 0.95 | | 0.95 | 0.95 | | 0.95 | |
| PHF Volume: | 285 | | 0 | 171 | | 0 | | 0 | | 0 | 0 | 339 | | 386 | | 258 | 113 | | | 0 |
| Reduct Vol: | 0 | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 | | 0 | | 0 | 0 | | | 0 |
| Final Vol.: | 285 | | 0 | 171 | | 0 | | 0 | | 0 | 0 | 339 | | 386 | | 258 | 113 | | | 0 |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | 6.4 | xxxx | | 6.2 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | | | 4.1 | xxxx | xxxxx | | |
| FollowUpTim: | 3.5 | xxxx | | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | | | 2.2 | xxxx | xxxxx | | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1161 | xxxx | | 532 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | | | 725 | xxxx | xxxxx | | |
| Potent Cap.: | 218 | xxxx | | 551 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | | | 887 | xxxx | xxxxx | | |
| Move Cap.: | 169 | xxxx | | 551 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | | | 887 | xxxx | xxxxx | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | |
| Stopped Del: | 381.7 | xxxx | | 14.4 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | | | 10.7 | xxxx | xxxxx | | |
| LOS by Move: | F | * | | B | * | * | * | * | * | * | | | | | | 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 | | |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | |
| Shared LOS: | * | * | * | | | * | * | * | | | * | * | * | | | * | * | * | | |
| ApproachDel: | 244.3 | | | | | xxxxxx | | | | | xxxxxx | | | | | xxxxxx | | | | |
| ApproachLOS: | F | | | | | * | | | | | * | | | | | * | | | | |



Proposed Land Use Diagram - LOS Calculations - Winter - All Connections

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 DPR/Bridge Street

Average Delay (sec/veh): OVERFLOW  Worst Case Level Of Service: F

| Approach: | North Bound | | | | | South Bound | | | | | East Bound | | | | | West Bound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R | L | - | T | - | R |
| Control: | Stop Sign | | | | | Stop Sign | | | | | Uncontrolled | | | | | Uncontrolled | | | | |
| Rights: | Include | | | | | Include | | | | | Include | | | | | Include | | | | |
| Lanes: | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1! | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 223 | 468 | | 483 | | 9 | 275 | | 27 | | 47 | 197 | | 185 | | 402 | 325 | | | 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: | 223 | 468 | | 483 | | 9 | 275 | | 27 | | 47 | 197 | | 185 | | 402 | 325 | | | 10 |
| User Adj: | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | | 0.95 | | 0.95 | 0.95 | | 0.95 | | 0.95 | 0.95 | | 0.95 | | 0.95 | 0.95 | | 0.95 | |
| PHF Volume: | 235 | 493 | | 508 | | 9 | 289 | | 28 | | 49 | 207 | | 195 | | 423 | 342 | | | 11 |
| Reduct Vol: | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | | 0 | 0 | | | 0 |
| Final Vol.: | 235 | 493 | | 508 | | 9 | 289 | | 28 | | 49 | 207 | | 195 | | 423 | 342 | | | 11 |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | 7.1 | 6.5 | | 6.2 | | 7.1 | 6.5 | | 6.2 | | 4.1 | xxxx | xxxxx | | | 4.1 | xxxx | xxxxx | | |
| FollowUpTim: | 3.5 | 4.0 | | 3.3 | | 3.5 | 4.0 | | 3.3 | | 2.2 | xxxx | xxxxx | | | 2.2 | xxxx | xxxxx | | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1659 | 1505 | | 207 | | 2093 | 1689 | | 342 | | 353 | xxxx | xxxxx | | | 402 | xxxx | xxxxx | | |
| Potent Cap.: | 79 | 122 | | 838 | | 39 | 94 | | 705 | | 1217 | xxxx | xxxxx | | | 1168 | xxxx | xxxxx | | |
| Move Cap.: | 0 | 75 | | 838 | | 0 | 58 | | 705 | | 1217 | xxxx | xxxxx | | | 1168 | xxxx | xxxxx | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | |
| Stopped Del: | xxxxx | xxxx | | 15.7 | xxxxx | xxxx | xxxxx | | | | 8.1 | xxxx | xxxxx | | | 9.8 | xxxx | xxxxx | | |
| LOS by Move: | * | * | | C | * | * | * | | | | A | * | * | | | A | * | * | | |
| Movement: | LT - LTR - RT | | | | | LT - LTR - RT | | | | | LT - LTR - RT | | | | | LT - LTR - RT | | | | |
| Shared Cap.: | 0 | xxxx | xxxxx | | | xxxx | 0 | xxxxx | | | xxxx | xxxx | xxxxx | | | xxxx | xxxx | xxxxx | | |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | | xxxxx | xxxx | xxxxx | | |
| Shared LOS: | * | * | * | | | * | * | * | | | * | * | * | | | * | * | * | | |
| ApproachDel: | xxxxxx | | | | | xxxxxx | | | | | xxxxxx | | | | | xxxxxx | | | | |
| ApproachLOS: | F | | | | | F | | | | | * | | | | | * | | | | |

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Bridge Street West River St

Average Delay (sec/veh): OVERFLOW  Worst Case Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 499 | 671 | 29 | 50 | 710 | 102 | 464 | 17 | 828 | 30 | 20 | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 499 | 671 | 29 | 50 | 710 | 102 | 464 | 17 | 828 | 30 | 20 | 39 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 525 | 706 | 31 | 53 | 747 | 107 | 488 | 18 | 872 | 32 | 21 | 41 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Final Vol.: | 525 | 706 | 31 | 53 | 747 | 107 | 488 | 18 | 872 | 32 | 21 | 41 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 855 | xxxx | xxxxx | 737 | xxxx | xxxxx | 2709 | 2694 | 801 | 3123 | 2732 | 722 |
| Potent Cap.: | 794 | xxxx | xxxxx | 878 | xxxx | xxxxx | 14 | 22 | 388 | 7 | 21 | 430 |
| Move Cap.: | 794 | xxxx | xxxxx | 878 | xxxx | xxxxx | 0 | 7 | 388 | 0 | 7 | 430 |
| Level Of Service Module: | | | | | | | | | | | | |
| Stopped Del: | 17.9 | xxxx | xxxxx | 9.4 | xxxx | xxxxx | xxxxx | xxxx | 592.5 | xxxxx | xxxx | xxxxx |
| LOS by Move: | C | * | * | A | * | * | * | * | F | * | * | * |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0 | xxxx | xxxxx | xxxx | 0 | xxxxx |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | F | | | F | | |





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

Intersection #8 Brockway Road/Palisades Drive

Cycle (sec): 120  Critical Vol./Cap. (X): 0.746
Loss Time (sec): 12 (Y+R = 4 sec)  Average Delay (sec/veh): 19.0
Optimal Cycle:OPTIMIZED  Level Of Service: B

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 0 | 0 0 | 1 0 | 1 | 1 0 | 0 0 | 1 | 0 0 | 0 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 67 | 959 | 0 | 0 | 732 | 437 | 240 | 0 | 75 | 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: | 67 | 959 | 0 | 0 | 732 | 437 | 240 | 0 | 75 | 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: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 71 | 1009 | 0 | 0 | 771 | 460 | 253 | 0 | 79 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 71 | 1009 | 0 | 0 | 771 | 460 | 253 | 0 | 79 | 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 |
| Final Vol.: | 71 | 1009 | 0 | 0 | 771 | 460 | 253 | 0 | 79 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | 0.95 | 1.00 | 0.85 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 1805 | 1900 | 0 | 0 | 1900 | 1615 | 1805 | 0 | 1615 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.53 | 0.00 | 0.00 | 0.41 | 0.28 | 0.14 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | | | |
| Green/Cycle: | 0.06 | 0.71 | 0.00 | 0.00 | 0.65 | 0.65 | 0.19 | 0.00 | 0.19 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.63 | 0.75 | 0.00 | 0.00 | 0.63 | 0.44 | 0.75 | 0.00 | 0.26 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 54.8 | 10.6 | 0.0 | 0.0 | 12.4 | 10.3 | 46.0 | 0.0 | 41.6 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 10.5 | 2.3 | 0.0 | 0.0 | 1.0 | 0.3 | 8.7 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 65.3 | 12.9 | 0.0 | 0.0 | 13.4 | 10.6 | 54.8 | 0.0 | 42.1 | 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: | 65.3 | 12.9 | 0.0 | 0.0 | 13.4 | 10.6 | 54.8 | 0.0 | 42.1 | 0.0 | 0.0 | 0.0 |
| DesignQueue: | 4 | 23 | 0 | 0 | 20 | 11 | 14 | 0 | 4 | 0 | 0 | 0 |

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Brockway Road/Martis Valley Road

Average Delay (sec/veh): 924.0  Worst Case Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | L | - T | - R | L | - T | - R | L | - T | - R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 1 0 | 0 1 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 | 0 0 | 0 0 | 1 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 196 | 916 | 0 | 16 | 624 | 167 | 96 | 0 | 72 | 0 | 0 | 14 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 196 | 916 | 0 | 16 | 624 | 167 | 96 | 0 | 72 | 0 | 0 | 14 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 206 | 964 | 0 | 17 | 657 | 176 | 101 | 0 | 76 | 0 | 0 | 15 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Final Vol.: | 206 | 964 | 0 | 17 | 657 | 176 | 101 | 0 | 76 | 0 | 0 | 15 |
| **Critical Gap Module:** | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | 4.1 | xxxx | xxxxx | 7.1 | xxxx | 6.2 | xxxxx | xxxx | 6.2 |
| FollowUpTim: | 2.2 | xxxx | xxxxx | 2.2 | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | 3.3 |
| **Capacity Module:** | | | | | | | | | | | | |
| Cnflict Vol: | 833 | xxxx | xxxxx | 964 | xxxx | xxxxx | 2163 | xxxx | 745 | xxxx | xxxx | 964 |
| Potent Cap.: | 809 | xxxx | xxxxx | 722 | xxxx | xxxxx | 35 | xxxx | 417 | xxxx | xxxx | 312 |
| Move Cap.: | 809 | xxxx | xxxxx | 722 | xxxx | xxxxx | 26 | xxxx | 417 | xxxx | xxxx | 312 |
| **Level Of Service Module:** | | | | | | | | | | | | |
| Stopped Del: | 11.0 | xxxx | xxxxx | 10.0 | xxxx | xxxxx | xxxxx | xxxx | 15.5 | xxxxx | xxxx | 17.1 |
| LOS by Move: | B | * | * | A | * | * | * | * | C | * | * | C |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 26 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 1605 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | F | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 924.0 | | | 17.1 | | |
| ApproachLOS: | * | | | * | | | F | | | C | | |





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

Intersection #10 SR 267/Brockway Road/Joerger Drive

Cycle (sec): 100  Critical Vol./Cap. (X): 1.933
Loss Time (sec): 12 (Y+R = 4 sec)  Average Delay (sec/veh): 344.6
Optimal Cycle: 180  Level Of Service: F

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 0 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 1078 | 916 | 14 | 44 | 1152 | 29 | 73 | 5 | 618 | 10 | 5 | 35 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1078 | 916 | 14 | 44 | 1152 | 29 | 73 | 5 | 618 | 10 | 5 | 35 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 1135 | 964 | 15 | 46 | 1213 | 31 | 77 | 5 | 651 | 11 | 5 | 37 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 1135 | 964 | 15 | 46 | 1213 | 31 | 77 | 5 | 651 | 11 | 5 | 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 |
| Final Vol.: | 1135 | 964 | 15 | 46 | 1213 | 31 | 77 | 5 | 651 | 11 | 5 | 37 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 0.85 | 0.96 | 0.96 | 0.85 | 0.90 | 0.90 | 0.90 |
| Lanes: | 1.00 | 0.98 | 0.02 | 1.00 | 1.00 | 1.00 | 0.94 | 0.06 | 1.00 | 0.21 | 0.09 | 0.70 |
| Final Sat.: | 1805 | 1867 | 29 | 1805 | 1900 | 1615 | 1704 | 111 | 1615 | 354 | 161 | 1190 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.63 | 0.52 | 0.52 | 0.03 | 0.64 | 0.02 | 0.05 | 0.05 | 0.40 | 0.03 | 0.03 | 0.03 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green/Cycle: | 0.33 | 0.62 | 0.62 | 0.03 | 0.33 | 0.33 | 0.21 | 0.21 | 0.21 | 0.02 | 0.02 | 0.02 |
| Volume/Cap: | 1.93 | 0.83 | 0.83 | 0.83 | 1.93 | 0.06 | 0.22 | 0.22 | 1.93 | 1.93 | 1.93 | 1.93 |
| Uniform Del: | 33.7 | 14.6 | 14.6 | 48.2 | 33.5 | 22.9 | 32.8 | 32.8 | 39.6 | 49.2 | 49.2 | 49.2 |
| IncremntDel: | 426.3 | 4.9 | 4.9 | 62.1 | 426 | 0.0 | 0.3 | 0.3 | 430.8 | 528.2 | 528 | 528.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 460.0 | 19.5 | 19.5 | 110.3 | 459 | 22.9 | 33.1 | 33.1 | 470.4 | 577.4 | 577 | 577.4 |
| 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: | 460.0 | 19.5 | 19.5 | 110.3 | 459 | 22.9 | 33.1 | 33.1 | 470.4 | 577.4 | 577 | 577.4 |
| DesignQueue: | 51 | 23 | 0 | 2 | 54 | 1 | 3 | 0 | 31 | 1 | 0 | 2 |

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

**Intersection #11 SR 267/Airport Road/Schaffer Mill Road**

Cycle (sec): 180 Critical Vol./Cap. (X): 1.674
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 276.9
Optimal Cycle: 180 Level Of Service: F

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 0 | 1 | 0 1 | 0 0 | 1 | 0 1 | 0 0 | 1 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 42 | 818 | 81 | 446 | 935 | 399 | 559 | 45 | 97 | 71 | 91 | 631 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 42 | 818 | 81 | 446 | 935 | 399 | 559 | 45 | 97 | 71 | 91 | 631 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 44 | 861 | 85 | 469 | 984 | 420 | 588 | 47 | 102 | 75 | 96 | 664 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 44 | 861 | 85 | 469 | 984 | 420 | 588 | 47 | 102 | 75 | 96 | 664 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 44 | 861 | 85 | 469 | 984 | 420 | 588 | 47 | 102 | 75 | 96 | 664 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 0.99 | 0.99 | 0.95 | 1.00 | 0.85 | 0.96 | 0.96 | 0.85 | 0.98 | 0.98 | 0.85 |
| Lanes: | 1.00 | 0.91 | 0.09 | 1.00 | 1.00 | 1.00 | 0.93 | 0.07 | 1.00 | 0.44 | 0.56 | 1.00 |
| Final Sat.: | 1805 | 1707 | 168 | 1805 | 1900 | 1615 | 1682 | 134 | 1615 | 816 | 1044 | 1615 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.50 | 0.50 | 0.26 | 0.52 | 0.26 | 0.35 | 0.35 | 0.06 | 0.09 | 0.09 | 0.41 |
| Crit Moves: | | **** | | **** | | | | **** | | | | **** |
| Green/Cycle: | 0.02 | 0.30 | 0.30 | 0.16 | 0.44 | 0.44 | 0.21 | 0.21 | 0.21 | 0.25 | 0.25 | 0.25 |
| Volume/Cap: | 1.19 | 1.67 | 1.67 | 1.67 | 1.19 | 0.60 | 1.67 | 1.67 | 0.30 | 0.37 | 0.37 | 1.67 |
| Uniform Del: | 88.2 | 62.9 | 62.9 | 76.0 | 50.8 | 38.7 | 71.2 | 71.2 | 60.1 | 56.4 | 56.4 | 67.9 |
| IncremntDel: | 208.8 | 311 | 310.9 | 318.4 | 96.5 | 1.4 | 314.6 | 315 | 0.5 | 0.5 | 0.5 | 314.1 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 296.9 | 374 | 373.8 | 394.4 | 147 | 40.1 | 385.8 | 386 | 60.6 | 56.9 | 56.9 | 382.0 |
| 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: | 296.9 | 374 | 373.8 | 394.4 | 147 | 40.1 | 385.8 | 386 | 60.6 | 56.9 | 56.9 | 382.0 |
| DesignQueue: | 4 | 69 | 7 | 42 | 64 | 25 | 51 | 4 | 8 | 6 | 7 | 55 |







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

**Intersection #12 SR 267/Northstar Drive**

Cycle (sec): 140 Critical Vol./Cap. (X): 1.102
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 80.6
Optimal Cycle: 180 Level Of Service: F

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 0 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| **Volume Module:** | | | | | | | | | | | | |
| Base Vol: | 158 | 435 | 11 | 6 | 853 | 255 | 682 | 23 | 358 | 2 | 1 | 1 |
| Growth Adj: | 1.00 | 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 | 435 | 11 | 6 | 853 | 255 | 682 | 23 | 358 | 2 | 1 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 166 | 458 | 12 | 6 | 898 | 268 | 718 | 24 | 377 | 2 | 1 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 166 | 458 | 12 | 6 | 898 | 268 | 718 | 24 | 377 | 2 | 1 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 166 | 458 | 12 | 6 | 898 | 268 | 718 | 24 | 377 | 2 | 1 | 1 |
| **Saturation Flow Module:** | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.85 | 0.95 | 0.95 | 0.85 | 0.94 | 0.94 | 0.94 |
| Lanes: | 1.00 | 1.95 | 0.05 | 1.00 | 1.00 | 1.00 | 0.97 | 0.03 | 1.00 | 0.50 | 0.25 | 0.25 |
| Final Sat.: | 1805 | 3504 | 92 | 1805 | 1900 | 1615 | 1754 | 59 | 1615 | 896 | 448 | 448 |
| **Capacity Analysis Module:** | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.13 | 0.13 | 0.00 | 0.47 | 0.17 | 0.41 | 0.41 | 0.23 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green/Cycle: | 0.08 | 0.50 | 0.50 | 0.01 | 0.43 | 0.43 | 0.37 | 0.37 | 0.37 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 1.10 | 0.26 | 0.26 | 0.26 | 1.10 | 0.39 | 1.10 | 1.10 | 0.63 | 1.10 | 1.10 | 1.10 |
| Uniform Del: | 64.2 | 20.2 | 20.2 | 68.5 | 40.0 | 27.4 | 44.0 | 44.0 | 36.1 | 69.9 | 69.9 | 69.9 |
| IncremntDel: | 103.3 | 0.1 | 0.1 | 6.0 | 63.3 | 0.4 | 66.0 | 66.0 | 2.1 | 519.5 | 519 | 519.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 167.5 | 20.2 | 20.2 | 74.5 | 103 | 27.7 | 110.0 | 110 | 38.2 | 589.3 | 589 | 589.3 |
| 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: | 167.5 | 20.2 | 20.2 | 74.5 | 103 | 27.7 | 110.0 | 110 | 38.2 | 589.3 | 589 | 589.3 |
| DesignQueue: | 12 | 18 | 0 | 0 | 46 | 12 | 39 | 1 | 19 | 0 | 0 | 0 |

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

Intersection #13 SR 28/SR 267

Cycle (sec): 135  Critical Vol./Cap. (X): 1.204
Loss Time (sec): 12 (Y+R = 4 sec)  Average Delay (sec/veh): 107.6
Optimal Cycle: 180  Level Of Service: F

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Permitted | | | | Permitted | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 1! | 0 0 | 0 | 1 | 0 | 0 1 | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 1 | 0 | 1 | | 517 | 2 | 468 | | 349 | 842 | 1 | | 1 | 946 | 636 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 1 | 0 | 1 | | 517 | 2 | 468 | | 349 | 842 | 1 | | 1 | 946 | 636 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 1 | 0 | 1 | | 544 | 2 | 493 | | 367 | 886 | 1 | | 1 | 996 | 669 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 1 | 0 | 1 | | 544 | 2 | 493 | | 367 | 886 | 1 | | 1 | 996 | 669 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 1 | 0 | 1 | | 544 | 2 | 493 | | 367 | 886 | 1 | | 1 | 996 | 669 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.86 | 1.00 | 0.86 | | 0.71 | 0.71 | 0.85 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.89 | 0.89 | |
| Lanes: | 0.50 | 0.00 | 0.50 | | 0.99 | 0.01 | 1.00 | | 1.00 | 1.99 | 0.01 | | 1.00 | 1.20 | 0.80 | |
| Final Sat.: | 816 | 0 | 816 | | 1350 | 5 | 1615 | | 1805 | 3606 | 4 | | 1805 | 2030 | 1363 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | | 0.40 | 0.40 | 0.31 | | 0.20 | 0.25 | 0.25 | | 0.00 | 0.49 | 0.49 | |
| Crit Moves: | | | | | | **** | | | **** | | | | | **** | | |
| Green/Cycle: | 0.33 | 0.00 | 0.33 | | 0.33 | 0.33 | 0.33 | | 0.17 | 0.58 | 0.58 | | 0.00 | 0.41 | 0.41 | |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | | 1.20 | 1.20 | 0.91 | | 1.20 | 0.43 | 0.43 | | 0.43 | 1.20 | 1.20 | |
| Uniform Del: | 29.9 | 0.0 | 29.9 | | 44.9 | 44.9 | 43.0 | | 56.1 | 16.2 | 16.2 | | 67.4 | 40.0 | 40.0 | |
| IncremntDel: | 0.0 | 0.0 | 0.0 | | 111.2 | 111 | 19.8 | | 118.8 | 0.1 | 0.1 | | 92.8 | 99.0 | 99.0 | |
| Delay Adj: | 1.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 29.9 | 0.0 | 29.9 | | 156.1 | 156 | 62.8 | | 174.9 | 16.3 | 16.3 | | 160.2 | 139 | 138.9 | |
| 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: | 29.9 | 0.0 | 29.9 | | 156.1 | 156 | 62.8 | | 174.9 | 16.3 | 16.3 | | 160.2 | 139 | 138.9 | |
| DesignQueue: | 0 | 0 | 0 | | 29 | 0 | 26 | | 24 | 30 | 0 | | 0 | 50 | 34 | |





Default Scenario  Wed May 21, 2003 13:48:08  Page 16-1

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

Intersection #14 SR 89/Donner Pass Road

Cycle (sec): 100  Critical Vol./Cap. (X): 0.820
Loss Time (sec): 16 (Y+R = 4 sec)  Average Delay (sec/veh): 38.3
Optimal Cycle: 91  Level Of Service: D

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 1 | 0 | 1 0 | 0 | 1 | 0 | 1 0 | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 286 | 75 | 122 | | 11 | 309 | 18 | | 108 | 148 | 528 | | 88 | 310 | 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: | 286 | 75 | 122 | | 11 | 309 | 18 | | 108 | 148 | 528 | | 88 | 310 | 10 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 301 | 79 | 128 | | 12 | 325 | 19 | | 114 | 156 | 556 | | 93 | 326 | 11 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 301 | 79 | 128 | | 12 | 325 | 19 | | 114 | 156 | 556 | | 93 | 326 | 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 | |
| Final Vol.: | 301 | 79 | 128 | | 12 | 325 | 19 | | 114 | 156 | 556 | | 93 | 326 | 11 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.90 | 0.86 | 0.86 | | 0.94 | 0.94 | 0.94 | | 0.95 | 0.95 | 0.81 | | 0.95 | 0.95 | 0.95 | |
| Lanes: | 1.00 | 0.38 | 0.62 | | 0.07 | 1.82 | 0.11 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.93 | 0.07 | |
| Final Sat.: | 1715 | 625 | 1012 | | 120 | 3263 | 191 | | 1805 | 1805 | 1534 | | 1805 | 3475 | 117 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.18 | 0.13 | 0.13 | | 0.10 | 0.10 | 0.10 | | 0.06 | 0.09 | 0.36 | | 0.05 | 0.09 | 0.09 | |
| Crit Moves: | **** | | | | **** | | | | | | **** | | **** | | | |
| Green/Cycle: | 0.21 | 0.21 | 0.21 | | 0.12 | 0.12 | 0.12 | | 0.20 | 0.44 | 0.44 | | 0.06 | 0.30 | 0.30 | |
| Volume/Cap: | 0.82 | 0.59 | 0.59 | | 0.82 | 0.82 | 0.82 | | 0.31 | 0.20 | 0.82 | | 0.82 | 0.31 | 0.31 | |
| Uniform Del: | 37.5 | 35.4 | 35.4 | | 42.9 | 42.9 | 42.9 | | 33.9 | 17.1 | 24.4 | | 46.3 | 26.9 | 26.9 | |
| IncremntDel: | 8.6 | 1.1 | 1.1 | | 11.8 | 11.8 | 11.8 | | 0.5 | 0.0 | 6.3 | | 35.8 | 0.2 | 0.2 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 46.0 | 36.5 | 36.5 | | 54.6 | 54.6 | 54.6 | | 34.4 | 17.1 | 30.7 | | 82.1 | 27.1 | 27.1 | |
| 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: | 46.0 | 36.5 | 36.5 | | 54.6 | 54.6 | 54.6 | | 34.4 | 17.1 | 30.7 | | 82.1 | 27.1 | 27.1 | |
| DesignQueue: | 14 | 4 | 6 | | 1 | 16 | 1 | | 5 | 5 | 19 | | 5 | 13 | 0 | |

Proposed No Con Road SummerWed May 21, 2003 14:01:09 Page 1-1

Scenario Report

| | |
|---|---|
| Scenario: | Proposed No Con Road Summer Mitigated |
| Command: | Default Command |
| Volume: | Preferred |
| Geometry: | Preferred |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | Default Trip Generation |
| Trip Distribution: | Default Trip Distribution |
| Paths: | Default Paths |
| Routes: | Default Routes |
| Configuration: | Default Configuration |





Proposed No Con Road SummerWed May 21, 2003 14:01:11 Page 2-1

Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 1 SR 267 Bypass/I-80 WB | D | 51.4 | 0.975 | D | 51.4 | 0.975 | + 0.000 D/V |
| # 2 SR 267 Bypass/I-80 EB | D | 42.0 | 0.955 | D | 42.0 | 0.955 | + 0.000 D/V |
| # 4 I-80 EB/DPR | C | 24.9 | 0.880 | C | 24.9 | 0.880 | + 0.000 D/V |
| # 5 DPR/Glenshire Drive | C | 30.2 | 0.879 | C | 30.2 | 0.879 | + 0.000 D/V |
| # 6 DPR/Bridge Street | E | 77.6 | 1.101 | E | 77.6 | 1.101 | + 0.000 D/V |
| # 7 Bridge Street West River St | D | 38.7 | 0.927 | D | 38.7 | 0.927 | + 0.000 D/V |
| # 9 Brockway Road/Martis Valley Ro | B | 16.7 | 0.808 | B | 16.7 | 0.808 | + 0.000 D/V |
| # 10 SR 267/Brockway Road/Joerger D | D | 37.0 | 0.948 | D | 37.0 | 0.948 | + 0.000 D/V |
| # 11 SR 267/Airport Road/Schaffer M | E | 59.8 | 1.047 | E | 59.8 | 1.047 | + 0.000 D/V |
| # 12 SR 267/Northstar Drive | D | 35.5 | 0.975 | D | 35.5 | 0.975 | + 0.000 D/V |
| # 13 SR 28/SR 267 | E | 70.6 | 1.184 | E | 70.6 | 1.184 | + 0.000 D/V |
| # 14 SR 89/Donner Pass Road | D | 52.6 | 0.906 | D | 52.6 | 0.906 | + 0.000 D/V |

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

**Intersection #1 SR 267 Bypass/I-80 WB**

Cycle (sec): 105 Critical Vol./Cap. (X): 0.975
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 51.4
Optimal Cycle: 120 Level Of Service: D

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Lanes: | 2 | 0 | 1 | 0 0 | 0 | 0 | 1 | 0 1 | 0 | 0 | 0 | 0 0 | 0 | 1 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 716 | 335 | | 0 | 0 | 574 | | 10 | 0 | 0 | | 0 | 489 | | 0 | 479 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 716 | 335 | | 0 | 0 | 574 | | 10 | 0 | 0 | | 0 | 489 | | 0 | 479 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.75 |
| PHF Adj: | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 |
| PHF Volume: | 754 | 353 | | 0 | 0 | 604 | | 11 | 0 | 0 | | 0 | 515 | | 0 | 378 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 754 | 353 | | 0 | 0 | 604 | | 11 | 0 | 0 | | 0 | 515 | | 0 | 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 |
| Final Vol.: | 754 | 353 | | 0 | 0 | 604 | | 11 | 0 | 0 | | 0 | 515 | | 0 | 378 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 |
| Adjustment: | 0.92 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.85 | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 | | 0.85 |
| Lanes: | 2.00 | 1.00 | | 0.00 | 0.00 | 1.00 | | 1.00 | 0.00 | 0.00 | | 0.00 | 1.00 | 0.00 | | 1.00 |
| Final Sat.: | 3317 | 1800 | | 0 | 0 | 1800 | | 1530 | 0 | 0 | | 0 | 1714 | | 0 | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.23 | 0.20 | | 0.00 | 0.00 | 0.34 | | 0.01 | 0.00 | 0.00 | | 0.00 | 0.30 | 0.00 | | 0.25 |
| Crit Moves: | **** | | | | | **** | | | | | | | **** | | | |
| Green/Cycle: | 0.23 | 0.58 | | 0.00 | 0.00 | 0.34 | | 0.34 | 0.00 | 0.00 | | 0.00 | 0.31 | 0.00 | | 0.31 |
| Volume/Cap: | 0.97 | 0.34 | | 0.00 | 0.00 | 0.97 | | 0.02 | 0.00 | 0.00 | | 0.00 | 0.97 | 0.00 | | 0.80 |
| Uniform Del: | 40.0 | 11.7 | | 0.0 | 0.0 | 34.0 | | 22.7 | 0.0 | 0.0 | | 0.0 | 35.9 | 0.0 | | 33.4 |
| IncremntDel: | 26.1 | 0.2 | | 0.0 | 0.0 | 29.8 | | 0.0 | 0.0 | 0.0 | | 0.0 | 32.6 | 0.0 | | 9.5 |
| Delay Adj: | 0.80 | 0.09 | | 0.00 | 0.00 | 1.00 | | 1.00 | 0.00 | 0.00 | | 0.00 | 1.00 | 0.00 | | 1.00 |
| Delay/Veh: | 58.0 | 1.2 | | 0.0 | 0.0 | 63.7 | | 22.8 | 0.0 | 0.0 | | 0.0 | 68.5 | 0.0 | | 42.9 |
| 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: | 58.0 | 1.2 | | 0.0 | 0.0 | 63.7 | | 22.8 | 0.0 | 0.0 | | 0.0 | 68.5 | 0.0 | | 42.9 |
| DesignQueue: | 36 | 9 | | 0 | 0 | 25 | | 0 | 0 | 0 | | 0 | 22 | 0 | | 16 |





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

**Intersection #2 SR 267 Bypass/I-80 EB**

Cycle (sec): 100 Critical Vol./Cap. (X): 0.955
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 42.0
Optimal Cycle: 120 Level Of Service: D

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Ovl | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Lanes: | 0 | 0 | 2 | 0 1 | 1 | 0 | 1 | 0 0 | 0 | 1 | 0 | 0 1 | 0 | 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 1051 | | 430 | 382 | 681 | | 0 | 0 | 0 | | 547 | 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 | 1051 | | 430 | 382 | 681 | | 0 | 0 | 0 | | 547 | 0 | 0 | | 0 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.75 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 |
| PHF Volume: | 0 | 1106 | | 453 | 402 | 717 | | 0 | 0 | 0 | | 432 | 0 | 0 | | 0 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 0 | 1106 | | 453 | 402 | 717 | | 0 | 0 | 0 | | 432 | 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 |
| Final Vol.: | 0 | 1106 | | 453 | 402 | 717 | | 0 | 0 | 0 | | 432 | 0 | 0 | | 0 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 |
| Adjustment: | 1.00 | 0.95 | | 0.85 | 0.95 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.85 | 1.00 | 1.00 | | 1.00 |
| Lanes: | 0.00 | 2.00 | | 1.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 1.00 | | 1.00 | 0.00 | 0.00 | | 0.00 |
| Final Sat.: | 0 | 3420 | | 1530 | 1710 | 1800 | | 0 | 0 | 1800 | | 1530 | 0 | 0 | | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.32 | | 0.30 | 0.24 | 0.40 | | 0.00 | 0.00 | 0.00 | | 0.28 | 0.00 | 0.00 | | 0.00 |
| Crit Moves: | | **** | | | **** | | | | | | | **** | | | | |
| Green/Cycle: | 0.00 | 0.34 | | 0.34 | 0.25 | 0.58 | | 0.00 | 0.00 | 0.00 | | 0.30 | 0.00 | 0.00 | | 0.00 |
| Volume/Cap: | 0.00 | 0.96 | | 0.87 | 0.96 | 0.68 | | 0.00 | 0.00 | 0.00 | | 0.96 | 0.00 | 0.00 | | 0.00 |
| Uniform Del: | 0.0 | 32.3 | | 31.1 | 37.2 | 14.3 | | 0.0 | 0.0 | 0.0 | | 34.6 | 0.0 | 0.0 | | 0.0 |
| IncremntDel: | 0.0 | 16.8 | | 15.3 | 32.5 | 1.8 | | 0.0 | 0.0 | 0.0 | | 31.1 | 0.0 | 0.0 | | 0.0 |
| Delay Adj: | 0.00 | 1.00 | | 1.00 | 0.78 | 0.06 | | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 0.00 | | 0.00 |
| Delay/Veh: | 0.0 | 49.2 | | 46.4 | 61.6 | 2.7 | | 0.0 | 0.0 | 0.0 | | 65.7 | 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: | 0.0 | 49.2 | | 46.4 | 61.6 | 2.7 | | 0.0 | 0.0 | 0.0 | | 65.7 | 0.0 | 0.0 | | 0.0 |
| DesignQueue: | 0 | 44 | | 18 | 18 | 18 | | 0 | 0 | 0 | | 18 | 0 | 0 | | 0 |

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

Intersection #4 I-80 EB/DPR

Cycle (sec): 75 Critical Vol./Cap. (X): 0.880
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.9
Optimal Cycle: 88 Level Of Service: C

| 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 | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1 0 | 0 | 0 0 | 1 0 | 0 | 1 0 | 0 0 | 1 | 0 0 | 0 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 817 | 0 | 0 | 530 | 0 | 362 | 0 | 279 | 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 | 817 | 0 | 0 | 530 | 0 | 362 | 0 | 279 | 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: | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| PHF Volume: | 0 | 908 | 0 | 0 | 589 | 0 | 402 | 0 | 310 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 908 | 0 | 0 | 589 | 0 | 402 | 0 | 310 | 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 |
| Final Vol.: | 0 | 908 | 0 | 0 | 589 | 0 | 402 | 0 | 310 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.85 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 1800 | 0 | 0 | 1800 | 0 | 1710 | 0 | 1530 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.50 | 0.00 | 0.00 | 0.33 | 0.00 | 0.24 | 0.00 | 0.20 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.57 | 0.00 | 0.00 | 0.57 | 0.00 | 0.27 | 0.00 | 0.27 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.00 | 0.88 | 0.00 | 0.00 | 0.57 | 0.00 | 0.88 | 0.00 | 0.76 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 13.8 | 0.0 | 0.0 | 10.2 | 0.0 | 26.3 | 0.0 | 25.3 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 8.9 | 0.0 | 0.0 | 0.8 | 0.0 | 17.7 | 0.0 | 8.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 22.7 | 0.0 | 0.0 | 10.9 | 0.0 | 44.0 | 0.0 | 33.3 | 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 | 22.7 | 0.0 | 0.0 | 10.9 | 0.0 | 44.0 | 0.0 | 33.3 | 0.0 | 0.0 | 0.0 |
| DesignQueue: | 0 | 18 | 0 | 0 | 11 | 0 | 13 | 0 | 10 | 0 | 0 | 0 |





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

Intersection #5 DPR/Glenshire Drive

Cycle (sec): 70 Critical Vol./Cap. (X): 0.879
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 30.2
Optimal Cycle: 84 Level Of Service: C

| 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 | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 0 | 1 | 0 0 | 0 0 | 0 | 0 0 | 1 0 | 1 | 1 0 | 1 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 268 | 0 | 323 | 0 | 0 | 0 | 0 | 517 | 368 | 269 | 390 | 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: | 268 | 0 | 323 | 0 | 0 | 0 | 0 | 517 | 368 | 269 | 390 | 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: | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| PHF Volume: | 298 | 0 | 359 | 0 | 0 | 0 | 0 | 574 | 409 | 299 | 433 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 298 | 0 | 359 | 0 | 0 | 0 | 0 | 574 | 409 | 299 | 433 | 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 |
| Final Vol.: | 298 | 0 | 359 | 0 | 0 | 0 | 0 | 574 | 409 | 299 | 433 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.95 | 1.00 | 0.85 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | 0.95 | 1.00 | 1.00 |
| Lanes: | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Final Sat.: | 1710 | 0 | 1530 | 0 | 0 | 0 | 0 | 1800 | 1530 | 1710 | 1800 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.17 | 0.00 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.27 | 0.17 | 0.24 | 0.00 |
| Crit Moves: | | | **** | | | | | **** | | **** | | |
| Green/Cycle: | 0.27 | 0.00 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.36 | 0.36 | 0.20 | 0.56 | 0.00 |
| Volume/Cap: | 0.65 | 0.00 | 0.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.88 | 0.74 | 0.88 | 0.43 | 0.00 |
| Uniform Del: | 22.8 | 0.0 | 24.6 | 0.0 | 0.0 | 0.0 | 0.0 | 20.9 | 19.4 | 27.2 | 8.9 | 0.0 |
| IncremntDel: | 3.4 | 0.0 | 19.1 | 0.0 | 0.0 | 0.0 | 0.0 | 13.0 | 5.2 | 22.1 | 0.3 | 0.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 26.2 | 0.0 | 43.7 | 0.0 | 0.0 | 0.0 | 0.0 | 33.9 | 24.5 | 49.3 | 9.1 | 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: | 26.2 | 0.0 | 43.7 | 0.0 | 0.0 | 0.0 | 0.0 | 33.9 | 24.5 | 49.3 | 9.1 | 0.0 |
| DesignQueue: | 9 | 0 | 11 | 0 | 0 | 0 | 0 | 15 | 11 | 10 | 8 | 0 |

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

Intersection #6 DPR/Bridge Street

Cycle (sec): 110 Critical Vol./Cap. (X): 1.101
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 77.6
Optimal Cycle: 120 Level Of Service: E

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - | R | L | - T | - | R | L | - T | - | R | L | - T | - | R |
| Control: | Permitted | | | | Permitted | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Ignore | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 1 | 0 | 1 | 0 | 1 0 | 0 | 1 | 1 | 0 1 | 0 | 1 | 1 | 0 1 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 167 | 449 | 574 | | 9 | 280 | 26 | | 48 | 459 | 142 | | 678 | 445 | 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: | 167 | 449 | 574 | | 9 | 280 | 26 | | 48 | 459 | 142 | | 678 | 445 | 10 | |
| User Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.00 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 176 | 473 | 0 | | 9 | 295 | 27 | | 51 | 483 | 149 | | 714 | 468 | 11 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 176 | 473 | 0 | | 9 | 295 | 27 | | 51 | 483 | 149 | | 714 | 468 | 11 | |
| PCE Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 176 | 473 | 0 | | 9 | 295 | 27 | | 51 | 483 | 149 | | 714 | 468 | 11 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.33 | 1.00 | 1.00 | | 0.74 | 0.74 | 0.85 | | 0.95 | 1.00 | 0.85 | | 0.95 | 1.00 | 0.85 | |
| Lanes: | 1.00 | 1.00 | 1.00 | | 0.03 | 0.97 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Sat.: | 596 | 1800 | 1800 | | 39 | 1284 | 1530 | | 1710 | 1800 | 1530 | | 1710 | 1800 | 1530 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.30 | 0.26 | 0.00 | | 0.23 | 0.23 | 0.02 | | 0.03 | 0.27 | 0.10 | | 0.42 | 0.26 | 0.01 | |
| Crit Moves: | **** | | | | | | | | | **** | | | **** | | | |
| Green/Cycle: | 0.27 | 0.27 | 0.00 | | 0.27 | 0.27 | 0.27 | | 0.24 | 0.24 | 0.24 | | 0.38 | 0.38 | 0.38 | |
| Volume/Cap: | 1.10 | 0.98 | 0.00 | | 0.86 | 0.86 | 0.07 | | 0.12 | 1.10 | 0.40 | | 1.10 | 0.69 | 0.02 | |
| Uniform Del: | 40.2 | 40.0 | 0.0 | | 38.2 | 38.2 | 30.0 | | 32.4 | 41.6 | 34.9 | | 34.2 | 28.7 | 21.4 | |
| IncremntDel: | 101.0 | 35.6 | 0.0 | | 18.2 | 18.2 | 0.1 | | 0.1 | 73.4 | 0.7 | | 66.4 | 2.9 | 0.0 | |
| Delay Adj: | 0.76 | 0.76 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 131.4 | 65.8 | 0.0 | | 56.5 | 56.5 | 30.1 | | 32.6 | 115 | 35.6 | | 100.5 | 31.6 | 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: | 131.4 | 65.8 | 0.0 | | 56.5 | 56.5 | 30.1 | | 32.6 | 115 | 35.6 | | 100.5 | 31.6 | 21.4 | |
| DesignQueue: | 8 | 23 | 0 | | 0 | 14 | 1 | | 2 | 24 | 7 | | 30 | 19 | 0 | |





Proposed No Con Road SummerWed May 21, 2003 14:01:12 Page 8-1

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

Intersection #7 Bridge Street West River St

Cycle (sec): 95 Critical Vol./Cap. (X): 0.927
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 38.7
Optimal Cycle: 120 Level Of Service: D

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 0 | 1 | 0 | 1 | 0 1 | 1 | 0 | 0 | 1 0 | 0 | 1 | 0 | 0 1! | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 448 | 927 | 25 | | 52 | 812 | 236 | | 219 | 20 | 516 | | 26 | 15 | 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: | 448 | 927 | 25 | | 52 | 812 | 236 | | 219 | 20 | 516 | | 26 | 15 | 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: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 472 | 976 | 26 | | 55 | 855 | 248 | | 231 | 21 | 543 | | 27 | 16 | 46 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 472 | 976 | 26 | | 55 | 855 | 248 | | 231 | 21 | 543 | | 27 | 16 | 46 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 472 | 976 | 26 | | 55 | 855 | 248 | | 231 | 21 | 543 | | 27 | 16 | 46 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.95 | 1.00 | 1.00 | | 0.95 | 0.92 | 0.92 | | 0.96 | 0.96 | 0.85 | | 0.92 | 0.92 | 0.92 | |
| Lanes: | 1.00 | 0.97 | 0.03 | | 1.00 | 1.55 | 0.45 | | 0.92 | 0.08 | 1.00 | | 0.30 | 0.18 | 0.52 | |
| Final Sat.: | 1710 | 1746 | 47 | | 1710 | 2561 | 743 | | 1577 | 143 | 1530 | | 500 | 296 | 852 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.28 | 0.56 | 0.56 | | 0.03 | 0.33 | 0.33 | | 0.15 | 0.15 | 0.35 | | 0.05 | 0.05 | 0.05 | |
| Crit Moves: | **** | | | | | **** | | | **** | | | | | **** | | |
| Green/Cycle: | 0.30 | 0.62 | 0.62 | | 0.04 | 0.36 | 0.36 | | 0.16 | 0.16 | 0.46 | | 0.06 | 0.06 | 0.06 | |
| Volume/Cap: | 0.93 | 0.90 | 0.90 | | 0.90 | 0.93 | 0.93 | | 0.93 | 0.93 | 0.78 | | 0.93 | 0.93 | 0.93 | |
| Uniform Del: | 32.4 | 15.4 | 15.4 | | 45.6 | 29.2 | 29.2 | | 39.5 | 39.5 | 21.8 | | 44.5 | 44.5 | 44.5 | |
| IncremntDel: | 23.3 | 9.9 | 9.9 | | 79.7 | 12.4 | 12.4 | | 35.7 | 35.7 | 5.6 | | 68.5 | 68.5 | 68.5 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 0.98 | 0.63 | 0.63 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 55.7 | 25.3 | 25.3 | | 124.2 | 30.7 | 30.7 | | 75.2 | 75.2 | 27.4 | | 113.0 | 113 | 113.0 | |
| 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: | 55.7 | 25.3 | 25.3 | | 124.2 | 30.7 | 30.7 | | 75.2 | 75.2 | 27.4 | | 113.0 | 113 | 113.0 | |
| DesignQueue: | 19 | 23 | 1 | | 3 | 31 | 9 | | 11 | 1 | 17 | | 1 | 1 | 2 | |

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

Intersection #9 Brockway Road/Martis Valley Road

Cycle (sec): 79 Critical Vol./Cap. (X): 0.808
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 16.7
Optimal Cycle: 72 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L - | T - | R | L - | T - | R | L - | T - | R | L - | T - | R |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 | 0 0 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 291 | 886 | 0 | 16 | 629 | 156 | 113 | 0 | 176 | 0 | 0 | 14 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 291 | 886 | 0 | 16 | 629 | 156 | 113 | 0 | 176 | 0 | 0 | 14 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| PHF Volume: | 323 | 984 | 0 | 18 | 699 | 173 | 126 | 0 | 196 | 0 | 0 | 16 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 323 | 984 | 0 | 18 | 699 | 173 | 126 | 0 | 196 | 0 | 0 | 16 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 323 | 984 | 0 | 18 | 699 | 173 | 126 | 0 | 196 | 0 | 0 | 16 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.46 | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.85 | 1.00 | 1.00 | 0.87 |
| Lanes: | 1.00 | 1.00 | 0.00 | 0.02 | 0.79 | 0.19 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Final Sat.: | 828 | 1800 | 0 | 35 | 1345 | 333 | 1714 | 0 | 1530 | 0 | 0 | 1557 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.39 | 0.55 | 0.00 | 0.52 | 0.52 | 0.52 | 0.07 | 0.00 | 0.13 | 0.00 | 0.00 | 0.01 |
| Crit Moves: | | **** | | | | | | | **** | | | **** |
| Green/Cycle: | 0.68 | 0.68 | 0.00 | 0.68 | 0.68 | 0.68 | 0.16 | 0.00 | 0.16 | 0.00 | 0.00 | 0.01 |
| Volume/Cap: | 0.58 | 0.81 | 0.00 | 0.77 | 0.77 | 0.77 | 0.46 | 0.00 | 0.81 | 0.00 | 0.00 | 0.81 |
| Uniform Del: | 6.8 | 9.1 | 0.0 | 8.6 | 8.6 | 8.6 | 30.2 | 0.0 | 32.1 | 0.0 | 0.0 | 38.9 |
| IncremntDel: | 1.5 | 4.1 | 0.0 | 3.2 | 3.2 | 3.2 | 1.3 | 0.0 | 17.9 | 0.0 | 0.0 | 114.0 |
| Delay Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Delay/Veh: | 8.3 | 13.2 | 0.0 | 11.8 | 11.8 | 11.8 | 31.4 | 0.0 | 50.0 | 0.0 | 0.0 | 152.9 |
| 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: | 8.3 | 13.2 | 0.0 | 11.8 | 11.8 | 11.8 | 31.4 | 0.0 | 50.0 | 0.0 | 0.0 | 152.9 |
| DesignQueue: | 5 | 16 | 0 | 0 | 11 | 3 | 5 | 0 | 7 | 0 | 0 | 1 |







