**ADDENDUM TO THE NORTH VILLAGE SPECIFIC PLAN ENVIRONMENTAL IMPACT REPORT**

# Mammoth Hillside Site Density and Lot Coverage Increase

April 19, 2017

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# 1.0 INTRODUCTION

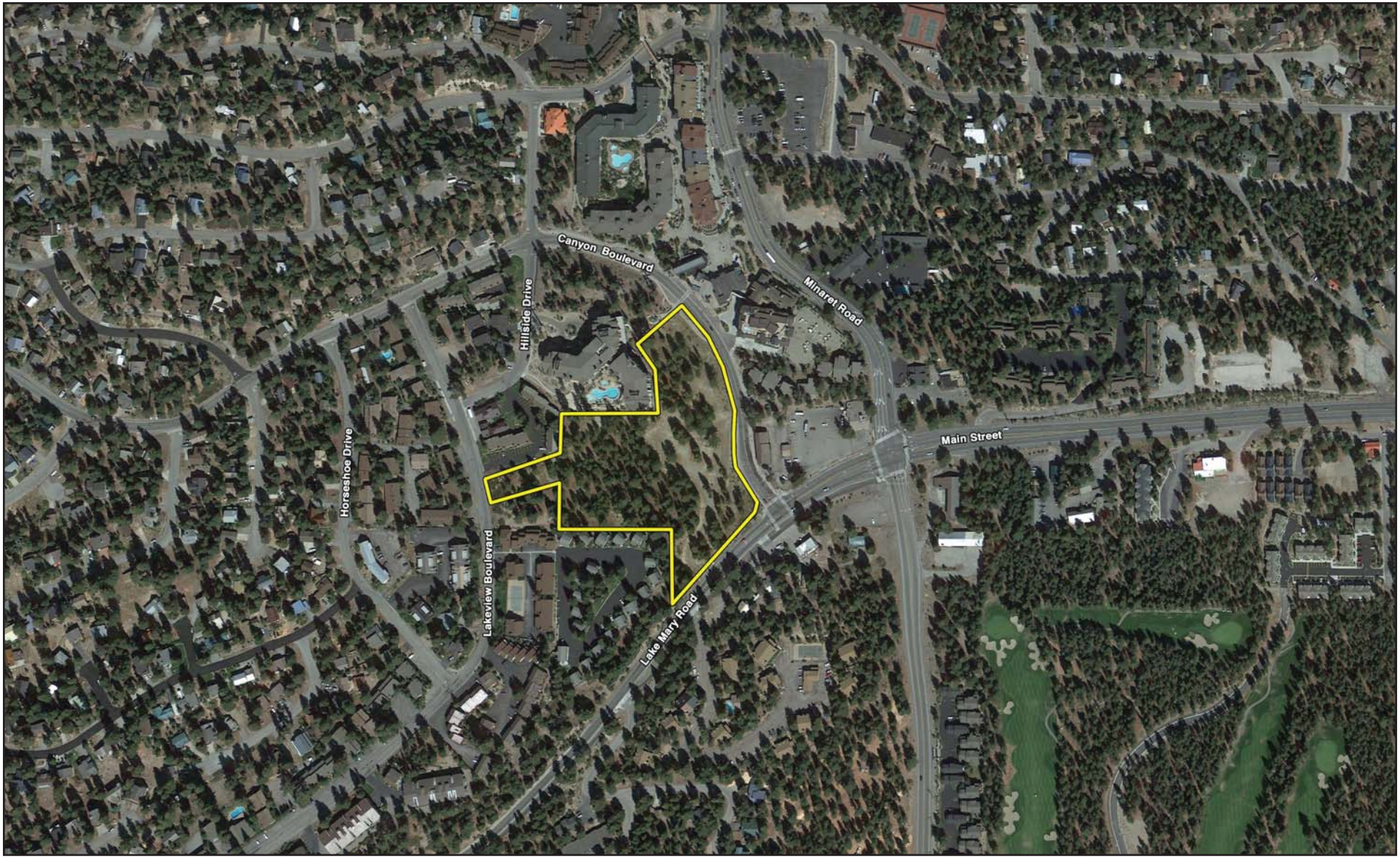
The proposed North Village Specific Plan (NVSP) Amendment (Project) is a request that consists of two components: 1) 87 room density increase to the NVSP, and 2) 14,881.9 square foot lot coverage increase in the Plaza Resort (PR) Zone of the NVSP. These requests would result in a 2.6 percent increase in overall density in the NVSP and a 2.3 percent lot coverage increase in the PR Zone of the NVSP. The Project would restore the density and lot coverage allowed on the Mammoth Hillside site under the current NVSP zoning, but which was reduced after a density and lot coverage transfer to the South Hotel site in 2004. The Mammoth Hillside site (refer to Exhibit 1-1, *Site Vicinity*) has current entitlements for a 193-unit condominium hotel as Phase 1. This amendment would not alter these entitlements, and if the property owner desired to revise the development plans for the site, a new or amended application would be required.

The objective of the NVSP is to "create a set of land use designations and development standards which will facilitate the development of "North Village" as a concentrated, pedestrian-oriented activity center with limited vehicular access…development will be oriented toward year-round uses and visitor activity." The Town, as the Lead Agency under the California Environmental Quality Act (CEQA), determined that an Environmental Impact Report (EIR) was required for the NVSP prior to its adoption. The Town certified the NVSP Final EIR in 1991.

Activities related to the Mammoth Hillside project site entitlement began in 2004 with a density and lot coverage transfer from the Mammoth Hillside site to the East Village or South Hotel site, also located in the NVSP. This was followed by the Town's approval of Tentative Tract Map (TTM 36-235) and Use Permit Application (UPA 2005-09) for the Project site on January 12, 2006, which authorized the two-phase Mammoth Hillside project. In 2007, Use Permit Application (UPA 2007-11) was approved by the Town on February 13, 2007, allowing tandem parking and mechanical parking lifts within the underground parking garage that would be built on the Project site. Subsequently, a Use Permit Application (UPA 2007-14) was approved by the Town on February 13, 2008 for an alternative housing mitigation plan for the Mammoth Hillside project. Most recently, amendments to the conditions of approval for the Mammoth Hillside entitlement were approved on December 9, 2015 and remain as the current entitlements for the site (TTM 36-235a, UPA 2005-09a, UPA 2007-11a, and UPA 2007-14a). These entitlements expire on January 12, 2021 in accordance with Time Extension Request (TER 15-003), also approved by the Town on December 9, 2015. The Project would not alter these current entitlements; a new or amended application would be required to alter these current entitlements.

## 1.1 PROJECT LOCATION AND EXISTING CONDITIONS

The town of Mammoth Lakes (town) is located in the eastern portion of the Sierra Nevada Range, within southwestern Mono County, California. Regional access to the town is provided via U.S. Highway 395, which is approximately three miles east of the town. The town is served primarily by State Route 203, which acts as a connector to U.S. Highway 395. The approximately 6.9-acre site is located at the northwest corner of Canyon Boulevard and Lake Mary Road.




Source: Goolge Earth, 2017.
- Project Site

NOT TO SCALE

Michael Baker INTERNATIONAL

04/17 | JN 157753

ADDENDUM TO THE NORTH VILLAGE SPECIFIC PLAN EIR
MAMMOTH HILLSIDE SITE DENSITY AND LOT COVERAGE INCREASE

# Site Vicinity

**Exhibit 1-1**

The Project site is currently vacant and vegetated. To the east of the Project site, across Canyon Boulevard, is lodging and condominiums (8050 Residence Club and Mammoth Fireside), as well as commercial uses (Mammoth Mountain Ski Area gondola building and retail and Mammoth Brewing Company), all zoned NVSP. To the south are townhomes and condominiums (Mammoth View Villas and the Canyon Ski and Racquet Club), zoned Residential Multi-Family 2. To the west, across Lakeview Boulevard, are condominiums (Mammoth Estates). To the north is the Westin Monache Resort (zoned NVSP).

## 1.2 PREVIOUS ENVIRONMENTAL DOCUMENT

The NVSP was adopted by the Town in 1991, and has been amended several times, most recently in 2014 for the Inn at the Village project. The NVSP establishes development regulations for approximately 64 acres located around Minaret Road, Main Street/Lake Mary Road, and Canyon Boulevard. The intent of the NVSP is to develop a cohesive, pedestrian-oriented resort activity node, and to provide a year-round focus for visitor activity within the town. The Town, as the Lead Agency under the CEQA, determined that an EIR was required for the NVSP prior to adoption. The EIR was prepared in conformance with CEQA (California Public Resources Code [PRC] Section 21000 et seq.); CEQA Guidelines (California Code of Regulations [CCR], Title 14, Section 15000 et seq.); and the rules, regulations, and procedures for implementation of CEQA, as adopted by the Town. The purpose of the EIR was to review the existing conditions, analyze potential environmental impacts, and identify feasible mitigation measures to reduce potentially significant effects of the NVSP.

The Final Environmental Impact Report North Village Specific Plan (1991 PEIR), dated February 1991, was certified along with the adoption of the NVSP in 1991. In 1994, the North Village Specific Plan Environmental Impact Report Addendum (1994 PEIR Addendum), dated May 1994, was prepared for an amendment to the NVSP, and in 2000, the Subsequent Program Environmental Impact Report for the North Village 1999 Specific Plan Amendment (1999 SPEIR), dated October 13, 2000, was certified for an update to the NVSP.