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

Intersection #10 SR 267/Brockway Road/Joerger Drive

Cycle (sec): 110 Critical Vol./Cap. (X): 0.948
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 37.0
Optimal Cycle: 120 Level Of Service: D

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Ignore | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 0 | 1 1 | 0 | 1 0 | 2 0 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 1101 | 1353 | 14 | 55 | 1057 | 116 | 93 | 5 | 999 | 10 | 5 | 35 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1101 | 1353 | 14 | 55 | 1057 | 116 | 93 | 5 | 999 | 10 | 5 | 35 |
| 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: | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.00 | 0.90 | 0.90 | 0.90 |
| PHF Volume: | 1223 | 1503 | 16 | 61 | 1174 | 129 | 103 | 6 | 0 | 11 | 6 | 39 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 1223 | 1503 | 16 | 61 | 1174 | 129 | 103 | 6 | 0 | 11 | 6 | 39 |
| 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 |
| Final Vol.: | 1223 | 1503 | 16 | 61 | 1174 | 129 | 103 | 6 | 0 | 11 | 6 | 39 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 | 0.85 | 0.96 | 0.96 | 1.00 | 0.90 | 0.90 | 0.90 |
| Lanes: | 2.00 | 1.98 | 0.02 | 1.00 | 2.00 | 1.00 | 0.94 | 0.06 | 1.00 | 0.20 | 0.11 | 0.69 |
| Final Sat.: | 3317 | 3377 | 36 | 1710 | 3420 | 1530 | 1624 | 95 | 1800 | 317 | 173 | 1124 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.37 | 0.45 | 0.45 | 0.04 | 0.34 | 0.08 | 0.06 | 0.06 | 0.00 | 0.03 | 0.03 | 0.03 |
| Crit Moves: | **** | | | | **** | | **** | | | | | **** |
| Green/Cycle: | 0.39 | 0.70 | 0.70 | 0.06 | 0.36 | 0.36 | 0.07 | 0.07 | 0.00 | 0.04 | 0.04 | 0.04 |
| Volume/Cap: | 0.95 | 0.64 | 0.64 | 0.64 | 0.95 | 0.23 | 0.95 | 0.95 | 0.00 | 0.95 | 0.95 | 0.95 |
| Uniform Del: | 32.5 | 9.2 | 9.2 | 50.9 | 34.1 | 24.4 | 51.1 | 51.1 | 0.0 | 52.9 | 52.9 | 52.9 |
| IncremntDel: | 14.4 | 0.6 | 0.6 | 13.7 | 14.8 | 0.2 | 67.4 | 67.4 | 0.0 | 98.1 | 98.1 | 98.1 |
| Delay 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 |
| Delay/Veh: | 46.9 | 9.8 | 9.8 | 64.6 | 48.9 | 24.7 | 118.5 | 119 | 0.0 | 150.9 | 151 | 150.9 |
| 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: | 46.9 | 9.8 | 9.8 | 64.6 | 48.9 | 24.7 | 118.5 | 119 | 0.0 | 150.9 | 151 | 150.9 |
| DesignQueue: | 50 | 31 | 0 | 4 | 50 | 5 | 6 | 0 | 0 | 1 | 0 | 2 |

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

Intersection #11 SR 267/Airport Road/Schaffer Mill Road

Cycle (sec): 105 Critical Vol./Cap. (X): 1.047
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 59.8
Optimal Cycle: 120 Level Of Service: E

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Ovl | | | | Include | | | | Ignore | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 2 | 1 0 | 1 | 0 | 2 | 0 1 | 1 | 0 | 0 | 1 0 | 1 | 0 | 1 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 96 | 1440 | 141 | | 381 | 1372 | 313 | | 397 | 43 | 129 | | 171 | 76 | 631 | |
| Growth Adj: | 1.00 | 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 | 1440 | 141 | | 381 | 1372 | 313 | | 397 | 43 | 129 | | 171 | 76 | 631 | |
| 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: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.00 | |
| PHF Volume: | 101 | 1516 | 148 | | 401 | 1444 | 329 | | 418 | 45 | 136 | | 180 | 80 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 101 | 1516 | 148 | | 401 | 1444 | 329 | | 418 | 45 | 136 | | 180 | 80 | 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 | |
| Final Vol.: | 101 | 1516 | 148 | | 401 | 1444 | 329 | | 418 | 45 | 136 | | 180 | 80 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.95 | 0.90 | 0.90 | | 0.95 | 0.95 | 0.85 | | 0.95 | 0.89 | 0.89 | | 0.95 | 1.00 | 1.00 | |
| Lanes: | 1.00 | 2.73 | 0.27 | | 1.00 | 2.00 | 1.00 | | 1.00 | 0.25 | 0.75 | | 1.00 | 1.00 | 1.00 | |
| Final Sat.: | 1710 | 4419 | 431 | | 1710 | 3420 | 1530 | | 1710 | 397 | 1200 | | 1710 | 1800 | 1800 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.34 | 0.34 | | 0.23 | 0.42 | 0.22 | | 0.24 | 0.11 | 0.11 | | 0.11 | 0.04 | 0.00 | |
| Crit Moves: | | **** | | | **** | | | | **** | | | | **** | | | |
| Green/Cycle: | 0.07 | 0.33 | 0.33 | | 0.22 | 0.48 | 0.72 | | 0.23 | 0.23 | 0.23 | | 0.10 | 0.10 | 0.00 | |
| Volume/Cap: | 0.87 | 1.05 | 1.05 | | 1.05 | 0.87 | 0.30 | | 1.05 | 0.49 | 0.49 | | 1.05 | 0.44 | 0.00 | |
| Uniform Del: | 48.5 | 35.3 | 35.3 | | 40.7 | 24.2 | 5.3 | | 40.2 | 34.8 | 34.8 | | 47.2 | 44.4 | 0.0 | |
| IncremntDel: | 46.7 | 36.0 | 36.0 | | 58.8 | 5.4 | 0.2 | | 57.8 | 1.0 | 1.0 | | 81.6 | 1.7 | 0.0 | |
| Delay 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 | |
| Delay/Veh: | 95.2 | 71.3 | 71.3 | | 99.5 | 29.6 | 5.5 | | 98.1 | 35.8 | 35.8 | | 128.8 | 46.2 | 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: | 95.2 | 71.3 | 71.3 | | 99.5 | 29.6 | 5.5 | | 98.1 | 35.8 | 35.8 | | 128.8 | 46.2 | 0.0 | |
| DesignQueue: | 6 | 64 | 6 | | 19 | 48 | 6 | | 20 | 2 | 6 | | 10 | 4 | 0 | |







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

Intersection #12 SR 267/Northstar Drive

Cycle (sec): 105 Critical Vol./Cap. (X): 0.975
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 35.5
Optimal Cycle:OPTIMIZED Level Of Service: D

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 0 1 | 1 | 1 | 0 | 0 1 | 0 | 0 | 1! | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 170 | 1151 | 14 | | 12 | 1035 | 519 | | 468 | 24 | 190 | | 2 | 1 | 2 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 170 | 1151 | 14 | | 12 | 1035 | 519 | | 468 | 24 | 190 | | 2 | 1 | 2 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 179 | 1212 | 15 | | 13 | 1089 | 546 | | 493 | 25 | 200 | | 2 | 1 | 2 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 179 | 1212 | 15 | | 13 | 1089 | 546 | | 493 | 25 | 200 | | 2 | 1 | 2 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 179 | 1212 | 15 | | 13 | 1089 | 546 | | 493 | 25 | 200 | | 2 | 1 | 2 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.95 | 0.95 | 0.95 | | 0.95 | 1.00 | 0.85 | | 0.96 | 0.96 | 0.85 | | 0.93 | 0.93 | 0.93 | |
| Lanes: | 1.00 | 1.98 | 0.02 | | 1.00 | 1.00 | 1.00 | | 1.90 | 0.10 | 1.00 | | 0.40 | 0.20 | 0.40 | |
| Final Sat.: | 1710 | 3371 | 42 | | 1710 | 1800 | 1530 | | 3272 | 166 | 1530 | | 667 | 334 | 667 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.36 | 0.36 | | 0.01 | 0.61 | 0.36 | | 0.15 | 0.15 | 0.13 | | 0.00 | 0.00 | 0.00 | |
| Crit Moves: | **** | | | | | **** | | | **** | | | | | **** | | |
| Green/Cycle: | 0.11 | 0.71 | 0.71 | | 0.02 | 0.62 | 0.62 | | 0.15 | 0.15 | 0.15 | | 0.00 | 0.00 | 0.00 | |
| Volume/Cap: | 0.97 | 0.50 | 0.50 | | 0.50 | 0.97 | 0.57 | | 0.97 | 0.97 | 0.85 | | 0.97 | 0.97 | 0.97 | |
| Uniform Del: | 46.7 | 6.8 | 6.8 | | 51.3 | 19.1 | 11.7 | | 44.2 | 44.2 | 43.2 | | 52.3 | 52.3 | 52.3 | |
| IncremntDel: | 58.8 | 0.2 | 0.2 | | 15.1 | 21.0 | 0.9 | | 32.5 | 32.5 | 23.5 | | 378.7 | 379 | 378.7 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 105.5 | 6.9 | 6.9 | | 66.4 | 40.1 | 12.6 | | 76.7 | 76.7 | 66.6 | | 431.0 | 431 | 431.0 | |
| 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: | 105.5 | 6.9 | 6.9 | | 66.4 | 40.1 | 12.6 | | 76.7 | 76.7 | 66.6 | | 431.0 | 431 | 431.0 | |
| DesignQueue: | 10 | 22 | 0 | | 1 | 28 | 13 | | 25 | 1 | 10 | | 0 | 0 | 0 | |

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

Intersection #13 SR 28/SR 267

Cycle (sec): 60 Critical Vol./Cap. (X): 1.184
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 70.6
Optimal Cycle: 120 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 1 | 0 | 2 | 436 | 1 | 433 | 323 | 825 | 1 | 2 | 610 | 652 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1 | 0 | 2 | 436 | 1 | 433 | 323 | 825 | 1 | 2 | 610 | 652 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 1 | 0 | 2 | 459 | 1 | 456 | 340 | 868 | 1 | 2 | 642 | 686 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 1 | 0 | 2 | 459 | 1 | 456 | 340 | 868 | 1 | 2 | 642 | 686 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 1 | 0 | 2 | 459 | 1 | 456 | 340 | 868 | 1 | 2 | 642 | 686 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.90 | 1.00 | 0.90 | 0.95 | 0.95 | 0.85 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.85 |
| Lanes: | 0.33 | 0.00 | 0.67 | 0.99 | 0.01 | 1.00 | 1.00 | 1.99 | 0.01 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 537 | 0 | 1075 | 1710 | 4 | 1530 | 1710 | 3416 | 4 | 1710 | 3420 | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.27 | 0.27 | 0.30 | 0.20 | 0.25 | 0.25 | 0.00 | 0.19 | 0.45 |
| Crit Moves: | **** | | | | | **** | **** | | | | | **** |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.25 | 0.25 | 0.25 | 0.17 | 0.54 | 0.54 | 0.00 | 0.38 | 0.38 |
| Volume/Cap: | 1.18 | 0.00 | 1.18 | 1.07 | 1.07 | 1.18 | 1.18 | 0.47 | 0.47 | 0.47 | 0.50 | 1.18 |
| Uniform Del: | 30.0 | 0.0 | 30.0 | 22.4 | 22.4 | 22.4 | 25.0 | 8.4 | 8.4 | 29.9 | 14.3 | 18.6 |
| IncremntDel: | 657.9 | 0.0 | 657.9 | 62.1 | 62.1 | 106.2 | 112.4 | 0.2 | 0.2 | 63.9 | 0.3 | 99.4 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 687.9 | 0.0 | 687.9 | 84.5 | 84.5 | 128.6 | 137.4 | 8.5 | 8.5 | 93.8 | 14.6 | 118.0 |
| 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: | 687.9 | 0.0 | 687.9 | 84.5 | 84.5 | 128.6 | 137.4 | 8.5 | 8.5 | 93.8 | 14.6 | 118.0 |
| DesignQueue: | 0 | 0 | 0 | 12 | 0 | 12 | 10 | 14 | 0 | 0 | 14 | 16 |





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

Intersection #14 SR 89/Donner Pass Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.906
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 52.6
Optimal Cycle: 119 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 1 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 1 0 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 571 | 48 | 43 | 10 | 197 | 182 | 91 | 195 | 543 | 86 | 390 | 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: | 571 | 48 | 43 | 10 | 197 | 182 | 91 | 195 | 543 | 86 | 390 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 601 | 51 | 45 | 11 | 207 | 192 | 96 | 205 | 572 | 91 | 411 | 11 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 601 | 51 | 45 | 11 | 207 | 192 | 96 | 205 | 572 | 91 | 411 | 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 |
| Final Vol.: | 601 | 51 | 45 | 11 | 207 | 192 | 96 | 205 | 572 | 91 | 411 | 11 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.95 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 0.95 | 1.00 | 0.85 | 0.95 | 1.00 | 0.85 |
| Lanes: | 1.00 | 1.00 | 1.00 | 0.05 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1710 | 1800 | 1530 | 91 | 1706 | 1530 | 1710 | 1800 | 1530 | 1710 | 1800 | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.35 | 0.03 | 0.03 | 0.12 | 0.12 | 0.13 | 0.06 | 0.11 | 0.37 | 0.05 | 0.23 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Green/Cycle: | 0.39 | 0.39 | 0.39 | 0.14 | 0.14 | 0.14 | 0.06 | 0.27 | 0.66 | 0.04 | 0.25 | 0.25 |
| Volume/Cap: | 0.91 | 0.07 | 0.08 | 0.88 | 0.88 | 0.91 | 0.91 | 0.41 | 0.56 | 1.36 | 0.91 | 0.03 |
| Uniform Del: | 28.9 | 19.3 | 19.3 | 42.2 | 42.2 | 42.4 | 46.6 | 29.7 | 9.1 | 48.0 | 36.3 | 28.2 |
| IncremntDel: | 16.2 | 0.0 | 0.1 | 27.6 | 27.6 | 37.2 | 58.6 | 0.6 | 0.7 | 233.1 | 21.6 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 45.1 | 19.3 | 19.4 | 69.8 | 69.8 | 79.6 | 105.2 | 30.2 | 9.8 | 281.1 | 57.9 | 28.2 |
| 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: | 45.1 | 19.3 | 19.4 | 69.8 | 69.8 | 79.6 | 105.2 | 30.2 | 9.8 | 281.1 | 57.9 | 28.2 |
| DesignQueue: | 22 | 2 | 2 | 1 | 10 | 9 | 5 | 9 | 12 | 5 | 18 | 0 |

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Scenario Report

| | |
|---|---|
| Scenario: | Proposed No Con Road Winter Mitigated |
| Command: | Default Command |
| Volume: | Preferred |
| Geometry: | Preferred |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | Default Trip Generation |
| Trip Distribution: | Default Trip Distribution |
| Paths: | Default Paths |
| Routes: | Default Routes |
| Configuration: | Default Configuration |





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Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 1 SR 267 Bypass/I-80 WB | C | 32.7 | 0.809 | C | 32.7 | 0.809 | + 0.000 D/V |
| # 2 SR 267 Bypass/I-80 EB | B | 10.6 | 0.731 | B | 10.6 | 0.731 | + 0.000 D/V |
| # 4 I-80 EB/DPR | B | 17.8 | 0.780 | B | 17.8 | 0.780 | + 0.000 D/V |
| # 5 DPR/Glenshire Drive | C | 27.1 | 0.706 | C | 27.1 | 0.706 | + 0.000 D/V |
| # 6 DPR/Bridge Street | C | 32.1 | 0.732 | C | 32.1 | 0.732 | + 0.000 D/V |
| # 7 Bridge Street West River St | E | 62.5 | 1.017 | E | 62.5 | 1.017 | + 0.000 D/V |
| # 9 Brockway Road/Martis Valley Ro | B | 12.4 | 0.734 | B | 12.4 | 0.734 | + 0.000 D/V |
| # 10 SR 267/Brockway Road/Joerger D | D | 41.1 | 0.950 | D | 41.1 | 0.950 | + 0.000 D/V |
| # 11 SR 267/Airport Road/Schaffer M | D | 41.6 | 0.964 | D | 41.6 | 0.964 | + 0.000 D/V |
| # 12 SR 267/Northstar Drive | C | 21.7 | 0.822 | C | 21.7 | 0.822 | + 0.000 D/V |
| # 13 SR 28/SR 267 | E | 71.8 | 1.123 | E | 71.8 | 1.123 | + 0.000 D/V |
| # 14 SR 89/Donner Pass Road | D | 39.1 | 0.783 | D | 39.1 | 0.783 | + 0.000 D/V |

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

Intersection #1 SR 267 Bypass/I-80 WB

Cycle (sec): 120 Critical Vol./Cap. (X): 0.809
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 32.7
Optimal Cycle: 84 Level Of Service: C

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Lanes: | 2 | 0 1 | 0 | 0 | 0 | 0 1 | 0 | 1 | 0 | 0 0 | 0 | 0 | 0 | 1 0 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 420 | 233 | 0 | | 0 | 834 | 5 | | 0 | 0 | 0 | | 175 | 0 | 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: | 420 | 233 | 0 | | 0 | 834 | 5 | | 0 | 0 | 0 | | 175 | 0 | 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 | 0.75 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 442 | 245 | 0 | | 0 | 878 | 5 | | 0 | 0 | 0 | | 184 | 0 | 99 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 442 | 245 | 0 | | 0 | 878 | 5 | | 0 | 0 | 0 | | 184 | 0 | 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 | |
| Final Vol.: | 442 | 245 | 0 | | 0 | 878 | 5 | | 0 | 0 | 0 | | 184 | 0 | 99 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.92 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | | 0.95 | 1.00 | 0.85 | |
| Lanes: | 2.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 1.00 | |
| Final Sat.: | 3317 | 1800 | 0 | | 0 | 1800 | 1530 | | 0 | 0 | 0 | | 1714 | 0 | 1530 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.14 | 0.00 | | 0.00 | 0.49 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.11 | 0.00 | 0.06 | |
| Crit Moves: | **** | | | | | **** | | | | | | | **** | | | |
| Green/Cycle: | 0.16 | 0.77 | 0.00 | | 0.00 | 0.60 | 0.60 | | 0.00 | 0.00 | 0.00 | | 0.13 | 0.00 | 0.13 | |
| Volume/Cap: | 0.81 | 0.18 | 0.00 | | 0.00 | 0.81 | 0.01 | | 0.00 | 0.00 | 0.00 | | 0.81 | 0.00 | 0.49 | |
| Uniform Del: | 48.3 | 3.8 | 0.0 | | 0.0 | 18.5 | 9.5 | | 0.0 | 0.0 | 0.0 | | 50.6 | 0.0 | 48.3 | |
| IncremntDel: | 8.8 | 0.1 | 0.0 | | 0.0 | 4.6 | 0.0 | | 0.0 | 0.0 | 0.0 | | 19.1 | 0.0 | 1.8 | |
| Delay Adj: | 0.87 | 0.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 1.00 | |
| Delay/Veh: | 50.8 | 0.1 | 0.0 | | 0.0 | 23.1 | 9.5 | | 0.0 | 0.0 | 0.0 | | 69.7 | 0.0 | 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: | 50.8 | 0.1 | 0.0 | | 0.0 | 23.1 | 9.5 | | 0.0 | 0.0 | 0.0 | | 69.7 | 0.0 | 50.1 | |
| DesignQueue: | 25 | 4 | 0 | | 0 | 26 | 0 | | 0 | 0 | 0 | | 11 | 0 | 6 | |





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

Intersection #2 SR 267 Bypass/I-80 EB

Cycle (sec): 105 Critical Vol./Cap. (X): 0.731
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 10.6
Optimal Cycle: 65 Level Of Service: B

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Ovl | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Lanes: | 0 0 | 2 0 | 1 | | 1 0 | 1 0 | 0 | | 0 1 | 0 0 | 1 | | 0 0 | 0 0 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 865 | 339 | | 57 | 903 | 0 | | 0 | 0 | 230 | | 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 | 865 | 339 | | 57 | 903 | 0 | | 0 | 0 | 230 | | 0 | 0 | 0 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.75 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 0 | 911 | 357 | | 60 | 951 | 0 | | 0 | 0 | 182 | | 0 | 0 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 0 | 911 | 357 | | 60 | 951 | 0 | | 0 | 0 | 182 | | 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 | |
| Final Vol.: | 0 | 911 | 357 | | 60 | 951 | 0 | | 0 | 0 | 182 | | 0 | 0 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 1.00 | 0.95 | 0.85 | | 0.95 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | |
| Lanes: | 0.00 | 2.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Final Sat.: | 0 | 3420 | 1530 | | 1710 | 1800 | 0 | | 0 | 1800 | 1530 | | 0 | 0 | 0 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.27 | 0.23 | | 0.04 | 0.53 | 0.00 | | 0.00 | 0.00 | 0.12 | | 0.00 | 0.00 | 0.00 | |
| Crit Moves: | **** | | | | | **** | | | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.64 | 0.64 | | 0.08 | 0.72 | 0.00 | | 0.00 | 0.00 | 0.16 | | 0.00 | 0.00 | 0.00 | |
| Volume/Cap: | 0.00 | 0.42 | 0.37 | | 0.42 | 0.73 | 0.00 | | 0.00 | 0.00 | 0.73 | | 0.00 | 0.00 | 0.00 | |
| Uniform Del: | 0.0 | 9.3 | 8.9 | | 45.6 | 8.5 | 0.0 | | 0.0 | 0.0 | 41.8 | | 0.0 | 0.0 | 0.0 | |
| IncremntDel: | 0.0 | 0.1 | 0.2 | | 2.0 | 2.2 | 0.0 | | 0.0 | 0.0 | 10.5 | | 0.0 | 0.0 | 0.0 | |
| Delay Adj: | 0.00 | 1.00 | 1.00 | | 0.94 | 0.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Delay/Veh: | 0.0 | 9.5 | 9.2 | | 44.8 | 2.2 | 0.0 | | 0.0 | 0.0 | 52.3 | | 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 | 9.5 | 9.2 | | 44.8 | 2.2 | 0.0 | | 0.0 | 0.0 | 52.3 | | 0.0 | 0.0 | 0.0 | |
| DesignQueue: | 0 | 20 | 8 | | 3 | 18 | 0 | | 0 | 0 | 9 | | 0 | 0 | 0 | |

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

Intersection #4 I-80 EB/DPR

Cycle (sec): 50 Critical Vol./Cap. (X): 0.780
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 17.8
Optimal Cycle: 56 Level Of Service: B

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 1 | 0 0 | 0 | 0 | 1 | 0 0 | 0 | 0 | 1! | 0 0 | 0 | 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 488 | 0 | | 0 | 276 | 0 | | 362 | 0 | 81 | | 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 | 488 | 0 | | 0 | 276 | 0 | | 362 | 0 | 81 | | 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: | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | |
| PHF Volume: | 0 | 542 | 0 | | 0 | 307 | 0 | | 402 | 0 | 90 | | 0 | 0 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 0 | 542 | 0 | | 0 | 307 | 0 | | 402 | 0 | 90 | | 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 | |
| Final Vol.: | 0 | 542 | 0 | | 0 | 307 | 0 | | 402 | 0 | 90 | | 0 | 0 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.94 | 1.00 | 0.94 | | 1.00 | 1.00 | 1.00 | |
| Lanes: | 0.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 0.00 | | 0.82 | 0.00 | 0.18 | | 0.00 | 0.00 | 0.00 | |
| Final Sat.: | 0 | 1800 | 0 | | 0 | 1800 | 0 | | 1378 | 0 | 309 | | 0 | 0 | 0 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.30 | 0.00 | | 0.00 | 0.17 | 0.00 | | 0.29 | 0.00 | 0.29 | | 0.00 | 0.00 | 0.00 | |
| Crit Moves: | | **** | | | **** | | | | **** | | | | | | | |
| Green/Cycle: | 0.00 | 0.39 | 0.00 | | 0.00 | 0.39 | 0.00 | | 0.37 | 0.00 | 0.37 | | 0.00 | 0.00 | 0.00 | |
| Volume/Cap: | 0.00 | 0.78 | 0.00 | | 0.00 | 0.44 | 0.00 | | 0.78 | 0.00 | 0.78 | | 0.00 | 0.00 | 0.00 | |
| Uniform Del: | 0.0 | 13.5 | 0.0 | | 0.0 | 11.4 | 0.0 | | 13.8 | 0.0 | 13.8 | | 0.0 | 0.0 | 0.0 | |
| IncremntDel: | 0.0 | 5.7 | 0.0 | | 0.0 | 0.5 | 0.0 | | 6.2 | 0.0 | 6.2 | | 0.0 | 0.0 | 0.0 | |
| Delay Adj: | 0.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 0.00 | | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Delay/Veh: | 0.0 | 19.2 | 0.0 | | 0.0 | 11.8 | 0.0 | | 20.0 | 0.0 | 20.0 | | 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 | 19.2 | 0.0 | | 0.0 | 11.8 | 0.0 | | 20.0 | 0.0 | 20.0 | | 0.0 | 0.0 | 0.0 | |
| DesignQueue: | 0 | 10 | 0 | | 0 | 5 | 0 | | 8 | 0 | 2 | | 0 | 0 | 0 | |





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

Intersection #5 DPR/Glenshire Drive

Cycle (sec): 85 Critical Vol./Cap. (X): 0.706
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 27.1
Optimal Cycle: 58 Level Of Service: C

| 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 | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 0 | 0 1 | 0 | 0 | 0 | 0 0 | 0 | 0 | 1 | 0 1 | 1 | 0 | 1 | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 271 | 0 | 162 | | 0 | 0 | 0 | | 0 | 326 | 368 | | 250 | 107 | 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: | 271 | 0 | 162 | | 0 | 0 | 0 | | 0 | 326 | 368 | | 250 | 107 | 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: | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | |
| PHF Volume: | 301 | 0 | 180 | | 0 | 0 | 0 | | 0 | 362 | 409 | | 278 | 119 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 301 | 0 | 180 | | 0 | 0 | 0 | | 0 | 362 | 409 | | 278 | 119 | 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 | |
| Final Vol.: | 301 | 0 | 180 | | 0 | 0 | 0 | | 0 | 362 | 409 | | 278 | 119 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.95 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 0.95 | 1.00 | 1.00 | |
| Lanes: | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | |
| Final Sat.: | 1710 | 0 | 1530 | | 0 | 0 | 0 | | 0 | 1800 | 1530 | | 1710 | 1800 | 0 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.18 | 0.00 | 0.12 | | 0.00 | 0.00 | 0.00 | | 0.00 | 0.20 | 0.27 | | 0.16 | 0.07 | 0.00 | |
| Crit Moves: | **** | | | | | | | | | | **** | | **** | | | |
| Green/Cycle: | 0.25 | 0.00 | 0.25 | | 0.00 | 0.00 | 0.00 | | 0.00 | 0.38 | 0.38 | | 0.23 | 0.61 | 0.00 | |
| Volume/Cap: | 0.71 | 0.00 | 0.47 | | 0.00 | 0.00 | 0.00 | | 0.00 | 0.53 | 0.71 | | 0.71 | 0.11 | 0.00 | |
| Uniform Del: | 29.1 | 0.0 | 27.1 | | 0.0 | 0.0 | 0.0 | | 0.0 | 20.5 | 22.4 | | 30.1 | 6.9 | 0.0 | |
| IncremntDel: | 5.3 | 0.0 | 0.9 | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.8 | 4.0 | | 5.7 | 0.0 | 0.0 | |
| Delay Adj: | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | |
| Delay/Veh: | 34.4 | 0.0 | 28.1 | | 0.0 | 0.0 | 0.0 | | 0.0 | 21.3 | 26.3 | | 35.8 | 7.0 | 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: | 34.4 | 0.0 | 28.1 | | 0.0 | 0.0 | 0.0 | | 0.0 | 21.3 | 26.3 | | 35.8 | 7.0 | 0.0 | |
| DesignQueue: | 11 | 0 | 7 | | 0 | 0 | 0 | | 0 | 11 | 13 | | 11 | 2 | 0 | |

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

Intersection #6 DPR/Bridge Street

Cycle (sec): 110 Critical Vol./Cap. (X): 0.732
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 32.1
Optimal Cycle: 66 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - | R | L | - T | - | R | L | - T | - | R | L | - T | - | R |
| Control: | Permitted | | | | Permitted | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Ignore | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 1 | 0 | 1 | 0 | 1 0 | 0 | 1 | 1 | 0 1 | 0 | 1 | 1 | 0 1 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 215 | 467 | 488 | | 9 | 272 | | 27 | 48 | 197 | 182 | | 400 | 325 | | 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: | 215 | 467 | 488 | | 9 | 272 | | 27 | 48 | 197 | 182 | | 400 | 325 | | 10 |
| User Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.00 | | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | | 0.95 |
| PHF Volume: | 226 | 492 | 0 | | 9 | 286 | | 28 | 51 | 207 | 192 | | 421 | 342 | | 11 |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 |
| Reduced Vol: | 226 | 492 | 0 | | 9 | 286 | | 28 | 51 | 207 | 192 | | 421 | 342 | | 11 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 226 | 492 | 0 | | 9 | 286 | | 28 | 51 | 207 | 192 | | 421 | 342 | | 11 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | | 1800 | 1800 | 1800 | 1800 | | 1800 | 1800 | | 1800 |
| Adjustment: | 0.45 | 1.00 | 1.00 | | 0.99 | 0.99 | | 0.85 | 0.95 | 1.00 | 0.85 | | 0.95 | 1.00 | | 0.85 |
| Lanes: | 1.00 | 1.00 | 1.00 | | 0.03 | 0.97 | | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Final Sat.: | 805 | 1800 | 1800 | | 54 | 1721 | | 1530 | 1710 | 1800 | 1530 | | 1710 | 1800 | | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.28 | 0.27 | 0.00 | | 0.17 | 0.17 | | 0.02 | 0.03 | 0.12 | 0.13 | | 0.25 | 0.19 | | 0.01 |
| Crit Moves: | **** | | | | | | | | | | **** | | **** | | | |
| Green/Cycle: | 0.38 | 0.38 | 0.00 | | 0.38 | 0.38 | | 0.38 | 0.17 | 0.17 | 0.17 | | 0.34 | 0.34 | | 0.34 |
| Volume/Cap: | 0.73 | 0.71 | 0.00 | | 0.43 | 0.43 | | 0.05 | 0.17 | 0.67 | 0.73 | | 0.73 | 0.57 | | 0.02 |
| Uniform Del: | 29.1 | 28.8 | 0.0 | | 25.1 | 25.1 | | 21.3 | 38.9 | 42.7 | 43.2 | | 32.2 | 29.9 | | 24.4 |
| IncremntDel: | 8.7 | 3.5 | 0.0 | | 0.4 | 0.4 | | 0.0 | 0.3 | 5.7 | 10.2 | | 4.8 | 1.2 | | 0.0 |
| Delay Adj: | 0.59 | 0.59 | 0.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Delay/Veh: | 25.7 | 20.4 | 0.0 | | 25.5 | 25.5 | | 21.3 | 39.2 | 48.3 | 53.3 | | 37.0 | 31.2 | | 24.4 |
| 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: | 25.7 | 20.4 | 0.0 | | 25.5 | 25.5 | | 21.3 | 39.2 | 48.3 | 53.3 | | 37.0 | 31.2 | | 24.4 |
| DesignQueue: | 9 | 20 | 0 | | 0 | 11 | | 1 | 3 | 11 | 10 | | 18 | 15 | | 0 |





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

Intersection #7 Bridge Street West River St

Cycle (sec): 120 Critical Vol./Cap. (X): 1.017
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 62.5
Optimal Cycle: 120 Level Of Service: E

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 0 | 1 | 0 | 1 | 0 1 | 1 | 0 | 0 | 1 0 | 0 | 1 | 0 | 0 1! | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 496 | 662 | 38 | | 45 | 708 | | 101 | 469 | 20 | 824 | | 30 | 20 | | 39 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 496 | 662 | 38 | | 45 | 708 | | 101 | 469 | 20 | 824 | | 30 | 20 | | 39 |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | | 0.95 |
| PHF Volume: | 522 | 697 | 40 | | 47 | 745 | | 106 | 494 | 21 | 867 | | 32 | 21 | | 41 |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 |
| Reduced Vol: | 522 | 697 | 40 | | 47 | 745 | | 106 | 494 | 21 | 867 | | 32 | 21 | | 41 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 522 | 697 | 40 | | 47 | 745 | | 106 | 494 | 21 | 867 | | 32 | 21 | | 41 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | | 1800 | 1800 | 1800 | 1800 | | 1800 | 1800 | | 1800 |
| Adjustment: | 0.95 | 0.99 | 0.99 | | 0.95 | 0.93 | | 0.93 | 0.95 | 0.95 | 0.85 | | 0.93 | 0.93 | | 0.93 |
| Lanes: | 1.00 | 0.95 | 0.05 | | 1.00 | 1.75 | | 0.25 | 0.96 | 0.04 | 1.00 | | 0.34 | 0.22 | | 0.44 |
| Final Sat.: | 1710 | 1689 | 97 | | 1710 | 2937 | | 418 | 1647 | 70 | 1530 | | 567 | 372 | | 726 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.31 | 0.41 | 0.41 | | 0.03 | 0.25 | | 0.25 | 0.30 | 0.30 | 0.57 | | 0.06 | 0.06 | | 0.06 |
| Crit Moves: | **** | | | | | **** | | | | **** | | | | **** | | |
| Green/Cycle: | 0.30 | 0.52 | 0.52 | | 0.03 | 0.25 | | 0.25 | 0.29 | 0.29 | 0.60 | | 0.06 | 0.06 | | 0.06 |
| Volume/Cap: | 1.02 | 0.80 | 0.80 | | 0.80 | 1.02 | | 1.02 | 1.02 | 1.02 | 0.95 | | 1.02 | 1.02 | | 1.02 |
| Uniform Del: | 42.0 | 24.0 | 24.0 | | 57.5 | 45.0 | | 45.0 | 42.3 | 42.3 | 22.7 | | 56.7 | 56.7 | | 56.7 |
| IncremntDel: | 44.1 | 5.1 | 5.1 | | 52.9 | 35.4 | | 35.4 | 44.3 | 44.3 | 19.2 | | 98.3 | 98.3 | | 98.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 0.98 | 0.78 | | 0.78 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Delay/Veh: | 86.1 | 29.1 | 29.1 | | 109.1 | 70.5 | | 70.5 | 86.6 | 86.6 | 41.9 | | 155.0 | 155 | | 155.0 |
| 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: | 86.1 | 29.1 | 29.1 | | 109.1 | 70.5 | | 70.5 | 86.6 | 86.6 | 41.9 | | 155.0 | 155 | | 155.0 |
| DesignQueue: | 26 | 25 | 1 | | 3 | 40 | | 6 | 25 | 1 | 27 | | 2 | 1 | | 3 |

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

Intersection #9 Brockway Road/Martis Valley Road

| | | | |
|---|---|---|---|
| Cycle (sec): | 104 | Critical Vol./Cap. (X): | 0.734 |
| Loss Time (sec): | 12 (Y+R = 4 sec) | Average Delay (sec/veh): | 12.4 |
| Optimal Cycle: | 65 | Level Of Service: | B |

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Permitted | | | | | | Permitted | | | | | | Split Phase | | | | | | Split Phase | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | | | |
| Min. Green: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Lanes: | 1 | 0 | 0 | 1 | 0 | | 0 | 0 | 1! | 0 | 0 | | 0 | 1 | 0 | 0 | 1 | | 0 | 0 | 0 | 0 | 1 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 206 | 935 | | 0 | | | 16 | 638 | | 168 | | | 95 | | 0 | | 83 | | 0 | | 0 | | 14 | |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | |
| Initial Bse: | 206 | 935 | | 0 | | | 16 | 638 | | 168 | | | 95 | | 0 | | 83 | | 0 | | 0 | | 14 | |
| User Adj: | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | |
| PHF Adj: | 0.90 | 0.90 | | 0.90 | | | 0.90 | 0.90 | | 0.90 | | | 0.90 | 0.90 | | 0.90 | | | 0.90 | 0.90 | | 0.90 | | |
| PHF Volume: | 229 | 1039 | | 0 | | | 18 | 709 | | 187 | | | 106 | | 0 | | 92 | | 0 | | 0 | | 16 | |
| Reduct Vol: | 0 | 0 | | 0 | | | 0 | 0 | | 0 | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Reduced Vol: | 229 | 1039 | | 0 | | | 18 | 709 | | 187 | | | 106 | | 0 | | 92 | | 0 | | 0 | | 16 | |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | |
| Final Vol.: | 229 | 1039 | | 0 | | | 18 | 709 | | 187 | | | 106 | | 0 | | 92 | | 0 | | 0 | | 16 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | | | 1800 | 1800 | | 1800 | | | 1800 | 1800 | | 1800 | | | 1800 | 1800 | | 1800 | | |
| Adjustment: | 0.39 | 1.00 | | 1.00 | | | 0.95 | 0.95 | | 0.95 | | | 0.95 | 1.00 | | 0.85 | | | 1.00 | 1.00 | | 0.87 | | |
| Lanes: | 1.00 | 1.00 | | 0.00 | | | 0.02 | 0.78 | | 0.20 | | | 1.00 | 0.00 | | 1.00 | | | 0.00 | 0.00 | | 1.00 | | |
| Final Sat.: | 697 | 1800 | | 0 | | | 34 | 1322 | | 349 | | | 1714 | | 0 | | 1530 | | 0 | | 0 | | 1557 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.33 | 0.58 | | 0.00 | | | 0.54 | 0.54 | | 0.54 | | | 0.06 | 0.00 | | 0.06 | | | 0.00 | 0.00 | | 0.01 | | |
| Crit Moves: | | **** | | | | | | | | | | | **** | | | | | | | | | **** | | |
| Green/Cycle: | 0.79 | 0.79 | | 0.00 | | | 0.79 | 0.79 | | 0.79 | | | 0.08 | 0.00 | | 0.08 | | | 0.00 | 0.00 | | 0.01 | | |
| Volume/Cap: | 0.42 | 0.73 | | 0.00 | | | 0.68 | 0.68 | | 0.68 | | | 0.73 | 0.00 | | 0.71 | | | 0.00 | 0.00 | | 0.73 | | |
| Uniform Del: | 3.5 | 5.6 | | 0.0 | | | 5.1 | 5.1 | | 5.1 | | | 46.5 | 0.0 | | 46.4 | | | 0.0 | 0.0 | | 51.1 | | |
| IncremntDel: | 0.5 | 2.0 | | 0.0 | | | 1.5 | 1.5 | | 1.5 | | | 17.6 | 0.0 | | 17.2 | | | 0.0 | 0.0 | | 80.2 | | |
| Delay Adj: | 1.00 | 1.00 | | 0.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 0.00 | | 1.00 | | | 0.00 | 0.00 | | 1.00 | | |
| Delay/Veh: | 4.1 | 7.6 | | 0.0 | | | 6.6 | 6.6 | | 6.6 | | | 64.1 | 0.0 | | 63.6 | | | 0.0 | 0.0 | | 131.3 | | |
| 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: | 4.1 | 7.6 | | 0.0 | | | 6.6 | 6.6 | | 6.6 | | | 64.1 | 0.0 | | 63.6 | | | 0.0 | 0.0 | | 131.3 | | |
| DesignQueue: | 3 | 15 | | 0 | | | 0 | 10 | | 3 | | | 6 | | 0 | | 5 | | 0 | | 0 | | 1 | |







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

Intersection #10 SR 267/Brockway Road/Joerger Drive

| | | | |
|---|---|---|---|
| Cycle (sec): | 120 | Critical Vol./Cap. (X): | 0.950 |
| Loss Time (sec): | 16 (Y+R = 4 sec) | Average Delay (sec/veh): | 41.1 |
| Optimal Cycle: | 120 | Level Of Service: | D |

| 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 | | | | | | Split Phase | | | | | | Split Phase | | | | | |
| Rights: | Include | | | | | | Include | | | | | | Ignore | | | | | | Include | | | | | |
| Min. Green: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Lanes: | 2 | 0 | 1 | 1 | 0 | | 1 | 0 | 2 | 0 | 1 | | 0 | 1 | 0 | 0 | 1 | | 0 | 0 | 1! | 0 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 1108 | 971 | | 14 | | | 44 | 1133 | | 28 | | | 71 | | 5 | | 645 | | 10 | | 5 | | 35 | |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | | 1.00 | | |
| Initial Bse: | 1108 | 971 | | 14 | | | 44 | 1133 | | 28 | | | 71 | | 5 | | 645 | | 10 | | 5 | | 35 | |
| 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: | 0.90 | 0.90 | | 0.90 | | | 0.90 | 0.90 | | 0.90 | | | 0.90 | 0.90 | | 0.00 | | | 0.90 | 0.90 | | 0.90 | | |
| PHF Volume: | 1231 | 1079 | | 16 | | | 49 | 1259 | | 31 | | | 79 | | 6 | | 0 | | 11 | | 6 | | 39 | |
| Reduct Vol: | 0 | 0 | | 0 | | | 0 | 0 | | 0 | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Reduced Vol: | 1231 | 1079 | | 16 | | | 49 | 1259 | | 31 | | | 79 | | 6 | | 0 | | 11 | | 6 | | 39 | |
| 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 | | |
| Final Vol.: | 1231 | 1079 | | 16 | | | 49 | 1259 | | 31 | | | 79 | | 6 | | 0 | | 11 | | 6 | | 39 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | | | 1800 | 1800 | | 1800 | | | 1800 | 1800 | | 1800 | | | 1800 | 1800 | | 1800 | | |
| Adjustment: | 0.92 | 0.95 | | 0.95 | | | 0.95 | 0.95 | | 0.85 | | | 0.96 | 0.96 | | 1.00 | | | 0.90 | 0.90 | | 0.90 | | |
| Lanes: | 2.00 | 1.97 | | 0.03 | | | 1.00 | 2.00 | | 1.00 | | | 0.93 | 0.07 | | 1.00 | | | 0.20 | 0.11 | | 0.69 | | |
| Final Sat.: | 3317 | 3363 | | 50 | | | 1710 | 3420 | | 1530 | | | 1599 | 121 | | 1800 | | | 317 | 173 | | 1124 | | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.37 | 0.32 | | 0.32 | | | 0.03 | 0.37 | | 0.02 | | | 0.05 | 0.05 | | 0.00 | | | 0.03 | 0.03 | | 0.03 | | |
| Crit Moves: | **** | | | | | | | **** | | | | | | **** | | | | | | | | **** | | |
| Green/Cycle: | 0.39 | 0.71 | | 0.71 | | | 0.06 | 0.39 | | 0.39 | | | 0.05 | 0.05 | | 0.00 | | | 0.04 | 0.04 | | 0.04 | | |
| Volume/Cap: | 0.95 | 0.45 | | 0.45 | | | 0.45 | 0.95 | | 0.05 | | | 0.95 | 0.95 | | 0.00 | | | 0.95 | 0.95 | | 0.95 | | |
| Uniform Del: | 35.4 | 7.2 | | 7.2 | | | 54.1 | 35.6 | | 23.0 | | | 56.7 | 56.7 | | 0.0 | | | 57.7 | 57.7 | | 57.7 | | |
| IncremntDel: | 14.7 | 0.1 | | 0.1 | | | 2.9 | 14.4 | | 0.0 | | | 78.4 | 78.4 | | 0.0 | | | 98.9 | 98.9 | | 98.9 | | |
| Delay 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 | | |
| Delay/Veh: | 50.1 | 7.3 | | 7.3 | | | 57.1 | 50.1 | | 23.0 | | | 135.1 | 135 | | 0.0 | | | 156.6 | 157 | | 156.6 | | |
| 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: | 50.1 | 7.3 | | 7.3 | | | 57.1 | 50.1 | | 23.0 | | | 135.1 | 135 | | 0.0 | | | 156.6 | 157 | | 156.6 | | |
| DesignQueue: | 55 | 22 | | 0 | | | 3 | 56 | | 1 | | | 5 | | 0 | | 0 | | 1 | | 0 | | 3 | |

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

Intersection #11 SR 267/Airport Road/Schaffer Mill Road

| | | | |
|---|---|---|---|
| Cycle (sec): | 85 | Critical Vol./Cap. (X): | 0.964 |
| Loss Time (sec): | 12 (Y+R = 4 sec) | Average Delay (sec/veh): | 41.6 |
| Optimal Cycle: | 120 | Level Of Service: | D |

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ovl | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 1 | 0 | 1 0 | 2 0 | 1 | 1 0 | 0 1 | 0 | 1 0 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 56 | 1015 | 82 | 434 | 1038 | 316 | 447 | 43 | 113 | 77 | 76 | 631 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 56 | 1015 | 82 | 434 | 1038 | 316 | 447 | 43 | 113 | 77 | 76 | 631 |
| 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: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.00 |
| PHF Volume: | 59 | 1068 | 86 | 457 | 1093 | 333 | 471 | 45 | 119 | 81 | 80 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 59 | 1068 | 86 | 457 | 1093 | 333 | 471 | 45 | 119 | 81 | 80 | 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 |
| Final Vol.: | 59 | 1068 | 86 | 457 | 1093 | 333 | 471 | 45 | 119 | 81 | 80 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.95 | 0.90 | 0.90 | 0.95 | 0.95 | 0.85 | 0.95 | 0.89 | 0.89 | 0.95 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.78 | 0.22 | 1.00 | 2.00 | 1.00 | 1.00 | 0.27 | 0.73 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1710 | 4498 | 362 | 1710 | 3420 | 1530 | 1710 | 440 | 1164 | 1710 | 1800 | 1800 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.24 | 0.24 | 0.27 | 0.32 | 0.22 | 0.28 | 0.10 | 0.10 | 0.05 | 0.04 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.05 | 0.25 | 0.25 | 0.28 | 0.47 | 0.76 | 0.29 | 0.29 | 0.29 | 0.05 | 0.05 | 0.00 |
| Volume/Cap: | 0.68 | 0.96 | 0.96 | 0.96 | 0.68 | 0.29 | 0.96 | 0.36 | 0.36 | 0.96 | 0.90 | 0.00 |
| Uniform Del: | 39.6 | 31.6 | 31.6 | 30.3 | 17.4 | 3.2 | 29.9 | 24.1 | 24.1 | 40.3 | 40.2 | 0.0 |
| IncremntDel: | 19.1 | 17.9 | 17.9 | 32.0 | 1.2 | 0.1 | 31.4 | 0.5 | 0.5 | 85.7 | 64.8 | 0.0 |
| Delay 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 |
| Delay/Veh: | 58.7 | 49.5 | 49.5 | 62.3 | 18.5 | 3.3 | 61.3 | 24.6 | 24.6 | 126.0 | 105 | 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: | 58.7 | 49.5 | 49.5 | 62.3 | 18.5 | 3.3 | 61.3 | 24.6 | 24.6 | 126.0 | 105 | 0.0 |
| DesignQueue: | 3 | 40 | 3 | 17 | 29 | 4 | 17 | 2 | 4 | 4 | 4 | 0 |







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

Intersection #12 SR 267/Northstar Drive

| | | | |
|---|---|---|---|
| Cycle (sec): | 55 | Critical Vol./Cap. (X): | 0.822 |
| Loss Time (sec): | 12 (Y+R = 4 sec) | Average Delay (sec/veh): | 21.7 |
| Optimal Cycle: | 64 | Level Of Service: | C |

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 2 0 | 1 | 1 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 152 | 450 | 14 | 12 | 876 | 340 | 878 | 24 | 353 | 2 | 1 | 2 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 152 | 450 | 14 | 12 | 876 | 340 | 878 | 24 | 353 | 2 | 1 | 2 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 160 | 474 | 15 | 13 | 922 | 358 | 924 | 25 | 372 | 2 | 1 | 2 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 160 | 474 | 15 | 13 | 922 | 358 | 924 | 25 | 372 | 2 | 1 | 2 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 160 | 474 | 15 | 13 | 922 | 358 | 924 | 25 | 372 | 2 | 1 | 2 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.85 | 0.95 | 0.95 | 0.85 | 0.93 | 0.93 | 0.93 |
| Lanes: | 1.00 | 1.94 | 0.06 | 1.00 | 2.00 | 1.00 | 1.95 | 0.05 | 1.00 | 0.40 | 0.20 | 0.40 |
| Final Sat.: | 1710 | 3299 | 104 | 1710 | 3420 | 1530 | 3344 | 90 | 1530 | 667 | 334 | 667 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.14 | 0.14 | 0.01 | 0.27 | 0.23 | 0.28 | 0.28 | 0.24 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.11 | 0.42 | 0.42 | 0.02 | 0.33 | 0.33 | 0.34 | 0.34 | 0.34 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.82 | 0.34 | 0.34 | 0.34 | 0.82 | 0.71 | 0.82 | 0.82 | 0.72 | 0.82 | 0.82 | 0.82 |
| Uniform Del: | 23.8 | 10.8 | 10.8 | 26.5 | 17.0 | 16.2 | 16.7 | 16.7 | 16.0 | 27.4 | 27.4 | 27.4 |
| IncremntDel: | 23.6 | 0.1 | 0.1 | 5.3 | 5.0 | 4.8 | 4.8 | 4.8 | 5.0 | 242.4 | 242 | 242.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 47.4 | 11.0 | 11.0 | 31.8 | 22.0 | 21.0 | 21.6 | 21.6 | 21.0 | 269.8 | 270 | 269.8 |
| 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: | 47.4 | 11.0 | 11.0 | 31.8 | 22.0 | 21.0 | 21.6 | 21.6 | 21.0 | 269.8 | 270 | 269.8 |
| DesignQueue: | 4 | 9 | 0 | 0 | 20 | 8 | 20 | 1 | 8 | 0 | 0 | 0 |

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

Intersection #13 SR 28/SR 267

Cycle (sec): 110 Critical Vol./Cap. (X): 1.123
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 71.8
Optimal Cycle: 120 Level Of Service: E

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 1! | 0 0 | 0 | 1 | 0 | 0 1 | 1 | 0 | 1 | 1 0 | 1 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 1 | 0 | 1 | | 525 | 2 | 479 | | 359 | 842 | 1 | | 1 | 946 | 653 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 1 | 0 | 1 | | 525 | 2 | 479 | | 359 | 842 | 1 | | 1 | 946 | 653 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 1 | 0 | 1 | | 553 | 2 | 504 | | 378 | 886 | 1 | | 1 | 996 | 687 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 1 | 0 | 1 | | 553 | 2 | 504 | | 378 | 886 | 1 | | 1 | 996 | 687 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 1 | 0 | 1 | | 553 | 2 | 504 | | 378 | 886 | 1 | | 1 | 996 | 687 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.91 | 1.00 | 0.91 | | 0.95 | 0.95 | 0.85 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.85 | |
| Lanes: | 0.50 | 0.00 | 0.50 | | 0.99 | 0.01 | 1.00 | | 1.00 | 1.99 | 0.01 | | 1.00 | 2.00 | 1.00 | |
| Final Sat.: | 820 | 0 | 820 | | 1709 | 6 | 1530 | | 1710 | 3416 | 4 | | 1710 | 3420 | 1530 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | | 0.32 | 0.32 | 0.33 | | 0.22 | 0.26 | 0.26 | | 0.00 | 0.29 | 0.45 | |
| Crit Moves: | **** | | | | | | **** | | **** | | | | | | **** | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | | 0.29 | 0.29 | 0.29 | | 0.20 | 0.60 | 0.60 | | 0.00 | 0.40 | 0.40 | |
| Volume/Cap: | 1.12 | 0.00 | 1.12 | | 1.10 | 1.10 | 1.12 | | 1.12 | 0.44 | 0.44 | | 0.44 | 0.73 | 1.12 | |
| Uniform Del: | 54.9 | 0.0 | 54.9 | | 38.9 | 38.9 | 38.9 | | 44.2 | 12.2 | 12.2 | | 54.9 | 28.0 | 33.0 | |
| IncremntDel: | 743.1 | 0.0 | 743.1 | | 71.3 | 71.3 | 80.6 | | 86.7 | 0.2 | 0.2 | | 96.5 | 2.0 | 75.2 | |
| Delay Adj: | 1.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 798.0 | 0.0 | 798.0 | | 110.2 | 110 | 119.5 | | 130.8 | 12.3 | 12.3 | | 151.4 | 30.0 | 108.2 | |
| 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: | 798.0 | 0.0 | 798.0 | | 110.2 | 110 | 119.5 | | 130.8 | 12.3 | 12.3 | | 151.4 | 30.0 | 108.2 | |
| DesignQueue: | 0 | 0 | 0 | | 26 | 0 | 23 | | 20 | 23 | 0 | | 0 | 39 | 28 | |







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

Intersection #14 SR 89/Donner Pass Road

Cycle (sec): 72 Critical Vol./Cap. (X): 0.783
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 39.1
Optimal Cycle: 73 Level Of Service: D

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 0 1 | 0 | 1 | 0 | 0 1 | 1 | 0 | 1 | 0 1 | 1 | 0 | 1 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 286 | 75 | 122 | | 11 | 307 | 18 | | 108 | 150 | 527 | | 89 | 308 | 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: | 286 | 75 | 122 | | 11 | 307 | 18 | | 108 | 150 | 527 | | 89 | 308 | 10 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 301 | 79 | 128 | | 12 | 323 | 19 | | 114 | 158 | 555 | | 94 | 324 | 11 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 301 | 79 | 128 | | 12 | 323 | 19 | | 114 | 158 | 555 | | 94 | 324 | 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 | |
| Final Vol.: | 301 | 79 | 128 | | 12 | 323 | 19 | | 114 | 158 | 555 | | 94 | 324 | 11 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.95 | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 | | 0.95 | 1.00 | 0.85 | | 0.95 | 1.00 | 0.85 | |
| Lanes: | 1.00 | 1.00 | 1.00 | | 0.04 | 0.96 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Sat.: | 1710 | 1800 | 1530 | | 64 | 1732 | 1530 | | 1710 | 1800 | 1530 | | 1710 | 1800 | 1530 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.18 | 0.04 | 0.08 | | 0.19 | 0.19 | 0.01 | | 0.07 | 0.09 | 0.36 | | 0.05 | 0.18 | 0.01 | |
| Crit Moves: | **** | | | | | **** | | | **** | | | | | **** | | |
| Green/Cycle: | 0.22 | 0.22 | 0.22 | | 0.24 | 0.24 | 0.24 | | 0.09 | 0.27 | 0.50 | | 0.04 | 0.23 | 0.23 | |
| Volume/Cap: | 0.78 | 0.20 | 0.37 | | 0.78 | 0.78 | 0.05 | | 0.78 | 0.32 | 0.73 | | 1.33 | 0.78 | 0.03 | |
| Uniform Del: | 26.3 | 22.6 | 23.6 | | 25.7 | 25.7 | 21.2 | | 32.3 | 20.8 | 14.2 | | 34.5 | 26.0 | 21.5 | |
| IncremntDel: | 10.1 | 0.2 | 0.7 | | 9.1 | 9.1 | 0.1 | | 23.6 | 0.4 | 3.6 | | 216.8 | 9.4 | 0.0 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 36.3 | 22.9 | 24.3 | | 34.8 | 34.8 | 21.2 | | 55.9 | 21.2 | 17.8 | | 251.3 | 35.5 | 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: | 36.3 | 22.9 | 24.3 | | 34.8 | 34.8 | 21.2 | | 55.9 | 21.2 | 17.8 | | 251.3 | 35.5 | 21.5 | |
| DesignQueue: | 10 | 2 | 4 | | 0 | 10 | 1 | | 4 | 5 | 12 | | 4 | 10 | 0 | |

Proposed All Con Road SummeWed May 21, 2003 14:05:12 Page 1-1

Scenario Report

| | |
|---|---|
| Scenario: | Proposed All Con Road Summer Mitigated |
| Command: | Default Command |
| Volume: | Preferred |
| Geometry: | Preferred |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | Default Trip Generation |
| Trip Distribution: | Default Trip Distribution |
| Paths: | Default Paths |
| Routes: | Default Routes |
| Configuration: | Default Configuration |





Proposed All Con Road SummeWed May 21, 2003 14:05:15 Page 2-1

Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 1 SR 267 Bypass/I-80 WB | D | 51.4 | 0.954 | D | 51.4 | 0.954 | + 0.000 D/V |
| # 2 SR 267 Bypass/I-80 EB | D | 42.0 | 0.945 | D | 42.0 | 0.945 | + 0.000 D/V |
| # 4 I-80 EB/DPR | C | 28.6 | 0.822 | C | 28.6 | 0.822 | + 0.000 D/V |
| # 5 DPR/Glenshire Drive | C | 31.0 | 0.845 | C | 31.0 | 0.845 | + 0.000 D/V |
| # 6 DPR/Bridge Street | E | 78.4 | 1.115 | E | 78.4 | 1.115 | + 0.000 D/V |
| # 7 Bridge Street West River St | D | 40.0 | 0.899 | D | 40.0 | 0.899 | + 0.000 D/V |
| # 9 Brockway Road/Martis Valley Ro | B | 15.8 | 0.747 | B | 15.8 | 0.747 | + 0.000 D/V |
| # 10 SR 267/Brockway Road/Joerger D | D | 36.6 | 0.924 | D | 36.6 | 0.924 | + 0.000 D/V |
| # 11 SR 267/Airport Road/Schaffer M | D | 40.7 | 0.898 | D | 40.7 | 0.898 | + 0.000 D/V |
| # 12 SR 267/Northstar Drive | D | 42.6 | 1.020 | D | 42.6 | 1.020 | + 0.000 D/V |
| # 13 SR 28/SR 267 | D | 53.4 | 1.047 | D | 53.4 | 1.047 | + 0.000 D/V |
| # 14 SR 89/Donner Pass Road | D | 52.6 | 0.907 | D | 52.6 | 0.907 | + 0.000 D/V |

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

Intersection #1 SR 267 Bypass/I-80 WB

| | | | |
|---|---|---|---|
| Cycle (sec): | 120 | Critical Vol./Cap. (X): | 0.954 |
| Loss Time (sec): | 12 (Y+R = 4 sec) | Average Delay (sec/veh): | 51.4 |
| Optimal Cycle: | 120 | Level Of Service: | D |

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 2 | 0 | 1 | 0 0 | 0 | 0 | 1 | 0 1 | 0 | 0 | 0 | 0 0 | 0 | 1 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 709 | 327 | | 0 | 0 | 569 | | 10 | 0 | | 0 | 0 | 489 | | 0 | 478 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Initial Bse: | 709 | 327 | | 0 | 0 | 569 | | 10 | 0 | | 0 | 0 | 489 | | 0 | 478 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 0.75 |
| PHF Adj: | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 |
| PHF Volume: | 746 | 344 | | 0 | 0 | 599 | | 11 | 0 | | 0 | 0 | 515 | | 0 | 377 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 746 | 344 | | 0 | 0 | 599 | | 11 | 0 | | 0 | 0 | 515 | | 0 | 377 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Final Vol.: | 746 | 344 | | 0 | 0 | 599 | | 11 | 0 | | 0 | 0 | 515 | | 0 | 377 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 |
| Adjustment: | 0.92 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.85 | 1.00 | | 1.00 | 1.00 | 0.95 | | 1.00 | 0.85 |
| Lanes: | 2.00 | 1.00 | | 0.00 | 0.00 | 1.00 | | 1.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 0.00 | 1.00 |
| Final Sat.: | 3317 | 1800 | | 0 | 0 | 1800 | | 1530 | 0 | | 0 | 0 | 1714 | | 0 | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.22 | 0.19 | | 0.00 | 0.00 | 0.33 | | 0.01 | 0.00 | | 0.00 | 0.00 | 0.30 | | 0.00 | 0.25 |
| Crit Moves: | **** | | | | | **** | | | | | | | **** | | | |
| Green/Cycle: | 0.24 | 0.58 | | 0.00 | 0.00 | 0.35 | | 0.35 | 0.00 | | 0.00 | 0.00 | 0.32 | | 0.00 | 0.32 |
| Volume/Cap: | 0.95 | 0.33 | | 0.00 | 0.00 | 0.95 | | 0.02 | 0.00 | | 0.00 | 0.00 | 0.95 | | 0.00 | 0.78 |
| Uniform Del: | 45.2 | 12.8 | | 0.0 | 0.0 | 38.1 | | 25.6 | 0.0 | | 0.0 | 0.0 | 40.2 | | 0.0 | 37.3 |
| IncremntDel: | 21.5 | 0.2 | | 0.0 | 0.0 | 24.9 | | 0.0 | 0.0 | | 0.0 | 0.0 | 27.4 | | 0.0 | 8.1 |
| Delay Adj: | 0.79 | 0.06 | | 0.00 | 0.00 | 1.00 | | 1.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 0.00 | 1.00 |
| Delay/Veh: | 57.4 | 1.0 | | 0.0 | 0.0 | 63.0 | | 25.6 | 0.0 | | 0.0 | 0.0 | 67.6 | | 0.0 | 45.4 |
| 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: | 57.4 | 1.0 | | 0.0 | 0.0 | 63.0 | | 25.6 | 0.0 | | 0.0 | 0.0 | 67.6 | | 0.0 | 45.4 |
| DesignQueue: | 40 | 10 | | 0 | 0 | 28 | | 0 | 0 | | 0 | 0 | 25 | | 0 | 18 |







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

Intersection #2 SR 267 Bypass/I-80 EB

| | | | |
|---|---|---|---|
| Cycle (sec): | 105 | Critical Vol./Cap. (X): | 0.945 |
| Loss Time (sec): | 12 (Y+R = 4 sec) | Average Delay (sec/veh): | 42.0 |
| Optimal Cycle: | 120 | Level Of Service: | D |

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Ovl | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 2 | 0 1 | 1 | 0 | 1 | 0 0 | 0 | 1 | 0 | 0 1 | 0 | 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 1036 | | 433 | 381 | 677 | | 0 | 0 | | 0 | 550 | 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 | 1036 | | 433 | 381 | 677 | | 0 | 0 | | 0 | 550 | 0 | | 0 | 0 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.75 | 1.00 | | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 |
| PHF Volume: | 0 | 1091 | | 456 | 401 | 713 | | 0 | 0 | | 0 | 434 | 0 | | 0 | 0 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 0 | 1091 | | 456 | 401 | 713 | | 0 | 0 | | 0 | 434 | 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 |
| Final Vol.: | 0 | 1091 | | 456 | 401 | 713 | | 0 | 0 | | 0 | 434 | 0 | | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 |
| Adjustment: | 1.00 | 0.95 | | 0.85 | 0.95 | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.85 | 1.00 | | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | | 1.00 | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 0.00 |
| Final Sat.: | 0 | 3420 | | 1530 | 1710 | 1800 | | 0 | 0 | | 1800 | 1530 | 0 | | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.32 | | 0.30 | 0.23 | 0.40 | | 0.00 | 0.00 | | 0.00 | 0.28 | 0.00 | | 0.00 | 0.00 |
| Crit Moves: | | **** | | | **** | | | | | | | **** | | | | |
| Green/Cycle: | 0.00 | 0.34 | | 0.34 | 0.25 | 0.59 | | 0.00 | 0.00 | | 0.00 | 0.30 | 0.00 | | 0.00 | 0.00 |
| Volume/Cap: | 0.00 | 0.95 | | 0.88 | 0.95 | 0.68 | | 0.00 | 0.00 | | 0.00 | 0.95 | 0.00 | | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 33.8 | | 32.8 | 38.8 | 14.9 | | 0.0 | 0.0 | | 0.0 | 35.9 | 0.0 | | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 15.2 | | 16.3 | 30.1 | 1.8 | | 0.0 | 0.0 | | 0.0 | 28.6 | 0.0 | | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | | 1.00 | 0.78 | 0.06 | | 0.00 | 0.00 | | 0.00 | 1.00 | 0.00 | | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 49.0 | | 49.2 | 60.3 | 2.6 | | 0.0 | 0.0 | | 0.0 | 64.5 | 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: | 0.0 | 49.0 | | 49.2 | 60.3 | 2.6 | | 0.0 | 0.0 | | 0.0 | 64.5 | 0.0 | | 0.0 | 0.0 |
| DesignQueue: | 0 | 46 | | 19 | 19 | 19 | | 0 | 0 | | 0 | 19 | 0 | | 0 | 0 |

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

Intersection #4 I-80 EB/DPR

| | | | |
|---|---|---|---|
| Cycle (sec): | 120 | Critical Vol./Cap. (X): | 0.822 |
| Loss Time (sec): | 12 (Y+R = 4 sec) | Average Delay (sec/veh): | 28.6 |
| Optimal Cycle: | 88 | Level Of Service: | C |

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 1 | 0 0 | 0 | 0 | 1 | 0 0 | 1 | 0 | 0 | 0 1 | 0 | 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 820 | 0 | | 0 | 526 | 0 | | 360 | 0 | 283 | | 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 | 820 | 0 | | 0 | 526 | 0 | | 360 | 0 | 283 | | 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: | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | |
| PHF Volume: | 0 | 911 | 0 | | 0 | 584 | 0 | | 400 | 0 | 314 | | 0 | 0 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 0 | 911 | 0 | | 0 | 584 | 0 | | 400 | 0 | 314 | | 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 | |
| Final Vol.: | 0 | 911 | 0 | | 0 | 584 | 0 | | 400 | 0 | 314 | | 0 | 0 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.95 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | |
| Lanes: | 0.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 0.00 | | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Final Sat.: | 0 | 1800 | 0 | | 0 | 1800 | 0 | | 1710 | 0 | 1530 | | 0 | 0 | 0 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.51 | 0.00 | | 0.00 | 0.32 | 0.00 | | 0.23 | 0.00 | 0.21 | | 0.00 | 0.00 | 0.00 | |
| Crit Moves: | | **** | | | **** | | | | **** | | | | | | | |
| Green/Cycle: | 0.00 | 0.62 | 0.00 | | 0.00 | 0.62 | 0.00 | | 0.28 | 0.00 | 0.28 | | 0.00 | 0.00 | 0.00 | |
| Volume/Cap: | 0.00 | 0.82 | 0.00 | | 0.00 | 0.53 | 0.00 | | 0.82 | 0.00 | 0.72 | | 0.00 | 0.00 | 0.00 | |
| Uniform Del: | 0.0 | 18.0 | 0.0 | | 0.0 | 13.1 | 0.0 | | 40.1 | 0.0 | 38.6 | | 0.0 | 0.0 | 0.0 | |
| IncremntDel: | 0.0 | 5.1 | 0.0 | | 0.0 | 0.5 | 0.0 | | 10.8 | 0.0 | 5.8 | | 0.0 | 0.0 | 0.0 | |
| Delay Adj: | 0.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 0.00 | | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Delay/Veh: | 0.0 | 23.0 | 0.0 | | 0.0 | 13.6 | 0.0 | | 50.9 | 0.0 | 44.5 | | 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: | 0.0 | 23.0 | 0.0 | | 0.0 | 13.6 | 0.0 | | 50.9 | 0.0 | 44.5 | | 0.0 | 0.0 | 0.0 | |
| DesignQueue: | 0 | 27 | 0 | | 0 | 16 | 0 | | 20 | 0 | 16 | | 0 | 0 | 0 | |







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

Intersection #5 DPR/Glenshire Drive

| | | | |
|---|---|---|---|
| Cycle (sec): | 85 | Critical Vol./Cap. (X): | 0.845 |
| Loss Time (sec): | 12 (Y+R = 4 sec) | Average Delay (sec/veh): | 31.0 |
| Optimal Cycle: | 83 | Level Of Service: | C |

| 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 | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 0 | 0 1 | 0 | 0 | 0 | 0 0 | 0 | 0 | 1 | 0 1 | 1 | 0 | 1 | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 268 | 0 | 323 | | 0 | 0 | 0 | | 0 | 519 | 367 | | 263 | 392 | 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: | 268 | 0 | 323 | | 0 | 0 | 0 | | 0 | 519 | 367 | | 263 | 392 | 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: | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | |
| PHF Volume: | 298 | 0 | 359 | | 0 | 0 | 0 | | 0 | 577 | 408 | | 292 | 436 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 298 | 0 | 359 | | 0 | 0 | 0 | | 0 | 577 | 408 | | 292 | 436 | 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 | |
| Final Vol.: | 298 | 0 | 359 | | 0 | 0 | 0 | | 0 | 577 | 408 | | 292 | 436 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.95 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 0.95 | 1.00 | 1.00 | |
| Lanes: | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | |
| Final Sat.: | 1710 | 0 | 1530 | | 0 | 0 | 0 | | 0 | 1800 | 1530 | | 1710 | 1800 | 0 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.17 | 0.00 | 0.23 | | 0.00 | 0.00 | 0.00 | | 0.00 | 0.32 | 0.27 | | 0.17 | 0.24 | 0.00 | |
| Crit Moves: | | | **** | | | | | | | **** | | | **** | | | |
| Green/Cycle: | 0.28 | 0.00 | 0.28 | | 0.00 | 0.00 | 0.00 | | 0.00 | 0.38 | 0.38 | | 0.20 | 0.58 | 0.00 | |
| Volume/Cap: | 0.63 | 0.00 | 0.85 | | 0.00 | 0.00 | 0.00 | | 0.00 | 0.85 | 0.70 | | 0.85 | 0.42 | 0.00 | |
| Uniform Del: | 26.9 | 0.0 | 29.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | 24.1 | 22.3 | | 32.6 | 9.8 | 0.0 | |
| IncremntDel: | 2.7 | 0.0 | 14.4 | | 0.0 | 0.0 | 0.0 | | 0.0 | 9.5 | 3.9 | | 17.2 | 0.3 | 0.0 | |
| Delay Adj: | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | |
| Delay/Veh: | 29.5 | 0.0 | 43.4 | | 0.0 | 0.0 | 0.0 | | 0.0 | 33.6 | 26.2 | | 49.8 | 10.1 | 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: | 29.5 | 0.0 | 43.4 | | 0.0 | 0.0 | 0.0 | | 0.0 | 33.6 | 26.2 | | 49.8 | 10.1 | 0.0 | |
| DesignQueue: | 11 | 0 | 13 | | 0 | 0 | 0 | | 0 | 18 | 13 | | 11 | 9 | 0 | |

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

Intersection #6 DPR/Bridge Street

Cycle (sec): 110 Critical Vol./Cap. (X): 1.115
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 78.4
Optimal Cycle: 120 Level Of Service: E

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - | R | L | - T | - | R | L | - T | - | R | L | - T | - | R |
| Control: | Permitted | | | | Permitted | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Ignore | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 1 | 0 | 1 | 0 | 1 0 | 0 | 1 | 1 | 0 1 | 0 | 1 | 1 | 0 1 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 174 | 450 | 575 | | 9 | 284 | 26 | | 47 | 458 | 144 | | 682 | 445 | 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: | 174 | 450 | 575 | | 9 | 284 | 26 | | 47 | 458 | 144 | | 682 | 445 | 10 | |
| User Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.00 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 183 | 474 | 0 | | 9 | 299 | 27 | | 49 | 482 | 152 | | 718 | 468 | 11 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 183 | 474 | 0 | | 9 | 299 | 27 | | 49 | 482 | 152 | | 718 | 468 | 11 | |
| PCE Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 183 | 474 | 0 | | 9 | 299 | 27 | | 49 | 482 | 152 | | 718 | 468 | 11 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.33 | 1.00 | 1.00 | | 0.77 | 0.77 | 0.85 | | 0.95 | 1.00 | 0.85 | | 0.95 | 1.00 | 0.85 | |
| Lanes: | 1.00 | 1.00 | 1.00 | | 0.03 | 0.97 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Sat.: | 599 | 1800 | 1800 | | 40 | 1342 | 1530 | | 1710 | 1800 | 1530 | | 1710 | 1800 | 1530 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.31 | 0.26 | 0.00 | | 0.22 | 0.22 | 0.02 | | 0.03 | 0.27 | 0.10 | | 0.42 | 0.26 | 0.01 | |
| Crit Moves: | **** | | | | | | | | | **** | | | **** | | | |
| Green/Cycle: | 0.27 | 0.27 | 0.00 | | 0.27 | 0.27 | 0.27 | | 0.24 | 0.24 | 0.24 | | 0.38 | 0.38 | 0.38 | |
| Volume/Cap: | 1.11 | 0.96 | 0.00 | | 0.81 | 0.81 | 0.06 | | 0.12 | 1.11 | 0.41 | | 1.11 | 0.69 | 0.02 | |
| Uniform Del: | 39.9 | 39.4 | 0.0 | | 37.3 | 37.3 | 29.5 | | 32.7 | 41.8 | 35.2 | | 34.3 | 28.9 | 21.5 | |
| IncremntDel: | 104.3 | 30.8 | 0.0 | | 12.6 | 12.6 | 0.1 | | 0.1 | 78.2 | 0.8 | | 71.2 | 3.0 | 0.0 | |
| Delay Adj: | 0.75 | 0.75 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 134.2 | 60.2 | 0.0 | | 49.9 | 49.9 | 29.6 | | 32.8 | 120 | 36.0 | | 105.5 | 31.9 | 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: | 134.2 | 60.2 | 0.0 | | 49.9 | 49.9 | 29.6 | | 32.8 | 120 | 36.0 | | 105.5 | 31.9 | 21.5 | |
| DesignQueue: | 8 | 23 | 0 | | 0 | 14 | 1 | | 2 | 24 | 7 | | 30 | 19 | 0 | |







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

Intersection #7 Bridge Street West River St

Cycle (sec): 120 Critical Vol./Cap. (X): 0.899
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 40.0
Optimal Cycle: 119 Level Of Service: D

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 0 | 1 | 0 | 1 | 0 1 | 1 | 0 | 0 | 1 0 | 0 | 1 | 0 | 0 1! | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 450 | 938 | 19 | | 58 | 815 | 237 | | 217 | 17 | 518 | | 26 | 15 | 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: | 450 | 938 | 19 | | 58 | 815 | 237 | | 217 | 17 | 518 | | 26 | 15 | 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: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 474 | 987 | 20 | | 61 | 858 | 249 | | 228 | 18 | 545 | | 27 | 16 | 46 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 474 | 987 | 20 | | 61 | 858 | 249 | | 228 | 18 | 545 | | 27 | 16 | 46 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 474 | 987 | 20 | | 61 | 858 | 249 | | 228 | 18 | 545 | | 27 | 16 | 46 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.95 | 1.00 | 1.00 | | 0.95 | 0.92 | 0.92 | | 0.96 | 0.96 | 0.85 | | 0.92 | 0.92 | 0.92 | |
| Lanes: | 1.00 | 0.98 | 0.02 | | 1.00 | 1.55 | 0.45 | | 0.93 | 0.07 | 1.00 | | 0.30 | 0.18 | 0.52 | |
| Final Sat.: | 1710 | 1759 | 36 | | 1710 | 2561 | 743 | | 1595 | 126 | 1530 | | 500 | 296 | 852 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.28 | 0.56 | 0.56 | | 0.04 | 0.34 | 0.34 | | 0.14 | 0.14 | 0.36 | | 0.05 | 0.05 | 0.05 | |
| Crit Moves: | **** | | | | | **** | | | | **** | | | | **** | | |
| Green/Cycle: | 0.31 | 0.64 | 0.64 | | 0.04 | 0.37 | 0.37 | | 0.16 | 0.16 | 0.47 | | 0.06 | 0.06 | 0.06 | |
| Volume/Cap: | 0.90 | 0.88 | 0.88 | | 0.88 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.76 | | 0.90 | 0.90 | 0.90 | |
| Uniform Del: | 39.7 | 17.7 | 17.7 | | 57.3 | 35.5 | 35.5 | | 49.5 | 49.5 | 26.4 | | 56.0 | 56.0 | 56.0 | |
| IncremntDel: | 18.2 | 7.8 | 7.8 | | 66.8 | 9.1 | 9.1 | | 29.7 | 29.7 | 4.8 | | 59.1 | 59.1 | 59.1 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 0.97 | 0.60 | 0.60 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 57.9 | 25.5 | 25.5 | | 122.5 | 30.5 | 30.5 | | 79.2 | 79.2 | 31.3 | | 115.1 | 115 | 115.1 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 57.9 | 25.5 | 25.5 | | 122.5 | 30.5 | 30.5 | | 79.2 | 79.2 | 31.3 | | 115.1 | 115 | 115.1 | |
| DesignQueue: | 23 | 28 | 1 | | 4 | 39 | 11 | | 13 | 1 | 21 | | 2 | 1 | 3 | |

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

Intersection #9 Brockway Road/Martis Valley Road

Cycle (sec): 104 Critical Vol./Cap. (X): 0.747
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 15.8
Optimal Cycle: 67 Level Of Service: B

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - | R | L | - T | - | R | L | - T | - | R | L | - T | - | R |
| Control: | Permitted | | | | Permitted | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 0 | 1 0 | 0 | 0 | 1! | 0 0 | 0 | 1 | 0 | 0 1 | 0 | 0 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 277 | 873 | | 0 | 16 | 608 | | 155 | 114 | | 0 | 154 | 0 | | 0 | 14 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Initial Bse: | 277 | 873 | | 0 | 16 | 608 | | 155 | 114 | | 0 | 154 | 0 | | 0 | 14 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| PHF Adj: | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 |
| PHF Volume: | 308 | 970 | | 0 | 18 | 676 | | 172 | 127 | | 0 | 171 | 0 | | 0 | 16 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 308 | 970 | | 0 | 18 | 676 | | 172 | 127 | | 0 | 171 | 0 | | 0 | 16 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Final Vol.: | 308 | 970 | | 0 | 18 | 676 | | 172 | 127 | | 0 | 171 | 0 | | 0 | 16 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 |
| Adjustment: | 0.43 | 1.00 | | 1.00 | 0.95 | 0.95 | | 0.95 | 1.00 | | 0.85 | 1.00 | 1.00 | | 1.00 | 0.87 |
| Lanes: | 1.00 | 1.00 | | 0.00 | 0.02 | 0.78 | | 0.20 | 1.00 | | 0.00 | 1.00 | 0.00 | | 0.00 | 1.00 |
| Final Sat.: | 779 | 1800 | | 0 | 36 | 1334 | | 340 | 1714 | | 0 | 1530 | 0 | | 0 | 1557 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.40 | 0.54 | | 0.00 | 0.51 | 0.51 | | 0.51 | 0.07 | | 0.00 | 0.11 | 0.00 | | 0.00 | 0.01 |
| Crit Moves: | | **** | | | | | | | | | | **** | | | | **** |
| Green/Cycle: | 0.72 | 0.72 | | 0.00 | 0.72 | 0.72 | | 0.72 | 0.15 | | 0.00 | 0.15 | 0.00 | | 0.00 | 0.01 |
| Volume/Cap: | 0.55 | 0.75 | | 0.00 | 0.70 | 0.70 | | 0.70 | 0.50 | | 0.00 | 0.75 | 0.00 | | 0.00 | 0.75 |
| Uniform Del: | 6.7 | 8.8 | | 0.0 | 8.2 | 8.2 | | 8.2 | 40.6 | | 0.0 | 42.3 | 0.0 | | 0.0 | 51.1 |
| IncremntDel: | 1.1 | 2.4 | | 0.0 | 1.8 | 1.8 | | 1.8 | 1.5 | | 0.0 | 12.7 | 0.0 | | 0.0 | 85.8 |
| Delay Adj: | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | 0.00 | | 0.00 | 1.00 |
| Delay/Veh: | 7.8 | 11.2 | | 0.0 | 10.0 | 10.0 | | 10.0 | 42.1 | | 0.0 | 55.0 | 0.0 | | 0.0 | 136.9 |
| 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: | 7.8 | 11.2 | | 0.0 | 10.0 | 10.0 | | 10.0 | 42.1 | | 0.0 | 55.0 | 0.0 | | 0.0 | 136.9 |
| Design ueue: | 5 | 18 | | 0 | 0 | 12 | | 3 | 6 | | 0 | 9 | 0 | | 0 | 1 |





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

Intersection #10 SR 267/Brockway Road/Joerger Drive

Cycle (sec): 120 Critical Vol./Cap. (X): 0.924
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 36.6
Optimal Cycle: 120 Level Of Service: D

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Ignore | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 2 | 0 | 1 | 1 0 | 1 | 0 | 2 | 0 1 | 0 | 1 | 0 | 0 1 | 0 | 0 | 1! | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 1069 | 1338 | | 14 | 55 | 1053 | | 119 | 96 | | 5 | 956 | 10 | | 5 | 35 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Initial Bse: | 1069 | 1338 | | 14 | 55 | 1053 | | 119 | 96 | | 5 | 956 | 10 | | 5 | 35 |
| 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: | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | | 0.90 | 0.00 | 0.90 | | 0.90 | 0.90 |
| PHF Volume: | 1188 | 1487 | | 16 | 61 | 1170 | | 132 | 107 | | 6 | 0 | 11 | | 6 | 39 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 1188 | 1487 | | 16 | 61 | 1170 | | 132 | 107 | | 6 | 0 | 11 | | 6 | 39 |
| 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 |
| Final Vol.: | 1188 | 1487 | | 16 | 61 | 1170 | | 132 | 107 | | 6 | 0 | 11 | | 6 | 39 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 |
| Adjustment: | 0.92 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.85 | 0.96 | | 0.96 | 1.00 | 0.90 | | 0.90 | 0.90 |
| Lanes: | 2.00 | 1.98 | | 0.02 | 1.00 | 2.00 | | 1.00 | 0.95 | | 0.05 | 1.00 | 0.20 | | 0.11 | 0.69 |
| Final Sat.: | 3317 | 3377 | | 36 | 1710 | 3420 | | 1530 | 1628 | | 91 | 1800 | 317 | | 173 | 1124 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.36 | 0.44 | | 0.44 | 0.04 | 0.34 | | 0.09 | 0.07 | | 0.07 | 0.00 | 0.03 | | 0.03 | 0.03 |
| Crit Moves: | **** | | | | | **** | | | | | **** | | | | | **** |
| Green/Cycle: | 0.39 | 0.70 | | 0.70 | 0.06 | 0.37 | | 0.37 | 0.07 | | 0.07 | 0.00 | 0.04 | | 0.04 | 0.04 |
| Volume/Cap: | 0.92 | 0.63 | | 0.63 | 0.63 | 0.92 | | 0.23 | 0.92 | | 0.92 | 0.00 | 0.92 | | 0.92 | 0.92 |
| Uniform Del: | 35.1 | 9.6 | | 9.6 | 55.4 | 36.2 | | 26.0 | 55.4 | | 55.4 | 0.0 | 57.6 | | 57.6 | 57.6 |
| IncremntDel: | 11.2 | 0.5 | | 0.5 | 12.4 | 11.4 | | 0.2 | 58.1 | | 58.1 | 0.0 | 88.4 | | 88.4 | 88.4 |
| Delay 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 |
| Delay/Veh: | 46.3 | 10.1 | | 10.1 | 67.7 | 47.5 | | 26.2 | 113.5 | | 114 | 0.0 | 145.9 | | 146 | 145.9 |
| 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: | 46.3 | 10.1 | | 10.1 | 67.7 | 47.5 | | 26.2 | 113.5 | | 114 | 0.0 | 145.9 | | 146 | 145.9 |
| DesignQueue: | 53 | 33 | | 0 | 4 | 53 | | 6 | 7 | | 0 | 0 | 1 | | 0 | 3 |

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

Intersection #11 SR 267/Airport Road/Schaffer Mill Road

Cycle (sec): 120 Critical Vol./Cap. (X): 0.898
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 40.7
Optimal Cycle: 119 Level Of Service: D

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ovl | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 1 | 0 | 1 0 | 2 0 | 1 | 2 0 | 0 1 | 0 | 1 0 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 72 | 1281 | 139 | 391 | 1232 | 396 | 509 | 45 | 104 | 158 | 91 | 631 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 72 | 1281 | 139 | 391 | 1232 | 396 | 509 | 45 | 104 | 158 | 91 | 631 |
| 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: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.00 |
| PHF Volume: | 76 | 1348 | 146 | 412 | 1297 | 417 | 536 | 47 | 109 | 166 | 96 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 76 | 1348 | 146 | 412 | 1297 | 417 | 536 | 47 | 109 | 166 | 96 | 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 |
| Final Vol.: | 76 | 1348 | 146 | 412 | 1297 | 417 | 536 | 47 | 109 | 166 | 96 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.95 | 0.90 | 0.90 | 0.95 | 0.95 | 0.85 | 0.92 | 0.90 | 0.90 | 0.95 | 1.00 | 1.00 |
| Lanes: | 1.00 | 2.71 | 0.29 | 1.00 | 2.00 | 1.00 | 2.00 | 0.30 | 0.70 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1710 | 4367 | 473 | 1710 | 3420 | 1530 | 3317 | 485 | 1126 | 1710 | 1800 | 1800 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.31 | 0.31 | 0.24 | 0.38 | 0.27 | 0.16 | 0.10 | 0.10 | 0.10 | 0.05 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.06 | 0.34 | 0.34 | 0.27 | 0.55 | 0.73 | 0.18 | 0.18 | 0.18 | 0.11 | 0.11 | 0.00 |
| Volume/Cap: | 0.69 | 0.90 | 0.90 | 0.90 | 0.69 | 0.37 | 0.90 | 0.54 | 0.54 | 0.90 | 0.49 | 0.00 |
| Uniform Del: | 55.0 | 37.4 | 37.4 | 42.3 | 19.8 | 6.1 | 48.1 | 44.7 | 44.7 | 52.9 | 50.4 | 0.0 |
| IncremntDel: | 17.3 | 6.9 | 6.9 | 20.1 | 1.1 | 0.2 | 16.4 | 2.0 | 2.0 | 38.9 | 2.0 | 0.0 |
| Delay 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 |
| Delay/Veh: | 72.3 | 44.3 | 44.3 | 62.4 | 20.9 | 6.3 | 64.5 | 46.7 | 46.7 | 91.7 | 52.4 | 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: | 72.3 | 44.3 | 44.3 | 62.4 | 20.9 | 6.3 | 64.5 | 46.7 | 46.7 | 91.7 | 52.4 | 0.0 |
| DesignQueue: | 5 | 63 | 7 | 21 | 43 | 8 | 30 | 3 | 6 | 10 | 6 | 0 |







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

Intersection #12 SR 267/Northstar Drive

Cycle (sec): 110 Critical Vol./Cap. (X): 1.020
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 42.6
Optimal Cycle: 120 Level Of Service: D

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 0 | 1 | 0 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 177 | 1112 | 11 | 6 | 1004 | 381 | 320 | 23 | 194 | 2 | 1 | 1 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 177 | 1112 | 11 | 6 | 1004 | 381 | 320 | 23 | 194 | 2 | 1 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 186 | 1171 | 12 | 6 | 1057 | 401 | 337 | 24 | 204 | 2 | 1 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 186 | 1171 | 12 | 6 | 1057 | 401 | 337 | 24 | 204 | 2 | 1 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 186 | 1171 | 12 | 6 | 1057 | 401 | 337 | 24 | 204 | 2 | 1 | 1 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.85 | 0.96 | 0.96 | 0.85 | 0.94 | 0.94 | 0.94 |
| Lanes: | 1.00 | 1.98 | 0.02 | 1.00 | 1.00 | 1.00 | 0.93 | 0.07 | 1.00 | 0.50 | 0.25 | 0.25 |
| Final Sat.: | 1710 | 3382 | 35 | 1710 | 1800 | 1530 | 1605 | 114 | 1530 | 849 | 424 | 424 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.35 | 0.35 | 0.00 | 0.59 | 0.26 | 0.21 | 0.21 | 0.13 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | **** | | |
| Green/Cycle: | 0.11 | 0.68 | 0.68 | 0.01 | 0.58 | 0.58 | 0.21 | 0.21 | 0.21 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 1.02 | 0.51 | 0.51 | 0.51 | 1.02 | 0.46 | 1.02 | 1.02 | 0.65 | 1.02 | 1.02 | 1.02 |
| Uniform Del: | 49.1 | 8.8 | 8.8 | 54.4 | 23.3 | 13.4 | 43.7 | 43.7 | 40.0 | 54.9 | 54.9 | 54.9 |
| IncremntDel: | 71.8 | 0.2 | 0.2 | 33.6 | 33.0 | 0.4 | 52.9 | 52.9 | 4.6 | 463.2 | 463 | 463.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 121.0 | 9.0 | 9.0 | 88.0 | 56.3 | 13.8 | 96.6 | 96.6 | 44.7 | 518.1 | 518 | 518.1 |
| 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: | 121.0 | 9.0 | 9.0 | 88.0 | 56.3 | 13.8 | 96.6 | 96.6 | 44.7 | 518.1 | 518 | 518.1 |
| DesignQueue: | 10 | 25 | 0 | 0 | 32 | 11 | 17 | 1 | 10 | 0 | 0 | 0 |

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

Intersection #13 SR 28/SR 267

Cycle (sec): 100 Critical Vol./Cap. (X): 1.047
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 53.4
Optimal Cycle: 120 Level Of Service: D

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 1! | 0 0 | 0 | 1 | 0 | 0 1 | 1 | 0 | 1 | 1 0 | 1 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 1 | 0 | 2 | | 428 | 1 | 422 | | 314 | 825 | 1 | | 2 | 610 | 634 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 1 | 0 | 2 | | 428 | 1 | 422 | | 314 | 825 | 1 | | 2 | 610 | 634 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 1 | 0 | 2 | | 451 | 1 | 444 | | 331 | 868 | 1 | | 2 | 642 | 667 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 1 | 0 | 2 | | 451 | 1 | 444 | | 331 | 868 | 1 | | 2 | 642 | 667 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 1 | 0 | 2 | | 451 | 1 | 444 | | 331 | 868 | 1 | | 2 | 642 | 667 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.90 | 1.00 | 0.90 | | 0.95 | 0.95 | 0.85 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.85 | |
| Lanes: | 0.33 | 0.00 | 0.67 | | 0.99 | 0.01 | 1.00 | | 1.00 | 1.99 | 0.01 | | 1.00 | 2.00 | 1.00 | |
| Final Sat.: | 537 | 0 | 1075 | | 1710 | 4 | 1530 | | 1710 | 3416 | 4 | | 1710 | 3420 | 1530 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | | 0.26 | 0.26 | 0.29 | | 0.19 | 0.25 | 0.25 | | 0.00 | 0.19 | 0.44 | |
| Crit Moves: | **** | | | | | | **** | | **** | | | | | | **** | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | | 0.28 | 0.28 | 0.28 | | 0.18 | 0.60 | 0.60 | | 0.00 | 0.42 | 0.42 | |
| Volume/Cap: | 1.05 | 0.00 | 1.05 | | 0.95 | 0.95 | 1.05 | | 1.05 | 0.42 | 0.42 | | 0.42 | 0.45 | 1.05 | |
| Uniform Del: | 49.9 | 0.0 | 49.9 | | 35.5 | 35.5 | 36.1 | | 40.8 | 10.8 | 10.8 | | 49.8 | 21.0 | 29.2 | |
| IncremntDel: | 554.9 | 0.0 | 554.9 | | 29.4 | 29.4 | 56.6 | | 63.5 | 0.1 | 0.1 | | 51.7 | 0.2 | 48.6 | |
| Delay Adj: | 1.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 604.8 | 0.0 | 604.8 | | 64.9 | 64.9 | 92.7 | | 104.3 | 11.0 | 11.0 | | 101.5 | 21.2 | 77.8 | |
| 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: | 604.8 | 0.0 | 604.8 | | 64.9 | 64.9 | 92.7 | | 104.3 | 11.0 | 11.0 | | 101.5 | 21.2 | 77.8 | |
| DesignQueue: | 0 | 0 | 0 | | 19 | 0 | 19 | | 16 | 21 | 0 | | 0 | 22 | 24 | |





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

Intersection #14 SR 89/Donner Pass Road

Cycle (sec): 100 Critical Vol./Cap. (X): 0.907
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 52.6
Optimal Cycle: 119 Level Of Service: D