Environmental analysis was completed for the currently entitled Mammoth Hillside project (Approved TTM project) by Town staff as a part of original entitlements approved in 2006 (TTM 36-235 and UPA 2005-09). At that time, the project was reviewed and considered to be in conformance with the 1999 SPEIR (State Clearinghouse No. 99-092082). An Addendum to the 1999 SPEIR was also prepared in association with UPA 2007-14.

## 1.3 PROJECT HISTORY AND BACKGROUND

**Density and Lot Coverage Transfer from Mammoth Hillside to East Village/South Hotel Site (2004)** - In 2004, when both the Mammoth Hillside project site and the East Village/South Hotel site (east of Minaret Road and south of Forest Trail, also in the NVSP) were owned by Intrawest California Holdings, a density and lot coverage transfer was recorded. Through the density transfer, a total of 87.04 rooms were transferred to the East Village/South Hotel site. Through the lot coverage transfer, 14,881.9 square feet of lot coverage was transferred to the East Village/South Hotel site. The density and lot coverage were transferred from 15, 17, and 49 Canyon Boulevard, all of which are in the Plaza Resort zone of the NVSP. The transfer covenants were signed by both Intrawest and the Town of Mammoth Lakes and there were no fees or payments recorded in association with the transfers. The NVSP allows density and lot coverage transfers to be executed though a deed restriction recorded against the properties with the Town as a signatory (NVSP, 2.e.ii, page 37 and 3.a, page 38).

**Tentative Tract Map 36-235 and Use Permit 2005-09 (Resolution No. PC 2006-01)** - The Town's Planning and Economic Development Commission (PEDC) approved TTM 36-235 and UPA 2005-09 on January 12, 2006, which authorized the two-phase Mammoth Hillside project. Phase I was approved for a 193-unit (325 bedrooms) condominium hotel with understructure parking for 259 vehicles and three check-in surface parking spaces with full-time valet parking services, spa, pool and patio facilities, meeting facilities, restaurant/bar, and associated landscape improvements on five parcels of land consisting of approximately seven acres. Phase II was proposed as a townhome development with 41 units (107 bedrooms). Phase II was not entitled by Resolution No. PC 2006-11 and requires a separate tentative tract map and use permit application.

An additional 36 bedrooms of affordable housing were approved, 27 of which were required for affordable housing mitigation. The additional nine units qualified the project for a 35 percent state density bonus. The affordable housing rooms required for mitigation were exempted from the overall density calculations, pursuant to the NVSP's Housing Element.

After the project was approved, it was discovered that the property was 0.07 acres smaller than originally calculated. The result was a reduction in the overall property density of five bedrooms. Thus, the total allowable density of the Mammoth Hillside project as entitled in 2006, for Phase I and II, was 427 rooms (previously 432 rooms). The affordable housing mitigation required for the 35 percent state density bonus was also reduced, to 35 bedrooms. An appeal of the PEDC's decision to approve TTM 36-235 and UPA 2005-09 was reviewed by the Town Council on February 15, 2006. The Council voted to uphold the approval.

**Use Permit 2007-11 (Resolution No. PC 2007-22)** - On February 13, 2007, UPA 2007-11 was approved by the PEDC. The Use Permit allowed tandem parking and mechanical parking lifts to be included in the underground parking garage design. At the time of the original project approval, the garage layout included parking spaces and drive aisles that did not meet Town standards. However, pursuant to Ordinance 2006-11, approved in December 2006, tandem parking and mechanical parking lifts were allowed through a Use Permit process.

As a part of this Use Permit application, the proposed parking structure was redesigned to meet the requirements of Ordinance 2006-11. A revised mix of units was also included that reduced the number of parking spaces required and accommodated the 50 parking spaces for the 8050 Residence Club (required by a private agreement) within the parking garage design. The number of units for Phase I was reduced to 127 units (291 rooms), a reduction of 34 rooms. Condition of Approval #1 in Resolution 2007-22 notes that the final number of units permitted to be constructed under the original approval (Resolution No. PC 2006-01) may be limited by the available parking in the Mammoth Hillside garage.

**Use Permit 2007-14 (Resolution No. PC 2008-02)** - Later in 2007, a Use Permit application for an alternative housing mitigation plan was approved. The alternative housing mitigation plan allowed for the payment of an in-lieu fee for the 35 bedrooms of affordable housing instead of constructing the affordable housing on-site. The findings provided in Resolution 2008-02 described that an additional 30 percent on top of the established in-lieu fee would be paid. The total in-lieu mitigation fee agreed upon was $5,586,000. It was determined that the mitigation plan resulted in a greater community benefit and that 35 percent state density bonus would remain.

UPA 2007-14 was approved by the PEDC on February 13, 2008. An appeal of the approval was heard by the Town Council on April 2, 2008. The Town Council voted to affirm the PEDC's approval with the condition that Mammoth Lakes Housing, Inc. complete the units required for mitigation in the low or moderate income range within five years of payment of the in-lieu fee. This condition

was amended in 2015 (see Amendment to TTM 36-235, UPA 2005-09, UPA 2007-11, and UPA 2007-14, and associated Time Extension Request (TER 15-003), Fees, below).

**Concept Review 15-002** - A Concept Review (CR) application, was submitted on June 29, 2015 to review the conditions of approval of the existing entitlements for the Mammoth Hillside project. In the application, it was noted that several of the conditions were "barriers to development and financing", and that if those were amended or removed, where appropriate, it might facilitate progress on the project.

CR 15-002 was discussed and routed to applicable Town staff and agencies at the Development Review Committee on July 7, 2015. There was consensus among staff that some of the conditions were either no longer relevant or should be changed to reflect the most current conditions as standardized by the Town. It was also recommended that if the three resolutions for the Mammoth Hillside project were to be amended, that they be combined into one resolution to simplify and clarify the conditions.

On September 9, 2015, the PEDC reviewed the proposed amendments at a public workshop and there was consensus from the PEDC that the amendments to the entitlement conditions were reasonable.

**Amendment to TTM 36-235, UPA 2005-09, UPA 2007-11, and UPA 2007-14 and associated Time Extension Request (TER 15-003) (Resolution No. PC 2015-09)** - In accordance with CR 15-002, the PEDC reviewed amendments to the approved Tentative Tract Map and Use Permits at a public hearing on December 9, 2015. The PEDC voted unanimously to approve the amendments and the associated Time Extension Request (TER 15-003). The existing project entitlements expire on January 12, 2021.

The following amendments to the entitlement conditions of approval were made:

- *Four or Five Star Hotel Operator* - Condition 2 of Resolution No. PC 2006-01, requiring that the project have a contract with a four or five star hotel operator prior to the issuance of a Certificate of Occupancy, was deleted because any product yielding Transient Occupancy Tax at this location may meet the anticipated objective.

- *Pedestrian Bridge* - Condition 10 of Resolution No. PC 2006-01, referencing a pedestrian bridge over Canyon Boulevard to connect the project site to the Gondola Building and the Village Plaza, was deleted because the pedestrian bridge is not required by the Town or by the NVSP.

- *8050 Residence Club 50 Parking Spaces* - Resolution No. PC 2007-22 referenced a private parking agreement with the owners of the 8050 Residence Club (Mammoth 8050, LLC), which requires that the Mammoth Hillside project provide 50 parking spaces within the underground parking garage. The resolution was amended to indicate acknowledgement, but not requirement, of the private parking agreement.

- *Fees* - There were references throughout the resolutions to required affordable housing mitigation fees and development impacts fees. In the resolutions, these conditions referenced specific fee amounts (e.g., $5,586,000 for in-lieu housing mitigation fees). The related conditions were amended to require payment of affordable housing mitigation fees and development impact fees in place at the time of building permit submittal or issuance, as applicable, in accordance with conditions applied to current development projects.

Payment of the standard affordable housing mitigation fees resulted in the loss of the 35 percent state density bonus, as the previous fee amount of $5,586,000 was considered to be a significant community benefit comparable to that of the provision of on-site, inclusionary housing.

- *Pedestrian Area or Transit Shelter* - A revised Condition 23 of Resolution No. PC 2006-01 was incorporated to require participation in the creation of a pedestrian area of interest or transit shelter located at the north easterly portion of the property along Canyon Boulevard.

- *Current Standards* - Conditions were updated as necessary to reflect current standards and best practices in the Planning and Engineering Divisions. For example, conditions regarding landscaping were revised to reference the Water Efficient Landscape Ordinance.

**Concept Review 16-001** - A Concept Review (CR) application was submitted in 2016 to obtain feedback on a request to increase the density of the Mammoth Hillside site from 317 rooms to 403 rooms to facilitate the development of a future hotel project. The request was reviewed and discussed at a joint workshop of the PEDC and Town Council on September 21, 2016.

**Current Project**

Based on the feedback received from Town staff, PEDC, and Town Council during review of CR 16-001, a formal application for the Mammoth Hillside site density and lot coverage increase was submitted, and is the subject of this Addendum. The density request was revised from 403 rooms to 404 rooms to fully restore the density allowed prior to the 2004 density transfer to the East Village/South Hotel site. The density and lot coverage increase requires a General Plan Amendment and District Zoning Amendment, which require legislative action by the Town[1]. Based on the proposed density and lot coverage increase, the Town has determined that an EIR Addendum is required.

For the purposes of the analysis in this Addendum, the proposed Project is compared to the certified Final EIR development scenario. All references to "Final EIR" shall include the 1991 PEIR, 1994 PEIR Addendum, 1999 SPEIR, and the Approved TTM project (i.e., current entitlements).

[1] The Mammoth Hillside site has current entitlements for a 193-unit condominium hotel as Phase 1. This amendment would not alter these entitlements, and if the property owner desired to revise the development plans for the site, a new or amended application would be required.