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 0 1 | 0 | 1 | 0 | 0 1 | 1 | 0 | 1 | 0 1 | 1 | 0 | 1 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 572 | 48 | 43 | | 10 | 198 | 180 | | 91 | 192 | 544 | | 85 | 393 | 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: | 572 | 48 | 43 | | 10 | 198 | 180 | | 91 | 192 | 544 | | 85 | 393 | 10 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | |
| PHF Volume: | 602 | 51 | 45 | | 11 | 208 | 189 | | 96 | 202 | 573 | | 89 | 414 | 11 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 602 | 51 | 45 | | 11 | 208 | 189 | | 96 | 202 | 573 | | 89 | 414 | 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 | |
| Final Vol.: | 602 | 51 | 45 | | 11 | 208 | 189 | | 96 | 202 | 573 | | 89 | 414 | 11 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | |
| Adjustment: | 0.95 | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 | | 0.95 | 1.00 | 0.85 | | 0.95 | 1.00 | 0.85 | |
| Lanes: | 1.00 | 1.00 | 1.00 | | 0.05 | 0.95 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Sat.: | 1710 | 1800 | 1530 | | 90 | 1706 | 1530 | | 1710 | 1800 | 1530 | | 1710 | 1800 | 1530 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.35 | 0.03 | 0.03 | | 0.12 | 0.12 | 0.12 | | 0.06 | 0.11 | 0.37 | | 0.05 | 0.23 | 0.01 | |
| Crit Moves: | **** | | | | | | **** | | **** | | | | | **** | | |
| Green/Cycle: | 0.39 | 0.39 | 0.39 | | 0.14 | 0.14 | 0.14 | | 0.06 | 0.28 | 0.67 | | 0.04 | 0.25 | 0.25 | |
| Volume/Cap: | 0.91 | 0.07 | 0.08 | | 0.89 | 0.89 | 0.91 | | 0.91 | 0.41 | 0.56 | | 1.35 | 0.91 | 0.03 | |
| Uniform Del: | 28.9 | 19.3 | 19.3 | | 42.5 | 42.5 | 42.6 | | 46.6 | 29.4 | 9.0 | | 48.1 | 36.2 | 28.1 | |
| IncremntDel: | 16.2 | 0.0 | 0.1 | | 31.3 | 31.3 | 37.7 | | 58.7 | 0.5 | 0.7 | | 230.5 | 21.6 | 0.0 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 45.1 | 19.3 | 19.3 | | 73.8 | 73.8 | 80.2 | | 105.3 | 30.0 | 9.7 | | 278.5 | 57.7 | 28.1 | |
| 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: | 45.1 | 19.3 | 19.3 | | 73.8 | 73.8 | 80.2 | | 105.3 | 30.0 | 9.7 | | 278.5 | 57.7 | 28.1 | |
| DesignQueue: | 22 | 2 | 2 | | 1 | 10 | 9 | | 5 | 8 | 12 | | 5 | 18 | 0 | |

Scenario Report

| | |
|---|---|
| Scenario: | Proposed All Con Road Winter Mitigated |
| Command: | Default Command |
| Volume: | Preferred |
| Geometry: | Preferred |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | Default Trip Generation |
| Trip Distribution: | Default Trip Distribution |
| Paths: | Default Paths |
| Routes: | Default Routes |
| Configuration: | Default Configuration |







Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 1 SR 267 Bypass/I-80 WB | C | 32.0 | 0.805 | C | 32.0 | 0.805 | + 0.000 D/V |
| # 2 SR 267 Bypass/I-80 EB | B | 10.7 | 0.742 | B | 10.7 | 0.742 | + 0.000 D/V |
| # 4 I-80 EB/DPR | B | 17.7 | 0.776 | B | 17.7 | 0.776 | + 0.000 D/V |
| # 5 DPR/Glenshire Drive | C | 26.9 | 0.701 | C | 26.9 | 0.701 | + 0.000 D/V |
| # 6 DPR/Bridge Street | C | 32.3 | 0.748 | C | 32.3 | 0.748 | + 0.000 D/V |
| # 7 Bridge Street West River St | E | 62.4 | 1.014 | E | 62.4 | 1.014 | + 0.000 D/V |
| # 9 Brockway Road/Martis Valley Ro | B | 11.6 | 0.722 | B | 11.6 | 0.722 | + 0.000 D/V |
| # 10 SR 267/Brockway Road/Joerger D | D | 41.3 | 0.947 | D | 41.3 | 0.947 | + 0.000 D/V |
| # 11 SR 267/Airport Road/Schaffer M | E | 64.8 | 1.075 | E | 64.8 | 1.075 | + 0.000 D/V |
| # 12 SR 267/Northstar Drive | D | 42.3 | 0.967 | D | 42.3 | 0.967 | + 0.000 D/V |
| # 13 SR 28/SR 267 | E | 66.3 | 1.095 | E | 66.3 | 1.095 | + 0.000 D/V |
| # 14 SR 89/Donner Pass Road | D | 39.2 | 0.783 | D | 39.2 | 0.783 | + 0.000 D/V |

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

Intersection #1 SR 267 Bypass/I-80 WB

Cycle (sec): 120 Critical Vol./Cap. (X): 0.805
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 32.0
Optimal Cycle: 83 Level Of Service: C

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 2 | 0 | 1 | 0 0 | 0 | 0 | 1 | 0 1 | 0 | 0 | 0 | 0 0 | 0 | 1 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 372 | 226 | | 0 | 0 | 853 | | 5 | 0 | | 0 | 0 | 175 | | 0 | 124 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Initial Bse: | 372 | 226 | | 0 | 0 | 853 | | 5 | 0 | | 0 | 0 | 175 | | 0 | 124 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 0.75 |
| PHF Adj: | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 |
| PHF Volume: | 392 | 238 | | 0 | 0 | 898 | | 5 | 0 | | 0 | 0 | 184 | | 0 | 98 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 392 | 238 | | 0 | 0 | 898 | | 5 | 0 | | 0 | 0 | 184 | | 0 | 98 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Final Vol.: | 392 | 238 | | 0 | 0 | 898 | | 5 | 0 | | 0 | 0 | 184 | | 0 | 98 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 |
| Adjustment: | 0.92 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.85 | 1.00 | | 1.00 | 1.00 | 0.95 | | 1.00 | 0.85 |
| Lanes: | 2.00 | 1.00 | | 0.00 | 0.00 | 1.00 | | 1.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 0.00 | 1.00 |
| Final Sat.: | 3317 | 1800 | | 0 | 0 | 1800 | | 1530 | 0 | | 0 | 0 | 1714 | | 0 | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.13 | | 0.00 | 0.00 | 0.50 | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.11 | | 0.00 | 0.06 |
| Crit Moves: | **** | | | | | **** | | | | | | | **** | | | |
| Green/Cycle: | 0.15 | 0.77 | | 0.00 | 0.00 | 0.62 | | 0.62 | 0.00 | | 0.00 | 0.00 | 0.13 | | 0.00 | 0.13 |
| Volume/Cap: | 0.80 | 0.17 | | 0.00 | 0.00 | 0.80 | | 0.01 | 0.00 | | 0.00 | 0.00 | 0.80 | | 0.00 | 0.48 |
| Uniform Del: | 49.5 | 3.8 | | 0.0 | 0.0 | 17.3 | | 8.7 | 0.0 | | 0.0 | 0.0 | 50.5 | | 0.0 | 48.1 |
| IncremntDel: | 9.5 | 0.1 | | 0.0 | 0.0 | 4.4 | | 0.0 | 0.0 | | 0.0 | 0.0 | 18.5 | | 0.0 | 1.8 |
| Delay Adj: | 0.89 | 0.00 | | 0.00 | 0.00 | 1.00 | | 1.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 0.00 | 1.00 |
| Delay/Veh: | 53.3 | 0.1 | | 0.0 | 0.0 | 21.7 | | 8.7 | 0.0 | | 0.0 | 0.0 | 68.9 | | 0.0 | 49.9 |
| 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: | 53.3 | 0.1 | | 0.0 | 0.0 | 21.7 | | 8.7 | 0.0 | | 0.0 | 0.0 | 68.9 | | 0.0 | 49.9 |
| DesignQueue: | 23 | 4 | | 0 | 0 | 26 | | 0 | 0 | | 0 | 0 | 11 | | 0 | 6 |







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

Intersection #2 SR 267 Bypass/I-80 EB

Cycle (sec): 105 Critical Vol./Cap. (X): 0.742
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 10.7
Optimal Cycle: 67 Level Of Service: B

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Ovl | | | | Include | | | | Ovl | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 2 | 0 1 | 1 | 0 | 1 | 0 0 | 0 | 1 | 0 | 0 1 | 0 | 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 810 | | 341 | 57 | 921 | | 0 | 0 | | 0 | 231 | 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 | 810 | | 341 | 57 | 921 | | 0 | 0 | | 0 | 231 | 0 | | 0 | 0 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.75 | 1.00 | | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.95 | 0.95 |
| PHF Volume: | 0 | 853 | | 359 | 60 | 969 | | 0 | 0 | | 0 | 182 | 0 | | 0 | 0 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 0 | 853 | | 359 | 60 | 969 | | 0 | 0 | | 0 | 182 | 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 |
| Final Vol.: | 0 | 853 | | 359 | 60 | 969 | | 0 | 0 | | 0 | 182 | 0 | | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 |
| Adjustment: | 1.00 | 0.95 | | 0.85 | 0.95 | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.85 | 1.00 | | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | | 1.00 | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 0.00 |
| Final Sat.: | 0 | 3420 | | 1530 | 1710 | 1800 | | 0 | 0 | | 1800 | 1530 | 0 | | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.25 | | 0.23 | 0.04 | 0.54 | | 0.00 | 0.00 | | 0.00 | 0.12 | 0.00 | | 0.00 | 0.00 |
| Crit Moves: | **** | | | | | **** | | | | | | **** | | | | |
| Green/Cycle: | 0.00 | 0.64 | | 0.64 | 0.09 | 0.73 | | 0.00 | 0.00 | | 0.00 | 0.16 | 0.00 | | 0.00 | 0.00 |
| Volume/Cap: | 0.00 | 0.39 | | 0.37 | 0.39 | 0.74 | | 0.00 | 0.00 | | 0.00 | 0.74 | 0.00 | | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 9.3 | | 9.1 | 45.1 | 8.6 | | 0.0 | 0.0 | | 0.0 | 42.0 | 0.0 | | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 0.1 | | 0.2 | 1.7 | 2.3 | | 0.0 | 0.0 | | 0.0 | 11.5 | 0.0 | | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | | 1.00 | 0.93 | 0.00 | | 0.00 | 0.00 | | 0.00 | 1.00 | 0.00 | | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 9.4 | | 9.3 | 43.8 | 2.3 | | 0.0 | 0.0 | | 0.0 | 53.5 | 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: | 0.0 | 9.4 | | 9.3 | 43.8 | 2.3 | | 0.0 | 0.0 | | 0.0 | 53.5 | 0.0 | | 0.0 | 0.0 |
| DesignQueue: | 0 | 19 | | 8 | 3 | 18 | | 0 | 0 | | 0 | 9 | 0 | | 0 | 0 |

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

Intersection #4 I-80 EB/DPR

Cycle (sec): 50 Critical Vol./Cap. (X): 0.776
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: 56 Level Of Service: B

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Lanes: | 0 0 | 1 | 0 | 0 | 0 0 | 1 | 0 | 0 | 0 0 | 1! | 0 | 0 | 0 0 | 0 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 484 | | 0 | 0 | 270 | | 0 | 360 | | 0 | 82 | 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 | 484 | | 0 | 0 | 270 | | 0 | 360 | | 0 | 82 | 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: | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 |
| PHF Volume: | 0 | 538 | | 0 | 0 | 300 | | 0 | 400 | | 0 | 91 | 0 | | 0 | 0 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 0 | 538 | | 0 | 0 | 300 | | 0 | 400 | | 0 | 91 | 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 |
| Final Vol.: | 0 | 538 | | 0 | 0 | 300 | | 0 | 400 | | 0 | 91 | 0 | | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 |
| Adjustment: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 0.94 | | 1.00 | 0.94 | 1.00 | | 1.00 | 1.00 |
| Lanes: | 0.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 0.81 | | 0.00 | 0.19 | 0.00 | | 0.00 | 0.00 |
| Final Sat.: | 0 | 1800 | | 0 | 0 | 1800 | | 0 | 1374 | | 0 | 313 | 0 | | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.30 | | 0.00 | 0.00 | 0.17 | | 0.00 | 0.29 | | 0.00 | 0.29 | 0.00 | | 0.00 | 0.00 |
| Crit Moves: | | **** | | | **** | | | | | | | **** | | | | |
| Green/Cycle: | 0.00 | 0.38 | | 0.00 | 0.00 | 0.38 | | 0.00 | 0.38 | | 0.00 | 0.38 | 0.00 | | 0.00 | 0.00 |
| Volume/Cap: | 0.00 | 0.78 | | 0.00 | 0.00 | 0.43 | | 0.00 | 0.78 | | 0.00 | 0.78 | 0.00 | | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 13.5 | | 0.0 | 0.0 | 11.3 | | 0.0 | 13.8 | | 0.0 | 13.8 | 0.0 | | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 5.5 | | 0.0 | 0.0 | 0.4 | | 0.0 | 6.0 | | 0.0 | 6.0 | 0.0 | | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | | 0.00 | 0.00 | 1.00 | | 0.00 | 1.00 | | 0.00 | 1.00 | 0.00 | | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 19.0 | | 0.0 | 0.0 | 11.8 | | 0.0 | 19.8 | | 0.0 | 19.8 | 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 | 19.0 | | 0.0 | 0.0 | 11.8 | | 0.0 | 19.8 | | 0.0 | 19.8 | 0.0 | | 0.0 | 0.0 |
| DesignQueue: | 0 | 10 | | 0 | 0 | 5 | | 0 | 7 | | 0 | 2 | 0 | | 0 | 0 |







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

Intersection #5 DPR/Glenshire Drive

Cycle (sec): 85 Critical Vol./Cap. (X): 0.701
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 26.9
Optimal Cycle: 57 Level Of Service: C

| 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 | | | | Include | | | |
| Min. Green: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Lanes: | 1 0 | 0 | 0 | 1 | 0 0 | 0 | 0 | 0 | 0 0 | 1 | 0 | 1 | 1 0 | 1 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 271 | 0 | | 162 | 0 | 0 | | 0 | 0 | 322 | | 367 | 245 | 107 | | 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: | 271 | 0 | | 162 | 0 | 0 | | 0 | 0 | 322 | | 367 | 245 | 107 | | 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: | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 |
| PHF Volume: | 301 | 0 | | 180 | 0 | 0 | | 0 | 0 | 358 | | 408 | 272 | 119 | | 0 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 301 | 0 | | 180 | 0 | 0 | | 0 | 0 | 358 | | 408 | 272 | 119 | | 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 |
| Final Vol.: | 301 | 0 | | 180 | 0 | 0 | | 0 | 0 | 358 | | 408 | 272 | 119 | | 0 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 |
| Adjustment: | 0.95 | 1.00 | | 0.85 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.85 | 0.95 | 1.00 | | 1.00 |
| Lanes: | 1.00 | 0.00 | | 1.00 | 0.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.00 |
| Final Sat.: | 1710 | 0 | | 1530 | 0 | 0 | | 0 | 0 | 1800 | | 1530 | 1710 | 1800 | | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.18 | 0.00 | | 0.12 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.20 | | 0.27 | 0.16 | 0.07 | | 0.00 |
| Crit Moves: | **** | | | | | | | | | | | **** | **** | | | |
| Green/Cycle: | 0.25 | 0.00 | | 0.25 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.38 | | 0.38 | 0.23 | 0.61 | | 0.00 |
| Volume/Cap: | 0.70 | 0.00 | | 0.47 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.52 | | 0.70 | 0.70 | 0.11 | | 0.00 |
| Uniform Del: | 28.9 | 0.0 | | 27.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 20.4 | | 22.2 | 30.2 | 7.0 | | 0.0 |
| IncremntDel: | 5.1 | 0.0 | | 0.9 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.7 | | 3.8 | 5.6 | 0.0 | | 0.0 |
| Delay Adj: | 1.00 | 0.00 | | 1.00 | 0.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.00 |
| Delay/Veh: | 34.0 | 0.0 | | 27.9 | 0.0 | 0.0 | | 0.0 | 0.0 | 21.1 | | 26.0 | 35.8 | 7.1 | | 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: | 34.0 | 0.0 | | 27.9 | 0.0 | 0.0 | | 0.0 | 0.0 | 21.1 | | 26.0 | 35.8 | 7.1 | | 0.0 |
| DesignQueue: | 11 | 0 | | 7 | 0 | 0 | | 0 | 0 | 11 | | 13 | 10 | 2 | | 0 |

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-----------------------------------------------------------------------------
                    Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
*****************************************************************************
Intersection #6 DPR/Bridge Street
*****************************************************************************
Cycle (sec):        110                Critical Vol./Cap. (X):        0.748
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):        32.3
Optimal Cycle:       68                Level Of Service:                   C
*****************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted       Split Phase      Split Phase
Rights:          Ignore           Include          Include          Include
Min. Green:    0    0    0    0    0    0    0    0    0    0    0    0    0
Lanes:       1  0  1  0  1    0  1  0  0  1    1  0  1  0  1    1  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     223  468  483      9  275   27     47  197  185    402  325   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:  223  468  483      9  275   27     47  197  185    402  325   10
User Adj:    1.00 1.00 0.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     0.95 0.95 0.00   0.95 0.95 0.95   0.95 0.95 0.95   0.95 0.95 0.95
PHF Volume:   235  493    0      9  289   28     49  207  195    423  342   11
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:  235  493    0      9  289   28     49  207  195    423  342   11
PCE Adj:     1.00 1.00 0.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 0.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:   235  493    0      9  289   28     49  207  195    423  342   11
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1800 1800 1800   1800 1800 1800   1800 1800 1800   1800 1800 1800
Adjustment:  0.45 1.00 1.00   0.99 0.99 0.85   0.95 1.00 0.85   0.95 1.00 0.85
Lanes:       1.00 1.00 1.00   0.03 0.97 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Sat.:   806 1800 1800     54 1721 1530   1710 1800 1530   1710 1800 1530
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.29 0.27 0.00   0.17 0.17 0.02   0.03 0.12 0.13   0.25 0.19 0.01
Crit Moves:  ****                                         ****   ****
Green/Cycle: 0.39 0.39 0.00   0.39 0.39 0.39   0.17 0.17 0.17   0.33 0.33 0.33
Volume/Cap:  0.75 0.70 0.00   0.43 0.43 0.05   0.17 0.67 0.75   0.75 0.57 0.02
Uniform Del: 28.9 28.2  0.0   24.6 24.6 20.9   39.0 42.8 43.4   32.7 30.4 24.8
IncremntDel:  9.5  3.2  0.0    0.4  0.4  0.0    0.3  5.8 11.3    5.5  1.4  0.0
Delay Adj:   0.57 0.57 0.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Delay/Veh:   26.1 19.4  0.0   25.1 25.1 20.9   39.2 48.6 54.7   38.2 31.8 24.8
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:  26.1 19.4  0.0   25.1 25.1 20.9   39.2 48.6 54.7   38.2 31.8 24.8
DesignQueue:    9   20    0      0   11    1      3   11   10     18   15    0
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-----------------------------------------------------------------------------
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                    Level Of Service Computation Report
              2000 HCM Operations Method (Base Volume Alternative)
*****************************************************************************
Intersection #7 Bridge Street West River St
*****************************************************************************
Cycle (sec):        120                Critical Vol./Cap. (X):        1.014
Loss Time (sec):     12 (Y+R =  4 sec) Average Delay (sec/veh):        62.4
Optimal Cycle:      120                Level Of Service:                   E
*****************************************************************************
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        Split Phase      Split Phase
Rights:         Include          Include            Ovl            Include
Min. Green:    0    0    0    0    0    0    0    0    0    0    0    0    0
Lanes:       1  0  0  1  0    1  0  1  1  0    0  1  0  0  1    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     499  671   29     50  710  102    464   17  828     30   20   39
Growth Adj:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:  499  671   29     50  710  102    464   17  828     30   20   39
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     0.95 0.95 0.95   0.95 0.95 0.95   0.95 0.95 0.95   0.95 0.95 0.95
PHF Volume:   525  706   31     53  747  107    488   18  872     32   21   41
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:  525  706   31     53  747  107    488   18  872     32   21   41
PCE Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Final Vol.:   525  706   31     53  747  107    488   18  872     32   21   41
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1800 1800 1800   1800 1800 1800   1800 1800 1800   1800 1800 1800
Adjustment:  0.95 0.99 0.99   0.95 0.93 0.93   0.95 0.95 0.85   0.93 0.93 0.93
Lanes:       1.00 0.96 0.04   1.00 1.75 0.25   0.96 0.04 1.00   0.34 0.22 0.44
Final Sat.:  1710 1714   75   1710 2935  420   1656   61 1530    567  372  726
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.31 0.41 0.41   0.03 0.25 0.25   0.29 0.29 0.57   0.06 0.06 0.06
Crit Moves:  ****                 ****        ****                   ****
Green/Cycle: 0.30 0.52 0.52   0.04 0.25 0.25   0.29 0.29 0.59   0.06 0.06 0.06
Volume/Cap:  1.01 0.80 0.80   0.80 1.01 1.01   1.01 1.01 0.96   1.01 1.01 1.01
Uniform Del: 41.8 24.0 24.0   57.2 44.9 44.9   42.6 42.6 23.1   56.7 56.7 56.7
IncremntDel: 43.1  5.0  5.0   48.1 34.6 34.6   43.9 43.9 20.8   97.4 97.4 97.4
Delay Adj:   1.00 1.00 1.00   0.97 0.78 0.78   1.00 1.00 1.00   1.00 1.00 1.00
Delay/Veh:   85.0 29.0 29.0  103.8 69.5 69.5   86.4 86.4 43.9  154.0  154 154.0
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:  85.0 29.0 29.0  103.8 69.5 69.5   86.4 86.4 43.9  154.0  154 154.0
DesignQueue:   26   25    1      3   40    6     25    1   27      2    1    3
*****************************************************************************
```

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

Intersection #9 Brockway Road/Martis Valley Road

Cycle (sec): 104 Critical Vol./Cap. (X): 0.722
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 11.6
Optimal Cycle: 63 Level Of Service: B

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Permitted | | | | Permitted | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 0 | 1 0 | 0 | 0 | 1! | 0 0 | 0 | 1 | 0 | 0 1 | 0 | 0 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 196 | 916 | | 0 | 16 | 624 | | 167 | 96 | | 0 | 72 | 0 | | 0 | 14 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 196 | 916 | | 0 | 16 | 624 | | 167 | 96 | | 0 | 72 | 0 | | 0 | 14 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 |
| PHF Volume: | 218 | 1018 | | 0 | 18 | 693 | | 186 | 107 | | 0 | 80 | 0 | | 0 | 16 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 218 | 1018 | | 0 | 18 | 693 | | 186 | 107 | | 0 | 80 | 0 | | 0 | 16 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 218 | 1018 | | 0 | 18 | 693 | | 186 | 107 | | 0 | 80 | 0 | | 0 | 16 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 |
| Adjustment: | 0.39 | 1.00 | | 1.00 | 0.95 | 0.95 | | 0.95 | 1.00 | 0.85 | | 1.00 | 1.00 | 1.00 | | 0.87 |
| Lanes: | 1.00 | 1.00 | | 0.00 | 0.02 | 0.77 | | 0.21 | 1.00 | 0.00 | | 1.00 | 0.00 | 0.00 | | 1.00 |
| Final Sat.: | 704 | 1800 | | 0 | 34 | 1318 | | 354 | 1714 | | 0 | 1530 | 0 | | 0 | 1557 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.31 | 0.57 | | 0.00 | 0.53 | 0.53 | | 0.53 | 0.06 | 0.00 | | 0.05 | 0.00 | 0.00 | | 0.01 |
| Crit Moves: | | **** | | | | | | | **** | | | | | | | **** |
| Green/Cycle: | 0.78 | 0.78 | | 0.00 | 0.78 | 0.78 | | 0.78 | 0.09 | 0.00 | | 0.09 | 0.00 | 0.00 | | 0.01 |
| Volume/Cap: | 0.40 | 0.72 | | 0.00 | 0.67 | 0.67 | | 0.67 | 0.72 | 0.00 | | 0.60 | 0.00 | 0.00 | | 0.72 |
| Uniform Del: | 3.5 | 5.6 | | 0.0 | 5.1 | 5.1 | | 5.1 | 46.3 | 0.0 | | 45.8 | 0.0 | 0.0 | | 51.1 |
| IncremntDel: | 0.5 | 1.9 | | 0.0 | 1.3 | 1.3 | | 1.3 | 15.9 | 0.0 | | 7.7 | 0.0 | 0.0 | | 75.0 |
| Delay Adj: | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 0.00 | 0.00 | | 1.00 |
| Delay/Veh: | 4.0 | 7.5 | | 0.0 | 6.5 | 6.5 | | 6.5 | 62.2 | 0.0 | | 53.5 | 0.0 | 0.0 | | 126.1 |
| 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: | 4.0 | 7.5 | | 0.0 | 6.5 | 6.5 | | 6.5 | 62.2 | 0.0 | | 53.5 | 0.0 | 0.0 | | 126.1 |
| DesignQueue: | 3 | 15 | | 0 | 0 | 10 | | 3 | 6 | 0 | | 4 | 0 | 0 | | 1 |







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

Intersection #10 SR 267/Brockway Road/Joerger Drive

Cycle (sec): 120 Critical Vol./Cap. (X): 0.947
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 41.3
Optimal Cycle: 120 Level Of Service: D

| 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 | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Ignore | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 | 0 | 1 | 1 0 | 1 | 0 | 2 | 0 1 | 0 | 1 | 0 | 0 1 | 0 | 0 | 1! | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 1078 | 916 | | 14 | 44 | 1152 | | 29 | 73 | | 5 | 618 | 10 | | 5 | 35 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 1078 | 916 | | 14 | 44 | 1152 | | 29 | 73 | | 5 | 618 | 10 | | 5 | 35 |
| 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: | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.90 | 0.90 | 0.90 | | 0.00 | 0.90 | 0.90 | | 0.90 |
| PHF Volume: | 1198 | 1018 | | 16 | 49 | 1280 | | 32 | 81 | | 6 | 0 | 11 | | 6 | 39 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 1198 | 1018 | | 16 | 49 | 1280 | | 32 | 81 | | 6 | 0 | 11 | | 6 | 39 |
| 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 |
| Final Vol.: | 1198 | 1018 | | 16 | 49 | 1280 | | 32 | 81 | | 6 | 0 | 11 | | 6 | 39 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 | 1800 | 1800 | | 1800 |
| Adjustment: | 0.92 | 0.95 | | 0.95 | 0.95 | 0.95 | | 0.85 | 0.96 | 0.96 | | 1.00 | 0.90 | 0.90 | | 0.90 |
| Lanes: | 2.00 | 1.97 | | 0.03 | 1.00 | 2.00 | | 1.00 | 0.93 | 0.07 | | 1.00 | 0.20 | 0.11 | | 0.69 |
| Final Sat.: | 3317 | 3360 | | 53 | 1710 | 3420 | | 1530 | 1602 | 119 | | 1800 | 317 | 173 | | 1124 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.36 | 0.30 | | 0.30 | 0.03 | 0.37 | | 0.02 | 0.05 | 0.05 | | 0.00 | 0.03 | 0.03 | | 0.03 |
| Crit Moves: | **** | | | | | **** | | | **** | | | | | | | **** |
| Green/Cycle: | 0.38 | 0.71 | | 0.71 | 0.07 | 0.40 | | 0.40 | 0.05 | 0.05 | | 0.00 | 0.04 | 0.04 | | 0.04 |
| Volume/Cap: | 0.95 | 0.43 | | 0.43 | 0.43 | 0.95 | | 0.05 | 0.95 | 0.95 | | 0.00 | 0.95 | 0.95 | | 0.95 |
| Uniform Del: | 35.9 | 7.3 | | 7.3 | 53.8 | 35.1 | | 22.4 | 56.6 | 56.6 | | 0.0 | 57.7 | 57.7 | | 57.7 |
| IncremntDel: | 14.5 | 0.1 | | 0.1 | 2.5 | 13.8 | | 0.0 | 76.3 | 76.3 | | 0.0 | 97.6 | 97.6 | | 97.6 |
| Delay 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 |
| Delay/Veh: | 50.4 | 7.4 | | 7.4 | 56.3 | 48.8 | | 22.4 | 132.9 | 133 | | 0.0 | 155.3 | 155 | | 155.3 |
| 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: | 50.4 | 7.4 | | 7.4 | 56.3 | 48.8 | | 22.4 | 132.9 | 133 | | 0.0 | 155.3 | 155 | | 155.3 |
| DesignQueue: | 54 | 21 | | 0 | 3 | 57 | | 1 | 5 | 0 | | 0 | 1 | 0 | | 3 |

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

Intersection #11 SR 267/Airport Road/Schaffer Mill Road

Cycle (sec): 105 Critical Vol./Cap. (X): 1.075
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 64.8
Optimal Cycle: 120 Level Of Service: E

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ovl | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 2 0 | 1 | 1 0 | 0 1 | 0 | 1 0 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 42 | 818 | 81 | 446 | 935 | 399 | 559 | 45 | 97 | 71 | 91 | 631 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 42 | 818 | 81 | 446 | 935 | 399 | 559 | 45 | 97 | 71 | 91 | 631 |
| 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: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.00 |
| PHF Volume: | 44 | 861 | 85 | 469 | 984 | 420 | 588 | 47 | 102 | 75 | 96 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 44 | 861 | 85 | 469 | 984 | 420 | 588 | 47 | 102 | 75 | 96 | 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 |
| Final Vol.: | 44 | 861 | 85 | 469 | 984 | 420 | 588 | 47 | 102 | 75 | 96 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.95 | 0.94 | 0.94 | 0.95 | 0.95 | 0.85 | 0.95 | 0.90 | 0.90 | 0.95 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.82 | 0.18 | 1.00 | 2.00 | 1.00 | 1.00 | 0.32 | 0.68 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1710 | 3072 | 303 | 1710 | 3420 | 1530 | 1710 | 509 | 1105 | 1710 | 1800 | 1800 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.28 | 0.28 | 0.27 | 0.29 | 0.27 | 0.34 | 0.09 | 0.09 | 0.04 | 0.05 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green/Cycle: | 0.04 | 0.26 | 0.26 | 0.26 | 0.47 | 0.79 | 0.32 | 0.32 | 0.32 | 0.05 | 0.05 | 0.00 |
| Volume/Cap: | 0.61 | 1.07 | 1.07 | 1.07 | 0.61 | 0.35 | 1.07 | 0.29 | 0.29 | 0.88 | 1.07 | 0.00 |
| Uniform Del: | 49.4 | 38.8 | 38.8 | 39.1 | 20.4 | 3.1 | 35.7 | 26.7 | 26.7 | 49.6 | 49.9 | 0.0 |
| IncremntDel: | 14.0 | 52.4 | 52.4 | 64.5 | 0.7 | 0.2 | 60.0 | 0.3 | 0.3 | 60.7 | 117 | 0.0 |
| Delay 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 |
| Delay/Veh: | 63.4 | 91.2 | 91.2 | 103.6 | 21.1 | 3.3 | 95.7 | 27.1 | 27.1 | 110.3 | 167 | 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: | 63.4 | 91.2 | 91.2 | 103.6 | 21.1 | 3.3 | 95.7 | 27.1 | 27.1 | 110.3 | 167 | 0.0 |
| DesignQueue: | 2 | 40 | 4 | 22 | 32 | 5 | 25 | 2 | 4 | 4 | 5 | 0 |





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

Intersection #12 SR 267/Northstar Drive

Cycle (sec): 95 Critical Vol./Cap. (X): 0.967
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 42.3
Optimal Cycle: 120 Level Of Service: D

| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 1 0 | 1 | 1 1 | 0 0 | 1 | 0 0 | 1! 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 158 | 435 | 11 | 6 | 853 | 255 | 682 | 23 | 358 | 2 | 1 | 1 |
| Growth Adj: | 1.00 | 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 | 435 | 11 | 6 | 853 | 255 | 682 | 23 | 358 | 2 | 1 | 1 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 166 | 458 | 12 | 6 | 898 | 268 | 718 | 24 | 377 | 2 | 1 | 1 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 166 | 458 | 12 | 6 | 898 | 268 | 718 | 24 | 377 | 2 | 1 | 1 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 166 | 458 | 12 | 6 | 898 | 268 | 718 | 24 | 377 | 2 | 1 | 1 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.85 | 0.95 | 0.95 | 0.85 | 0.94 | 0.94 | 0.94 |
| Lanes: | 1.00 | 1.95 | 0.05 | 1.00 | 1.00 | 1.00 | 1.94 | 0.06 | 1.00 | 0.50 | 0.25 | 0.25 |
| Final Sat.: | 1710 | 3319 | 87 | 1710 | 1800 | 1530 | 3323 | 111 | 1530 | 849 | 424 | 424 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.14 | 0.14 | 0.00 | 0.50 | 0.18 | 0.22 | 0.22 | 0.25 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green/Cycle: | 0.10 | 0.60 | 0.60 | 0.02 | 0.52 | 0.52 | 0.25 | 0.25 | 0.25 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.97 | 0.23 | 0.23 | 0.23 | 0.97 | 0.34 | 0.85 | 0.85 | 0.97 | 0.97 | 0.97 | 0.97 |
| Uniform Del: | 42.6 | 8.8 | 8.8 | 46.2 | 22.2 | 13.5 | 33.6 | 33.6 | 35.0 | 47.4 | 47.4 | 47.4 |
| IncremntDel: | 58.7 | 0.1 | 0.1 | 4.5 | 21.8 | 0.3 | 7.8 | 7.8 | 36.8 | 416.0 | 416 | 416.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 101.3 | 8.8 | 8.8 | 50.7 | 44.0 | 13.7 | 41.4 | 41.4 | 71.8 | 463.4 | 463 | 463.4 |
| 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: | 101.3 | 8.8 | 8.8 | 50.7 | 44.0 | 13.7 | 41.4 | 41.4 | 71.8 | 463.4 | 463 | 463.4 |
| DesignQueue: | 8 | 10 | 0 | 0 | 26 | 7 | 30 | 1 | 16 | 0 | 0 | 0 |

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

Intersection #13 SR 28/SR 267

Cycle (sec): 110 Critical Vol./Cap. (X): 1.095
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 66.3
Optimal Cycle: 120 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | L | - T | - R | L | - T | - R | L | - T | - R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | | Include | | | Include | | | Include | | | Include | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 | 1 0 | 1 1 | 0 | 1 0 | 2 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 1 | 0 | 1 | 517 | 2 | 468 | 349 | 842 | 1 | 1 | 946 | 636 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 1 | 0 | 1 | 517 | 2 | 468 | 349 | 842 | 1 | 1 | 946 | 636 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 1 | 0 | 1 | 544 | 2 | 493 | 367 | 886 | 1 | 1 | 996 | 669 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 1 | 0 | 1 | 544 | 2 | 493 | 367 | 886 | 1 | 1 | 996 | 669 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 1 | 0 | 1 | 544 | 2 | 493 | 367 | 886 | 1 | 1 | 996 | 669 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.91 | 1.00 | 0.91 | 0.95 | 0.95 | 0.85 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.85 |
| Lanes: | 0.50 | 0.00 | 0.50 | 0.99 | 0.01 | 1.00 | 1.00 | 1.99 | 0.01 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 820 | 0 | 820 | 1709 | 6 | 1530 | 1710 | 3416 | 4 | 1710 | 3420 | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.32 | 0.32 | 0.32 | 0.21 | 0.26 | 0.26 | 0.00 | 0.29 | 0.44 |
| Crit Moves: | **** | | | | | **** | **** | | | | | **** |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.29 | 0.29 | 0.29 | 0.20 | 0.59 | 0.59 | 0.00 | 0.40 | 0.40 |
| Volume/Cap: | 1.09 | 0.00 | 1.09 | 1.08 | 1.08 | 1.09 | 1.09 | 0.44 | 0.44 | 0.44 | 0.73 | 1.09 |
| Uniform Del: | 54.9 | 0.0 | 54.9 | 38.8 | 38.8 | 38.8 | 44.2 | 12.2 | 12.2 | 54.9 | 28.0 | 33.0 |
| IncremntDel: | 718.3 | 0.0 | 718.3 | 63.8 | 63.8 | 70.5 | 77.0 | 0.2 | 0.2 | 96.9 | 2.0 | 65.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 773.3 | 0.0 | 773.3 | 102.6 | 103 | 109.4 | 121.2 | 12.4 | 12.4 | 151.8 | 30.0 | 98.0 |
| 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: | 773.3 | 0.0 | 773.3 | 102.6 | 103 | 109.4 | 121.2 | 12.4 | 12.4 | 151.8 | 30.0 | 98.0 |
| DesignQueue: | 0 | 0 | 0 | 25 | 0 | 23 | 19 | 23 | 0 | 0 | 39 | 27 |





Proposed All Con Road WinteWed May 21, 2003 14:06:28 Page 14-1

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

Intersection #14 SR 89/Donner Pass Road

Cycle (sec): 73 Critical Vol./Cap. (X): 0.783
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 39.2
Optimal Cycle: 73 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - T | - R | L | - T | - R | L | - T | - R | L | - T | - R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | | Include | | | Include | | | Ovl | | | Include | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 1 | 0 1 | 0 0 | 1 | 1 0 | 1 0 | 1 | 1 0 | 1 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 286 | 75 | 122 | 11 | 309 | 18 | 108 | 148 | 528 | 88 | 310 | 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: | 286 | 75 | 122 | 11 | 309 | 18 | 108 | 148 | 528 | 88 | 310 | 10 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 301 | 79 | 128 | 12 | 325 | 19 | 114 | 156 | 556 | 93 | 326 | 11 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 301 | 79 | 128 | 12 | 325 | 19 | 114 | 156 | 556 | 93 | 326 | 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 |
| Final Vol.: | 301 | 79 | 128 | 12 | 325 | 19 | 114 | 156 | 556 | 93 | 326 | 11 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.95 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 0.95 | 1.00 | 0.85 | 0.95 | 1.00 | 0.85 |
| Lanes: | 1.00 | 1.00 | 1.00 | 0.04 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 1710 | 1800 | 1530 | 64 | 1732 | 1530 | 1710 | 1800 | 1530 | 1710 | 1800 | 1530 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.18 | 0.04 | 0.08 | 0.19 | 0.19 | 0.01 | 0.07 | 0.09 | 0.36 | 0.05 | 0.18 | 0.01 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.22 | 0.22 | 0.22 | 0.24 | 0.24 | 0.24 | 0.09 | 0.28 | 0.50 | 0.04 | 0.23 | 0.23 |
| Volume/Cap: | 0.78 | 0.20 | 0.37 | 0.78 | 0.78 | 0.05 | 0.78 | 0.31 | 0.73 | 1.32 | 0.78 | 0.03 |
| Uniform Del: | 26.6 | 22.9 | 23.9 | 26.0 | 26.0 | 21.4 | 32.7 | 21.0 | 14.3 | 35.0 | 26.3 | 21.7 |
| IncremntDel: | 10.1 | 0.2 | 0.7 | 9.1 | 9.1 | 0.1 | 23.6 | 0.4 | 3.5 | 214.8 | 9.3 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 36.7 | 23.2 | 24.6 | 35.0 | 35.0 | 21.4 | 56.3 | 21.4 | 17.8 | 249.8 | 35.7 | 21.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 36.7 | 23.2 | 24.6 | 35.0 | 35.0 | 21.4 | 56.3 | 21.4 | 17.8 | 249.8 | 35.7 | 21.8 |
| DesignQueue: | 10 | 3 | 4 | 0 | 11 | 1 | 4 | 5 | 12 | 4 | 11 | 0 |

This section presents an analysis of the traffic impacts associated with the implementation of the Martis Valley Community Plan. The analysis focuses on the potential impacts to the roadway, transit, bicycle, and pedestrian systems in the Martis Valley portion of Placer County, the Town of Truckee and along State Route 267 south to Kings Beach. Traffic-related impacts are identified for the proposed land use diagram and each land use map alternative using the Town of Truckee's Transportation Model, which has been expanded to include the Martis Valley area. For each significant impact identified, potential mitigation measures are also identified to offset any significant impacts. All technical analysis related to this section is contained in **Appendix 4.4** and was prepared by LSC Transportation Consultants, Inc.

### 4.4.1 SETTING

The Martis Valley resides in a resort destination area that attracts tourists both during the summer and winter seasons. The area serves as a recreational and residential area, and also as a "gateway" between the Tahoe Region to the south and the Interstate 80 corridor to the north. As a result, traffic conditions in the area vary greatly over the seasons. Winter conditions can also create adverse driving conditions. The private automobile is the primary mode of travel in the area. Public and private transit services also serve the area, focusing on the Northstar-At-Tahoe ski area. Distance, roadway grades, and climate all make it difficult for non-motorized transportation to become a major mode of travel. However, the area does provide opportunity for bicyclists and hikers to enjoy these activities, if not for daily commuting purposes. A detailed description of the roadways in the study area is provided below.

ROADWAY SYSTEM

**Interstate 80 (I-80)**

Interstate 80 provides interregional highway connections east to Reno, Nevada and beyond, and west to Sacramento, California and the San Francisco Bay Area. The Martis Valley area lies to the south of I-80, 34 miles west of Reno and 90 miles east of Sacramento. This section of I-80 is currently a four-lane divided highway with limited truck climbing lanes, with speed limits posted at 65 mph. There are 5 interchanges serving Truckee on I-80. The peak month ADT along this roadway is approximately 40,000- 50,000 vehicles per day.

**State Route 267 (SR 267)**

State Route 267 (SR 267) is a 2-lane highway within the project vicinity, running in a general northwest-southeast alignment between Interstate 80 in Truckee and State Route 28 in Kings Beach. State Route 267 traverses southwesterly from Interstate 80 into downtown Truckee. Within downtown, capacity of this roadway is substantially limited by the existing unsignalized Bridge/Commercial Road intersection (where the SR 267 designation makes a 90-degree turn), as well as the existing at-grade crossing of the Union Pacific Railroad mainline. (This rail line currently serves roughly 21 trains per day.) From downtown Truckee, State Route 267 travels southeasterly across relatively level terrain to the base of a sustained grade near Northstar Drive up to an elevation of 7,199 feet at Brockway Summit. From Brockway Summit, the route descends 945 feet into the Tahoe Basin, ending at State Route 28 in Kings Beach. The route is of local and regional significance, providing access to residential, industrial, commercial and recreational land uses. It serves as the major access route between the Kings Beach and Incline Village

communities near Lake Tahoe on the south and the I-80 corridor to the north. It also serves as the sole existing access to the Northstar-At-Tahoe ski area and adjacent residential neighborhoods.

This highway consists of 2 travel lanes, with a speed limit of 55 miles per hour in the rural sections. A southbound truck-climbing lane is provided for a portion of the southbound grade north of Brockway Summit. Traffic signals are currently installed at the Palisades Drive intersection in Truckee, as well as at the SR 28 intersection in Kings Beach. All other intersections are controlled by stop signs on the side street approaches, with the exception of the "3-way stop" intersection at Bridge Street/Donner Pass Road, which is controlled by stop signs on the west, east, and south approaches only. The peak day average daily trips (ADT) along this roadway is approximately 14,000–16,000 vehicles per day.

**State Route 267 Bypass**

The State Route 267 Bypass, currently under construction, is planned to connect SR 89 North to the north of Interstate 80 and the existing SR 267 alignment near the Tahoe–Truckee Regional Airport to the south. This roadway, which is currently planned for completion in 2002, will allow regional traffic to travel between the Martis Valley and Tahoe Basin to the south with the I-80 corridor on the north without impacting downtown Truckee. A new diamond-configuration interchange will be constructed on Interstate 80 approximately ½ mile east of the existing SR 89 North/SR 267 interchange. Both ramp intersections will be controlled by traffic signals. With completion of the Bypass, the existing SR 89 North segment north of Interstate 80 will curve to the east to a new intersection with a straight alignment of SR 89 North and the SR 267 Bypass. From the south, the Bypass will curve to the east to a signalized intersection with existing SR 267 (Brockway Road) on the west and Joerger Drive on the east. (Caltrans plans identify this east approach as Soaring Way, which would be an extension of the existing roadway off of Airport Road. As plans for this extension have not been finalized and as land uses along Joerger Drive will be the sole traffic generators using this approach under current approved plans, this east approach is designated as Joerger Drive for purposes of this study.) Between this signal and the I-80 interchange, the Bypass will be constructed as a 2-lane access-controlled roadway.

For purposes of this study the SR 267 Bypass will be referred to as SR 267 and the existing SR 267 will be referred to as Brockway Road for the portion from Joerger Drive to West River Street. The north-south portion of the existing SR 267 that lies north of West River Street will be referred to as Bridge Street. East of Bridge Street, the existing SR 267 will be referred to as Donner Pass Road. One travel lane will be provided in each direction on the new Bypass, and traffic signals will be provided at the I-80 Eastbound, I-80 Westbound, and Old SR 267/Joerger Drive intersections. (Note: While SR 267 has a northwest/southeast alignment, it is considered to run northbound/ southbound for the purposes of this study).

**State Route 89 (SR 89)**

SR 89 is one of the 3 primary California routes that access Lake Tahoe (the other 2 are SR 267 and US 50), providing access between Donner Pass Road in Truckee and Tahoe City (the "SR 89 South" segment). Starting at the Interstate 80/SR 267 interchange on the east side of Truckee, "SR 89 North" serves as a rural 2-lane highway connecting Truckee with

Sierraville, Quincy, Mt. Lassen National Park and Mount Shasta to the north. The peak day ADT along this roadway is approximately 25,000 vehicles per day.

**State Route 28 (SR 28)**

State Route 28 is the major roadway serving Lake Tahoe's North Shore, linking SR 267 with Nevada to the east and Tahoe Vista and Tahoe City to the west. At the intersection with SR 267 in Kings Beach, SR 28 is a 4-lane facility with 2 lanes of travel in each direction. East of Kings Beach and west of Tahoe Vista, SR 28 is a 2-lane facility. The posted speed limit on this segment of SR 28 is 35 miles per hour. The peak day ADT along this roadway is approximately 25,000 vehicles per day.

**Northstar Drive**

Northstar Drive provides access from SR 267 westward to the Northstar-At-Tahoe Ski Resort and associated residential and commercial areas. It is generally a 2-lane configuration, with an eastbound left-turn lane at the stop-sign-controlled T-intersection with SR 267. Both northbound left-turn and southbound right-turn lanes are provided on SR 267 at this intersection. Additionally, a traffic control program conducted by Northstar-at-Tahoe in association with California Highway Patrol is in place on peak days of winter traffic. Posted speeds are 35 miles per hour. Residential street intersections along Northstar Drive are controlled by stop signs on the side street approaches. The winter peak day ADT along this roadway is approximately 10,000 vehicles per day.

**Airport Road and Schaffer Mill Road**

Airport Road is a 2-lane roadway providing the main access to the Truckee Tahoe Regional Airport, as well as other industrial and commercial businesses on the northeast side of SR 267. A center left-turn lane is provided along most of this roadway. Schaffer Mill Road (also 2 lanes) extends southwest from the same point on SR 267, providing access to the Lahontan residential development and other parcels not currently developed. The SR 267/Airport Road/Schaffer Mill Road is controlled by stop signs on the side street approaches, and is situated just southeast of the point where the SR 267 Bypass will connect to the existing SR 267 alignment. The peak day ADT along these roadways is approximately 3,000 vehicles per day.

Developers of the Lahontan community are currently designing improvements at the intersection to the satisfaction of the Department of Public Works (DPW) and Caltrans. These improvements will include auxiliary turn lanes, tapers, easements, lighting, striping and signage as required. The construction of the signal is being funded by the developers of Lahontan as part of their conditions of approval. However, the developer has the right to request a reimbursement agreement.

**Palisades Drive**

Palisades Drive is a local residential street, which provides 1 of 2 primary accesses to the Ponderosa Palisades neighborhood. It travels northward from Ponderosa Road to its terminus at the existing SR 267 (Brockway Road), which is a signalized intersection. (However, for purposes of this study, this roadway is assumed to run east/west in all LOS calculations and turning-movement volume tables because SR 267 is considered to run north/south.) The peak Average Daily Traffic (ADT) along this roadway is approximately 4,400 vehicles per day.

### Martis Valley Road

Martis Valley Road is a local residential street, which provides 1 of 2 primary accesses to the Ponderosa Palisades/Sierra Meadows neighborhood. This roadway travels northeast from Ponderosa Drive to a 2-way stop-controlled intersection with the existing SR 267 (Brockway Road). The traffic levels on this roadway are relatively low (less than 4,000 vehicles per day) but delays for left-turn movements from Martis Valley Road to SR 267 northbound often occur during the A.M. peak hour.

### West River Street

West River Street provides east-west access between SR 89 on the west side of Truckee and SR 267 (Bridge Street) in the downtown area. West River Street provides access to a number of industrial, commercial, and residential land uses located along the Truckee River. West River Street (along with the McIver Crossing underpass) provides a potential diversion route around the Bridge Street at-grade rail/highway crossing for northbound SR 267 traffic. The peak Average Daily Traffic (ADT) along this roadway is approximately 5,500 vehicles per day.

### Donner Pass Road

For purposes of this study, Donner Pass Road is defined to begin west of SR 89 South and travel eastward to the eastern I-80 ramp intersection (SR 89/SR 267). While Donner Pass Road is currently considered to end at its intersection with SR 267, when the SR 267 bypass is completed, the roadway will be maintained by the Town of Truckee and named Donner Pass Road. This roadway provides a vital link for local circulation by connecting the Gateway Center area of Truckee to the historic downtown area. This roadway provides a single through lane in each direction, with a continuous center left-turn lane in the Hilltop and Gateway areas. The peak day ADT along this roadway is approximately 17,500 vehicles per day.

#### TRAFFIC SAFETY

Between 1990-1999, the California Highway Patrol reported a total of 701 automobile collisions along the entire length of SR 267. Injury accidents accounted for 35.9 percent of those collisions; 1.1 percent of those collisions involved fatalities. **Table 4.4-1** shows accident data by year.

California Highway Patrol has several safety concerns on SR 267 (Sattler, John. Public Affairs and Community Outreach Officer, California Highway Patrol). First, severe traffic congestion often occurs during peak season travel times northbound on SR 267 into downtown Truckee, and southbound on SR 267 over Brockway Summit to Kings Beach. Frustrated with the congestion on Brockway Summit, some motorists choose to pass slower cars in no-passing zones, which creates hazards in both northbound and southbound directions. Finally, CHP has noted a tendency for motorists to speed on SR 267 once they reach the Martis Valley Flats area just east of Truckee. The posted speed limit is 55 miles per hour, but the average speed traveled in this area is reported to be between 60 and 65 miles per hour, with some motorists well exceeding 65 miles per hour.

**TABLE 4.4-1**
**TRAFFIC ACCIDENTS ON SR 267 (1990-1999)**

| | Total Accidents | Fatality Accidents | | Fatalities | Injury Accidents | | Injuries |
|---|---|---|---|---|---|---|---|
| Year | Number | Number | Percent | Number | Number | Percent | Number |
| 1990 | 78 | 4 | 5.1% | 4 | 24 | 30.8% | 36 |
| 1991 | 47 | 1 | 2.1% | 2 | 16 | 34.0% | 29 |
| 1992 | 59 | 0 | 0.0% | 0 | 25 | 42.4% | 55 |
| 1993 | 70 | 0 | 0.0% | 0 | 21 | 30.0% | 29 |
| 1994 | 58 | 0 | 0.0% | 0 | 22 | 37.9% | 31 |
| 1995 | 91 | 1 | 1.1% | 1 | 39 | 42.9% | 56 |
| 1996 | 75 | 0 | 0.0% | 0 | 22 | 29.3% | 32 |
| 1997 | 68 | 1 | 1.5% | 4 | 20 | 29.4% | 38 |
| 1998 | 85 | 0 | 0.0% | 0 | 37 | 43.5% | 63 |
| 1999 | 70 | 1 | 1.4% | 1 | 26 | 37.1% | 46 |
| Average | 70.1 | 0.8 | 1.1% | 1.2 | 25.2 | 35.9% | 41.5 |
| *SR 267 10-Year Total* | *701* | *8* | -- | *12* | *252* | -- | *415* |
| **Accidents by Intersection** | **Total Accidents** | **Fatality Accidents** | | **Fatalities** | **Injury Accidents** | | **Injuries** |
| | **Number** | **Number** | **Percent** | **Number** | **Number** | **Percent** | **Number** |
| I-80 Interchange | 15 | 0 | 0.0% | 0 | 9 | 60.0% | 11 |
| Northstar Dr. | 10 | 0 | 0.0% | 0 | 4 | 40.0% | 9 |

*Source: California Highway Patrol Information Services Unit Accident Records, 1990 through 1999.*

**Table 4.4-2** compares SR 267 average accident rates for 1990-1999 with California State, Placer County, and Nevada County averages for similar roadways. As noted in the Table, accident rates and injury/fatality accident rates are higher on SR 267 when compared with California and Placer County averages. In light of the relative hazards associated with driving in mountainous winter conditions, this comparison indicates that there is no undue traffic accident history for SR 267 as a whole.

TRAFFIC CONDITIONS AND OPERATIONS

The traffic analysis largely is based upon the Town of Truckee Transportation Model, which has been expanded to include the Martis Valley area. Details regarding the expansion of the model and calibration along the SR 267 corridor may be found in **Appendix 4.4**. The model has been developed for a typical P.M. peak-hour of the week during the summer peak season conditions (usually a summer Friday P.M. peak hour), as the Town of Truckee General Plan identifies the summer weekday P.M. peak hour as the design period for all traffic analyses in the Town. The winter analysis does not directly use the model to develop traffic volumes, but rather is based upon a process of factoring summer model output.

**TABLE 4.4-2**
**ACCIDENT DATA COMPARISON**
**SR 267, STATE OF CALIFORNIA, PLACER COUNTY, NEVADA COUNTY**

| | | Travel | Accidents | | | Victims | | Rates | | Fatalities |
|---|---|---|---|---|---|---|---|---|---|---|
| Location/Area | Road Miles | (MVM) (1) | Total | Injury | Fatal | Killed | Injured | Acc/MVM | F+I/MVM | /100 MVM |
| **10 Year Average for State Route 267** | 12.7 | 42.5 | 70.1 | 25.2 | 0.8 | 1.2 | 41.5 | 1.65 | 0.61 | 1.88 |
| **California (5)** | | | | | | | | | | |
| Rural (Outside City) 2 & 3 Lane | 7,759.9 | 10,666.1 | 12,975 | 5,932 | 399 | 483 | 10,366 | 1.22 | 0.59 | 4.53 |
| Statewide 2 & 3 Lane | 8,431.1 | 13,492.3 | 18,640 | 8,265 | 460 | 551 | 14,236 | 1.38 | 0.65 | 4.08 |
| Statewide Total | 15,185.7 | 144,140.9 | 141,240 | 51,767 | 1,524 | 1,774 | 84,186 | 0.98 | 0.37 | 1.23 |
| **Placer County** | | | | | | | | | | |
| Rural (Outside City) 2 & 3 Lane | 67.9 | 241.0 | 288 | 125 | 2 | 3 | 195 | 1.20 | 0.53 | 1.24 |
| Countywide Total | 155.7 | 1,437.0 | 1,049 | 431 | 11 | 15 | 708 | 0.73 | 0.31 | 1.04 |
| **Nevada County** | | | | | | | | | | |
| Rural (Outside City) 2 & 3 Lane | 62.4 | 131.3 | 232 | 109 | 7 | 7 | 176 | 1.77 | 0.88 | 5.33 |
| Countywide Total | 122.7 | 562.4 | 594 | 259 | 12 | 13 | 454 | 1.06 | 0.48 | 2.31 |

*Note 1: MV = Million Vehicle Miles*
*Source: Based on 1994 Accident Data on California State Highway (Caltrans).*

For this study, impacts on study roadways were determined by measuring the effect that project traffic has on traffic operations at key intersections and along roadways during the winter 30th highest winter peak and summer peak weekday P.M. peak-hour conditions. The following intersections and roadway segments were selected for analysis:

**Study Intersections:**

- SR 89/SR 267 Bypass/I-80 Westbound
- SR 89/SR 267 Bypass/I-80 Eastbound
- Donner Pass Road (Existing SR 267/SR 89)/I-80 Westbound
- Donner Pass Road (Existing SR 267/SR 89)/I-80 Eastbound
- Glenshire Drive/Donner Pass Road (Existing SR 267)
- Bridge Street/Donner Pass Road
- Bridge Street/West River Street
- Brockway Road (Existing SR 267)/Palisades Drive
- Brockway Road (Existing SR 267)/Martis Valley Road
- SR 267 Bypass/Brockway Road (Existing SR 267)/Joerger Drive
- SR 267/Airport Road/Schaffer Mill Road
- SR 267/Northstar Drive
- SR 267/SR 28
- SR 89/Donner Pass Road

The existing intersection configuration of these intersections is shown in **Figure 4.4-1**.

Insert figure 4.4-1, black and white 8.5x11

**Roadway Segments:**

- SR 89 North of Bypass
- Donner Pass Road (Existing SR 89) North of I-80 (East)
- Donner Pass Road (Existing SR 267) South of I-80 (East)
- Donner Pass Road (Existing SR 267) East of Bridge Street
- Donner Pass Road West of Bridge Street
- Bridge Street (Existing SR 267) South of Donner Pass Road
- Brockway Road (Existing SR 267) South of West River Street
- Brockway Road (Existing SR 267) South of Palisades Drive
- Brockway Road (Existing SR 267) South of Martis Valley Road
- SR 267 Bypass South of I-80
- SR 267 South of Brockway Road and SR 267 Bypass
- SR 267 South of Airport Road/Schaffer Mill Road
- SR 267 South of Northstar Drive
- SR 267 North of SR 28
- SR 28 East of SR 267
- SR 28 West of SR 267
- West River Street West of SR 267
- Palisades Drive West of SR 267
- Martis Valley Road West of SR 267
- Schaffer Mill Road West of SR 267
- Airport Road East of SR 267
- Northstar Drive West of SR 267
- SR 89 S South of Donner Pass Road
- Donner Pass Road East of SR 89 South
- Donner Pass Road West of SR 89 South

**Level Of Service (LOS) Criteria**

The analysis of intersections relies on qualitative measures known as level of service (LOS) to describe traffic operating conditions. LOS is a quantitative measure of traffic conditions on isolated sections of roadway and intersections. LOS ranges from "A" (with no congestion) to "F" (where the system fails with gridlock or stop-and-go conditions prevailing). **Table 4.4-3** provides a more detailed description of the LOS criteria used for this study. LOS conditions were evaluated using the methodologies documented in the *Highway Capacity Manual 2000* (Transportation Research Board, National Research Council, 2000), as applied in the Traffix software (Dowling Associates, Version 7.5). Computer output of detailed LOS calculations is provided in **Appendix 4.4** of this report. The specific LOS standards of the various jurisdictions in the study area are discussed in Section 4.4.2, below.

**Historical Traffic Data**

Traffic along the highways near the study area was obtained from *Traffic Volumes on California State Highways* (Caltrans, 1990-2000) as presented in **Table 4.4-4**. As shown, annual average daily traffic (ADT) has grown between 4.2 percent and 1.2 percent annually on average within the region. Relatively high growth has occurred on SR 267 near the Placer/Nevada County Line and on Interstate-80 near SR 267.

**TABLE 4.4-3**
**DESCRIPTIONS OF LEVELS OF SERVICE**

**Descriptions of Levels of Service**

The concept of Level Of Service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A LOS definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from A to F, with LOS A representing the best operating conditions and LOS F the worst.

***Level-Of-Service Definitions***

In general, the various levels of service are defined as follows for uninterrupted flow facilities:

- **LOS A** represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to maneuver within the traffic stream is extremely high. The general level of comfort and convenience provided to the motorist, passenger, or pedestrian is excellent.

- **LOS B** is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within the traffic stream from LOS A. The level of comfort and convenience provided is somewhat less than at LOS A, because the presence of others in the traffic stream begins to affect individual behavior.

- **LOS C** is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user. The general level of comfort and convenience declines noticeably at this level.

- **LOS D** represents high-density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.

- **LOS E** represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to "give way" to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.

- **LOS F** is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount, which can traverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion. LOS F is used to describe the operating conditions within the queue, as well as the point of the breakdown. It should be noted, however, that in many cases operating conditions of vehicles or pedestrians discharged from the queue may be quite good. Nevertheless, it is the point at which arrival flow exceeds discharge flow, which causes the queue to form, and LOS F is an appropriate designation for such points.

**Existing Traffic Volumes**

Existing traffic volumes at the study intersections and along the study roadway segments were estimated for 2001 30th highest winter peak hour and summer peak weekday P.M. peak-hour conditions in the steps described below:

Summer Peak Weekday

1. Existing observed summer peak weekday counts were identified.

2. Caltrans observed count data (July 18, 2001) were increased by the historic peak month ADT annual growth rate on Caltrans highways to reflect 2001 peak month conditions.

3. Turning-movement volumes to and from SR 28 and I-80 were adjusted by the Peak Month ADT annual growth rate for these other roadways, as well, to estimate 2001 conditions.

4. Counts on Northstar Drive were validated by loop detector counts provided by Northstar-At-Tahoe ski area for July 2000. To correct errors in these counts, the loop detector counts were adjusted to reflect ratio of detector counts to observed manual counts conducted by Northstar staff on January 20, 2001 and February 18, 2001, as documented in the *Northstar-At-Tahoe 2000/2001 Ski Season Traffic Monitoring Report* (LSC, 2001), as presented in **Appendix 4.4**.

5. Volumes were balanced conservatively along SR 267, such that the greater through volume (from each turning movement volume or link volume) was used to balance the remainder.

30th Highest Winter Hour Winter Traffic Volumes

1. Available observed turning-movement volumes at the SR 28/SR 267 (January 1994) and SR 267/Northstar Drive (January, 2001) were evaluated.

2. Hourly count data provided by Caltrans for January 14th to 16th, 2000 at 3 separate count locations on SR 267 was evaluated. However, data for Friday, January 14th and Saturday, January 15th, SR 89 was not used, as parallel SR 89 was closed for a portion of the day and this data was therefore considered not to be representative of typical peak conditions.

3. It was determined that the most representative count data is provided by the count conducted on Saturday, January 20, 2001 at the Northstar Drive/SR 267 intersection. This day exhibited the 2nd highest eastbound peak-hour volume on Northstar Drive, as recorded by the Northstar Drive loop detectors. These counts were increased based upon a comparison of the peak eastbound hourly traffic volume on Northstar Drive on January 20, 2001 and the peak day, Friday, February 23, 2001 to reflect the peak day conditions.

4. A comparison was made between summer peak weekday and winter weekend peak hour traffic volumes at the SR 89 South/I-80 ramp intersections and the SR 89 South/Donner Pass Road intersection, based upon the winter traffic count data presented in the *SR 89 Corridor Study* (LSC Transportation Consultants, Inc, 2000)

## TABLE 4.4-4
## HISTORICAL TRAFFIC DATA ON CALIFORNIA HIGHWAYS WITHIN STUDY AREA

| | State Route 267 | | | | | Interstate 80 | | State Route 89 | | SR 28 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | South of Commercial/ Bridge in Truckee | South of Placer/ Nevada County Line | North of Northstar Drive | Brockway Summit | North of Kings Beach Jct. 28 | East of 267 | West of 267 | South of I-80 | North of I-80 | East of 267 | West of 267 |
| Average Annual Daily Traffic Volumes | | | | | | | | | | | |
| 1990 | 11,900 | 7,100 | 6,700 | 6,100 | 8,200 | 21,300 | 23,500 | 16,600 | 4,350 | 15,900 | 16,800 |
| 1991 | 12,500 | 8,600 | 7,300 | 6,700 | 8,000 | 23,100 | 23,500 | 16,600 | 5,300 | 17,100 | 16,800 |
| 1992 | 12,500 | 8,600 | 7,300 | 6,700 | 8,000 | 23,100 | 23,500 | 16,600 | 5,300 | 17,100 | 16,800 |
| 1993 | 12,500 | 8,600 | 7,300 | 6,700 | 8,000 | 23,100 | 23,500 | 17,200 | 5,300 | 17,100 | 16,800 |
| 1994 | 13,700 | 10,500 | 8,000 | 7,100 | 9,200 | 23,500 | 25,500 | 21,100 | 5,400 | 18,500 | 17,000 |
| 1995 | 13,700 | 10,500 | 8,000 | 7,100 | 9,200 | 23,000 | 25,000 | 20,900 | 5,400 | 18,100 | 17,000 |
| 1996 | 13,700 | 10,500 | 8,000 | 7,100 | 9,200 | 26,500 | 29,500 | 21,000 | 5,400 | 18,100 | 17,000 |
| 1997 | 15,400 | 11,500 | 8,700 | 7,600 | 9,200 | 26,500 | 28,000 | 21,000 | 6,300 | 19,400 | 18,400 |
| 1998 | 15,400 | 11,500 | 8,700 | 7,600 | 9,200 | 25,000 | 25,500 | 20,100 | 6,300 | 19,600 | 18,600 |
| 1999 | 15,400 | 11,500 | 8,700 | 7,600 | 9,200 | 29,500 | 30,000 | 20,600 | 6,300 | 19,100 | 18,100 |
| 2000 | 14,200 | 11,500 | 9,900 | 8,100 | 9,200 | 29,500 | 24,700 | 20,700 | 7,000 | 19,100 | 18,100 |
| Change: 1991-2000 | 2,300 | 4,400 | 3,200 | 2,000 | 1,000 | 8,200 | 1,200 | 4,100 | 2,650 | 3,200 | 1,300 |
| Total % Change | 18.4% | 51.2% | 43.8% | 29.9% | 12.5% | 35.5% | 5.1% | 24.7% | 50.0% | 20.1% | 7.7% |
| *Annual % Change AADT* | *1.7%* | *4.2%* | *3.7%* | *2.6%* | *1.2%* | *3.1%* | *0.5%* | *2.2%* | *4.1%* | *1.9%* | *0.7%* |
| Peak Month Average Daily Traffic Volumes | | | | | | | | | | | |
| 1990 | 15,100 | 9,100 | 8,600 | 8,100 | 10,500 | 29,000 | 31,000 | 21,100 | 6,400 | 22,100 | 22,500 |
| 1991 | 14,900 | 11,600 | 9,600 | 8,800 | 11,100 | 30,000 | 31,000 | 21,100 | 7,000 | 24,200 | 23,900 |
| 1992 | 14,900 | 11,600 | 9,600 | 8,800 | 11,100 | 30,000 | 31,000 | 21,100 | 7,000 | 24,200 | 23,900 |
| 1993 | 14,900 | 11,600 | 9,600 | 8,800 | 11,100 | 30,500 | 31,000 | 21,800 | 7,000 | 24,200 | 23,900 |
| 1994 | 16,900 | 13,800 | 10,200 | 9,200 | 11,900 | 31,000 | 34,000 | 25,500 | 7,400 | 24,200 | 23,900 |
| 1995 | 16,900 | 13,800 | 10,200 | 9,200 | 11,900 | 30,000 | 35,000 | 26,000 | 7,400 | 23,700 | 23,900 |
| 1996 | 16,900 | 13,800 | 10,200 | 9,200 | 11,900 | 34,500 | 40,500 | 23,000 | 7,400 | 23,700 | 23,900 |
| 1997 | 17,400 | 14,200 | 10,500 | 9,300 | 11,900 | 38,000 | 46,000 | 23,000 | 8,300 | 24,900 | 24,600 |
| 1998 | 17,400 | 14,200 | 10,500 | 9,300 | 11,900 | 37,500 | 42,500 | 22,600 | 8,300 | 24,700 | 24,400 |
| 1999 | 17,400 | 14,200 | 10,500 | 9,300 | 11,900 | 44,500 | 50,000 | 23,200 | 8,300 | 24,100 | 23,700 |
| 2000 | 16,100 | 14,200 | 11,400 | 9,900 | 11,900 | 31,000 | 41,000 | 24,600 | 8,800 | 24,100 | 23,700 |
| Change: 1991-2000 | 1,000 | 5,100 | 2,800 | 1,800 | 1,400 | 2,000 | 10,000 | 3,500 | 2,400 | 2,000 | 1,200 |
| Total % Change | 6.7% | 44.0% | 29.2% | 20.5% | 12.6% | 6.7% | 32.3% | 16.6% | 34.3% | 9.0% | 5.3% |
| *Annual % Change Peak Month ADT* | *0.7%* | *3.7%* | *2.6%* | *1.9%* | *1.2%* | *0.6%* | *2.8%* | *1.5%* | *3.0%* | *0.9%* | *0.5%* |
| Peak Hour Traffic Volumes | | | | | | | | | | | |
| 1990 | 1,800 | 1,100 | *1,350* | 970 | 1,650 | 3,100 | 3,600 | 2,400 | 600 | 2,100 | 2,200 |
| 1991 | 1,800 | 1,100 | 960 | 920 | 1,000 | 3,100 | 3,600 | 2,400 | 1,750 | 2,100 | 2,200 |
| 1992 | 1,800 | 1,100 | 960 | 920 | 1,000 | 3,100 | 3,600 | 2,400 | 1,750 | 2,100 | 2,200 |
| 1993 | 1,800 | 1,100 | 960 | 920 | 1,000 | 3,100 | 3,600 | 2,400 | 1,750 | 2,100 | 2,200 |
| 1994 | 1,800 | 1,400 | 790 | 720 | 880 | 3,100 | 3,600 | 2,600 | 900 | 2,100 | 2,200 |
| 1995 | 1,800 | 1,400 | 790 | 720 | 880 | 2,900 | 3,500 | 2,550 | 900 | 2,050 | 2,200 |
| 1996 | 1,800 | 1,400 | 790 | 720 | 880 | 3,550 | 4,100 | 2,700 | 900 | 2,050 | 2,200 |
| 1997 | 1,800 | 1,400 | 790 | 720 | 880 | 3,550 | 4,000 | 2,700 | 1,000 | 2,100 | 2,300 |
| 1998 | 1,800 | 1,400 | 790 | 720 | 880 | 3,550 | 2,400 | 2,600 | 1,000 | 2,100 | 2,300 |
| 1999 | 1,800 | 1,400 | 790 | 720 | 880 | 4,200 | 2,800 | 2,650 | 1,000 | 2,050 | 2,250 |
| 2000 | 1,400 | 1,400 | 1,450 | 1,150 | 880 | 3,500 | 2,800 | 2,400 | 830 | 2,050 | 2,250 |
| Change: 1991-2000 (1) | -400 | 300 | 100 | 180 | -770 | 400 | -800 | 0 | 230 | -50 | 50 |
| Total % Change | -22.2% | 27.3% | 10.4% | 19.6% | -77.0% | 12.9% | -22.2% | 0.0% | 13.1% | -2.4% | 2.3% |
| *Annual % Change Peak Hour ADT* | *-2.5%* | *2.4%* | *1.0%* | *1.8%* | *-13.7%* | *1.2%* | *-2.5%* | *0.0%* | *1.2%* | *-0.2%* | *0.2%* |

*Note 1: Outliers in 1990 at 267/Northstar Drive, 267/Jct. 28, and 89/North of I-80 are excluded from analysis.*
*Source: Traffic Volumes on California State Highways, 1990-2000. State of California Business, Transportation and Housing Agency. Department of Transportation.*

and summer peak weekday P.M. peak-hour traffic volumes. Factors were developed using this data that compare winter weekend PM peak-hour volumes to summer peak weekday PM peak-hour volumes. For example, the winter traffic volumes turning left from SR 89 northbound to I-80 westbound were shown to be 291% of the summer peak weekday traffic volumes at the SR 89 South/I-80 westbound ramp. Therefore, a factor of 2.91 was applied to the summer turning-movement volume from SR 267 northbound to I-80 westbound to estimate winter turning-movement volumes.

5. The difference between peak-hour and 30th peak-hour traffic volumes was determined for both north and south directions. Count data was obtained from Northstar-at-Tahoe for eastbound peak-hour volumes on Northstar Drive for every day in the 2000/2001ski season. Hourly count data for January 20th, 2001 and February 18, 2001 was then evaluated to identify those days on which the second-highest hour was also within the top 30 hours for the year. By considering both the observed peak-hour volumes and the estimated second-highest volumes on peak days, the actual 30th highest winter peak hour volume along Northstar Drive was estimated.

6. The February 18, 2001 turning movement volumes were factored down to reflect the 30th highest winter peak hour. The difference in volumes was only applied to the eastbound traffic exiting Northstar in an effort to remain conservative (inbound PM peak-hour traffic to the ski area was assumed to remain at the peak winter volume). The decrease in traffic was applied, based upon existing observed traffic volumes during periods of peak ski area exiting traffic activity.

Once these factors were applied, turning movements at the intersections were balanced. The existing 2001 turning-movement volumes for the summer peak weekday P.M. peak hour and 30th highest winter peak hour are shown in **Figures 4.4-2** and **4.4-3**, respectively.

The existing peak season ADT was estimated by applying a factor to the peak-hour volume on each roadway. This factor was determined by reviewing daily traffic count data along various roadways in the Town of Truckee and Martis Valley from 1997 to the present. A peak hour-to-ADT factor was determined for each study roadway segment and applied to the estimated summer peak-hour traffic volumes to determine the 2001 ADT, with the following exceptions:

- The average of the ADT factor along SR 267 south of Bridge Street and at the County line was averaged and applied to all segments of SR 267 located between these two locations.

- The factor for Palisades Drive was assumed to equal that observed along Martis Valley Road.

- The factor along Northstar Drive West of SR 267 was based upon the data recorded as part of the Northstar Traffic Monitoring Program.

- The factor along Schaffer Mill Road was assumed to be equal to that along Northstar Drive.

- insert Figure 4.4-2, black and white 8.5x11

- insert Figure 4.4-3, black and white 8.5x11

- The factor along Donner Pass Road east of SR 89 South was increased from 10.6 (observed west of SR 89 South) to 12.0, to reflect the high level of commercial land uses along Donner Pass Road east of SR 89 South.

- The factor along Airport Road is based upon the average peak hour to ADT factor for Light Industrial, General Aviation, and General Office land uses as presented in the *Trip Generation Manual* (ITE, 1997).

**Existing Level of Service (LOS)**

The existing LOS at all the study intersections is summarized in **Table 4.4-5**. The roadway LOS was determined by applying the appropriate Nevada County (Town of Truckee) or Placer County standard to the peak-hour, peak-directional traffic volumes on each roadway or the ADT on each roadway. The resulting roadway LOS is summarized in **Table 4.4-6**.

**TABLE 4.4-5**
**EXISTING INTERSECTION LOS (YEAR 2001)**

| Note: LOS shown in **bold** exceeds standard | | Year: | 2001 | |
|---|---|---|---|---|
| | | Roadway Network: | Existing | |
| | | Land Use: | Existing | |
| | | Design Period: | Summer | Winter |
| | | | Weekday | Weekend |
| **Intersection** | **Type of Control** | | **LOS** | **LOS** |
| SR 89/SR 267 Bypass/I-80 Westbound | Traffic Signal | Total Intersection | -- | -- |
| SR 89/SR 267 Bypass/I-80 Eastbound | Traffic Signal | Total Intersection | -- | -- |
| DPR (Existing 267/89)/I-80 Westbound | Stop-Controlled | Worst Movement | **F** | **F** |
| | | Total Intersection | B | A |
| DPR (Existing 267/89)/I-80 Eastbound | Stop-Controlled | Worst Movement | **F** | D |
| | | Total Intersection | A | A |
| Glenshire Drive/DPR (Existing SR 267) | Stop-Controlled | Worst Movement | **F** | **F** |
| | | Total Intersection | E | C |
| Bridge Street/Donner Pass Road | Stop-Controlled (2) | Worst Movement | **F** | **F** |
| | | Total Intersection | **F** | E |
| Bridge Street/West River Street | Stop-Controlled | Worst Movement | **F** | **F** |
| | | Total Intersection | E | **F** |
| Brockway Rd (Existing 267)/Palisades Dr | | Total Intersection | B | B |
| Brockway Rd (Existing 267)/Martis Valley Rd | Stop-Controlled | Worst Movement | **F** | **F** |
| | | Total Intersection | **E** | B |
| 267Bypass/267/Brockway Rd (Existing 267)/Joerger Dr | | Total Intersection | -- | -- |
| SR 267/Airport Road/Schaffer Mill Road | Stop-Controlled | Worst Movement | **F** | **F** |
| | | Total Intersection | **F** | C |
| SR 267/Northstar Drive | Stop-Controlled (1) | Worst Movement | **F** | C |
| | | Total Intersection | A | C |
| SR 267/SR 28 | | Total Intersection | B | C |