# 2.0 DESCRIPTION OF PROJECT MODIFICATIONS

## 2.1 ADDENDUM'S PURPOSE AND NEED

According to State CEQA Guidelines Section 15162, when an EIR has been certified or a negative declaration adopted for a project, no subsequent or supplemental environmental review documentation shall be required unless one or more of the following events occurs:

1) Substantial changes are proposed in the project, which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2) Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

    A. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

    B. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

    C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

    D. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

When none of the above events has occurred, yet minor technical changes or additions to the previously adopted EIR or negative declaration are necessary, an addendum may be prepared (State CEQA Guidelines Section 15164[b]).

As discussed below, none of the conditions described in State CEQA Guidelines Section 15162 calling for preparation of subsequent environmental review have occurred. This Addendum supports the conclusion that the proposed modifications are minor technical changes that do not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects. In addition, as discussed below, the proposed modifications would not result in any new or substantially increased significant environmental impacts, no new mitigation measures, or new alternatives. As a result, an addendum is an appropriate CEQA document for analysis and consideration of the proposed modifications.

Circulation of an addendum for public review is not necessary (State CEQA Guidelines Section 15164, subdivision (c)); however, the addendum must be considered in conjunction with the adopted Final EIR by the decision-making body (State CEQA Guidelines Section 15164, subdivision (d)).

## 2.2 LOCATION OF PROJECT MODIFICATIONS

The proposed modifications would apply to the same approximately 6.9-acre project site identified and described previously. The project site is comprised of seven parcels located at the northwest corner of Canyon Boulevard and Lake Mary Road, in Mammoth Lakes, California.

## 2.3 COMPONENTS OF PROJECT MODIFICATIONS

The proposed modifications to the NVSP are described below.

The proposed modifications are identical to the Final EIR in the following respects:

- All development standards, other than maximum allowable density and lot coverage remain unchanged.
- All entitlements approved within the Mammoth Hillside project (Approved TTM project) remain unchanged.
- Canyon Boulevard would still be widened 10 feet to provide a northbound left-turn lane to serve the Project access.

The proposed Project differs from the Final EIR in the following respects:

- *Density Increase* - The Mammoth Hillside site is located in the Plaza Resort (PR) and Specialty Lodging (SL) zones of the NVSP. The allowed density in the PR Zone is 80 rooms/acre, and the allowed density in the SL Zone is 48 rooms/acre. This results in a maximum density of 404 rooms for the Mammoth Hillside site. However, as previously noted in 2004, 87 rooms of density were transferred from the Mammoth Hillside site to the South Hotel site, located in the PR Zone. This density transfer did not increase the overall density allowed in the PR Zone, thereby reducing the allowed density on the Mammoth Hillside site to 317 rooms (404 - 87 = 317). The covenant documenting this density transfer explicitly states that it does not impair the Mammoth Hillside site from increasing density on the site by any legal means.

  This proposal is to increase density in the PR Zone of the NVSP by 87 rooms to restore the Mammoth Hillside site to its maximum allowable density of 404 rooms. This would increase the overall allowed NVSP density by 2.6 percent or to 3,404 rooms (3,317 + 87 = 3,404). A General Plan amendment is also required to document this increase in overall NVSP density.

- Lot Coverage Increase - The allowed lot coverage in the PR Zone is 75 percent, and the allowed lot coverage in the SL Zone is 60 percent. This results in a maximum lot coverage of approximately 195,171 square feet for the Mammoth Hillside site. However, in 2004, 14,881.9 square feet of lot coverage was transferred from the Mammoth Hillside site to the South Hotel site, located in the PR Zone. This lot coverage transfer did not increase the overall lot coverage allowed in the PR Zone, thereby reducing the allowed lot coverage on the Mammoth Hillside site to 180,289.1 square feet (195,171 - 14,881.9 = 180,289.1).

The covenant documenting this lot coverage transfer explicitly states that it does not impair the Mammoth Hillside site from increasing lot coverage on the site by any legal means.

This proposal is to increase lot coverage in the PR Zone of the NVSP by 14,881.9 square feet to restore the Mammoth Hillside site to its maximum allowable lot coverage of approximately 195,171 square feet. This would increase the overall PR Zone lot coverage by 2.3 percent (14,881.9 square feet / 645,233 square feet = 2.3 percent).

No modifications to any other development standards (e.g., height, setbacks, parking, snow storage, etc.) are proposed. No modifications to the Mammoth Hillside entitlements are proposed. Nothing in this proposal would modify the South Hotel entitlements or density or lot coverage on any other site in the NVSP.

The following provides a summary of the amendments that would be required to allow for the proposed increase in density and lot coverage.

**TOWN OF MAMMOTH LAKES GENERAL PLAN AMENDMENT**

A General Plan amendment is required for the increase in density proposed because the General Plan specifies the maximum overall number of rooms allowed in the NVSP. The General Plan amendment would increase the maximum overall number of rooms allowed in the NVSP from 3,317 to 3,404, which is an increase of 87 rooms.