| SR 89 South/Donner Pass Road | | Total Intersection | D | D |

*Note 1: Traffic control is provided at the SR 276/Northstar Drive intersection during the peak skier season.*
*General Note: The SR 267 Bypass was not in operation at the time of this traffic analysis.*
*DPR: Donner Pass Road*

**TABLE 4.4-6**
**EXISTING ROADWAY LOS FOR SUMMER CONDITIONS (YEAR 2001)**

| Roadway | Jurisdiction | Applicable LOS Standard | Peak Direction/ Peak-Hour Volume (per lane) | ADT | Roadway LOS |
|---|---|---|---|---|---|
| SR 89 North of Bypass | Truckee | D | — | — | — |
| SR 267 Bypass South of I-80 | Truckee | D | — | — | — |
| Donner Pass Road (Existing SR 89) North of I-80 (East) | Truckee | D | 421 | 6,590 | A |
| Donner Pass Road (Existing SR 267) South of I-80 (East) | Truckee | D | 640 | 13,160 | A |
| Donner Pass Road (Existing SR 267) East of Bridge Street | Truckee | D | 734 | 13,510 | A |
| Donner Pass Road West of Bridge Street | Truckee | D | 577 | 11,730 | A |
| Bridge Street (Existing SR 267) South of Donner Pass Road | Truckee | D | 844 | 14,510 | A |
| Brockway Road (Existing SR 267) South of West River Street | Truckee | D | 985 | 16,760 | A |
| Brockway Road (Existing SR 267) South of Palisades Drive | Truckee | D | 885 | 14,720 | A |
| Brockway Road (Existing SR 267) South of Martis Valley Road | Truckee | D | 900 | 13,920 | A |
| SR 267 South of Brockway Road and SR 267 Bypass | Placer County | E | — | — | — |
| SR 267 South of Airport Road/Schaffer Mill Road | Placer County | E | 688 | 11,030 | D |
| SR 267 South of Northstar Drive | Placer County | E | 654 | 7,980 | D |
| SR 267 North of SR 28 | Placer County | E | 471 | 9,790 | D |
| SR 28 East of SR 267 | Placer County | E | 925 | 16,100 | E |
| SR 28 West of SR 267 | Placer County | E | 821 | 12,100 | D |
| West River Street West of SR 267 | Truckee | D | 425 | 5,220 | A |
| Palisades Drive West of SR 267 | Truckee | D | 294 | 4,380 | A |
| Martis Valley Road West of SR 267 | Truckee | D | 278 | 3,910 | A |
| Schaffer Mill Road West of SR 267 | Placer County | C (1) | 192 | 2,820 | A |
| Airport Road East of SR 267 | Placer County | C (1) | 251 | 3,040 | B |
| Northstar Drive West of SR 267 | Placer County | C (1) | 291 | 6,520 | C |
| SR 89 S South of Donner Pass Road | Truckee | D | 712 | 11,730 | A |
| Donner Pass Road East of SR 89 South | Truckee | D | 682 | 14,340 | A |
| Donner Pass Road West of SR 89 South | Truckee | D | 911 | 17,490 | A |

*General Note: The SR 267 Bypass was not in operation at the time of this traffic analysis.*
*(1)The applicable LOS for County roadways is LOS C except within ½ mile of SR 267, for which it is LOS D.*

TRANSIT SYSTEM

### Truckee Trolley Winter Service

The main public transit service in place to serve the Martis Valley region is the Truckee Trolley, historically operated by Area Transit Management, Inc. (ATM, Inc.) under contract to the Town of Truckee (As ATM has recently indicated that it will no longer operate this service, the Town is currently retaining a new contractor). This free shuttle service runs during the peak ski season months, with 3 fixed routes: Truckee Depot to Northstar, Northstar to Kings Beach, and Truckee Depot to Sugar Bowl Ski Area. Hourly service is provided along SR 267 between downtown Truckee and Northstar between 7:00 AM and 5:30 PM; vehicles leave the Truckee Depot at the top of the hour and leave Northstar at

the bottom of the hour, with major stops at the Truckee Tahoe Airport, the Best Western Motor Inn, and the Regional Park. No service is provided between 1:00 PM and 2:00 PM. During the 1999-2000 ski season, the Trolley operated from November to April, carrying a total of 39,177 passengers. The majority of riders on the 2 Northstar routes were Northstar employees and guests, with employees comprising 69.5 percent of passengers, and guests 26.6 percent. Northstar provides employee housing near downtown Truckee, making the route between Northstar and the Truckee Depot a convenient transit option for Northstar employees. Operating from November to April, the Trolley carried a total of 43,633 passengers in the 2000-01 ski season and 45,424 passengers in the 2001-02 ski season. This indicates the ridership on the trolley has been increasing at an average of 8 percent per year.

**Truckee Trolley Summer Service**

~~ATM, Inc. also provides the Truckee Trolley summer service under contract to the Town of Truckee.~~ During the summer season, the Truckee Trolley provides service between the Truckee Tahoe Airport and the West End Donner Lake beach. The Truckee Trolley operates on an hourly basis between approximately 9:00 AM and 5:00 PM, with 8 round-trips per day, 7 days a week. One-way fare for the Truckee Trolley during the summer is $1.00, with a discounted fare for disabled patrons, seniors, and children between the ages of 5 and 15.

The Trolley provided 7,548 passenger-trips during the 1999 summer season, July through November. Peak months were July and August with 2,507 and 2,173 passengers. respectively. Of total ridership, 82 percent consisted of general public riders.

**Lake Tahoe/Northstar Shuttle Service**

During the ski season, Northstar Ski Area operates a free shuttle for employees and guests that runs between the ski area and North Shore along Highways 28 and 267. This route is served once per hour from 7:00 AM to 5:30 PM, except between 1:00 PM and 2:00 PM. The vehicle departs Northstar at 0:30 past the hour and departs Tahoe Vista at the top of the hour. During the 1999-2000 ski season, the shuttle transported 3,866 passengers (Paula Rachuay, Resort Planner, Northstar-At-Tahoe Ski Area. May, 2000)

**Truckee Dial-A-Ride**

The Town of Truckee also funds Dial-a-Ride, a demand-based transit service that provides door-to-door transport between Glenshire, Tahoe Donner and downtown Truckee. Customers call in advance to schedule a ride and pay a flat fare of 3 dollars per ride.

Dial-A-Ride transported 14,579 passengers, between July 1999 and April 2000. Seniors accounted for approximately 60 percent of the ridership, with disabled and wheelchair-bound passengers accounting for almost 26 percent, and general public making up the remaining 14 percent. Monthly ridership ranged from a high of 1,503 passengers in March to a low of 1,065 in April.

**Greyhound Bus Lines**

The unstaffed Amtrak Station/Truckee Intermodal Transit Center in downtown Truckee acts as the depot for Greyhound passengers. Greyhound operates 10 daily scheduled

departures from the Truckee Depot: 4 eastbound to Reno and 6 westbound to Sacramento.

**Amtrak Thruway Service**

In addition to 1 westbound and 1 eastbound passenger train (the *California* Zephyr) serving the Truckee Depot each day, Amtrak operates 5 buses daily along the Capitol Corridor, from Reno through Truckee to Sacramento. Passengers on this thruway service can connect with The Capitol s rail service in Sacramento, which runs to the Bay Area.

**Tahoe Area Regional Transit (TART)**

Tahoe Area Regional Transit (TART), operated by Placer County, does not currently provide service along SR 267, but does provide bus service between Truckee and Tahoe City via SR 89 South. This service is partially funded by the Town of Truckee. TART buses operate 7 days a week, 364 days a year (excluding Christmas), and run on roughly 2-hour headways between the Truckee Intermodal Transit Center in downtown Truckee and the Tahoe City "Y" area. One-way fare is 1.25 dollars. The 1-way disabled fare is 1 dollar, while all day passes are 3 dollars for adults and 2 dollars for children, senior citizens, and the disabled.

**Shuttle Services to the Reno-Tahoe International Airport**

Approximately 17 privately owned shuttle services operate in the Truckee/Martis Valley/Tahoe area, providing transportation between the area and the Reno-Tahoe International Airport in Reno, Nevada. Squaw Creek Transportation is arguably the most established of these services, operating standard shuttle service on the hour between the Resort at Squaw Creek in Squaw Valley, USA and the Reno Airport. Service runs from approximately 5:00 AM to 11:00 PM daily, with basic 1-way fares starting at 38 dollars, with lower group rates. Luxury and door-to-door service is also available.

RAIL SERVICES

The existing rail facilities through historic downtown Truckee extend along the I-80 corridor from the Bay Area to the west and to Reno, Ogden and beyond in the east. These facilities are owned and operated by Union Pacific Railroad. There is an un-staffed Amtrak station/Truckee Intermodal Transit Center in downtown Truckee that is used as a passenger pickup and drop off point for buses and shuttles, as well as for Amtrak trains. Passenger rail service is currently limited to 1 daily departure in each direction of the Amtrak *California Zephyr*, which runs from Oakland, California to Chicago, Illinois. However, Caltrans' *Rail Passenger Program Report* (Caltrans Rail Program, 1999) calls for expansion of *The Capitols* rail service, currently operating between San Jose and Auburn, eastward to Truckee and Reno in 2004-05.

PARK-AND-RIDE FACILITIES

There are currently no officially designated Park-And-Ride facilities in the study area. Unofficial park-and-ride activity is observed to occur on the northern side of the SR 267/I-80 interchange.

Among the Transportation Control Measures listed in the Truckee General Plan (Town of Truckee General Plan, 1995-2014, 1996), the addition of Park-And-Ride lots within the

Town of Truckee is included in Circulation Policy 4.1 as another method Truckee would like to implement to promote efficient use of public transit.

BICYCLE AND PEDESTRIAN SYSTEM

At present, there are no designated pedestrian/bicycle routes along the SR 267 corridor through historic downtown Truckee and the Martis Valley. Limited pedestrian activity occurs within the area due to the dispersed pattern of land use. Bicycle activity is also limited within the area, with the exception of summer recreational trips. To access the Martis Valley region from downtown Truckee, cyclists must use the Truckee River crossing located on SR 267. From the North Shore of Lake Tahoe, SR 267 must be used to travel by bicycle to Truckee. This roadway has steep grades the hinder bicycle use.

The Town of Truckee is currently developing a master plan for trails and bikeways that preliminary would add signed bicycle corridors along Donner Pass Road, West River Street and SR 267 to the Placer County boundary near the Truckee Tahoe Airport (Ball, Gavin, April 2000). Placer County has plans to add five miles of off-road multipurpose trails between Northstar and the Truckee town limits, connecting with existing multipurpose trails in the area (Ramirez, John. May 2000). The reader is referred to Section 4.11 (Public Services) regarding existing and planned trail systems in the plan area.

### 4.4.2 REGULATORY FRAMEWORK

FEDERAL REGULATIONS

No federal documents were identified that addressed regulatory issues relating to the proposed project's impact on the transportation system.

STATE REGULATIONS

**Caltrans**

Caltrans owns, operates, and maintains much of the study area roadways, including I-80, SR 267, and SR 28. Specific regulatory conditions that relate to this analysis or the implementation of the proposed project are described below.

- *District System Management Plan*, Caltrans - District 3, August 1992: This document sets forth the policy direction for Caltrans - District 3 over the next 20 to 30 years. Nine policies and 15 action statements are presented, all intended to move toward achieving the District's principal goal:

  > *"... assure the economic vitality and quality of life for its population through a cohesive multi-modal, multi-jurisdictional, economical and environmentally sound transportation system to provide for mobility of goods, services, information, and people, in a safe and efficient manner."*

- *Transportation Concept Report - Interstate Route 80*, Caltrans - District 3, 1999: Route Concept Reports (RCRs) and Transportation Concept Reports (TCRs)are planning documents, which are intended to define the state's goal for a specific facility, in terms of LOS and the general magnitude of improvements. The I-80

Route Concept Reports states that the LOS for this interstate highway in rural areas (including the vicinity of the proposed project) should be LOS D (assuming traffic operations are unaffected by adverse weather). In addition, the "concept facility" is defined as a 6-lane facility, though only 4 lanes exist today. The RCR anticipates reduction in LOS to F by the year 2016, and proposes a series of improvements to mitigate some of these deficiencies. Among the proposals noted in the concept report is the reconstruction of the I-80/SR 89/SR 267 interchange and the addition of a 1.3-mile eastbound auxiliary lane between Truckee and the new interchange. The reconstruction of the I-80/SR 89/SR 267 interchange is currently in progress, and is scheduled for completion in 2002. The Department of Food and Agriculture plans to construct a new Agriculture Inspection Station adjacent to the westbound lanes on I-80 east of Truckee just west of the existing Truck Inspection Stations. When the new station is operational, the existing station will be closed. According to the concept report, the schedule calls for construction of the Agricultural Station by early June 2000. However, construction has not started yet. The concept LOS based on these improvements is LOS E.

- *Route Concept Report - State Route 267*, Caltrans - District 3, March 2001: This Route Concept Report identifies concept LOS D, E, and E on the portion of SR 267 in Nevada County, between the Nevada County line and Brockway Summit, and south of Brockway Summit, respectively. According to the concept report, the SR 267 Bypass is planned to be in place by 2002, which will improve the roadway LOS. However, the ultimate concept facility is planned to have a 4-lane cross-section along the bypass roadway. For the section from the Nevada County to Brockway Summit, the concept facility is a 2-lane conventional highway with southbound truck climbing lanes to Brockway Summit. However, the ultimate concept facility would have a 4-lane cross-section, as well. The concept facility of the segment located south of Brockway would include 8-foot shoulders, while the ultimate concept facility would contain 8-foot shoulders, as well as northbound truck climbing lanes. (Please note that Caltrans staff recently identified an error in the March 2001 SR 267 Transportation Concept Report. The Concept LOS was improperly identified in Table 1 of the Caltrans report. A revised copy will be available soon.)

- *Route Concept Report - State Route 28*, Caltrans - District 3, May 1997: This Route Concept Report identifies a concept LOS F on the portion of SR 28 near the proposed project. Members of the community requested that the Placer County Planning Department conduct a study of the reduction in the number of lanes on this segment (Kings Beach) from 4 to 3 lanes. This reduction in lanes would provide a continuous left turn lane in the median. Caltrans conducted a traffic analysis in December 1996. This analysis determined the proposed reduction in lanes would result in increased delays, longer queues, additional fuel consumption, and reduced quality in the level of service on the SR 28/SR 267 signalized intersection. The Tahoe Regional Planning Agency (TRPA) is the responsible regional transportation planning agency within the Tahoe Basin for transportation issues and takes the lead role in identifying transportation strategies and projects. As a result, Caltrans cannot guarantee that the overall facility will operate at any level of service better than LOS F. In 2001, Caltrans approved the Kings Beach Commercial Core Improvement Project PSR. The EIS/EIR is currently being prepared.

LOCAL REGULATIONS

Numerous regulations or policies of relevant jurisdictions apply to the transportation system within the study area. The study area encompasses three local jurisdictions, as follows:

- *Placer County:* Unincorporated portion of Placer County outside Tahoe Basin, including the SR 267/Airport Road-Schaffer Mill Road, SR 267/Northstar Drive and Northstar Drive/Big Springs Drive intersections;

- *Tahoe Regional Planning Agency:* Portion of Placer County located within Tahoe Basin, including the SR 267/SR 28 intersection; and

- *Town of Truckee:* Portion of the SR 267 corridor from a point just north of the Airport Road -- Schaffer Mill Road alignment, including the I-80 intersections, Bridge Street/Commercial Row, and New SR 267 Bypass/Old SR 267 intersection.

**Placer County**

Applicable policy documents were reviewed as part of this study to determine the significance of various impacts. Specific regulatory conditions that would relate to this analysis or the implementation of the proposed project are described below:

- According to the *Placer County General Plan Background Report*, the maximum daily traffic volume *per lane* for a rural 2-lane highway with flat terrain operating at LOS E or better is 12,500. Please note that this standard was applied to the section of SR 267 that is located south of Brockway Road and north of Northstar Drive.

- *Countywide Traffic Fee Program* (Placer County Department of Public Works, Transportation Division; July 2000): The Placer County Board of Supervisors adopted the Countywide Traffic Fee Program, requiring new development within the County to pay traffic impact fees. The fees collected through this program, in addition to other funding sources, allows the County to construct transportation facilities needed as a result of new development. The Martis Valley is part of the Tahoe/Resorts Benefit District. Roadway and intersection improvements in the area for the Tahoe/Resorts Benefit District consist of Northstar Drive/Big Springs Drive intersection signalization ($125,000 total cost), northbound passing lane along SR 267 at Brockway Summit ($1,000,000 total cost) and the SR 267 Bypass and miscellaneous improvements ($32,000,000 total cost). The fee each development is required to pay is based upon its Vehicle Miles of Travel (VMT) generated by the project as it compares to the VMT generation of a single-family dwelling unit, or a Dwelling Unit Equivalent (DUE). The fee per DUE in the Martis Valley is 2,355 dollars.

- Placer County DPW staff has indicated that, for purposes of this study, an Average Daily Traffic volume of 2,000 should be used as the standard for the maximum volume compatible with local residential street with front-on lots (e.g. Sierra Meadows/Ponderosa Palisades), as stated in a memo from Richard Moorehead dated 9/5/01.

- *Placer County General Plan Update - Countywide General Plan Policy Document* (Placer County, et al.; August 16, 1994): The Countywide General Plan Policy Document provides long-range direction and policies for the use of land within Placer County. With regard to the transportation and circulation system serving the project, this document establishes an overall roadway system including a roadway functional classification system and designates a series of transit corridors. In addition, six modal goals are presented, each of which is supported by numerous policies and implementation programs. A list of applicable General Plan provisions are provided below:

  Policy 3.A.1 The County shall plan, design, and regulate roadways in accordance with the classification system established in *Placer County General Plan* and reflected in the *Circulation Plan Diagram* contained therein.

  Policy 3.A.2 The County shall require that streets and roads be dedicated, widened, and constructed according to the roadway design and access standards generally defined in the Placer County General Plan and the County's Highway Deficiency Report. Exceptions to these standards may be necessary but should be kept to a minimum and shall be permitted only upon determination by the Public Works Director that safe and adequate public access and circulation are preserved by such exceptions.

  Policy 3.A.3 The County shall require that roadway rights-of way be wide enough to accommodate the travel lanes needed to carry long-range forecasted traffic volumes (beyond 2021), as well as any planned bikeways and required drainage, utilities, landscaping, and suitable separations.

  Policy 3.A.4 On arterial roadways and thoroughfares, intersection spacing should be maximized. Driveway encroachments along collector and arterial roadways, and to a lesser degree, collector roadways, shall be minimized. Access control restrictions for each class of roadway in the county are specified in Part I of the Placer County General Plan Document.

  Policy 3.A.5 The County shall require that through-traffic be accommodated in a manner that discourages the use of neighborhood roadways, particularly local streets. This through-traffic, including through truck traffic, shall be directed to appropriate routes in order to maintain public safety and local quality of life.

  Policy 3.A.6 The County shall require all new development to provide off-street parking, either on-site or in consolidated lots or structures.

  Policy 3.A.7 The County shall develop and manage its roadway system to maintain the following minimum levels of service (LOS).

  a. LOS "C" on rural roadways, except within ½ mile of state highways where the standard shall be LOS "D".

b. LOS "C" on urban/suburban roadways except within ½ mile of state highways where the standard shall be LOS "D".

The County may allow exceptions to these level of service (LOS) standards where it finds that the improvements or other measures required to achieve the LOS standards are unacceptable based on established criteria. In allowing any exception to the standards, the County shall consider the following factors:

- The number of hours per day that the intersection or roadway segment would operate at conditions worse than the standard.
- The ability of the required improvement to significantly reduce peak hour delay and improve traffic operations.
- The right-of-way needs and the physical impacts on surrounding properties.
- The visual aesthetics of the required improvement and its impact on community identity and character.
- Environmental impacts including air quality and noise impacts.
- Construction and right-of-way acquisition costs.
- The impacts on general safety.
- The impacts of the required construction phasing and traffic maintenance.
- The impacts on quality of life as perceived by residents.
- Consideration of other environmental, social, or economic factors on which the County may base findings to allow an exceedance of the standards.

Exceptions to the standards will only be allowed after all feasible measures and options are explored, including alternative forms of transportation.

Policy 3.A.8 The County's LOS standards for the State highway system shall be no worse than those adopted in the *Placer County Congestion Management Program* (CMP).

Policy 3.A.9 The County shall work with neighboring jurisdictions to provide acceptable and compatible levels of service and joint funding on the roadways that may occur on the circulation network in the Town of Truckee, the unincorporated area, and adjacent Nevada County.

Policy 3.A.10 The County shall strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile.

Policy 3.A.11 The County shall plan and implement a complete road network to serve the needs of local traffic. This road network shall include roadways parallel to regional facilities so that the regional roadway system can function effectively and efficiently. Much of this network will be funded and/or constructed by new development.

Policy 3.A.12 The County shall require an analysis of the effects of traffic from all land development projects. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. Such improvements may include a fair share of improvements that provide benefits to others.

Policy 3.A.13 The County shall secure financing in a timely manner for all components of the transportation system to achieve and maintain adopted level of service standards.

Policy 3.A.14 The County shall assess fees on new development sufficient to cover the fair share portion of that development's impacts on the local and regional transportation system. Exceptions may be made when new development generates significant public benefits (e.g., low income housing, needed health facilities) and when alternative sources of funding can be identified to offset foregone revenues.

Policy 3.A.15 Placer County shall participate with other jurisdictions and Caltrans in the planning and programming of improvements, as well as maintaining the adopted level of service (LOS), for the State Highway 267 in accordance with state and federal transportation planning and programming procedures, so as to maintain acceptable levels of service for Placer County residents.

Policy 3.B.1 The County shall work with transit providers to plan and implement additional transit services within and to the county that are timely, cost-effective, and responsive to growth patterns and existing and future transit demand.

Policy 3.B.3 The County shall consider the need for future transit right-of-way in reviewing and approving plans for development. Rights-of-way may either be exclusive or shared with other vehicles.

Policy 3.B.4 The County shall pursue all available sources of funding for transit services.

Policy 3.B.8 The County shall undertake, as funding permits, and participate in studies of inter-regional recreational transit services, such as rail, to the Sierra.

Policy 3.B.9 The County shall require development of transit services by ski resorts and other recreational providers in the Sierra to meet existing and future recreational demand.

Policy 3.B.10 The County shall consider the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act.

Policy 3.B.11 The County shall support efforts to provide demand-responsive service ("paratransit") and other transportation services for those unable to use conventional transit.

Policy 6.G.2 The County shall continue and, where appropriate, expand the use of synchronized traffic signals on roadways susceptible to emissions improvement through approach control.

Policy 6.G.3 The County shall encourage the use of alternative modes of transportation by incorporating public transit, bicycle, and pedestrian modes in County transportation planning and by requiring new development to provide adequate pedestrian and bikeway facilities.

Policy 6.G.4 The County shall consider instituting disincentives for single-occupancy vehicle trips, including limitations in parking supply in areas where alternative transportation modes are available and other measures identified by the Placer County Air Pollution Control District and incorporated into regional plans.

Policy 6.G.5 The County shall endeavor to secure adequate funding for transit services so that transit is a viable transportation alternative. New development shall pay its fair share of the cost of transit equipment and facilities required to serve new projects.

Policy 6.G.6 The County shall require large new developments to dedicate land for and construct appropriate improvements for park-and-ride lots, if suitably located.

- *Martis Valley General Plan* (Placer County, 1975): The existing Martis Valley General Plan contains the following relevant goals:

  1. Establish improved access between Highway SR 267 and Interstate 80 in order to eliminate through traffic in downtown Truckee.

  2. Encourage methods of innovative mass transit into and within Martis Valley and the Lake Tahoe Basin.

  3. Encourage creative methods of dispersal of travelers to specific destination points from mass transit facilities.

**Town of Truckee**

*Truckee General Plan* (Town of Truckee, Community Development Department, Planning Division, adopted February 15, 1996): This document guides the overall growth and development of the Town of Truckee, which is located to the north of the proposed project. The plan's Circulation Element calls for the following goals and policies related to applicable Truckee circulation standards of significance:

- *Policy 1.6* Maintain a LOS D or better at weekday PM peak hour on arterial and collector road segments, and on primary through movements at intersections, in portions of the Town outside the Downtown Study Area.

- *Policy 1.7* Maintain a LOS E or better at weekday, PM peak hour on local, collector, and arterial road segments and on primary through movements at intersections within the Downtown Study Area. With regards to this traffic analysis, the Downtown Study Area includes locations along Donner Pass Road between Glenshire Drive and Bridge Street (inclusive) and along Bridge Street between West River Street and Donner Pass Road (inclusive); all other study intersections are outside of the Downtown Study Area.

  Note that this policy is applied to unsignalized intersections as a *whole*, rather than on individual approaches or turning movements. In addition, LOS is specifically considered for a summer peak weekday only.

The Truckee Town Engineer has indicated that the conclusions of the *Level of Service Criteria Study* (PRISM Engineering, December 2000, for the Nevada County Transportation Commission) should be used as guidance regarding the methodology associated with roadway capacity. According to this document, the maximum peak hour capacity per lane for a 2-lane highway operating at LOS D or better is 1,584, which was based partially upon factors presented in the 1997 Highway Capacity Manual (HCM, Transportation Research Board, 1997). The most recent 2000 HCM (Transportation Research Board, 2000) presents updated values for some of these factors. Per Placer County's request and the Town of Truckee's Public Works director's preliminary approval, the methodologies used in *Level of Service Criteria Study* were updated to reflect the more recent factors presented in the HCM (Moorehead, 2002).

The primary difference between the 2 methodologies is that the 2000 HCM identifies a lower value of Passenger Car Equivalents (PCEs) per truck along rolling terrain than the 1997 HCM. The reduction in this factor reflects the improved acceleration and deceleration characteristics of more modern trucks, which reduce the impacts of an individual truck on overall traffic flow. Applying these revised values, the capacity of the SR 267 Bypass (at the Town's LOS standard of D) is 1,891 vehicles per hour per lane. For comparison, as a part of the *SR 89 South Intersection Improvement Analysis* (LSC, 2000) a peak-hour peak-direction traffic count through the "Mousehole" railroad Undercrossing in Truckee was performed on February 21, 2000. The maximum observed southbound volume was 2,025 vehicles per hour per lane, indicating that 1,891 vehicles per hour per lane could be accommodated along the roadway links of the SR 267 Bypass, which will contain wider lanes and shoulders than are currently provided through the "Mousehole."

Please note that the *Level of Service Criteria Study* provided an analysis of 2-lane (and not four-lane) highways within Nevada County. Therefore, consistent with the methodologies presented in the *2000 Highway Capacity Manual*, the LOS of a four-lane roadway is dependent upon the percent of traffic that uses each lane. It was, therefore, assumed that if SR 267 is a 4-lane roadway, 60 percent of the traffic in each direction will use 1 lane and 40 percent would use the other.

*Town of Truckee Development Code, Truckee Municipal Code, Title 18* (Town of Truckee, Effective November 6, 2000): This document provides most of the Town's requirements for the development and use of private and public land, buildings and structures within the Town. Section 18.20.020: Access states the following:

> *For intersections with an acceptable level of service (D or better outside the Downtown Study Area (DSA), E or better inside DSA), the project (existing plus*

*project traffic) decreases the level of service of the total intersection to an unacceptable level (E or F outside DSA, F inside DSA area). The significant impact may be reduced to a less than significant level by incorporating intersection improvements and other mitigation into the project, which improves level of service to an acceptable level.*

*For intersections with an unacceptable level of service, the project increases the total traffic volumes of the intersection 5percent or more above existing traffic volumes. The significant impact may be reduced to a less than significant level by incorporating intersection improvements and other mitigation into the project, which maintains the level of service of the intersection at pre-project levels.*

*Town of Truckee AB1600 Traffic Fee Program* (Town of Truckee, August, 1999): The Town of Truckee maintains a Traffic Fee Program much like Placer County's, which requires new development within the Town to pay traffic impact fees. The fees collected through this program, in addition to other funding sources, allows the Town to construct transportation facilities needed as a result of new development. The fee each development is required to pay is based upon its Vehicle Miles of Travel (VMT) generated by the project as it compares to the VMT generation of a single-family dwelling unit, or a Dwelling Unit Equivalent (DUE). The current fee per DUE is 1,936 dollars. Relevant roadway and intersection improvements that are fully or partially funded by the fees collected as a part of this program include Tahoe Donner Connector ($6,035,000 total cost), Glenshire/SR 267 capacity improvements ($600,000 total cost), Bridge Street/Union Pacific Railroad improvements ($450,000 total cost), Easterly Railroad Undercrossing ($6,000,000) and the Easterly River Crossing (cost not determined).

**Tahoe Regional Planning Agency**

*Regional Transportation Plan - Air Quality Plan (RTP- AQP) for the Lake Tahoe Region* (Tahoe Regional Planning Agency, 1995): The purpose of the Regional Transportation Plan - Air Quality Plan (RTP-AQP) is to attain and maintain the Environmental Threshold Carrying Capacities (thresholds) established by TRPA in 1982, and all applicable federal, state, and local standards established for transportation and air quality. To meet the goals of the Transportation Element, peak-period traffic flow should not exceed:

- LOS C on rural scenic/recreational roads;
- LOS D in rural developed areas;
- LOS D on urban roads; or
- LOS D for signalized intersections.
- LOS E may be acceptable during peak periods not to exceed four hours per day.

This document does not identify a peak traffic period such as summer peak weekday or winter weekend. Currently, TRPA does not have a specific adopted standard for unsignalized intersections.

### 4.2.3. IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The CEQA Guidelines states that a project will be expected to result in a significant transportation and circulation impact if it causes an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. For the purpose of this EIR, impacts are considered to be significant if the following could result from the implementation of the proposed project:

1) Project implementation would increase traffic and degrade the LOS of roadways or intersections from acceptable to unacceptable conditions or exacerbate conditions that are already at an unsatisfactory level. These standards are presented in Section 4.~~1~~4.2, above;

2) Project traffic would exacerbate conditions at a facility operating at lower than minimum standards without the project (as defined in the various policies presented in Section 4.~~1~~4.2, above);

3) Project implementation would increase traffic volumes on local residential streets with front-on lots to over 2,000 average daily trips;

4) Project implementation would conflict with adopted related goals, objectives, and policies of the Town of Truckee General Plan, Placer County General Plan, or the Regional Transportation Plan - Air Quality Plan (RTP- AQP) for the Lake Tahoe Region;

5) Project implementation would result in inadequate parking capacity; or

6) Project implementation would conflict with transit, pedestrian and bicycle uses.

These criteria are consistent with, or more conservative than, the adopted policies or thresholds of Caltrans, Placer County, Tahoe Regional Planning Agency, and the Town of Truckee. Other transportation-related issues (including impact on air traffic patterns and emergency access) are addressed in other sections of this environmental document.

A summary of standards of significance for the various roadway elements in the study area is presented as **Table 4.4-7**.

The reader is referred to Section 4.1 (Land Use) and Section 4.3 (Human Health/Risk of Upset) associated with potential conflicts with the Truckee-Tahoe Airport.

ASSUMPTIONS

This analysis is predicated upon the following assumptions:

- Land uses will develop in accordance with the densities discussed in the "Methodology" Section, below.

- The proportion of residences used as primary homes versus recreational homes will be in accordance with those proportions identified in "Methodology" Section, below.

- The Town of Truckee General Plan land uses will be built out by 2021.
- There will be no substantial shifts in general travel characteristics (such as the proportion of travel accommodated by the various travel modes) over the coming 20 years: factors such as fuel prices or air quality plans will not substantially impact current travel patterns within or external to the study area.

**TABLE 4.4-7**
**LEVEL OF SERVICE STANDARDS**

| Roadway Element | Level of Service Standard | | Source | Notes |
|---|---|---|---|---|
| | Summer | Winter | | |
| **Intersections** | | | | |
| SR 89/SR 267 Bypass/I-80 Westbound | D | None | Town of Truckee General Plan | Based on total intersection delay |
| SR 89/SR 267 Bypass/I-80 Eastbound | D | None | Town of Truckee General Plan | Based on total intersection delay |
| Donner Pass Road (Existing SR 267/SR 89) / I-80 Westbound | D | None | Town of Truckee General Plan | Based on total intersection delay |
| Donner Pass Road (Existing SR 267/SR 89) / I-80 Eastbound | D | None | Town of Truckee General Plan | Based on total intersection delay |
| Glenshire Drive/Donner Pass Road (Existing SR 267) | E | None | Town of Truckee General Plan | Based on total intersection delay |
| Bridge Street/Donner Pass Road | E | None | Town of Truckee General Plan | Based on total intersection delay |
| Bridge Street/West River Street | E | None | Town of Truckee General Plan | Based on total intersection delay |
| Brockway Road (Existing SR 267) / Palisades Drive | E | None | Town of Truckee General Plan | Based on total intersection delay |
| Brockway Road (Existing SR 267) / Martis Valley Road | D | None | Town of Truckee General Plan | Based on total intersection delay |
| SR 267 Bypass/SR 267/Brockway Road (Existing SR 267)/Joerger Drive | D | None | Town of Truckee General Plan | Based on total intersection delay |
| SR 267/Airport Road/Schaffer Mill Road | E | E | Placer County Congestion Management Program | – |
| SR 267/Northstar Drive | E | E | Placer County Congestion Management Program | – |
| SR 267/SR 28 | D | D | TRPA Regional Transportation Plan/Air Quality Plan | Up to 4 hours per day of LOS E may be acceptable |
| SR 89 South/Donner Pass Road | D | None | Town of Truckee General Plan | Based on total intersection delay |
| **Roadway Links** | | | | |
| SR 267 North of Brockway/267 Bypass Intersection | D | None | Town of Truckee General Plan and NCTC Level of Service Criteria Study | Capacity of 1,891 peak-hour traffic volume per lane |
| SR 267 South of Brockway/267 Bypass Intersection and North of Northstar Drive | E | E | Placer County Congestion Management Program | Capacity of 12,500 ADT per lane for level terrain |
| SR 267 South of Northstar Drive | E | E | Placer County Congestion Management Program | Capacity of 10,500 ADT per lane for rolling terrain |
| Arterials within Placer County | C (1) | C (1) | Placer County Congestion Management Program | Capacity of 8,100 ADT per lane for LOS D and 7,200 ADT per lane for LOS C |

*Note: If worst movement LOS at an unsignalized intersection in Placer County is equal to LOS F a signal warrant analysis is used to determine if mitigation is required.*
*(1) The applicable LOS for County roadways is LOS C except within ½ mile of SR 267, for which it is LOS D.*

METHODOLOGY

The discussion below describes the steps that were followed in estimating the transportation conditions that would result from the proposed land use diagram and 2 land use map alternatives under various roadway improvement options. The methodology consists of 3 steps. First, the Town of Truckee Transportation Model was expanded to include the Martis Valley region and the model was calibrated to existing 2001 summer conditions. Next, the land use quantities associated with each land use map alternative were estimated, as well as appropriate trip rates for each land use. Finally, the transportation model was run for each land use map alternative and roadway improvement options to estimate summer peak weekday PM peak-hour traffic volumes. These numbers were then adjusted to best represent typical winter weekend peak-hour conditions (30th highest winter peak hour). ADT volumes were then estimated from the peak hour volumes.

**Expansion of the Town of Truckee Transportation Model**

The Town of Truckee maintains a town-wide travel demand model using the TMODEL2 software. The purpose of this model is to simulate peak-hour summer traffic flow in Truckee based upon the roadway network and land uses contained in the town. First, the 1995 land use numbers that are contained in the Town of Truckee model were updated to reflect any new development that has occurred along the SR 267 corridor since the last model calibration in 1995, in order to reflect existing 2001 conditions. The model was next expanded to include the Martis Valley region. A total of 36 Traffic Analysis Zones (TAZs) were added to the network, as well as the existing roadways and possible future roadways that would gain access to new development. All existing Martis Valley land uses were inventoried and added to the model. The model was run and compared to known 2001 turning-movement volumes in order to calibrate the model. A more detailed explanation of this process may be found in **Appendix 4.4**.

**Estimation of Land Use Quantities**

While the Community Plan land use description provides acreage and allowed residential densities, the traffic model requires the quantification of building floor area (for commercial uses) or number of dwelling units (for residential uses). Accordingly, it was necessary as the first step in the traffic analysis to determine the future number of dwelling units and square feet of commercial or office space in each TAZ. Please note that the following golf course characteristics were assumed for each land use alternative:

1. Lahontan 1 (18-hole) -- existing
2. Lahontan 2 (9-hole) -- existing
3. Northstar (18-hole) -- existing
4. Eaglewood (18-hole) -- proposed
5. Hopkins Ranch (18-hole) -- proposed
6. Siller Ranch (18-hole and 9-hole) -- conceptually proposed
7. Waddle Ranch (18-hole) – conceptually proposed

The methodology used in determining the number of single-family and multi-family residential units, as well as the square footage of office and commercial uses, in each TAZ for each land use map alternative is described below. This methodology and associated assumptions were developed based upon direction provided by the Placer

County Planning Department. The resulting land use quantities by TAZ for each of the Community Plan alternatives are presented in **Appendix 4.4**.

Proposed Land Use Diagram (PP)

1. All residential land use quantities for this alternative were provided by the County Planning Department, as shown in **Table 4.4-8**. All residential development in areas designated Residential Low Density was assumed to be single-family residences. Otherwise, the residences were assumed to be multi-family residential. Several exceptions were made in the case that a current application for the development identifies the amount of single-family or multi-family residential (as identified in Section 3.0 [Project Description]). In addition, East-West Partners has indicated that all future residential development within Northstar is planned to be multi-family. Therefore, the existing single-family dwelling units in Northstar were assumed to remain, but all other Northstar residential development was assumed to consist of multi-family residential.

**TABLE 4.4-8**
**LAND USE QUANTITIES FOR THE PP: PROPOSED LAND USE DIAGRAM**

| Development Name | Residential Dwelling Units | Single Family Dwelling Units (SFDU)/Multi-Family Dwelling Units (MFDU) |
|---|---|---|
| Lahontan I & II | 537 | SFDU |
| Ponderosa Palisades/Sierra Meadows | 449 | SFDU |
| Northstar | 3,700 | SFDU/MFDU |
| Martis Ranch | 1,360 | SFDU/MFDU |
| Hopkins Ranch | 87 | SFDU |
| Siller Ranch | 1,000 | SFDU |
| Eaglewood | ~~506~~464 | SFDU/MFDU |
| Waddle Ranch | 894 | SFDU/MFDU |
| Waddle Road/SR 267 | 105 | SFDU |
| Residential Forest East of Northstar | 12~~21~~ | SFDU |
| Northstar Drive Employee Housing | 270 | MFDU |
| East of SR 267 – Northstar | 160 | SFDU |
| Residential Forest near County Line | 51 | SFDU |
| Residential County Line Medium Density | 80 | MFDU |
| **Total** | **~~9,220~~9,169** | |

2. For all commercial and office space, 20 percent of the acreage is subtracted for use by roadways and utilities. Of the remaining acreage, a maximum Floor-to-Area Ratio (FAR) of 0.25 percent is assumed. ~~The square footage of tourist commercial in the Siller Brothers Property was adjusted from 383,000 square feet to 75,000 square feet.~~The tourist commercial area in the Northstar Highlands project area was assumed to contain a 255-room hotel, as described in the current (May, 2003) Northstar Highlands project description.

A total of ~~9,220~~9,169 dwelling units (~~4,731~~5,289 single-family and ~~4,489~~3,880 multi-family dwelling units) and ~~1,190,000~~670,000 square feet of commercial/office land uses were used in the traffic analysis, in addition to the golf courses.

Existing Martis Valley General Plan Land Use Map (AA)

1. Because the Sierra Meadows/Ponderosa Palisades area has already been subdivided into 449 lots and Lahontan I and II has already been approved to develop 537 single-family dwelling units, adjustments were required to account for existing development in these areas. Therefore, because the Lahontan areas consist of 421 acres of land designated Residential Low Density, the 421 acres was subtracted from the total Residential Low Density land use acreage. Similarly, as the Sierra Meadows/Ponderosa Palisades area consists of 40 acres designated Residential Low Density and 350 acres designated Residential Medium Density, the total acreage was adjusted accordingly. The existing residential lots are added back in to the total in step 3.

2. For all residential areas, 20 percent of the acreage was first subtracted from the total acreage to reflect roadway and utility use. The maximum allowable density for each land use designation was then applied to the remaining acreage. For example, if a 40-acre area was designated Residential High Density at a density of 3-6 units per acre, the 40 acres would be multiplied by 0.8 and then by the maximum density (6 units per acre) to estimate a total of 192 units. The residential uses contained within the Forest, Residential Low Density, Open Space, and Residential Valley designations were assumed to consist of single-family residences only. The residential uses contained within the Residential High Density, Residential Medium Density, and Ski-Based Commercial Residential designations were assumed to consist of multi-family residences only. A list of the maximum allowable density of each land use designation contained in the existing Martis Valley General Plan is shown in **Table 4.4-9.**

**TABLE 4.4-9**
**EXISTING COMMUNITY PLAN MAXIMUM ALLOWABLE LAND USE DENSITIES**

| Land Use Designation | Maximum Allowable Density |
|---|---|
| Forest | 1 DU / 10 acre |
| High Density Residential | 6 DU / acre |
| Medium Density Residential | 3 DU / acre |
| Low Density Residential | 1 DU / acre |
| Open Space | 1 DU / acre |
| Ski-Based Commercial | 15 DU / acre |
| Valley Residential | 1 DU / 10 acres |

*Note 1: DU = Dwelling Unit*
*Note 2: 6 acres of High Density Residential was assumed to have a maximum allowable density of 15.2 dwelling units per acre to represent the recently-approved Northstar Employee Housing development.*

3. Next, the 537 existing single-family residential lots in Lahontan and the 449 existing dwelling residential lots in the Sierra Meadows/Ponderosa Palisades neighborhood were added to the totals as single-family dwelling units. While the majority of the Northstar area is designated Residential Medium Density (indicating multi-family dwelling units), the existing single-family lots contained in Northstar were assumed to remain.

4. For all commercial and office space, 20 percent of the acreage is subtracted for use by roadways and utilities. Of the remaining acreage, a maximum FAR of 25 percent is assumed. In other words, the square feet of floor area of the commercial and office spaces were assumed to be 20 percent of the total land area (80 percent multiplied by 25 percent).

5. The Ski-Based Commercial land use designation was assumed to contain both residential and commercial within the same area. For example, 10 acres of land designated Ski-Based Commercial would contain 87,120 square feet of commercial land use (10 acres X 43,560 square feet/acre X 80 percent X 0.25 FAR), as well as 120 multi-family dwelling units (10 acres X 80 percent X 15 DU/acre). In addition, no residential use was assigned to the smaller 1 to 2 acre parcels located on the ski mountains.

A total of 11,668 dwelling units (4,064 single-family and 7,604 multi-family dwelling units), 1,681,000 square feet of commercial/office land uses, and 130 acres of Recreation land use were identified used for the traffic analysis, in addition to the golf courses.

Alternative 1 Land Use Map Alternative (AB)

1. The same adjustments as those presented above for the Existing Martis Valley General Plan Land Use Map were made for the Lahontan development and the Sierra Meadows/Ponderosa Palisades development for this. The only difference in methodology was that the Lahontan and Sierra Meadows/Ponderosa Palisades areas are wholly designated as Residential Low Density in Alternative 1. A similar adjustment was made for the Northstar area, which consisted of removing 1,174 acres of the Residential Low Density designation contained within Northstar.

2. As with the Existing Community Plan Alternative, 20 percent of the acreage was subtracted from the total acreage for roadway and utility use, and then the maximum allowable density for each land use designation was then applied to the remaining acreage. The residential uses within the Forest, Residential Low Density, Residential Rural, and Residential Forest designation areas were assumed to consist of single-family residences only. The residential contained within the Residential High Density, Residential Medium Density, and Ski-Based Commercial Residential designations were assumed to consist of multi-family residences only. A list of the maximum allowable density of each land use designation under Alternative 1 is shown in **Table 4.4-10.**

**TABLE 4.4-10**
**ALTERNATIVE 1 MAXIMUM ALLOWABLE LAND USE DENSITIES**

| Land Use Designation | Maximum Allowable Density |
|---|---|
| Forest | 1 DU / 40 acre |
| Residential High Density | 15 DU / acre |
| Residential Medium Density | 10 DU / acre |
| Residential Low Density | 5 DU / acre |
| Residential Rural | 1 DU / acre |
| Residential Forest | 2.5 acres / 1 DU |
| Tourist Commercial | 15 DU / acre |

*Note: DU = Dwelling Unit*

3. Next, the 537 single-family dwelling units in Lahontan and the 449 single-family dwelling units in the Sierra Meadows/Ponderosa Palisades neighborhood were added to the totals as single-family dwelling units. In addition, 3,522 single-family dwelling units were added to the Northstar area, which reflects the application of a 3 dwelling unit per acre density to the 1,174 acres of Residential Low Density designation. The amount of single-family dwelling units that were included in each Northstar TAZ was based upon the proportion of Residential Low Density acreage that exists in each TAZ.

4. For all commercial and office space, 20 percent of the acreage is subtracted for use by roadways and utilities. Of the remaining acreage, a maximum FAR of 25 percent is assumed.

5. As with the Existing Martis Valley General Plan Land Use Map, the Tourist Commercial land use designation (similar to the Ski-Based Commercial land use designation) may have both residential and commercial associated to the acreage. In addition, no residential use was assigned to the smaller one to two acre parcels located on the ski mountains.

Using this methodology, a total of 10,511 dwelling units (8,558 single-family and 1,953 multi-family dwelling units) and 1,220,000 square feet of commercial/office land uses was used for the traffic analysis, in addition to the golf courses.

Alternative 2 Land Use Map Alternative (AC)

This land uses alternative is the same as the Proposed Land Use Alternative except that it does not contain any development on the Martis Ranch property, located on the east side of SR 267. A total of 7,956 dwelling units (3,467 single-family and 4,489 multi-family dwelling units) and 1,173,000 square feet of commercial/office land uses was used for the traffic analysis, in addition to the golf courses.

**Estimation of Trip Rates**

Per Placer County Department of Public Works direction, it was assumed that 20 percent of all residences in Martis Valley are full-time residences, and that the remaining 80 percent are second homes, with the exception of the residences that reside in the Ponderosa Palisades neighborhood. The assumption that 20 percent of the residences in Martis Valley will be full-time residences was based upon the review of the existing number of homes that are second homes in the Martis Valley area. As the proportion of homes used as full-time residences is actually presently lower than 20 percent and as the trip generation of full-time residences is higher than that of second homes, this assumption results in conservative (i.e., "high") estimates of total trip generation.

ITE land use code 260 (Recreational Homes) was used as the appropriate rate for second homes, while ITE land use code 210 (Single Family Dwelling Units) was used for full-time residences. A blended single-family and multi-family trip rate was estimated, as shown in **Table 4.4-11**. As the ITE *Trip Generation Manual* does not include a recreational multi-family dwelling unit rate, the assumption was made that multi-family recreational units have the same trip generation rate as a single-family recreational unit. (While MFDU typically have rates lower than SFDU, recreational MFDU probably have a higher utilization rate, as they are more likely in a rental pool program.)

**TABLE 4.4-11**
**RESIDENTIAL TRIP RATES**

| | ITE Land Use Code | ADT | PM Peak-Hour Trip of Generator | | |
|---|---|---|---|---|---|
| | | | In | Out | Total |
| **Single-Family Dwelling Unit Rate Calculation** | | | | | |
| Recreational Home | 260 | 3.16 | 0.14 | 0.17 | 0.31 |
| SFDU | 210 | 9.57 | 0.65 | 0.37 | 1.02 |
| Blended Rate Assuming 80 % Recreational | | 4.44 | 0.24 | 0.21 | 0.45 |
| **MFDU Rate Calculation** | | | | | |
| Recreational Home | 260 | 3.16 | 0.14 | 0.17 | 0.31 |
| Condominium | 230 | 5.86 | 0.35 | 0.19 | 0.54 |
| Blended Rate Assuming 80 % Recreational | | 3.70 | 0.18 | 0.17 | 0.36 |

*Source: ITE Trip Generation Manual, 6th Edition, 1997.*

It was assumed that the residences contained within the Ponderosa Palisades neighborhood (TAZ 91), which is located west of SR 267 and accessible via Martis Valley Road and Palisades Drive, consist of 80 percent primary homes and 20 percent secondary homes. This assumption came out of the model calibration to existing conditions, which indicated that the residences in the Ponderosa Palisades neighborhood generate more traffic than residences in the remainder of Martis Valley. The trip rates for the Ponderosa Palisades neighborhood residences located within the TAZs contained within the Town of Truckee were also increased and the same trip rates were applied as to TAZ 91. These rates are shown in **Table 4.4-12**. **Table 4.4-13** provides a summary of all the trip rates that were used in the model.

**TABLE 4.4-12**
**PONDEROSA PALISADES/SIERRA MEADOWS AREA RESIDENTIAL TRIP RATES**

| | ITE Land Use Code | ADT | PM Peak-Hour Trip of Generator | | |
|---|---|---|---|---|---|
| | | | In | Out | Total |
| **Single-Family Dwelling Unit Rate Calculation** | | | | | |
| Recreational Home | 260 | 3.16 | 0.14 | 0.17 | 0.31 |
| Single-Family Dwelling Unit | 210 | 9.57 | 0.65 | 0.37 | 1.02 |
| Blended Rate Assuming 20 % Recreational | | 8.29 | 0.55 | 0.33 | 0.88 |
| **Multi-Family Dwelling Unit Rate Calculation** | | | | | |
| Recreational Home | 260 | 3.16 | 0.14 | 0.17 | 0.31 |
| Condominium | 230 | 5.86 | 0.35 | 0.19 | 0.54 |
| Blended Rate Assuming 20 % Recreational | | 5.32 | 0.31 | 0.19 | 0.49 |

**TABLE 4.4-13**
**P.M. PEAK-HOUR TRIP RATES**

| Land Use | Corresponding ITE Land Use Code | Corresponding ITE Land Use | Unit | Rate (PM peak-hour trips per unit) |
|---|---|---|---|---|
| Single-Family Dwelling Units | -- | -- | Dwelling Units | 0.45 |
| Multi-Family Dwelling Units | -- | -- | Dwelling Units | 0.36 |
| General Commercial | 814 | Specialty Retail Center | 1,000 s.f. floor area | 2.59 |
| Public or Professional Office (Office) | 710 | General Office | 1,000 s.f. floor area | 1.49 |
| General Commercial | 814 | Specialty Retail Center | 1,000 s.f. floor area | 2.59 |
| Golf Course | 430 | Golf Course | Holes | 3.56 |
| Single-Family Dwelling Units In Ponderosa Palisades Neighborhood (1) | -- | -- | Dwelling Units | 0.88 |
| Multi-Family Dwelling Units | -- | -- | Dwelling Units | 0.49 |
| Recreational | 412 | County Park | Acres | 0.06 |
| Hotel | 330 | Resort Hotel | Rooms | 0.49 |

*Note 1: Residences in Ponderosa Palisades neighborhood are assumed to be 80 percent full-time residences and 20 percent second homes.*

*Source: ITE Trip Generation Manual, 6th Edition, 1997.*

The trip generation rates identified above take into account incidental trips associated with each land use, including service trips, employee trips and commute trips by residents and employees.

A summary of the total number of trips generated by each alternative is summarized in **Appendix 4.4** and in **Table 4.4-14.**

**Estimation of 2021 Traffic Volumes**

In order to estimate 2021 traffic volumes, the full build-out of the Town of Truckee General Plan land uses was assumed as well as planned development in Nevada County and anticipated increases in traffic volumes that feed into the Martis Valley area. In addition, the land uses proposed by each Martis Valley land use alternative were also added to the model. Model runs were conducted to estimate future 2021summer volumes. Please note that the 2021 model network contains the Third Tahoe Donner Connection, which would connect SR 89 to Northwoods Boulevard and Bridge Street in Downtown Truckee. The model also contains Sawmill Flat Road and Highlands Drive in the Northstar area, both of which have been approved to be constructed as part of the Northstar Employee Housing development. Because the model is calibrated to provide estimates of summer P.M. peak-hour volumes only, the winter volumes were estimated by applying factors to

summer turning-movement volumes and then balancing the volumes along SR 267 and Brockway Road. This was accomplished in the following steps:

1. The amount of traffic generated by skiers at the Northstar-at-Tahoe Ski area was estimated based upon the data provided in the *Northstar-at-Tahoe 2000-2001 Winter Season Traffic Monitoring Program Report* (LSC, August, 2001). The skier traffic generated by skiers at the Northstar-At-Tahoe ski area was subtracted from the peak winter traffic volumes to estimate all non-skier winter traffic.

2. A ratio of summer to non-skier winter turning movement volumes was estimated at each of the study intersections.

3. The summer to winter ratio was applied to all summer 2021 turning-movement volumes to estimate peak winter non-skier traffic volumes. The volumes were balanced along the SR 267 corridor and Brockway Road.

4. The skier traffic was then added back to the winter non-skier volumes to estimate 2021 peak winter traffic volumes. The traffic generated by the Siller Ranch ski area access was also added to the winter volumes for all scenarios. The traffic generated by the Siller Ranch ski area access was estimated based upon the existing traffic levels generated by Northstar-At-Tahoe ski area. The ratio of acreage at the Northstar-At-Tahoe ski area to the proposed acreage of the Siller Ranch ski area access was applied to the traffic generated by the Northstar-At-Tahoe ski area to estimate the Siller Brothers ski area access trip generation. The 30$^{th}$ highest winter hour was estimated by adding the 30$^{th}$ highest hour skier traffic volumes onto the winter non-skier traffic volumes.

ADT volumes were estimated for 2021 forecast conditions. It is only necessary to consider summer ADT values, as the comparison between future 2021 summer and winter ADT levels indicates that summer ADT represents a "worst case" condition for traffic over an entire day. An analysis of future daily traffic volumes along Northstar Drive was conducted to validate this point. The data contained in the Northstar-at-Tahoe 2000-2001 Winter Season Traffic Monitoring Program Report was used to estimate the non-skier ADT on Northstar Drive during the day of the 30th highest winter peak hour traffic volume. Based upon the observed traffic volumes and the recorded number of skiers that bought tickets at Northstar-At-Tahoe that day, it is estimated that approximately 45 percent of the traffic on Northstar Drive during a winter day is generated by skiers. Next, it was determined based on existing counts that the winter non-skier ADT on Northstar Drive is approximately 70 percent of the summer ADT. Therefore, the winter ADT on Northstar Drive can be assumed to be equal to 70 percent of the summer ADT plus the skier traffic. Applying these results to the future 2021 traffic volumes indicates that the winter ADT remains less than the summer ADT in the future. ADT volumes were estimated based upon the peak-hour forecasts discussed above, multiplied by the factors presented in Section 4.1.1.

A more detailed description of the 2021 traffic volume estimation may be found in **Appendix 4.4.**

**TABLE 4.4-14**
**ESTIMATED TRIP GENERATION FOR EACH LAND USE MAP ALTERNATIVE**

| | Quantity | Unit | Weekday P.M. Peak-Hour Trip Rate (3) | Daily Trip Rate (3) | Weekday P.M. Peak-Hour Trips | Daily Trips |
|---|---|---|---|---|---|---|
| **Existing Martis Valley General Plan Land Use Map (AA)** | | | | | | |
| Single-Family Dwelling Units | 3,503 | DU(1) | 0.45 | 4.44 | 1,627 | 15,553 |
| Multi-Family Dwelling Units | 7,604 | DU | 0.36 | 3.7 | 2,737 | 28,135 |
| General Commercial | 227 | KSF(2) | 2.59 | 40.67 | 588 | 9,232 |
| Office | 723 | KSF | 1.49 | 11.01 | 1,077 | 7,960 |
| Tourist Commercial | 732 | KSF | 2.59 | 40.67 | 1,896 | 29,770 |
| Golf Course (4) | 41 | Holes | 3.56 | 35.74 | 146 | 1,465 |
| Single-Family Dwelling Units in Palisades Neighborhood | 449 | DU | 0.88 | 8.29 | 395 | 3,722 |
| Recreational | 130 | Acres | 0.06 | 2.28 | 8 | 296 |
| *Total* | -- | -- | -- | -- | *8,474* | *96,631* |
| **Proposed Land Use Diagram** | | | | | | |
| Single-Family Dwelling Units | ~~4,282~~4.840 | DU | 0.45 | 4.44 | ~~1,927~~2,178 | ~~19,012~~21,490 |
| Multi-Family Dwelling Units | ~~4,489~~3,880 | DU | 0.36 | 3.7 | ~~1,616~~1,397 | ~~16,609~~14,356 |
| General Commercial | ~~270~~330 | KSF | 2.59 | 40.67 | ~~699~~855 | ~~10,981~~13,421 |
| Office | ~~357~~70 | KSF | 1.49 | 11.01 | ~~532~~104 | ~~3,931~~771 |
| Tourist Commercial | ~~563~~270 | KSF | 2.59 | 40.67 | ~~1,458~~699 | ~~22,897~~10,981 |
| Golf Course | ~~41~~40 | Holes | 3.56 | 35.74 | ~~146~~126 | 1,430~~1,465~~ |
| Single-Family Dwelling Units in Palisades Neighborhood | 449 | DU | 0.88 | 8.29 | 395 | 3,722 |
| Recreational | 0 | Acres | 0.06 | 2.28 | 0 | 0 |
| Hotel | 255 | Rooms | .49 | 5.35 | 125 | 1,364 |
| *Total* | -- | -- | -- | -- | ~~*6,773*~~*5,879* | ~~*78,617*~~*67,535* |
| *Percent of Existing General Plan* | -- | -- | -- | -- | ~~*79.9*~~*69.9%* | ~~*81.8*~~*70.3%* |
| **Alternative 1 Land Use Map (AB)** | | | | | | |
| Single-Family Dwelling Units | 8,109 | DU | 0.45 | 4.44 | 3,649 | 36,004 |
| Multi-Family Dwelling Units | 1,953 | DU | 0.36 | 3.7 | 703 | 7,226 |
| General Commercial | 192 | KSF | 2.59 | 40.67 | 497 | 7,809 |
| Office | 314 | KSF | 1.49 | 11.01 | 468 | 3,457 |
| Tourist Commercial | 714 | KSF | 2.59 | 40.67 | 1,849 | 29,038 |
| Golf Course | 41 | Holes | 3.56 | 35.74 | 146 | 1,465 |
| Single-Family Dwelling Units in Palisades Neighborhood | 449 | DU | 0.88 | 8.29 | 395 | 3,722 |
| Recreational | 0 | Acres | 0.06 | 2.28 | 0 | 0 |
| *Total* | -- | -- | -- | -- | *7,707* | *88,721* |
| *Percent of Existing Community Plan* | -- | -- | -- | -- | *90.9%* | *92.3%* |
| **Alternative 2 Land Use Map (AC)** | | | | | | |
| Single-Family Dwelling Units | 3,018 | DU | 0.45 | 4.44 | 1,358 | 13,400 |
| Multi-Family Dwelling Units | 4,489 | DU | 0.36 | 3.7 | 1,616 | 16,609 |
| General Commercial | 253 | KSF | 2.59 | 40.67 | 655 | 10,290 |
| Office | 357 | KSF | 1.49 | 11.01 | 532 | 3,931 |
| Tourist Commercial | 563 | KSF | 2.59 | 40.67 | 1,458 | 22,897 |
| Golf Course | 41 | Holes | 3.56 | 35.74 | 146 | 1,465 |
| Single-Family Dwelling Units in Palisades Neighborhood | 449 | DU | 0.88 | 8.29 | 395 | 3,722 |
| Recreational | 0 | Acres | 0.06 | 2.28 | 0 | 0 |
| *Total* | -- | -- | -- | -- | *6,160* | *72,314* |
| *Percent of Existing Community Plan* | -- | -- | -- | -- | *72.7%* | *75.2%* |

Note 1: DU = dwelling units.
Note 2: KSF=1,000 square feet of floor area.
Note 3: Trip Rates based upon the ITE Trip Generation Manual (TRB, 1997).
Note 4: Adjusted to reflect private versus public golf facilities.

**Conceptual Future Development Plans for Northstar Area**

While no formal application has been presented to the County, East West Partners has indicated that the current conceptual plan for the area is to relocate Sawmill Flat Road from its current location (near the southern leg of the Northstar Drive/Basque Road intersection) eastward approximately 1,000 feet to a location near the existing gas station, where a roundabout would be built. The north (fourth) leg of the Northstar Drive/Sawmill Flat Road intersection would provide access to approximately 1,800 day skier intercept parking spaces, which would be relocated from its current location north of the Village. The relocation of these parking spaces would substantially reduce winter peak-hour traffic volumes along Northstar Drive west of the skier intercept parking lot. As the project has yet to be officially proposed and to remain conservative in this analysis, the relocation of these spaces was not assumed for the base case 2021 traffic conditions.

It was estimated based upon the historical operation of ski resorts in the Sierra that 40 percent of day skiers exit the ski resort during the PM peak hour. This percentage was applied to the potential 1,240 relocated parking spaces to estimate the total number of vehicles that would exit during the PM peak hour would be relocated. Based upon this analysis, it was estimated that moving 1,240 skier parking spaces could relocate approximately 496 PM peak-hour exiting trips. However, assuming a capacity of 30 people on the shuttle buses used to transport skiers and a 2.46 vehicle occupancy rate, per the *Northstar-At-Tahoe 2000-2001 Winter Season Traffic Monitoring Program Report,* 40 1-way bus trips would also be generated during the PM peak hour. Therefore the relocation of the skier parking would increase westbound traffic PM peak hour traffic on Northstar Drive by 40 trips and decrease the eastbound PM peak hour traffic by 456 trips.

**Analysis of Roadway Improvement Options/Scenarios**

Intersection LOS was calculated for 2 future roadway scenarios, as depicted in **Figure 4.4-4,** both of which contain the SR 267 Bypass (with 1 travel lane in each direction), a traffic signal at the SR 267/Airport Road/Schaffer Mill Road and Bridge Street/Donner Pass Road intersections, as well as some additional intersection turn lanes that are already programmed for construction. Both roadway networks also assume a full-access roadway connection between Big Springs Drive and Sawmill Flat Road, creating a loop through the Northstar mid-mountain area south of Northstar Drive. The 2 scenarios analyzed were as follows:

> Proposed Roadway Network (No Schaffer Mill Road Connections) -- This roadway improvement option is currently proposed as part of the Martis Valley Community Plan Update and includes the widening of SR 267 to two lanes in each direction, from a point just south of Northstar Drive to Interstate 80 via the SR 267 Bypass.
>
> All Connections Option (All Connections) -- This roadway improvement option contains a 4-lane SR 267, a Northstar Connector, and a Palisades Connector. The Northstar Connector would provide a connection from Schaffer Mill Road southward to the Northstar area. The exact alignment of this roadway has also not been determined, although the link lengths used in the model represent the most reasonable alignment connecting Big Springs Drive to Shaffer Mill Road just west of the Lahontan parcel. This roadway was entered into the Town of Truckee Model with an operating speed of 25 miles per hour. The Palisades Connector would provide between 1 and 3 connection(s) from Schaffer Mill Road to

Insert Figure 4.4-4, black and white 8.5x11

the Ponderosa Palisades/Sierra Meadows neighborhood to the north. While there are 3 existing roadways that have been "stubbed out" to potentially provide this connection, the exact alignment of this connection (or connections) has not been determined. The amount of traffic that might divert onto this connector would vary slightly based upon the alignment chosen. However, because this is a planning level document and the Town of Truckee Model is a macro model, the most reasonable location of the roadway was chosen and entered into the Town of Truckee Model, with an operating speed of 25 miles per hour, comparable to other roadways contained within the model with similar characteristics.

Please note that traffic volumes were also generated for a roadway alternative, which contains a 4-lane SR 267 and a Northstar Connector, as well as a two-lane SR 267. While the intersection LOS was not analyzed for these roadway alternatives, the turning-movement volumes resulting on these roadway alternatives are shown in the Appendices.

Please note that the Proposed Land Use Diagram traffic analysis has been updated more recently than the analyses of the other traffic land use alternatives. The following assumptions were made for the revised Proposed Land Use Diagram traffic analysis that differ from the other three land use analyses:

1. The roadway network was revised to allow eastbound left turns (from I-80 eastbound– ~~off-ramp~~off-ramp to Donner Pass Road northbound) at the Donner Pass Road / I-80 eastbound intersection, as the intersection currently operates under this configuration. This configuration was not assumed under previous analyses (Existing Community Plan, Alternative 1, and Alternative 2) because Caltran's original plan was to prohibit left turns at this intersection after the completion of the SR 267 Bypass. Caltrans did not change the plan to allow left turns until after the completion of the original traffic analysis.

2. The land uses assumed for the Joerger Ranch (PC-3) Town of Truckee property were reviewed and compared to the most recent proposal for the Joerger Ranch development. It was determined that the Town of Truckee traffic model was underestimating the Joerger Ranch development by approximately half. Therefore, the land uses contained in the TAZ were updated to better reflect the proposed plan, per the direction of both Placer County and Town of Truckee staff. Please note that although the proposed Joerger Ranch development is consistent with the Town of Truckee General Plan, its proposed land uses were not consistent with the assumptions contained in the Town of Truckee traffic model.

3. The access to Martis Ranch or the Sierra Pacific Industries development from SR 267 was assumed to be provided via a~~the~~ fourth (eastern) leg of the SR 267 / Highland Drive intersection, which will also provide secondary access to the Highlands development and primary access to the Sawmill Height Employee Housing development. In previous analyses it was assumed to be located south of Highland Drive.

4. The location of residential land uses with Northstar were updated based upon the most recent plan for Northstar ~~the~~ Village per the most recent Northstar Highlands application. Previously, the location of remaining dwelling units was based upon the acreage of developable area in each TAZ.

PROJECT IMPACTS AND MITIGATION MEASURES

**Impact 4.4.1 Potential to Exceed an Established Level of Service Standard**

**PP** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of the Proposed Land Use Diagram for roadways and ~~up to 8~~ intersections in the Town of Truckee~~,~~ and ~~3 intersections and roadway segments~~ in Placer County. Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a **significant** impact.

**AA** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of this land use alternative for roadways and ~~up to 8~~ intersections in the Town of Truckee, and ~~3 intersections and 1 roadway segment~~ in Placer County. Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a **significant** impact.

**AB** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of this land use alternative for roadways and ~~up to 8~~ intersections in the Town of Truckee, and ~~3 intersections and 2 roadway segments~~ in Placer County. Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a **significant** impact.

**AC** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of this land use alternative for roadways and ~~up to 8~~ intersections in the Town of Truckee, and ~~3 intersections and 2 roadway segments~~ in Placer County. Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a **significant** impact.

***PP*** ***Proposed Land Use Diagram***

Each intersection was analyzed using the Traffix Software package (Dowling Associates, 2000). Using the Traffix traffic analysis software package, the improvements required to obtain an adequate LOS at each intersection were determined. Within the Town of Truckee, the LOS standard only applies to the summer peak weekday PM peak hour. However, within Placer County the LOS standards apply to both the summer and winter peak periods analyzed. Two scenarios were analyzed for the Proposed Land Use Diagram. The traffic volumes that would result on the 2 roadway networks ("No Schaffer Mill Road Connections" and "All Connections") were analyzed.

As shown in **Table 4.4-15**, intersection LOS standards are forecast to be exceeded under the Proposed Land Use Diagram for the following intersections in the Town of Truckee under each roadway improvement option:

- SR 89/SR 267 Bypass/I-80 Westbound;
- SR 89/SR 267 B~~y~~ypass/I-80 Eastbound;
- ~~SR 89/SR 267 Bypass/I-80 Eastbound;~~Donner Pass Road/I-80 Eas~~t~~tbound Off Ramp
- Glenshire Drive/Donner Pass Road (Existing SR 267);
- Bridge Street/Donner Pass Road;
- Bridge Street/West River Street;
- Brockway Road/Martis Valley Road;
- SR 267 Bypass/SR 267/Brockway Road (Existing SR 267)/Joerger Drive; and
- SR 89 South/Donner Pass Road.

Intersection LOS standards are forecast to be exceeded under the Proposed Land Use Diagram for the following intersections within Placer County are:

- SR 267/Airport Road/Schaffer Mill Road;
- SR 267/Northstar Drive; and
- SR 267/SR 28.

Please note that because this option allows left turns at the Donner Pass Road / I-80 Eastbound intersection, the intersection operates at a poor LOS compared to the other land use alternatives that assumed left turns are prohibited. The model indicates that if left turns are allowed virtually all drivers traveling from I-80 eastbound to SR 89 to the north would exit I-80 at this intersection. However, it is more likely that less traffic will exit I-80 to SR 89 north via this exit in the future in the absence of a signal than the model assigned, in order to avoid delays. In other words, if the delays at this intersection are greater than the delays at the signalized SR 267 / I-80 eastbound intersection, traffic will shift and exit I-80 at the SR 267 / I-80 eastbound intersection, thereby improving LOS at the Donner Pass Road / I-80 Eastbound intersection from that indicated.

**TABLE 4.4-15**
**2021 INTERSECTION LOS UNDER PP: PROPOSED LAND USE DIAGRAM**

| Bold text indicates that LOS threshold exceeded. | | Roadway Network: | All Connections | | No Schaffer Mill Road Connections | |
|---|---|---|---|---|---|---|
| | | Land Use: | Proposed | | Proposed | |
| Intersection | Type of Control | Design Period: | Summer Weekday LOS | Winter Weekend LOS | Summer Weekday LOS | Winter Weekend LOS |
| SR 89/SR 267 Bypass/I-80 Westbound | Traffic Signal | Total Int. | **F** | ~~E~~D | **F** | ~~E~~D |
| SR 89/SR 267 Bypass/I-80 Eastbound | Traffic Signal | Total Int. | **F** | B | **F** | ~~C~~B |
| DPR(Existing 267/89)/I-80 Westbound | Stop-Controlled | Worst Mvmnt. | B | B | B | B |
| | | Total Int. | A | A | A | A |
| DPR(Existing 267/89)/I-80 Eastbound | Stop-Controlled | Worst Mvmnt. | ~~C~~F | ~~B~~F | ~~C~~F | ~~B~~F |
| | | Total Int. | ~~A~~F | ~~A~~D | ~~A~~F | ~~A~~D |
| Glenshire Drive/DPR(Existing SR 267) | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| Bridge Street/Donner Pass Road | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| Bridge Street/West River Street | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| Brockway Rd/Palisades Dr | Traffic Signal | Total Int. | ~~C~~B | ~~C~~B | ~~C~~B | B |
| Brockway Rd/Martis Valley Rd | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| 267Bypass/267/Brockway Rd/Joerger Dr | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| SR 267/Airport Road/Schaffer Mill Road | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| SR 267/Northstar Drive | Stop-Controlled (1) | Worst Mvmnt. | **F** | TC | **F** | TC |
| | | Total Int. | **F** | **F** | **F** | **F** |
| SR 267/SR 28 | Traffic Signal | Total Int. | E | **F** | ~~F~~E | **F** |
| SR 89 South/Donner Pass Road | Traffic Signal | Total Int. | **E** | D | **E** | D |

*1 Traffic control program operates at SR 267/Northstar Drive during peak ski season, indicated by "TC."*

In addition, as shown in the tables found in **Appendix 4.4** and **Table 4.4-16**, roadway LOS standards are forecast to be exceeded along the following roadways under "No Schaffer Mill Road Connections" and "All Connections":

- ~~Schaffer Mill Road, from SR 267 to the Hopkins Ranch access, unless the Northstar Drive Connector is built which would extend the section on which the LOS threshold is exceeded to the Eaglewood access.~~

- Northstar Drive, from SR 267 to Basque Drive, unless the Northstar Drive Connection is built.

Please note that the need to widen SR 267 to 4 lanes between Northstar Drive and Schaffer Mill Road/Airport Road would be avoided if the Northstar Connector were built (with or without the Palisades Connector). In addition, the portion of SR 267 from I-80 to Brockway Road would not need to be widened to 4 lanes to maintain an adequate LOS (LOS D or better) under any of the roadway network alternatives. Finally, under the Proposed Land Use Diagram, SR 267

would only need to be widened from Schaffer Mill Road to the Waddle Ranch Access, currently proposed to be located one mile north of the SR 267 / Northstar Drive intersection.

Also note that the construction of the Palisades Connector in the absence of the Northstar Connector would not reduce traffic volumes on SR 267 between Airport Road/Schaffer Mill Road and Brockway Road sufficient to avoid the need to provide four travel lanes as mitigation to the LOS F along this roadway segment. ~~In addition, while the provision of a Palisades Connector does reduce traffic volumes along Schaffer Mill Road, it does not reduce traffic volumes sufficient to avoid the need to provide four lanes along Schaffer Mill Road as mitigation to the LOS F condition along this roadway segment.~~ The provision of the Northstar Connector avoids the need to provide four lanes along Northstar Drive.

Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a significant impact.

**TABLE 4.4-16**
**UNMITIGATED ROADWAY LOS**

| Bold text indicates LOS threshold is exceeded | Unmitigated Roadway Level Of Service | | |
|---|---|---|---|
| | **Existing Roadway Network** | **Proposed Roadway Option: 4-Lane SR 267 With No Schaffer Mill Road Connections** | **4-Lane SR 267 plus All Connectors Option** |
| **Proposed Land Use Diagram (PP)** | | | |
| SR 267 Bypass I-80 to Old Brockway Road | C (2) | A (2) | A (2) |
| SR 267 Old Brockway Road to Schaffer Mill Road | **F** | E | E |
| SR 267 Schaffer Mill Road to Northstar Drive | **F** | ~~D~~D | D (2) |
| Schaffer Mill Road West of SR 267 | ~~E~~C (2) | ~~E~~C (2) | ~~F~~D (2) |
| Northstar Drive West of SR 267 | **E** | **E** | C (2) |
| **Existing Martis Valley General Plan Land Use Map (AA)** | | | |
| SR 267 Bypass I-80 to Old Brockway Road | **F** | B | B |
| SR 267 Old Brockway Road to Schaffer Mill Road | **F** | E | E |
| SR 267 Schaffer Mill Road to Northstar Drive | **F** | D | D |
| Schaffer Mill Road West of SR 267 | **F** | **F** | **F** |
| Northstar Drive West of SR 267 | D | D | C (2) |
| **Alternative 1 Land Use Map (AB)** | | | |
| SR 267 Bypass I-80 to Old Brockway Road | D (2) | A (2) | A (2) |
| SR 267 Old Brockway Road to Schaffer Mill Road | **F** | E | E |
| SR 267 Schaffer Mill Road to Northstar Drive | **F** | D | D (2) |
| Schaffer Mill Road West of SR 267 | **F** | **F** | **F** |
| Northstar Drive West of SR 267 | **E** | **E** | C (2) |
| **Alternative 2 Land Use Map (AC)** | | | |
| SR 267 Bypass I-80 to Old Brockway Road | C (2) | A (2) | A (2) |
| SR 267 Old Brockway Road to Schaffer Mill Road | **F** | E | E |
| SR 267 Schaffer Mill Road to Northstar Drive | **F** | D | D (2) |
| Schaffer Mill Road West of SR 267 | **E** | **E** | **F** |
| Northstar Drive West of SR 267 | **E** | **E** | C (2) |

Note 1: Roadway LOS standard is D in the Town of Truckee, LOS E along SR 267 in Placer County, and LOS D on all other arterial roadways in Placer County.
Note 2: Four lanes not required to attain LOS standard.
General Note: The 4-lane SR is the Community Plan proposed Circulation Diagram. The roadway network that does not contain the widening of SR 267 to four lanes was analyzed simply to depict whether the widening is required to maintain adequate LOS or not.

### *AA Existing Martis Valley General Plan Land Use Alternative*

As shown in **Table 4.4-17**, the intersection LOS standards forecast to be exceeded under this land use alternative are the same as those forecasted under the Proposed Land Use Diagram (PP).

**TABLE 4.4-17**
**2021 INTERSECTION LOS UNDER AA: EXISTING MARTIS VALLEY GENERAL PLAN LAND USE MAP**

| Bold text indicates that LOS threshold exceeded. | | Roadway Network: | All Connections | | No Schaffer Mill Road Connections | |
|---|---|---|---|---|---|---|
| | | Land Use: | Existing Community Plan | | Existing Community Plan | |
| | | Design Period: | Summer Weekday LOS | Winter Weekend LOS | Summer Weekday LOS | Winter Weekend LOS |
| **Intersection** | **Type of Control** | | | | | |
| SR 89/SR 267 Bypass/I-80 Westbound | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| SR 89/SR 267 Bypass/I-80 Eastbound | Traffic Signal | Total Int. | **F** | C | **F** | C |
| DPR(Existing 267/89)/I-80 Westbound | Stop-Controlled | Worst Mvmnt. | B | B | B | B |
| | | Total Int. | A | A | A | A |
| DPR(Existing 267/89)/I-80 Eastbound | Stop-Controlled | Worst Mvmnt. | C | B | C | B |
| | | Total Int. | A | A | A | A |
| Glenshire Drive/DPR(Existing SR 267) | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| Bridge Street/Donner Pass Road | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| Bridge Street/West River Street | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| Brockway Rd/Palisades Dr | Traffic Signal | Total Int. | C | C | C | C |
| Brockway Rd/Martis Valley Rd | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| 267Bypass/267/Brockway Rd/Joerger Dr | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| SR 267/Airport Road/Schaffer Mill Road | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| SR 267/Northstar Drive | Stop-Controlled (1) | Worst Mvmnt. | **F** | TC | **F** | TC |
| | | Total Int. | **F** | **F** | **F** | **F** |
| SR 267/SR 28 | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| SR 89 South/Donner Pass Road | Traffic Signal | Total Int. | **E** | D | **E** | D |

*1 Traffic control program operates at SR 267/Northstar Drive during peak ski season, indicated by "TC."*

In addition, as shown in the tables found in **Appendix 4.4** and **Table 4.4-16**, roadway LOS standards are forecast to be exceeded along the following roadway:

- Schaffer Mill Road, from SR 267 to the Lahontan Property access for all roadway alternatives.

Please note that because the analysis of this option does not assume left turns at the Donner Pass Road / I-80 Eastbound intersection, the intersection operates at good LOS. The construction of the Palisades Connector in the absence of the Northstar Connector would not reduce traffic volumes on SR 267 between Airport

Road/Schaffer Mill Road and Brockway Road sufficient to avoid the need to provide 4 travel lanes as mitigation to the LOS F along this roadway segment. In addition, while the provision of a Palisades Connector does reduce traffic volumes along Schaffer Mill Road, it does not reduce traffic volumes sufficient to avoid the need to provide 4 lanes along Schaffer Mill Road as mitigation to the LOS F condition along this roadway segment. In addition, the portion of SR 267 from I-80 to Brockway Road would not need to be widened to 4 lanes to maintain an adequate LOS (LOS D or better) under any of the roadway network alternatives, except the Existing Martis Valley General Plan Alternative (AA). Under this alternative 4 lanes from I-80 to Brockway Road would be required to maintain an adequate LOS.

Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a significant impact.

### *AB Alternative 1 Land Use Map*

As shown in **Table 4.4-18**, the intersection LOS standards forecast to be exceeded under this land use alternative are the same as under the Proposed Land Use Diagram (PP).

**TABLE 4.4-18**
**2021 INTERSECTION LOS UNDER AB: ALTERNATIVE 1 LAND USE MAP**

| Bold text indicates that LOS threshold exceeded. | | Roadway Network: | All Connections | | No Schaffer Mill Road Connections | |
|---|---|---|---|---|---|---|
| | | Land Use: | Alternative 1 | | Alternative 1 | |
| | | Design Period: | Summer Weekday | Winter Weekend | Summer Weekday | Winter Weekend |
| Intersection | Type of Control | | LOS | LOS | LOS | LOS |
| SR 89/SR 267 Bypass/I-80 Westbound | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| SR 89/SR 267 Bypass/I-80 Eastbound | Traffic Signal | Total Int. | **F** | C | **F** | C |
| DPR(Existing 267/89)/I-80 Westbound | Stop-Controlled | Worst Mvmnt. | B | B | B | B |
| | | Total Int. | A | A | A | A |
| DPR(Existing 267/89)/I-80 Eastbound | Stop-Controlled | Worst Mvmnt. | C | B | C | B |
| | | Total Int. | A | A | A | A |
| Glenshire Drive/DPR(Existing SR 267) | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| Bridge Street/Donner Pass Road | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| Bridge Street/West River Street | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| Brockway Rd/Palisades Dr | Traffic Signal | Total Int. | C | C | C | C |
| Brockway Rd/Martis Valley Rd | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| 267Bypass/267/Brockway Rd/Joerger Dr | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| SR 267/Airport Road/Schaffer Mill Road | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| SR 267/Northstar Drive | Stop-Controlled (1) | Worst Mvmnt. | **F** | TC | **F** | TC |
| | | Total Int. | **F** | **F** | **F** | **F** |
| SR 267/SR 28 | Traffic Signal | Total Int. | E | **F** | E | **F** |
| SR 89 South/Donner Pass Road | Traffic Signal | Total Int. | **E** | D | **E** | D |

*1 Traffic control program operates at SR 267/Northstar Drive during peak ski season, indicated by "TC."*

Please note that because the analysis of this option does not assume- left turns at the Donner Pass Road / I-80 Eastbound intersection, the intersection operates at good LOS.

In addition, as shown in the tables found in **Appendix 4.4** and **Table 4.4-16**, roadway LOS standards are forecast to be exceeded along the following roadways:

- Schaffer Mill Road from SR 267 to the Lahontan Property access for all roadway alternatives; and
- Northstar Drive between SR 267 and Basque Drive unless the Northstar Drive Connector is built.

Please note that the need to widen SR 267 to 4 lanes between Northstar Drive and Schaffer Mill Road/Airport Road would be avoided if the Northstar Connector were built (with or without the Palisades Connector). In addition, the portion of SR 267 from I-80 to Brockway Road would not need to be widened to 4 lanes to maintain an adequate LOS (LOS D or better) under any of the roadway network alternatives.

Also note that the construction of the Palisades Connector in the absence of the Northstar Connector would not reduce traffic volumes on SR 267 between Airport Road/Schaffer Mill Road and Brockway Road sufficient to avoid the need to provide 4 travel lanes as mitigation to the LOS F along this roadway segment. In addition, while the provision of a Palisades Connector does reduce traffic volumes along Schaffer Mill Road, it does not reduce traffic volumes sufficient to avoid the need to provide 4 lanes along Schaffer Mill Road as mitigation to the LOS F condition along this roadway segment.

Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a significant impact.

### *AC Alternative 2 Land Use Map*

As shown in **Table 4.4-19**, intersection LOS standards could potentially be exceeded under this land use alternative for the same intersections as with the Proposed Land Use Diagram (PP).

**TABLE 4.4-19**
**2021 INTERSECTION LOS UNDER AC: LAND USE ALTERNATIVE 2**

| Bold text indicates that LOS threshold exceeded. | | Roadway Network: | All Connections | | No Schaffer Mill Road Connections | |
|---|---|---|---|---|---|---|
| | | Land Use: | Alternative 2 | | Alternative 2 | |
| | | Design Period: | Summer Weekday LOS | Winter Weekend LOS | Summer Weekday LOS | Winter Weekend LOS |
| **Intersection** | **Type of Control** | | | | | |
| SR 89/SR 267 Bypass/I-80 Westbound | Traffic Signal | Total Int. | **F** | **E** | **F** | **E** |
| SR 89/SR 267 Bypass/I-80 Eastbound | Traffic Signal | Total Int. | **F** | C | **F** | C |
| DPR(Existing 267/89)/I-80 Westbound | Stop-Controlled | Worst Mvmnt. | B | B | B | B |
| | | Total Int. | A | A | A | A |
| DPR(Existing 267/89)/I-80 Eastbound | Stop-Controlled | Worst Mvmnt. | C | B | C | B |
| | | Total Int. | A | A | A | A |
| Glenshire Drive/DPR(Existing SR 267) | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| Bridge Street/Donner Pass Road | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| Bridge Street/West River Street | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| Brockway Rd/Palisades Dr | Traffic Signal | Total Int. | C | C | C | B |
| Brockway Rd/Martis Valley Rd | Stop-Controlled | Worst Mvmnt. | **F** | **F** | **F** | **F** |
| | | Total Int. | **F** | **F** | **F** | **F** |
| 267Bypass/267/Brockway Rd/Joerger Dr | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| SR 267/Airport Road/Schaffer Mill Road | Traffic Signal | Total Int. | **F** | **F** | **F** | **F** |
| SR 267/Northstar Drive | Stop-Controlled (1) | Worst Mvmnt. | **F** | TC | **F** | TC |
| | | Total Int. | **F** | **E** | **F** | **F** |
| SR 267/SR 28 | Traffic Signal | Total Int. | D | **F** | D | **F** |
| SR 89 South/Donner Pass Road | Traffic Signal | Total Int. | **E** | D | **E** | D |

*1 Traffic control program operates at SR 267/Northstar Drive during peak ski season, indicated by "TC."*

Please note that because the analysis of this option does not assumes left turns at the Donner Pass Road / I-80 Eastbound intersection, the intersection operates at good LOS.

In addition, as shown in the tables found in **Appendix 4.4** and **Table 4.4-16**, roadway LOS standards are forecast to be exceeded along the following roadways:

- Schaffer Mill Road, from SR 267 to the Hopkins Ranch Property access unless the Northstar Connector Roadway is built, in which case it will need to be widened from SR 267 to the Eaglewood access;
- Northstar Drive between SR 267 and Basque Drive, unless the Northstar Drive Connector is built.

Please note that the need to widen SR 267 to 4 lanes between Northstar Drive and Schaffer Mill Road/Airport Road would be avoided if the Northstar Connector were built (with or without the Palisades Connector). In addition, the portion of SR 267 from I-80 to Brockway Road would not need to be widened to 4 lanes to maintain an adequate LOS (LOS D or better) under any of the roadway network alternatives.

The construction of the Palisades Connector in the absence of the Northstar Connector would not reduce traffic volumes on SR 267 between Airport Road/Schaffer Mill Road and Brockway Road sufficient to avoid the need to provide four travel lanes as mitigation to the LOS F along this roadway segment. In addition, while the provision of a Palisades Connector does reduce traffic volumes along Schaffer Mill Road, it does not reduce traffic volumes sufficient to avoid the need to provide four lanes along Schaffer Mill Road as mitigation to the LOS F condition along this roadway segment.

Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a significant impact.

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere with policies and implementation programs of the Martis Valley Community Plan listed below. Compliance with these plan policies and implementation programs would provide some mitigation to traffic impacts.

*Streets and Highways*

Goal 5.A: To provide for the long-range planning and development of the county's roadway system to ensure the safe and efficient movement of people and goods.

*Policy 5.A.1* *The County shall plan, design, and regulate roadways in accordance with the classification system established as a part of this plan.*

Policy *5.A.2* *The County shall require that streets and roads be dedicated, widened, and constructed according to the roadway design and access standards generally defined in the Placer County General Plan and the County's Highway Deficiency Report. Exceptions to these standards may not be necessary but should be kept to a minimum and shall be permitted only upon determination by the Public Works Director that safe and adequate public access and circulation are preserved by such exceptions.*

*Policy 5.A.3* *The County shall require that roadway rights-of way be wide enough to accommodate the travel lanes needed to carry long-range forecasted traffic volumes (beyond 2021), as well as any planned bikeways and required drainage, utilities, landscaping, and suitable separations.*

*Policy 5.A.4* *On arterial roadways and thoroughfares, intersection spacing should be maximized. Driveway encroachments along collector and arterial roadways, and to a lesser degree, collector roadways, shall be minimized.*

*Access control restrictions for each class of roadway in the county are specified in Part I of the Placer County General Plan Document.*

*Policy 5.A.5* *The County shall require that through-traffic be accommodated in a manner that discourages the use of neighborhood roadways, particularly local streets. This through-traffic, including through truck traffic, shall be directed to appropriate routes in order to maintain public safety and local quality of life.*

*Policy 5.A.6* *The County shall require all new development to provide off-street parking, either on-site or in consolidated lots or structures.*

Policy 5.A.7 The County shall develop and manage its roadway system to maintain the following minimum levels of service (LOS).

*a. LOS "C" on rural roadways, except within one-half mile of state highways where the standard shall be LOS "D".*

*b. LOS "C" on urban/suburban roadways except within one-half mile of state highways where the standard shall be LOS "D".*

*The County may allow exceptions to these level of service (LOS) standards where it finds that the improvements or other measures required to achieve the LOS standards are unacceptable based on established criteria. In allowing any exception to the standards, the County shall consider the following factors:*

- *The number of hours per day that the intersection or roadway segment would operate at conditions worse than the standard.*
- *The ability of the required improvement to significantly reduce peak hour delay and improve traffic operations.*
- *The right-of-way needs and the physical impacts on surrounding properties.*
- *The visual aesthetics of the required improvement and its impact on community identity and character.*
- *Environmental impacts including air quality and noise impacts.*
- *Construction and right-of-way acquisition costs.*
- *The impacts on general safety.*
- *The impacts of the required construction phasing and traffic maintenance.*
- *The impacts on quality of life as perceived by residents.*
- *Consideration of other environmental, social, or economic factors on which the County may base findings to allow an exceedance of the standards.*

*Exceptions to the standards will only be allowed after all feasible measures and options are explored, including alternative forms of transportation.*

*Policy 5.A.8* *The County's LOS standards for the State highway system shall be no worse than LOS E.*

*Policy 5.A.9* *The County shall work with neighboring jurisdictions to provide acceptable and compatible levels of service and joint funding on the roadways that may occur on the circulation network in the Town of Truckee, the unincorporated area, and adjacent Nevada County.*

*Policy 5.A.10* *The County shall strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile.*

*Policy 5.A.11* *The County shall plan and implement a complete road network to serve the needs of local traffic. This road network shall include roadways parallel to regional facilities so that the regional roadway system can function effectively and efficiently. Much of this network will be funded and/or constructed by new development.*

*Policy 5.A.12* *It shall be at the discretion of the County if an analysis of traffic will be required for land development projects. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. Such improvements may include a fair share of improvements that provide benefits to others.*

*Policy 5.A.13* *The County shall secure financing in a timely manner for all components of the transportation system to achieve and maintain adopted level of service standards.*

*Policy 5.A.14* *The County shall assess fees on new development sufficient to cover the fair share portion of that development's impacts on the local and regional transportation system.*

*Policy 5.A.15* *Placer County shall participate with other jurisdictions and Caltrans in the planning and programming of improvements, as well as maintaining the adopted level of service (LOS), for the State Highway 267 in accordance with state and federal transportation planning and programming procedures, so as to maintain acceptable levels of service for Placer County residents in Martis Valley.*

*Policy 5.A.16* *As a means of maintaining the rural character of the Plan Area, the County shall limit the number and extent of roadway cuts and fills required in construction, reconstruction, and road maintenance to a minimum consistent with standard design practices.*

*Policy 5.A.17* *As a means of maintaining the rural character of the Plan Area, the County shall ensure that cut and fill slopes created by roadway, trail, and path construction and reconstruction activities will be re-vegetated with native plant materials.*

*Policy 5.A.18* *The County shall coordinate the road network and alternative transportation systems within the Community Plan area with similar systems in surrounding areas.*

*Policy 5.A.19* *The County shall require provisions for safe, convenient access to residences, businesses, and public facilities located in Martis Valley.*

*Policy 5.A.20* *The County shall keep to a minimum the number of driveway encroachments along public roadways—particularly along Schaffer Mill Road, Northstar Drive and SR267.*

*Policy 5.A.21* *The County shall require development of a system or road connection between adjacent subdivisions and recreational areas for improved circulation.*

*Transit*

Goal 5.B: To promote a safe and efficient mass transit system, including both rail and bus, to reduce congestion, improve the environment, and provide viable non-automotive means of transportation in and through Martis Valley.

*Policy 5.B.1* *The County shall work with transit providers to plan and implement additional transit services within and to the county that are timely, cost-effective, and responsive to growth patterns and existing and future transit demand.*

*Policy 5.B.2* *The County shall consider the need for future transit right-of-way in reviewing and approving plans for development. Rights-of-way may either be exclusive or shared with other vehicles.*

*Policy 5.B.3* *The County shall pursue all available sources of funding for transit services.*

*Policy 5.B.4* *The County shall undertake, as funding permits, and participate in studies of inter-regional recreational transit services, such as rail, to the Sierra.*

*Policy 5.B.5* *The County shall require development of transit services by ski resorts and other recreational providers in the Sierra to meet existing and future recreational demand.*

*Policy 5.B.6* *The County shall consider the transit needs of senior, disabled, minority, low-income, and transit dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act.*

*Policy 5.B.7* *The County shall support efforts to provide demand-responsive service ("paratransit") and other transportation services for those unable to use conventional transit.*

*Transportation Systems/Demand Management*

Goal 5.C: To maximize the efficient use of transportation facilities so as to: 1) reduce travel demand on the county's roadway system; 2) reduce the amount of investment required in new or expanded facilities; 3) reduce the quantity of emissions of pollutants from automobiles; and 4) increase the energy-efficiency of the transportation system.

*Policies*

*Policy 5.C.1* *The County shall promote the use of transportation systems management (TSM)/transportation demand management (TDM) programs that divert automobile commute trips to transit, walking, and bicycling.*

*Policy 5.C.2* *The County shall promote the use, by both the public and private sectors, of TSM/TDM programs that increase the average occupancy of vehicles.*

*Policy 5.C.3* *The County shall work with other responsible agencies to develop other measures to reduce vehicular travel demand and meet air quality goals.*

*Policy 5.C.4* *During the development review process, the County shall require that proposed projects meet adopted Trip Reduction Ordinance (TRO) requirements.*

*Non-Motorized Transportation*

Goal 5.D: To provide a safe, comprehensive, and integrated system of facilities for non-motorized transportation.

*Policy 5.D.1* *The County shall promote the development of a comprehensive and safe system of recreational and commuter bicycle routes that provides connections between the Plan Areas major employment and housing areas and between its existing and planned bikeways.*

*Policy 5.D.2* *The County shall work with neighboring jurisdictions to coordinate planning and development of the Plan Area bikeways and multi-purpose trails with those of neighboring jurisdictions.*

*Policy 5.D.3* *The County shall pursue all available sources of funding for the development and improvement of trails for non-motorized transportation (bikeways, pedestrian, and equestrian).*

*Policy 5.D.4* *The County shall promote non-motorized travel (bikeways, pedestrian, and equestrian through appropriate facilities, programs, and information.*

*Policy 5.D.5* *The County shall continue to require developers in finance and install pedestrian walkways, equestrian trails, and multi-purpose paths in new development, as appropriate.*

*Policy 5.D.6* *The County shall support the development of parking areas near access to hiking and equestrian trails.*

*Policy 5.D.7* *The County shall, where appropriate, require new development to provide sheltered public transit stops, with turnouts.*

*Air Transportation*

Goal 5.E To promote the maintenance and improvement of general and commercial aviation facilities within the parameters of compatible surrounding land uses.

*Policies*

*Policy 5.E.1* *The County shall support the continued use of the Truckee-Tahoe Airport as a general purpose airport.*

*Policy 5.E.2* *The County shall work with the Airport Land Use Commission in the planning of land uses around the Truckee-Tahoe Airport to ensure protection of airport operations from urban encroachment.*

*Implementation Programs*

1. *Review development projects for compliance with the goals, policies and specific discussions contained in the Transportation and Circulation Section and throughout the Plan.*

   *Responsible Agency/Department: Land development Departments, Board of Supervisors*

   *Time frame: Ongoing*
   *Funding: Application fees*

2. *Prepare and adopt an ordinance implementing traffic mitigation fees for the Roadway Capital Improvement Program.*

   *Responsible Agency/Department: Department of Public Works, Board of Supervisors*
   *Time frame: On-going*
   *Funding: Road Fund/Fees*

3. *Coordinate transportation planning with the Placer County Transportation Planning Agency, adjacent jurisdictions, and Caltrans.*

   *Responsible Agency/Department: Department of Public Works*
   *Time frame: Ongoing*
   *Funding: Road Fund*

4. *Develop funding sources for road-adjacent trails.*

   *Responsible Agency/Department: Facilities Services*
   *Time frame: Ongoing*
   *Funding: General Fund/Fees*

5. *Pursue other sources of funding for transportation improvements.*

   *Responsible Agency/Department: County Executive, Department of Public Works*
   *Time frame: Ongoing*
   *Funding: General Fund/Road Fund*

6. *Continue existing transportation construction and maintenance programs.*

   *Responsible Agency/Department: Department of Public Works, Caltrans*
   *Time frame: Ongoing*
   *Funding: Varied*

7. *The County shall work with the Placer County Transportation Planning Agency periodically reviewing and updating its short-range transit plan at least as often as required by State law.*

*Responsible Agency/Department: Department of Public Works*
*Time frame: FY 99-00; every five years thereafter*
*Funding: Transportation Development Act funds*

8. *The County shall adopt and implement funding mechanisms to support adopted transit plans throughout the County.*

*Responsible Agency/Department: Department of Public Works*
*Time frame: Ongoing*
*Funding: Transportation Development Act funds*

7. *The County shall require that bikeways recommended in the Bikeways/Trails Master Plan be development when street frontage improvements are required of new development.*

*Responsible Agency/Department: Department of Public Works*
*Time frame: Ongoing*
*Funding: Developer fees, Application Fees*

Mitigation Measures

The following mitigation measure shall be incorporated into the Implementation Programs portion of the Transportation and Circulation Section of the Martis Valley Community Plan. The following mitigation measure applies to PP, AA, AB and AC.

**MM 4.~~4~~1.1a** The County shall establish a capital improvement program for the land use map and roadway improvements ultimately approved by the County for the improvements identified in **Tables 4.4-20** through **4.4-25** (depending on the land use map adopted). This would include funding and coordination for traffic improvements associated with impacts identified in the Town of Truckee as well as to state highway facilities (SR 267 and SR 28). The County will establish a capital improvement program for the land use and roadway improvements identified in Tables 4.4-20 through 4.4-25 (depending on the land use map adopted) for impacts identified within Placer County's jurisdiction.
The County shall develop a mechanism whereby development within the plan area pays its fair share contributions toward transportation improvements outside of the County's jurisdiction as identified in this environmental document or as defined in project specific environmental impact reports.
The County shall complete a focused transit service plan for the Martis Valley area. This plan shall identify an appropriate and reasonable public transit program to accommodate future growth. The transit service plan shall develop a funding mechanism (potentially a CSA) and shall be the basis of developing agreements that provide for input from and coordination with the CSA, Placer County, Town of Truckee, and development stakeholders to ensure coordinated service and connections with adequate capacity and year-round service provisions. This plan shall be conducted after the completion of the Tahoe Area Regional Transit Short Range Transit Plan currently (May, 2003) being conducted by the Tahoe Regional Planning Agency and shall be consistent with this plan.

**TABLE 4.4-20**
**2021 INTERSECTION LOS MITIGATION MEASURES FOR PP: PROPOSED LAND USE DIAGRAM**

| Roadway Network: Land Use: Intersection | Type of Control | Type of LOS | Season | All Connections | | No Schaffer Mill Road Connections | |
|---|---|---|---|---|---|---|---|
| | | | | Proposed Land Use Diagram | | Proposed Land Use Diagram | |
| | | | | LOS | Mitigation | LOS | Mitigation |
| SR 89/SR 267 Bypass/ I-80 Westbound | Traffic Signal | Total Int. | Summer | D | Add 2nd NBLTL = 2 Total | D | Add 2nd NBLTL = 2 Total |
| SR 89/SR 267 Bypass/ I-80 Eastbound | Traffic Signal | Total Int. | Summer | D | Add 2nd NBTL = 2 Total | D | Add 2nd NBTL = 2 Total |
| Donner Pass Road / I-80 Eastbound Off-Ramp | Stop-Controlled | Total Int. | Summer | C | Signalize | C | Signalize |
| Glenshire Drive/DPR (Existing SR 267) | Stop-Controlled | Total Int. | Summer | ~~D~~C | Signalize Add EBRTL | ~~D~~C | Signalize Add EBRTL |
| Bridge Street/ Donner Pass Road | Signal | Total Int. | Summer | E | Add NBFRTL + Acceleration Lane Add NBLTL (remove L/T shared) Add SBRTL | E | Add NBFRTL + Acceleration Lane Add NBLTL (remove L/T shared) Add SBRTL |
| Bridge Street/ West River Street | Stop-Controlled | Total Int. | Summer | D | Signalize Add SBTL | D | Add SBTL |
| Brockway Rd/ Martis Valley Rd | Stop-Controlled | Total Int. | Summer | B | Signalize | B | Signalize |
| 267Bypass/267/ Brockway Rd/ Joerger Dr | Traffic Signal | Total Int. | Summer | D | Add 2nd NBLTL = 2 Total Add NBTL = 1 Total + T/R Shared Add EBFRTL + Acceleration Lane Add SBTL = 2 Total | D | Add 2nd NBLTL = 2 Total Add NBTL = 1 Total + T/R Shared Add EBFRTL + Acceleration Lane Add SBTL = 2 Total |
| SR 267/Airport Road/ Schaffer Mill Road | Traffic Signal | Total Int. | Winter/Summer | ~~D~~E | Add 2 NBTL = 2 Total + T/R Shared Add SBTL = 2 Total Add ~~2~~ 1 EBLTL (remove L/T shared) Add EBT/R shared lane Add WBLTL (remove L/T shared) Add WBFRTL + Acceleration Lane | ~~E~~E | Add 2NBTL = 2 Total + T/R Shared Add SBTL = 2 Total Add ~~2~~ 1 EBLTL (remove L/T shared) Add EBT/R shared lane Add WBLTL (remove L/T shared) Add WBFRTL + Acceleration Lane |