Furthermore, the General Plan buildout table would need to be amended. In December 2016, the Town adopted an amendment to the General Plan to change the way density is calculated in the Commercial Zones from a room/unit limitation to a floor area ratio (FAR) limitation. This amendment included the incorporation of a buildout table in the General Plan, which identifies the maximum number of potential residential units and maximum amount of commercial, industrial, and non-residential square footage within the Town's municipal boundary.

Since this Project includes an increase in density, if approved, the General Plan buildout table would need to be updated to reflect this density increase. During Town staff's analysis of incorporating this Project into the buildout table, staff found an error in the buildout table row for the NVSP related to the conversion of units to rooms. The NVSP regulates density by rooms, and one room is considered to be half of a unit. The error is that the 599 existing units were subtracted from the maximum number of rooms allowed in the NVSP to arrive at an assumed density and intensity for future development of 1,359 units. However, the 599 existing units should have been converted to rooms before this subtraction occurred; corrected calculations are listed below:

- 599 units x 2 = 1,198 existing rooms
- 3,317 total rooms allowed in NVSP – 1,198 existing rooms = 2,119 rooms
- 2,119 rooms / 2 = 1,060 new future units

The corrected calculation results in 299 fewer future units (1,359 – 1,060 = 299 units). The additional 87 rooms (43.5 units) requested in the NVSP for this Project were added to the corrected buildout. Due to the correction, the addition of these 87 rooms results in 15,302 units at buildout, which is 256 units lower than the current General Plan buildout table. There would be no change to the total commercial and industrial square footage at buildout. Therefore, the proposed Project would not increase the buildout analyzed and included in the General Plan.

## NORTH VILLAGE SPECIFIC PLAN AMENDMENT

There are six land use designations, or zones, within the NVSP: Plaza Resort (PR), Mammoth Crossing (MC), Resort General (RG), Specialty Lodging (SL), Open Space (OS), and Public and Quasi-Public (PS). The Mammoth Hillside site is located within the PR and SL zones.

The land use policies in the NVSP prescribe specific development standards, such as density and lot coverage. While the proposed density increase would restore the site's density, it would increase the overall density allowed in the NVSP to 87 rooms above the maximum 3,317 rooms. The existing density on the site is 317 rooms, as shown in Table 2-1, *Mammoth Hillside Site Existing Density*.

**Table 2-1**
**Mammoth Hillside Site Existing Density**

| North Village Specific Plan Zone | Size (acres) | Allowable Rooms/Acres | Rooms | Density Transfer | Total Rooms |
|---|---|---|---|---|---|
| Specialty Lodging (SL) | 4.63 | 48 | 222 | 0 | 222 |
| Plaza Resort (PR) | 2.27 | 80 | 182 | (-87) | 95 |
| **Total** | **6.90** | **48-80** | **404** | **(-87)** | **317** |

Also, while the proposed lot coverage increase would restore the site's lot coverage, it would increase the overall lot coverage allowed in the PR designation of the NVSP by 14,881.9 square feet.

Thus, the Project would be consistent with the NVSP density and lot coverage standards for the site, but would increase overall density and lot coverage allowed in the Plaza Resort designation of the NVSP. No other standards are proposed to be amended.

While a density increase of 87 overall rooms is proposed, based on existing entitlements in the NVSP and redevelopment assumptions utilized in the General Plan buildout analysis, the full buildout of the NVSP (3,404 rooms) is not expected to be reached in the 20-year buildout horizon of the General Plan. If any changes are proposed to the existing Mammoth Hillside project entitlement (i.e., Tentative Tract Map 36-235, Use Permit 2005-09, Use Permit 2007-11, Use Permit 2007-14, and Time Extension Request 15-003) to accommodate the additional allowed density and/or lot coverage, an amendment to the entitlements or a new application would need to be processed.

An amendment to the NVSP is allowed pursuant to the Administrative Procedures in the NVSP and Zoning Code Chapter 17.116, Specific Plans. An amendment requires public hearings with both the Planning and Economic Development Commission and Town Council. The Town Council may then approve an amendment if the required findings can be met.

# 3.0 ENVIRONMENTAL ASSESSMENT

As discussed in Section 1.2, *Previous Environmental Document*, for the purposes of this analysis, the proposed Project modifications are compared to the certified Final EIR development scenario. Potential environmental impacts resulting from the proposed Project, as compared to the development scenario presented in the Final EIR for the Specific Plan, are presented below for each environmental topic area considered in the Final EIR. Other areas not discussed below were considered to be an "Effects Found Not to be Significant" in the Final EIR documentation. All mitigation measures referenced in the analyses below were required by the Final EIR and are presented in Appendix A, *NVSP Final EIR Mitigation Measures*.

## 3.1 LAND USE AND RELEVANT PLANNING

The proposed Project would not produce any new significant land use impacts, as compared to those analyzed in the Final EIR. The Final EIR analyzed potential changes in the existing physical land use patterns and demand, both within the area and throughout the commercial areas of the town, as well as development of a more intensive use than the previous zoning and land uses within the vicinity of the Village. The Final EIR concluded that implementation of recommended mitigation measures would reduce impacts within the vicinity to a less than significant level. The Mammoth Hillside site is approximately 6.9-acres within the Specific Plan area and is zoned Specialty Lodging (SL) and Plaza Resort (PR).

### TOWN OF MAMMOTH LAKES GENERAL PLAN

The Town of Mammoth Lakes General Plan (General Plan) was originally adopted in 2007 and most recently amended in December 2016. The General Plan describes the NVSP area as a "visitor-oriented entertainment retail and lodging district" and allows a maximum of 3,317 rooms and 135,000 square feet of commercial development. The Project proposes a density increase of 87 rooms, which would result in an overall NVSP density of 3,404 rooms; no change to total allowed commercial square footage is proposed. This density increase would be a 2.6 percent increase from the existing allowable rooms. The Project also proposes to increase lot coverage in the PR Zone of the NVSP by 14,881.9 square feet to restore the Mammoth Hillside site to its maximum allowable lot coverage of approximately 195,171 square feet. This would increase the overall PR Zone lot coverage by 2.3 percent. These nominal increases would not increase impacts related to land use beyond what was analyzed in the Final EIR.

The Project would not change the goals, policies, or actions of the General Plan. The Project would also not amend the North Village Specific Plan land use designation description included in the General Plan other than the maximum density number. The proposed density increase is anticipated to further the following General Plan goals, policies, and actions:

- Policy L.1.C: Give preference to infill development.
- Policy L.3.B: Develop vital retail centers and streets.
- Policy L.5.A: Encourage and support a range of visitor accommodations that include a variety of services and amenities.
- Policy L.5.B: Locate visitor lodging in appropriate areas.
- Policy M.3.B: Reduce automobile trips by promoting and facilitating walking, bicycling, local and regional transit, innovative parking management, gondolas and trams, employer-based trip reduction programs, alternate work schedules, telecommuting, ride-share programs, cross-country skiing and snowshoeing.

- Policy M.3.C: Reduce automobile trips by promoting land use and transportation strategies such as: implementation of compact pedestrian-oriented development; clustered and infill development; mixed uses and neighborhood serving commercial and mixed use centers.
- Policy M.6.A: Develop efficient and flexible parking strategies to reduce the amount of land devoted to parking.
- Policy C.2.H: Support transit ridership and pedestrian activity by emphasizing district parking, shared parking, mixed use and other strategies to achieve a more efficient use of land and facilities.

**NORTH VILLAGE SPECIFIC PLAN**

The NVSP is the governing document for the Specific Plan area, which includes approximately 64 acres of land in the northwest portion of the Town's Urban Growth Boundary. The NVSP was originally adopted in 1991, and has been amended several times, most recently in 2014. The objective of the NVSP is to "create a set of land use designations and development standards which will facilitate the development of "North Village" as a concentrated, pedestrian-oriented activity center with limited vehicular access . . . development will be oriented toward year-round uses and visitor activity."

The land use objectives for the NVSP articulate a successful resort area which incorporates a pedestrian-oriented visitor core and with a "critical mass" of hotel, resort condominium, and residential development to support the commercial activities. The Mammoth Hillside Project site is zoned Specialty Lodging (SL) and Plaza Resort (PR) in the Specific Plan. The PR zone makes up the majority of the core area of the NVSP and the northeastern portion of the Mammoth Hillside Project site. Land use objectives specific to the PR zone focus on pedestrian orientation and encourage a variety of services and activities for visitors, many of which have already been constructed (i.e. the Village Gondola and the events plaza). Objectives for the SL zone, which makes up the southern portion of the Mammoth Hillside Project site, are to provide a transition between the resort core and the adjacent neighborhoods and to allow for lodging densities that may be less intensive than those in the PR areas. The Project would not allow density above that allowed within the PR and SL zones (i.e., 80 rooms per acre and 48 rooms per acre respectively) and would not change the Approved TTM project. Therefore, the Project would continue to meet the land use objectives of the NVSP.

As previously identified, Project involves an amendment request that consists of two components: 1) 87 room density increase to the NVSP, and 2) 14,881.9 square foot lot coverage increase in the PR Zone of the NVSP. These requests would result in a 2.6 percent increase in overall density in the NVSP and a 2.3 percent lot coverage increase in the PR Zone of the NVSP. The amendment would restore the density and lot coverage allowed on the Mammoth Hillside site under the current NVSP zoning, but which was reduced after a density and lot coverage transfer to the South Hotel site in 2004. This nominal increase would not increase impacts related to land use beyond what was analyzed in the Final EIR.