| SR 267/Northstar Drive | Stop-Controlled | Total Int. | Winter | D | Signalize Add NBTL Add EBLTL | D | Signalize Add NBTL Add EBLTL |
| SR 267/SR 28 | Traffic Signal | Total Int. | Winter | ~~D~~E | Add ~~WBFRTL +~~WBRTL ~~Acceleration Lane~~ | ~~E~~E | Add WB~~F~~RTL ~~+ Acceleration Lane~~ |
| SR 89 South/ Donner Pass Road | Traffic Signal | Total Int. | Summer | D | Add NBLTL (remove L/T shared) Add SBRTL (remove T/R shared) | D | Add NBLTL (remove L/T shared) Add SBRTL (remove T/R shared) |

**KEY**

| | | |
|---|---|---|
| NB= Northbound | EB= Eastbound | LTL= Left-Turn Lane |
| SB= Southbound | WB= Westbound | RTL= Right-Turn Lane |
| | TL= Through Lane | FRT Free-Right Turn Lane |

*Notes*
*1Mitigation represents improvements needed to maintain LOS D/E in Truckee during summer weekday peak, LOS E in Placer County outside the Tahoe Basin during both winter weekend and summer peak weekday hours, and no more than 4 hours of LOS E within the Tahoe Basin during summer or winter hours.*
*2 All item listed are necessary in addition to the base case 2021 roadway geometry.*

**TABLE 4.4-21**
**EXTENT OF WIDENING REQUIRED ALONG NORTHSTAR DRIVE AND SCHAFFER MILL ROAD FOR EACH LAND USE ALTERNATIVE AND ROADWAY IMPROVEMENT OPTION**

| Roadway to Be Widened | Land Use Map Alternative | Roadway Improvement Option | Roadway Segment to be Widened to Four Lanes |
|---|---|---|---|
| Northstar Drive | PP | Proposed: No Schaffer Mill Road Connections | SR 267 to Basque Road |
| | | All Connections | Widening Not Needed |
| | AA | Proposed: No Schaffer Mill Road Connections | Widening Not Needed |
| | | All Connections | Widening Not Needed |
| | AB | Proposed: No Schaffer Mill Road Connections | SR 267 to Basque Road |
| | | All Connections | Widening Not Needed |
| | AC | Proposed: No Schaffer Mill Road Connections | SR 267 to Basque Road |
| | | All Connections | Widening Not Needed |
| Schaffer Mill Road | PP | Proposed: No Schaffer Mill Road Connections | Widening Not Needed~~SR 267 to Hopkins Access~~ |
| | | All Connections | Widening Not Needed~~SR 267 to Hopkins Access~~ |
| | AA | Proposed: No Schaffer Mill Road Connections | SR 267 to Lahontan Access |
| | | All Connections | SR 267 to Lahontan Access |
| | AB | Proposed: No Schaffer Mill Road Connections | SR 267 to Siller Access |
| | | All Connections | SR 267 to Siller Access |
| | AC | Proposed: No Schaffer Mill Road Connections | SR 267 to Hopkins Access |
| | | All Connections | SR 267 to Hopkins Access |

**TABLE 4.4-22**
**MITIGATED LOS FOR POTENTIALLY CRITICAL ARTERIAL ROADWAYS**

| | Mitigated Roadway Level Of Service (With Four Lane Roadway) | | |
|---|---|---|---|
| | Existing Roadway Alt. | Proposed: 4-Lane SR 267, No Schaffer Mill Road Connections | 4 Lane SR 267 Plus All Connections |
| **Proposed Land Use Diagram** | | | |
| SR 267 Bypass I-80 to Brockway Road | NA | NA | NA |
| SR 267 Brockway Road to Schaffer Mill Road | E | NA | NA |
| SR 267 Schaffer Mill Road to Northstar Drive | D | NA | NA |
| Schaffer Mill Road West of SR 267 | ~~A~~NA | ~~A~~NA | ~~A~~NA |
| Northstar Drive West of SR 267 | A | A | NA |
| **Existing Martis Valley General Plan** | | | |
| SR 267 Bypass I-80 to Brockway Road | A | NA | NA |
| SR 267 Brockway Road to Schaffer Mill Road | E | NA | NA |
| SR 267 Schaffer Mill Road to Northstar Drive | D | NA | NA |
| Schaffer Mill Road West of SR 267 | C | C | B |
| Northstar Drive West of SR 267 | NA | NA | NA |
| **Alternative 1** | | | |
| SR 267 Bypass I-80 to Brockway Road | NA | NA | NA |
| SR 267 Brockway Road to Schaffer Mill Road | E | NA | NA |
| SR 267 Schaffer Mill Road to Northstar Drive | D | NA | NA |
| Schaffer Mill Road West of SR 267 | B | B | B |
| Northstar Drive West of SR 267 | A | A | NA |
| **Alternative 2** | | | |
| SR 267 Bypass I-80 to Brockway Road | NA | NA | NA |
| SR 267 Brockway Road to Schaffer Mill Road | E | NA | NA |
| SR 267 Schaffer Mill Road to Northstar Drive | D | NA | NA |
| Schaffer Mill Road West of SR 267 | A | A | A |
| Northstar Drive West of SR 267 | A | A | NA |

*Note 1: NA = Not applicable because no mitigation is required.*

**TABLE 4.4-23**
**INTERSECTION LOS MITIGATION MEASURES FOR AA: EXISTING MARTIS VALLEY GENERAL PLAN LAND USE MAP**

| Roadway Network: | | | | All Connections | | No Schaffer Mill Road Connections | |
|---|---|---|---|---|---|---|---|
| Land Use: | | | | Existing Community Plan | | Existing Community Plan | |
| Intersection | Type of Control | Type of LOS | Season | LOS | Mitigation | LOS | Mitigation |
| SR 89/SR 267 Bypass/ I-80 Westbound | Traffic Signal | Total Int. | Summer | D | Add WBLTL= 2 Total<br>Add 2nd NBLTL = 2 Total | D | Add WBLTL = 2 Total<br>Add 2nd NBLTL = 2 Total |
| SR 89/SR 267 Bypass/ I-80 Eastbound | Traffic Signal | Total Int. | Summer | C | Add EBFRTL + Acceleration Lane<br>Add 2nd NBTL = 2 Total | C | Add EBFRTL + Acceleration Lane<br>Add 2nd NBTL = 2 Total |
| Glenshire Drive/DPR (Existing SR 267) | Stop-Controlled | Total Int. | Summer | D | Signalize<br>Add EBRTL | D | Signalize<br>Add EBRTL |
| Bridge Street/ Donner Pass Road | Signal | Total Int. | Summer | E | Add NBFRTL + Acceleration Lane<br>Add NBLTL (remove L/T shared)<br>Add SBRTL | E | Add NBFRTL + Acceleration Lane<br>Add NBLTL (remove L/T shared)<br>Add SBRTL |
| Bridge Street /West River Street | Stop-Controlled | Total Int. | Summer | E | Signalize<br>Add SBTL | E | Signalize<br>Add SBTL |
| Old Brockway Rd/ Martis Valley Rd | Stop-Controlled | Total Int. | Summer | B | Signalize | C | Signalize |
| 267Bypass/267/ Brockway Rd/Joerger Dr | Traffic Signal | Total Int. | Summer | D | Add 2 NBTL = 2 Total + T/R Shared<br>Add 1SBTL = 2 Total<br>Add 2nd NBLTL = 2 Total<br>Add EBFRTL + Acceleration Lane | D | Add 2 NBTL = 2 Total + T/R Shared<br>Add 2SBTL = 3 Total<br>Add 2nd NBLTL = 2 Total<br>Add EBFRTL + Acceleration Lane |
| SR 267/Airport Road/ Schaffer Mill Road | Traffic Signal | Total Int. | Summer | D | Add 3 NBTL = 3 Total + T/R Shared<br>Add 2 SBTL = 3 Total<br>Add 2 EBLTL (remove L/T shared)<br>Add EBT/R shared lane<br>Add WBLTL (remove L/T shared)<br>Add WBFRTL + Acceleration Lane | E | Add 3 NBTL = 3 Total + T/R Shared<br>Add 2 SBTL = 3 Total<br>Add 2 EBLTL (remove L/T shared)<br>Add EBT/R shared lane<br>Add WBLTL (remove L/T shared)<br>Add WBFRTL + Acceleration Lane |
| SR 267/Northstar Drive | Stop-Controlled | Total Int. | Winter | E | Signalize<br>Add NBTL<br>Add EBLTL | E | Signalize<br>Add NBTL<br>Add EBLTL |
| SR 267/SR 28 | Traffic Signal | Total Int. | Winter | E | Add WBFRTL + Acceleration Lane | E | Add WBFRTL + Acceleration Lane |
| SR 89 South/ Donner Pass Road | Traffic Signal | Total Int. | Summer | D | Add NBLTL (remove L/T shared)<br>Add SBRTL (remove T/R shared) | D | Add NBLTL (remove L/T shared)<br>Add SBRTL (remove T/R shared) |

**KEY**

NB= Northbound
SB= Southbound
EB= Eastbound
WB= Westbound
TL= Through Lane
LTL= Left-Turn Lane
RTL= Right-Turn Lane
FRT Free-Right Turn Lane

*1 Mitigation represents improvements needed to maintain LOS D/E in Truckee during summer peak weekday peak, LOS E in Placer County outside the Tahoe Basin during both winter weekend and summer peak weekday hours, and no more than 4 hours of LOS E within the Tahoe Basin during summer or winter hours.*
*2 All item listed are necessary in addition to the base case 2021 roadway geometry.*

**TABLE 4.4-24**
**INTERSECTION LOS MITIGATION MEASURES FOR AB: ALTERNATIVE 1 LAND USE MAP**

| Roadway Network: Land Use: Intersection | Type of Control | Type of LOS | Season | All Connections | | No Schaffer Mill Road Connections | |
|---|---|---|---|---|---|---|---|
| | | | | Alternative 1 | | Alternative 1 | |
| | | | | LOS | Mitigation | LOS | Mitigation |
| SR 89/SR 267 Bypass/ I-80 Westbound | Traffic Signal | Total Int. | Summer | D | Add WBLTL = 2 Total<br>Add 2nd NBLTL = 2 Total | D | Add WBLTL = 2 Total<br>Add 2nd NBLTL = 2 Total |
| SR 89/SR 267 Bypass/ I-80 Eastbound | Traffic Signal | Total Int. | Summer | D | Add 2nd NBTL = 2 Total | C | Add EBFRTL + Acceleration Lane<br>Add 2nd NBTL = 2 Total |
| Glenshire Drive/DPR (Existing SR 267) | Stop-Controlled | Total Int. | Summer | D | Signalize<br>Add EBRTL | D | Signalize<br>Add EBRTL |
| Bridge Street/ Donner Pass Road | Signal | Total Int. | Summer | E | Add NBFRTL + Acceleration Lane<br>Add NBLTL (remove L/T shared)<br>Add SBRTL | E | Add NBFRTL + Acceleration Lane<br>Add NBLTL (remove L/T shared)<br>Add SBRTL |
| Bridge Street/ West River Street | Stop-Controlled | Total Int. | Summer | E | Signalize<br>Add SBTL | D | Signalize<br>Add SBTL |
| Brockway Rd/ Martis Valley Rd | Stop-Controlled | Total Int. | Summer | B | Signalize | B | Signalize |
| 267 Bypass/267/ Brockway Rd/Joerger Dr | Traffic Signal | Total Int. | Summer | D | Add 2 NBTL = 2 Total + T/R Shared<br>Add SBTL = 2 Total<br>Add 2nd NBLTL = 2 Total<br>Add EBFRTL + Acceleration Lane | D | Add 2 NBTL = 2 Total + T/R Shared<br>Add SBTL = 2 Total<br>Add 2nd NBLTL = 2 Total<br>Add EBFRTL + Acceleration Lane |
| SR 267/Airport Road/ Schaffer Mill Road | Traffic Signal | Total Int. | Summer | D | Add 2 NBTL = 2 Total + T/R Shared<br>Add SBTL = 2 Total<br>Add 2 EBLTL (remove L/T shared)<br>Add EBT/R shared lane<br>Add WBLTL (remove L/T shared)<br>Add WBFRTL + Acceleration Lane | E | Add 2 NBTL = 2 Total + T/R Shared<br>Add SBTL = 2 Total<br>Add 2 EBLTL (remove L/T shared)<br>Add EBT/R shared lane<br>Add WBLTL (remove L/T shared)<br>Add WBFRTL + Acceleration Lane |
| SR 267/Northstar Drive | Stop-Controlled | Total Int. | Winter | D | Signalize<br>Add NBTL<br>Add EBLTL | D | Signalize<br>Add NBTL<br>Add EBLTL |
| SR 267/SR 28 | Traffic Signal | Total Int. | Winter | E | Add WBRTL | E | Add WBRTL |
| SR 89 South/ Donner Pass Road | Traffic Signal | Total Int. | Summer | D | Add NBLTL (remove L/T shared)<br>Add SBRTL (remove T/R shared) | D | Add NBLTL (remove L/T shared)<br>Add SBRTL (remove T/R shared) |

**KEY**

NB= Northbound
SB= Southbound
EB= Eastbound
WB= Westbound
TL= Through Lane
LTL= Left-Turn Lane
RTL= Right-Turn Lane
FRT Free-Right Turn Lane

*1 Mitigation represents improvements needed to maintain LOS D/E in Truckee during summer weekday peak, LOS E in Placer County outside the Tahoe Basin during both winter weekend and summer peak weekday hours, and no more than 4 hours of LOS E within the Tahoe Basin during summer or winter hours.*
*2 All item listed are necessary in addition to the base case 2021 roadway geometry.*

**TABLE 4.4-25**
**INTERSECTION LOS MITIGATION MEASURES FOR AC: ALTERNATIVE 2 LAND USE MAP**

| Roadway Network: Land Use: Intersection | Type of Control | Type of LOS | Season | All Connections Alternative 2 LOS | All Connections Alternative 2 Mitigation | No Schaffer Mill Road Connections Alternative 2 LOS | No Schaffer Mill Road Connections Alternative 2 Mitigation |
|---|---|---|---|---|---|---|---|
| SR 89/SR 267 Bypass/ I-80 Westbound | Traffic Signal | Total Int. | Summer | D | Add 2nd NBLTL = 2 Total | D | Add 2nd NBLTL = 2 Total |
| SR 89/SR 267 Bypass/ I-80 Eastbound | Traffic Signal | Total Int. | Summer | D | Add 2nd NBTL = 2 Total | D | Add 2nd NBTL = 2 Total |
| Glenshire Drive/DPR (Existing SR 267) | Stop-Controlled | Total Int. | Summer | D | Signalize<br>Add EBRTL | D | Signalize<br>Add EBRTL |
| Bridge Street/ Donner Pass Road | Signal | Total Int. | Summer | E | Add NBFRTL + Acceleration Lane<br>Add NBLTL (remove L/T shared)<br>Add SBRTL | E | Add NBFRTL + Acceleration Lane<br>Add NBLTL (remove L/T shared)<br>Add SBRTL |
| Bridge Street/ West River Street | Stop-Controlled | Total Int. | Summer | D | Signalize<br>Add 2nd SBTL | D | Signalize<br>Add 2nd SBTL |
| Old Brockway Rd/ Martis Valley Rd | Stop-Controlled | Total Int. | Summer | B | Signalize | B | Signalize |
| 267 Bypass/267/ Brockway Rd/Joerger Dr | Traffic Signal | Total Int. | Summer | D | Add 2nd NBLTL = 2 Total<br>Add NBTL = 1 Total + T/R Shared<br>Add EBFRTL + Acceleration Lane<br>Add SBTL = 2 Total | D | Add 2nd NBLTL = 2 Total<br>Add NBTL = 1 Total + T/R Shared<br>Add EBFRTL + Acceleration Lane<br>Add SBTL = 2 Total |
| SR 267/Airport Road/ Schaffer Mill Road | Traffic Signal | Total Int. | Summer | E | Add NBTL = 1 Total + T/R Shared<br>Add SBTL = 2 Total<br>Add 2 EBLTL (remove L/T shared)<br>Add EBT/R shared lane<br>Add WBLTL (remove L/T shared)<br>Add WBFRTL + Acceleration Lane | E | Add NBTL = 1 Total + T/R Shared<br>Add SBTL = 2 Total<br>Add 2 EBLTL (remove L/T shared)<br>Add EBT/R shared lane<br>Add WBLTL remove L/T shared)<br>Add WBFRTL + Acceleration Lane |
| SR 267/Northstar Drive | Stop-Controlled | Total Int. | Winter | E | Signalize<br>Add NBTL | D | Signalize<br>Add NBTL<br>Add EBLTL |
| SR 267/SR 28 | Traffic Signal | Total Int. | Winter | E | Add WBRTL | E | Add WBRTL |
| SR 89 South/ Donner Pass Road | Traffic Signal | Total Int. | Summer | D | Add NBLTL (remove L/T shared)<br>Add SBRTL (remove T/R shared) | D | Add NBLTL (remove L/T shared)<br>Add SBRTL (remove T/R shared) |

**KEY**
NB=
SB= Southbound
WB= Westbound
TL= Through Lane
RTL= Right-Turn Lane
FRT Free-Right Turn Lane

*1 Mitigation represents improvements needed to maintain LOS D/E in Truckee during summer peak weekday peak, LOS E in Placer County outside the Tahoe Basin during both winter weekend and summer peak weekday hours, and no more than 4 hours of LOS E within the Tahoe Basin during summer or winter hours.*
*2 All item listed are necessary in addition to the base case 2021 roadway geometry.*

Please note that a modern roundabout may be suitable mitigation for intersections that are identified to need a traffic signal. In addition, while the TRPA establishes a LOS D threshold for intersections, it also indicates that LOS E is suitable so long as the LOS E condition is not exceeded for more than 4 hours of the day. Therefore, the mitigation measures identified for the SR 28/SR 267 intersection represent the improvements needed to provide LOS D at the intersection for all but 4 hours per day during which the LOS is E. This conclusion was validated by a review of both summer and winter traffic data along SR 267 and SR 28, which determined that the 5th highest peak hour traffic volumes are between 60 percent and 80 percent of the peak hour. The LOS analysis indicates that the 5th highest peak-hour traffic volumes would result in a LOS D or better for at least 20 hours of the day in the case that the intersection operates at a LOS E during the peak hour.

As shown in **Tables 4.4-16 and 4.4-22**, the Proposed Land Use Diagram, Alternative 1 and 2 could avoid the need to 4-lane SR 267 from Schaffer Mill Road to Northstar Drive if the Northstar Connector is constructed.

Poor LOS conditions requiring intersection improvements at the Bridge Street/West River Street and Bridge Street/Donner Pass Road intersection for all the land use map alternatives could instead be mitigated by constructing a new roadway (including an additional railroad crossing and Truckee River crossing) to the east of Bridge Street, as identified in the Town of Truckee Downtown Specific Plan (Truckee, 1997). This improvement is part of the Downtown Specific Plan, but was not included in the Town's 2021 roadway network. The Town of Truckee AB 1600 Capital Improvement Program identifies 3 million dollars for an easterly railroad undercrossing, with an additional 3 million dollars coming from other sources, primarily from the developer of the "balloon track" site located south of Glenshire Drive and east of Bridge Street. The Town of Truckee estimates that this facility could divert 41 percent of the traffic off of Bridge Street. However, no preferred alignment has been identified by the Town. Development of this facility could result in impacts to the Truckee River as well as other biological and historic resources in the Truckee Downtown area.

Since the specific design of these roadway improvements has yet to be determined, it is not possible to determine the exact extent of the environmental effects of these improvements. However, these improvements may result in temporary surface water quality, air quality and noise impacts associated with construction; operational noise and air quality impacts; biological resource impacts associated with construction and operation; and cultural resource impacts (especially with conflicts with historic resources in the Truckee Downtown area).

While implementation of the some of the above identified mitigation measures are within the jurisdiction of Placer County to implement, other mitigation measures would require coordination with other jurisdictions (Town of Truckee and Caltrans) to implement and are not under control of the County. In some cases these improvements are identified in capital improvement programs, while other improvements have not been programmed (e.g., widening of SR 267 to 4 lanes). Given the unknown nature of the timing and funding of these improvements under the 3 jurisdictions (Placer County, Town of Truckee and Caltrans), this impact is considered **significant and unavoidable**.

Optional Mitigation Measure

**MM 4.4.1b** Reduce Land Use Quantities in Martis Valley Community Plan Area.

Alternately, under any of the alternatives, the land uses allowed under each land use alternative could be reduced to eliminate the need to widen roadways, particularly SR 267, Northstar Drive, and Schaffer Mill Road.

Under the Proposed Land Use Diagram, the list of roadways which have volumes that exceed LOS standards are shown in **Table 4.4-26**, as well as the reduction in land uses needed to maintain LOS standards. The reduction in ADT (or PM peak-hour one-way trips in the Town of Truckee) that would be required to avoid the need to widen particular roadways to 4 lanes is also shown in the table. These tables are meant for programmatic planning purposes only. Please note that the location of any trip reductions have a relatively minor impact on whether the traffic volumes would be reduced to adequate levels. For SR 267, the reduction shown indicates the reduction needed in traffic generation for the overall Martis Valley area. For Northstar Drive, the reduction required refers to the total traffic generation of Northstar developments. Finally, the reduction needed for Schaffer Mill Road refers to the reduction needed in traffic generation associated with land uses that are proposed to gain access on Schaffer Mill Road (Lahontan, Siller Ranch, Eaglewood, and Hopkins Ranch).

For example, in order to avoid the need to 4-lane SR 267 from Schaffer Mill Road to ~~Northstar Drive~~Waddle Ranch, the total trip generation for the area would need to be reduced by approximately 10 percent. ~~Similarly, the total trip generation along Schaffer Mill Road would need to be reduced by 5 percent unless the Northstar Connector is built or both the Northstar Connector and Palisades connectors are built, in which case the trip generation would need to be reduced by 20 percent or 15 percent, respectively.~~

**TABLE 4.4-26**
**REDUCTIONS IN MARTIS VALLEY TRIP GENERATION NECESSARY TO MAINTAIN ADEQUATE ROADWAY LOS FOR THE PROPOSED LAND USE DIAGRAM (PP)**

| | Reduction in Traffic Generation Needed to Avoid Exceeding the Capacity of a 2-Lane Roadway/Reduction in Trips Required | | |
|---|---|---|---|
| **Roadway** | **2021 Existing Roadway** | **Proposed: 4-Lane SR 267, No Schaffer Mill Road Connections** | **All Connections** |
| SR 267 Bypass Between I-80 and Brockway Road | Note 1 | Note 1 | Note 1 |
| SR 267 Between Brockway Road and Airport Road/Schaffer Mill Road | 90%/~~15~~13,000 ADT | -- | -- |
| SR 267 Between Airport Road/Schaffer Mill Road and ~~Northstar Drive~~Waddle Ranch Access (1) | 25%/~~3,000~~2,500 ADT | -- | Note 2 |
| ~~Schaffer Mill Road West of SR 267 (West end of widening varies)~~ | ~~5%/500 ADT~~ | ~~5%/500 ADT~~ | ~~15%/2,000 ADT~~ |
| Northstar Drive Between SR 267 and Basque Drive (~~2~~3) | ~~10~~5%/~~1,~~500 ADT or Note 3 | 5%/500 ADT or Note 3~~10%/1,500 ADT or Note 3~~ | --- |

*Note 1: Four lane SR 267 not required between I-80 and Brockway Road for any roadway alternative under this land use scenario.*
*Note 2: Four lane SR 267 is not required between Schaffer Mill Road and Northstar Drive if Northstar Connector is built.*
*Note 3: Four lane Northstar Drive is not required if Northstar Connector is built.*

As indicated, a very substantial reduction in land use in the Placer County portion of Martis Valley would be required to avoid exceeding the 2-lane capacity of SR 267 between Brockway Road and Airport Road/Schaffer Mill Road, as future growth in traffic associated with both through traffic and traffic generated by the build-out of the Truckee General Plan is forecast to consume most of the available roadway capacity. This table also reflects the conclusion that providing new connections to Schaffer Mill Road would increase through traffic on this roadway, thereby increasing the reduction in land use required to avoid exceeding the capacity of a 2-lane roadway.

Under the Existing Martis Valley General Plan Land Use Map, the list of roadways which have volumes that exceed LOS standards are shown in **Table 4.4-27**, as well as the reduction in land uses needed to maintain LOS standards.

**TABLE 4.4-27**
**REDUCTIONS IN MARTIS VALLEY TRIP GENERATION NECESSARY TO MAINTAIN ADEQUATE ROADWAY LOS FOR THE EXISTING MARTIS VALLEY GENERAL PLAN LAND USE MAP ALTERNATIVE (AA)**

| | Reduction in Traffic Generation Needed to Avoid Exceeding the Capacity of a 2-Lane Roadway/Reduction in Trips Required | | |
|---|---|---|---|
| **Roadway** | **2021 Existing Roadway** | **Proposed: 4-Lane SR 267, No Schaffer Mill Road Connections** | **All Connections** |
| SR 267 Bypass Between I-80 and Brockway Road | 5%/50 P.M. Peak-Hour Trips per Direction per Lane | Note 1 | Note 1 |
| SR 267 Between Old Brockway Road and Airport Road/Schaffer Mill Road | 90%/ 20,000 ADT | -- | -- |
| SR 267 Between Airport Road/Schaffer Mill Road and Northstar Drive(1) | 35%/4,500 ADT | -- | -- |
| Schaffer Mill Road West of SR 267 (West end of widening varies) | 45%/10,500 ADT | 45%/10,500 ADT | 40%/9,000ADT |
| Northstar Drive Between SR 267 and Basque Drive | Note 2 | Note 2 | Note 2 |

*Note 1 Four lane SR 267 not required between I-80 and Broadway Road for any roadway alternative under this land use scenario.*
*Note 2: Four-lane Northstar Drive is not required.*

Under the Alternative 1 Land Use Map, the list of roadways which have volumes that exceed LOS standards are shown in **Table 4.4-28**, as well as the reduction in land uses needed to maintain LOS standards.

**TABLE 4.4-28**
**REDUCTIONS IN MARTIS VALLEY TRIP GENERATION NECESSARY TO MAINTAIN ADEQUATE ROADWAY LOS FOR THE ALTERNATIVE 1 LAND USE MAP (AB)**

| | Reduction in Traffic Generation Needed to Avoid Exceeding the Capacity of a 2-Lane Roadway/Reduction in Trips Required | | |
|---|---|---|---|
| **Roadway** | **2021 Existing Roadway** | **Proposed: 4-Lane SR 267, No Schaffer Mill Road Connections** | **All Connections** |
| SR 267 Bypass Between I-80 and Brockway Road | Note 1 | Note 1 | Note 1 |
| SR 267 Between Old Brockway Road and Airport Road/Schaffer Mill Road | 90%/17,000 ADT | -- | -- |
| SR 267 Between Airport Road/Schaffer Mill Road and Northstar Drive(1) | 20%/2,000 ADT | -- | Note 2 |
| Schaffer Mill Road West of SR 267 (West end of widening varies) | 45%/10,000 ADT | 45%/10,000 ADT | 40%/9,000 ADT |
| Northstar Drive Between SR 267 and Basque Drive(2) | 10%/1,500 ADT or Note 3 | 10%/1,500 ADT or Note 3 | --- |

*Note 1 Four lane SR 267 not required between I-80 and Broadway Road for any roadway alternative under this land use scenario.*
*Note 2: Four lane SR 267 is not required between Schaffer Mill Road and Northstar Drive if Northstar Connector is built.*
*Note 3: Four lane Northstar Drive is not required if Northstar Connector is built.*

Under the Alternative 2 Land Use Map, the list of roadways which have volumes that exceed LOS standards are shown in **Table 4.4-29**, as well as the reduction in land uses needed to maintain LOS standards.

**TABLE 4.4-29**
**REDUCTIONS IN MARTIS VALLEY TRIP GENERATION NECESSARY TO MAINTAIN ADEQUATE ROADWAY LOS FOR THE ALTERNATIVE 2 LAND USE MAP (AC)**

| | Reduction in Traffic Generation Needed to Avoid Exceeding the Capacity of a 2-Lane Roadway/Reduction in Trips Required | | |
|---|---|---|---|
| **Roadway** | **2021 Existing Roadway** | **Proposed: 4-Lane SR 267, No Schaffer Mill Road Connections** | **All Connections** |
| SR 267 Bypass Between I-80 and Brockway Road | Note 1 | Note 1 | Note 1 |
| SR 267 Between Old Brockway Road and Airport Road/Schaffer Mill Road | 85%/13,000 ADT | -- | -- |
| SR 267 Between Airport Road/Schaffer Mill Road and Northstar Drive(2) | 10%/800 ADT | -- | Note 2 |
| Schaffer Mill Road West of SR 267 (West end of widening varies) | 5%/500 ADT | 5%/500 ADT | 15%/2,000 ADT |
| Northstar Drive Between SR 267 and Basque Drive (3) | 10%/1,000 ADT or Note 3 | 10%/1,000 ADT or Note 3 | Note 3 |

*Note 1: Four lane SR 267 not required between I-80 and Brockway Road for any roadway alternative under this land use scenario.*
*Note 2: Four lane SR 267 is not required between Schaffer Mill Road and Northstar Drive if Northstar Connector is built.*
*Note 3: Four lane Northstar Drive is not required if Northstar Connector is built.*

Implementation of the traffic volumes for the land use map alternatives would also result in improved operation of impacted intersections.

### Impact 4.4.2 Traffic Impacts to Local Residential Roadways

**PP** Implementation of the Proposed Land Use Diagram would result in an increase in traffic volumes along local residential roadways in the Sierra Meadows/Ponderosa Palisades area if the Palisades connection is made. This would be a **potentially significant** impact.

**AA** Implementation of the Existing Martis Valley General Plan Land Use Map would result in an increase in traffic volumes along local residential roadways in the Sierra Meadows/Ponderosa Palisades area if the Palisades connection is made. This would be a **potentially significant** impact.

**AB** Implementation of the Alternative 1 Land Use Map would result in an increase in traffic volumes along local residential roadways in the Sierra Meadows/Ponderosa Palisades area if the Palisades connection is made. This would be a **potentially significant** impact.

**AC** Implementation of the Proposed Land Use Diagram would result in an increase in traffic volumes along local residential roadways in the Sierra

Meadows/Ponderosa Palisades area if the Palisades connection is made. This would be a **potentially significant** impact.

***PP Proposed Land Use Diagram***

The majority of the proposed Martis Valley Community Plan transportation-related goals and policies are a duplication of those policies pertaining to the Martis Valley area presented in the Placer County General Plan. While there are several additional policies proposed in the Martis Valley Community Plan, these added policies are not in conflict with the General Plan goals and policies.

There is, however, a potential conflict with established (as well as proposed) policy *if* a general traffic roadway connection is made between the Martis Valley area and the existing local roadways in the Sierra Meadows/Ponderosa Palisades area. Specifically, General Plan Policy 3.A.5 (replicated as proposed Martis Valley CP Policy 5.A.5.) states that "*The County shall require that through-traffic be accommodated in a manner that discourages the use of neighborhood roadways, particularly local streets. This through-traffic, including through truck traffic, shall be directed to appropriate routes in order to maintain public safety and local quality of life*." Furthermore, as discussed above, a maximum volume of 2,000 ADT is established as the standard for a local residential street with front-on lots.

One of the roadway network alternatives evaluated as part of this study would provide connections between the northeastern portion of the Martis Valley area and existing local residential streets in the Sierra Meadows/Ponderosa Palisades area (portions of which lie in both Placer County and the Town of Truckee). A total of three existing roadways have been "stubbed out" to allow potential connections to the south. Due to the geography of the area and the presence of existing development, there does not appear to be a feasible alignment by which to accomplish this connection without the use of an existing residential roadway. Conversely, it is possible to design a connection from Big Springs Road and Schaffer Mill Road that would not impact an existing residential roadway with lots fronting on the roadway. However, it should be noted that while Big Springs Drive does have lots that front directly on the roadway, it is considered a collector roadway and not a local street.

While the level of analysis conducted for this environmental analysis cannot identify traffic volumes on the specific roadways (as these volumes would be impacted by specific development plans not currently available, as well as specific roadway alignments that would require detailed engineering studies to identify), the traffic analysis conducted as part of this environmental study did identify the ADT traffic volumes in 2020 for the roadway connections as a whole, as shown in **Table 4.4-30**.

**TABLE 4.4-30**
**ADT RESULTING ON ROADWAY CONNECTIONS UNDER EACH LAND USE ALTERNATIVE**

| Land Use Alternative | Northstar Connection Only Built | Northstar Connection and Palisades Connection Built | |
|---|---|---|---|
| | ADT Along Northstar Connector (1) | ADT Along Northstar Connector (1) | ADT Along Palisades Connector (2) |
| Proposed Land Use (PP) | ~~4,980~~4800 | 4,~~620~~440 | ~~1,890~~1,470 |
| Existing Martis Valley GP (AA) | 4,340 | 3,780 | 2,650 |
| Alternative 1 (AB) | 5,250 | 4,390 | 2,960 |
| Alternative 2 (AC) | 5,090 | 4,730 | 1,850 |

*Note 1: Between Northstar and Siller Brothers and Lahontan.*
*Note 2: Total of all potential connectors.*

Note that the traffic volumes presented for the Palisades Connector would be added to existing traffic on the residential roadways. In light of these levels of through traffic activity that would be added to local streets, it can be concluded that provision of one or more northern connections to residential streets in existing neighborhoods would constitute a significant impact, in that it would conflict with General Plan Policy 3.A.5, as well as with the traffic volume standard for residential local streets identified for this study.

### *AA Existing Martis Valley General Plan Land Use Map*

Implementation of the Martis Valley Community Plan Update under the Existing Martis Valley General Plan Land Use Map would result in more severe traffic impacts to local residential streets associated with Sierra Meadows/Ponderosa Palisades area as compared to the Proposed Land Use Diagram if these connections are made (see **Table 4.4-30**).

### *AB Alternative 1 Land Use Map*

Implementation of the Martis Valley Community Plan Update under the Alternative 1 Land Use Map would result in more severe traffic impacts to local residential streets associated with Sierra Meadows/Ponderosa Palisades area as compared to the Proposed Land Use Diagram if these connections are made (see **Table 4.4-30**).

### *AC Alternative 2 Land Use Map*

Implementation of the Martis Valley Community Plan Update under the Alternative 2 Land Use Map would result in less severe traffic impacts to local residential streets associated with Sierra Meadows/Ponderosa Palisades area as compared to the Proposed Land Use Diagram if these connections are made (see **Table 4.4-30**).

Policies and Implementation Programs

New developmental projects in the Plan area would be required to adhere to policies and implementation programs of the Martis Valley Community Plan, which are listed below. Compliance with these plan policies and implementation programs would provide some mitigation to traffic impacts.

*Policy 5.A.5.* *The County shall require that through-traffic be accommodated in a manner that discourages the use of neighborhood roadways, particularly local streets. This through-traffic, including through truck*

*traffic, shall be directed to appropriate routes in order to maintain public safety and local quality of life.*

Mitigation Measures

The following mitigation measures apply to all the land use map alternatives (PP, AA, AB, and AC).

The Transportation Section of the Martis Valley Community Plan shall be modified by the following mitigation measures.

**MM 4.4.2a** The Circulation Diagram shall not allow public roadway access to the Sierra Meadows/Ponderosa Palisades area.

**MM 4.4.2b** The Northstar Connector (if ultimately included as part of the Circulation Diagram as a public roadway) shall be designed to accommodate projected traffic volumes with minimal local residential roadway connections. Residential lots shall be restricted from having direct access onto the Connector.

As described under Impact 4.4.1, construction of the Palisades Connector in the absence of the Northstar Connector would not reduce traffic volumes on SR 267 between Airport Road/Schaffer Mill Road and Brockway Road sufficient to avoid the need to provide 4 travel lanes as mitigation to the LOS F along this roadway segment. In addition, while the provision of a Palisades Connector does reduce traffic volumes along Schaffer Mill Road, it does not reduce traffic volumes sufficient to avoid the need to provide 4 lanes along Schaffer Mill Road as mitigation to the LOS F condition along this roadway segment.

Implementation of the above mitigation measure would reduce potential conflicts associated with traffic levels on existing residential streets **less than significant** for the Proposed Land Use Diagram and land use map alternatives AA through AC by prohibiting the Palisades Connector and requiring proper design of the Northstar Connector if ultimately included as part of the Community Plan as a public roadway.

**Impact 4.4.3 Potential Hazards Because of Design or Incompatible Uses**

**PP** Implementation of the Proposed Land Use Diagram is not expected to result in significant traffic hazards. This is considered a **less than significant** impact.

**AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to result in significant traffic hazards. This is considered a **less than significant** impact.

**AB** Implementation of the Alternative 1 Land Use Map is not expected to result in significant traffic hazards. This is considered a **less than significant** impact.

**AC** Implementation of the Alternative 2 Land Use Map is not expected to result in significant traffic hazards. This is considered a **less than significant** impact.

***PP-AC Proposed Land Use Diagram and Alternatives AA through AC***

Under any of the land use alternatives evaluated as part of this study, traffic volumes on study area roadways will increase substantially over the next 20 years. With increasing traffic activity, traffic accidents can be expected to increase. As discussed in Section 4.4.1, above, overall accident rates for the regional roadway system are not unduly high. In addition, there are no specific design features that result in undue accident patterns. Several proposed policies address the need to minimize hazards that could result from poor roadway design or incompatible land uses, such as proposed Policy 5.A.2 and 5.A.4. In addition to these policies, the County maintains standards that govern new street construction and access to ensure that improvements are implemented in accordance with safe design standards. Therefore, each of the land use alternatives would have a less than significant impact relative to this issue.

Mitigation Measures

None required.

**Impact 4.4.4 Inadequate Parking Capacity**

**PP** Implementation of the Proposed Land Use Diagram is not expected to result in parking capacity impacts. This is considered a **less than significant** impact.

**AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to result in parking capacity impacts. This is considered a **less than significant** impact.

**AB** Implementation of the Alternative 1 Land Use Map is not expected to result in parking capacity impacts. This is considered a **less than significant** impact.

**AC** Implementation of the Alternative 2 Land Use Map is not expected to result in parking capacity impacts. This is considered a **less than significant** impact.

***PP-AC Proposed Land Use Diagram and Alternatives AA through AC***

The Martis Valley Community Plan Update is not expected to result in a significant impact on parking capacity on an area-wide basis, as parking supply is a requirement addressed at the individual development project approval level. The provision of adequate parking is addressed, however, under Policy 5.A.6. In combination with existing County parking ordinances, the existing General Plan would have a less than significant impact relative to this issue.

Mitigation Measures

None required.

**Impact 4.4.5 Conflicts with Transit**

**PP** Implementation of the Proposed Land Use Diagram is not expected to result in conflicts with transit. This is considered a **less than significant** impact.

**AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to result in conflicts with transit. This is considered a **less than significant** impact.

**AB** Implementation of the Alternative 1 Land Use Map is not expected to result in conflicts with transit. This is considered a **less than significant** impact.

**AC** Implementation of the Alternative 2 Land Use Map is not expected to result in conflicts with transit. This is considered a **less than significant** impact.

***PP-AC Proposed Land Use Diagram and Alternatives AA through AC***

The proposed Martis Valley Community Plan includes several proposed policies associated with the provision of transit services. These include the following:

Policies and Implementation Programs

*Policy 5.B.1 The County shall work with transit providers to plan and implement additional transit services within and to the county that are timely, cost-effective, and responsive to growth patterns and existing and future transit demand.*

*Policy 5.B.2 The County shall consider the need for future transit right-of-way in reviewing and approving plans for development. Rights-of-way may either be exclusive or shared with other vehicles.*

*Policy 5.B.3 The County shall pursue all available sources of funding for transit services.*

*Policy 5.B.4 The County shall undertake, as funding permits, and participate in studies of inter-regional recreational transit services, such as rail, to the Sierra.*

*Policy 5.B.5 The County shall require development of transit services by ski resorts and other recreational providers in the Sierra to meet existing and future recreational demand.*

*Policy 5.B.6 The County shall consider the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act.*

*Policy 5.B.7 The County shall support efforts to provide demand-responsive service ("paratransit") and other transportation services for those unable to use conventional transit.*

*Policy 5.C.1* *The County shall promote the use of transportation systems management (TSM)/transportation demand management (TDM) programs that divert automobile commute trips to transit, walking, and bicycling.*

*Policy 5.C.4* *During the development review process, the County shall require that proposed projects meet adopted Trip Reduction Ordinance (TRO) requirements.*

*Policy 5.D.2* *The County shall, where appropriate, require new development to provide sheltered public transit stops, with turnouts.*

*Implementation Programs*

1. *Review development projects for compliance with the goals, policies and specific discussions contained in the Transportation and Circulation Section and throughout the Plan.*

   *Responsible Agency/Department: Land development Departments, Board of Supervisors*
   *Time frame: Ongoing*
   *Funding: Application fees*

7. *The County shall work with the Placer County Transportation Planning Agency periodically reviewing and updating its short-range transit plan at least as often as required by State law.*

   *Responsible Agency/Department: Department of Public Works*
   *Time frame: FY 99-00; every five years thereafter*
   *Funding: Transportation Development Act funds*

8. *The County shall adopt and implement funding mechanisms to support adopted transit plans throughout the County.*

   *Responsible Agency/ Department: Department of Public Works*
   *Time frame: Ongoing*
   *Funding: Transportation Development Act funds*

None of the proposed land use map alternatives are expected to result in conflicts with existing or future transit service. Thus, the proposed Martis Valley Community Plan is expected to have a less than significant impact on transit service.

Mitigation Measures

None required.

**Impact 4.4.6 Conflicts with Pedestrian and Bicycle Uses**

**PP** Implementation of the Proposed Land Use Diagram is not expected to result in conflicts with pedestrian and bicycle uses. This is considered a **less than significant** impact.

**AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to result in conflicts with pedestrian and bicycle uses. This is considered a **less than significant** impact.

**AB** Implementation of the Alternative 1 Land Use Map is not expected to result in conflicts with pedestrian and bicycle uses. This is considered a **less than significant** impact.

**AC** Implementation of the Alternative 2 Land Use Map is not expected to result in conflicts with pedestrian and bicycle uses. This is considered a **less than significant** impact.

***PP-AC*** ***Proposed Land Use Diagram and Alternatives AA through AC***

Policies and Implementation Programs

The proposed Martis Valley Community Plan includes several proposed policies associated with the provision of pedestrian and bicycle ues. These include the following:

*Policy 5.A.3* *The County shall require that roadway rights-of way be wide enough to accommodate the travel lanes needed to carry long-range forecasted traffic volumes (beyond 2021), as well as any planned bikeways and required drainage, utilities, landscaping, and suitable separations.*

*Policy 5.C.1* *The County shall promote the use of transportation systems management (TSM)/transportation demand management (TDM) programs that divert automobile commute trips to transit, walking, and bicycling.*

*Policy 5.C.4* *During the development review process, the County shall require that proposed projects meet adopted Trip Reduction Ordinance (TRO) requirements.*

*Policy 5.D.1* *The County shall promote the development of a comprehensive and safe system of recreational and commuter bicycle routes that provides connections between the County's major employment and housing areas and between its existing and planned bikeways.*

*Policy 5.D.2* *The County shall work with neighboring jurisdictions to coordinate planning and development of the County's bikeways and multi-purpose trails with those of neighboring jurisdictions.*

*Policy 5.D.3* *The County shall pursue all available sources of funding for the development and improvement of trails for non-motorized transportation (bikeways, pedestrian, and equestrian).*

*Policy 5.D.4* *The County shall promote non-motorized travel (bikeways, pedestrian, and equestrian) through appropriate facilities, programs, and information.*

*Policy 5.D.5* *The County shall continue to require developers to finance and install pedestrian walkways, equestrian trails, and multi-purpose paths in new development, as appropriate.*

*Policy 5.D.6* *The County shall support the development of parking areas near access to hiking and equestrian trails.*

*Policy 5.D.7* *The County shall, where appropriate, require new development to provide sheltered public transit stops, with turnouts.*

*Implementation Programs*

*1.* *Review development projects for compliance with the goals, policies and specific discussions contained in the Transportation and Circulation Section and throughout the Plan.*

*Responsible Agency/Department: Land development Departments, Board of Supervisors*
*Time frame: Ongoing*
*Funding: Application fees*

*4.* *Develop funding sources for road-adjacent trails.*

*Responsible Agency/Department: Facility Services*
*Time frame: Ongoing*
*Funding: General Fund/Fees*

*9.* *The County shall require that bikeways recommended in the Bikeways/Trails Master Plan be developed when street frontage improvements are required of new development.*

*Responsible Agency/Department: Department of Public Works*
*Time frame: Ongoing*
*Funding: Developer fees, Application Fees*

None of the proposed land use map alternatives are expected to result in conflicts with existing or future pedestrian or bicycle uses. The reader is referred to Section 4.11 (Public Services and Utilities) and **Figure 3.0-9** regarding proposed trail system improvements associated with the Community Plan. Thus, the proposed Martis Valley Community Plan is expected to have a less than significant impact on pedestrian or bicycle uses.

Mitigation Measures

None required.

### 4.4.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting associated with the traffic analysis consists of planned and proposed development in the Town of Truckee, Placer and Nevada County associated with their general plans in the Martis Valley area as well as regional traffic volume

conditions anticipated in the year 2021 associated with Interstate 80, SR 89 and the Tahoe Basin.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

**Impact 4.4.7 Cumulative Impacts to Area Intersections and Roadways**

**PP** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of the Proposed Land Use Diagram and other regional development under year 2021 conditions for area roadway facilities in the Town of Truckee and Placer County. Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a **cumulative significant** impact.

**AA** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of the Existing Martis Valley General Plan Land Use Map and other regional development under year 2021 conditions for area roadway facilities in the Town of Truckee and Placer County. Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a **cumulative significant** impact.

**AB** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of the Alternative 1 Land Use Map and other regional development under year 2021 conditions for area roadway facilities in the Town of Truckee and Placer County. Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a **cumulative significant** impact.

**AC** Depending upon the roadway network and analysis period, intersection and roadway Level of Service (LOS) standards are forecast to be exceeded under full development of the Alternative 2 Land Use Map and other regional development under year 2021 conditions for area roadway facilities in the Town of Truckee and Placer County. Exceedence of LOS standards in the Town of Truckee or Placer County would be considered a **cumulative significant** impact.

***PP-AC Proposed Land Use Diagram and Alternatives AA through AC***

As described in Section 4.4.3 and under Impacts 4.4.1 and 4.4.2, cumulative development and traffic conditions in the year 2021 for summer and winter peak conditions were modeled to determine impacts to area intersections and roadways. As identified under Impacts 4.4.1 and 4.4.2, these impacts were identified as **significant**.

Mitigation Measures

Implementation of mitigation measures MM 4.4.1a and/or b and MM 4.4.2a and b would reduce Community Plan impacts to the impacted roadway facilities identified. While impacts to local residential roadways would be mitigated, cumulative impacts to regional intersections and roadways would remain **significant and unavoidable** given the

unknown nature of the timing and funding of these improvements under the three jurisdictions (Placer County, Town of Truckee and Caltrans).

**Impact 4.4.8 Cumulative Impacts to Regional Highway Facilities**

**PP** Full development of the Proposed Land Use Diagram and other regional development is expected to add to year 2021 traffic volumes along Interstate 80 and State Route 89 (north of Interstate 80). While State Route 89 (north of Interstate 80) is anticipated to operate properly, Interstate 80 is expected to operate deficiently. This would be a **cumulative significant** impact.

**AA** Full development of the Existing Martis Valley General Plan Land Use Map and other regional development is expected to add to year 2021 traffic volumes along Interstate 80 and State Route 89 (north of Interstate 80). While State Route 89 (north of Interstate 80) is anticipated to operate properly, Interstate 80 is expected to operate deficiently. This would be a **cumulative significant** impact.

**AB** Full development of the Alternative 1 Land Use Map and other regional development is expected to add to year 2021 traffic volumes along Interstate 80 and State Route 89 (north of Interstate 80). While State Route 89 (north of Interstate 80) is anticipated to operate properly, Interstate 80 is expected to operate deficiently. This would be a **cumulative significant** impact.

**AC** Full development of the Alternative 2 Land Use Map and other regional development is expected to add to year 2021 traffic volumes along Interstate 80 and State Route 89 (north of Interstate 80). While State Route 89 (north of Interstate 80) is anticipated to operate properly, Interstate 80 is expected to operate deficiently. This would be a **cumulative significant** impact.

***PP Proposed Land Use Diagram***

Traffic volumes are expected to increase on I-80 and SR 89 to the north of I-80 with the implementation of the Proposed Land Use Diagram land uses. Specifically, the 2021 peak-hour traffic volumes along I-80 both east and west of SR 267 are expected to increase by ~~15~~ 14 percent with the implementation of the Proposed Land Use Diagram above the volumes that could be expected with no future development in Martis Valley. According to the Interstate 80 Transportation Concept Report, I-80 is expected to operate at LOS F by 2017 with no improvements. Traffic volumes along SR 89 north of I-80 are expected to increase by ~~9~~ 12 percent in 2021 with the implementation of the Proposed Land Use Diagram. However, this portion of SR 89 is expected to operate at LOS A under year 2021 conditions. The Proposed Land Use Diagram is expected to contribute approximately 24 percent to total future traffic growth along I-80 within the project vicinity and 30 percent to the total future traffic growth along SR 89 north at the Town of Truckee line between now and 2021.

### *AA Existing Martis Valley General Plan Land Use Map*

Traffic volumes are expected to increase on I-80 and SR 89 to the north of I-80 with the implementation of the Existing Martis Valley General Plan Land Use Map. Specifically, the 2021 peak-hour traffic volumes along I-80 both east of west of SR 267 are expected to increase by 20 percent with the implementation of the Existing Martis Valley General Plan Land Use Map above the volumes that could be expected with no future development in Martis Valley. According to the Interstate 80 Transportation Concept Report, I-80 is expected to operate at LOS F by 2017 with no improvements. Traffic volumes along SR 89 north of I-80 are expected to increase by 9 percent in 2021 with the implementation of the Existing Martis Valley General Plan Land Use Map. However, this portion of SR 89 is expected to operate at LOS A under year 2021 conditions.

### *AB Alternative 1 Land Use Map*

Traffic volumes are expected to increase on I-80 and SR 89 to the north of I-80 with the implementation of the Alternative 1 Land Use Map. Specifically, the 2021 peak-hour traffic volumes along I-80 east and west of SR 267 are expected to increase by 17 and 18 percent, respectively, with the implementation of the Alternative 1 Land Use Map above the volumes that could be expected with no future development in Martis Valley. According to the Interstate 80 Transportation Concept Report, I-80 is expected to operate at LOS F by 2017 with no improvements. Traffic volumes along SR 89 north of I-80 are expected to increase by 9 percent in 2021 with the implementation of the Alternative 1 Land Use Map. However, this portion of SR 89 is expected to operate at LOS A under year 2021 conditions.

### *AC Alternative 2 Land Use Map*

Traffic volumes are expected to increase on I-80 and SR 89 to the north of I-80 with the implementation of the Alternative 2 Land Use Map. Specifically, the 2021 peak-hour traffic volumes along I-80 both east of west of SR 267 are expected to increase by 15 percent with the implementation of the Alternative 2 Land Use Map above the volumes that could be expected with no future development in Martis Valley. According to the Interstate 80 Transportation Concept Report, I-80 is expected to operate at LOS F by 2017 with no improvements. Traffic volumes along SR 89 north of I-80 are expected to increase by 8 percent in 2021 with the implementation of the Alternative 2 Land Use Map. However, this portion of SR 89 is expected to operate at LOS A under year 2021 conditions.

Mitigation Measures

There are currently no programmed improvements or funding for improvements to the mainline of Interstate 80 and such improvements are not under control of the County. Given the unknown nature of the timing and funding of improvements this impact is considered **significant and unavoidable**.

### Impact 4.4.9 Cumulative Roadway Hazards Because of Design or Incompatible Uses

**PP** Implementation of the Proposed Land Use Diagram is not expected to contribute to significant traffic hazards. This is considered a **less than significant** impact.

**AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to contribute to significant traffic hazards. This is considered a **less than significant** impact.

**AB** Implementation of the Alternative 1 Land Use Map is not expected to contribute to significant traffic hazards. This is considered a **less than significant** impact.

**AC** Implementation of the Alternative 2 Land Use Map is not expected to contribute to significant traffic hazards. This is considered a **less than significant** impact.

***PP-AC Proposed Land Use Diagram and Alternatives AA through AC***

As identified in Section 4.4.3 and Impact 4.4.3, overall accident rates for the regional roadway system are not unduly high. In addition, there are no specific design features that result in undue accident patterns. Several proposed policies address the need to minimize hazards that could result from poor roadway design or incompatible land uses, such as proposed Policies 5.A.2 and 5.A.4. In addition to these policies, the County maintains standards that govern new street construction and access to ensure that improvements are implemented in accordance with safe design standards. The Martis Valley Community Plan Update is not expected to result in a significant impact on parking capacity on an area-wide basis, as parking supply is a requirement addressed at the individual development project approval level.

Mitigation Measure

None required.

**Impact 4.4.10 Cumulative Conflicts with Transit, Pedestrian and Bicycle Uses**

**PP** Implementation of the Proposed Land Use Diagram is not expected to contribute to conflicts with transit. This is considered a **less than significant** impact.

**AA** Implementation of the Existing Martis Valley General Plan Land Use Map is not expected to contribute to conflicts with transit, pedestrian and bicycle uses. This is considered a **less than significant** impact.

**AB** Implementation of the Alternative 1 Land Use Map is not expected to contribute to conflicts with transit, pedestrian and bicycle uses. This is considered a **less than significant** impact.

**AC** Implementation of the Alternative 2 Land Use Map is not expected to contribute to conflicts with transit, pedestrian and bicycle uses. This is considered a **less than significant** impact.

***PP-AC Proposed Land Use Diagram and Alternatives AA through AC***

As identified in Section 4.4.3 and in Impacts 4.4.5 and 4.4.6, the proposed Community Plan includes several provisions ensuring that adequate facilities are provided and no conflicts with transit, pedestrian and bicycle uses occur. This cumulative impact is considered less than significant.

Mitigation Measure

None required.

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