The Mammoth Hillside site has current entitlements for a 193-unit condominium hotel as Phase 1. This Project would not alter these entitlements, and if the property owner desired to revise the development plans for the site, a new or amended application would be required. Thus, with implementation of the mitigation measures presented in the Final EIR, the proposed Project would not result in any new, different, or potentially adverse land use impacts not previously considered and addressed in the Final EIR.

## 3.2 POPULATION AND HOUSING

Potential impacts to population and housing were fully analyzed within the Final EIR. The Final EIR concluded that with implementation of housing policies and programs, there would be no significant impacts related to employment, population, and housing.

This Project would not alter the Approved TTM project (i.e., if density or lot coverage above what is currently entitled is requested to be built on the Mammoth Hillside site, the Approved TTM project would need to be modified). Even if increased density can be accommodated within the building envelopes already entitled for Mammoth Hillside, the entitlements would need to be amended to reflect an increased room count. If an increased room count is applied for and approved, the housing mitigation requirements would be increased as required by the Town's current housing mitigation requirements. Additionally, even with the increase of 87 rooms to the NVSP, the current General Plan buildout table would result in a reduced unit count due to the correction described in Section 2.3, *Components of Project Modifications*. The nominal overall density increase (2.6 percent) is not anticipated to increase population and housing impacts beyond what was analyzed in the Final EIR.

## 3.3 AESTHETICS/LIGHT AND GLARE

Potential Project impacts to visual character, scenic vistas and resources, and light and glare were fully analyzed in the Final EIR. The Final EIR analyzed design features such as building material and color palette, architectural design, frontage, building height, bulk and mass, landscape, as well as shade and shadow and surrounding views. The Final EIR concluded that implementation of recommended mitigation measures would reduce impacts to a less than significant level.

The proposed increases to site density and lot coverage would not increase impacts regarding aesthetics and light and glare beyond what was analyzed within the Final EIR because the Project would not modify any development standards (e.g., setbacks, height, lot coverage, building design, lighting, etc.) or guidelines (e.g., Town Design Guidelines, etc.) other than the maximum allowable density and lot coverage in the NVSP. This Project would not alter the Approved TTM project (i.e., if density or lot coverage above what is currently entitled is requested to be built on the Mammoth Hillside site, the Approved TTM project would need to be modified). Even if increased density can be accommodated within the building envelopes already entitled for Mammoth Hillside, the entitlements would need to be amended to reflect an increased room count and any other related amendments (e.g., increased parking as a result of the increased room count, etc.). The Final EIR Mitigation Measures 5.3-1a through 5.3-1f and 5.3-1j, k, and m, which mitigate impacts on visual character, Mitigation Measures 5.3-2a and b, which mitigate impacts on scenic vistas and resources, and Mitigation Measures 5.3-3a through 5.3-3d, which mitigate impacts on light and glare, would still be applicable.

## 3.4 TRAFFIC AND CIRCULATION

The Final EIR determined that after implementation of recommended mitigation measures, the previously analyzed project would result in less than significant impacts. A Traffic Impact Analysis (TIA) was prepared by LSA Associates, Inc. (LSA), in May 2006 to analyze the Mammoth Hillside project with a total of 470 bedrooms within 303 units (Phases I and II). The TIA concluded that implementation would not significantly impact the surrounding roadway system and recommended the following two mitigation measures:

- To mitigate the Project's impact to the Lakeview Boulevard/Lake Mary Road intersection, restriping the existing southbound approach to provide a dedicated southbound left and dedicated southbound right is recommended.
- It is recommended that Canyon Boulevard be widened 10 feet to provide a northbound left-turn lane to serve the Project access.

The May 2006 TIA evaluated intersection levels of service (LOS) using the *Highway Capacity Manual* (HCM) 2000 methodology and the Traffix software for three scenarios (Existing, Cumulative, and Cumulative Plus Project). The study area included the following seven intersections:

1. Minaret Road/Main Street-Lake Mary Road
2. Minaret Road/Forest Trail
3. Canyon Boulevard/Lake Mary Road
4. Lakeview Boulevard/Lake Mary Road
5. Canyon Boulevard/Hillside Drive
6. Lakeview Boulevard/Hillside Drive
7. Lakeview Boulevard/Canyon Boulevard

Since the preparation of the May 2006 TIA, one of the cumulative projects (Intrawest South Hotel site) has increased from 149 high-density units to 251 high-density units. As such, LSA prepared a memorandum on April 3, 2017 to evaluate whether the additional 102 high-density units on the Intrawest South Hotel site would create a potential impact (refer to Appendix B, *Traffic Memorandums*). In order to update the traffic analysis of the Mammoth Hillside TIA, LSA generated Typical Winter Saturday peak-hour trips for the 102 additional high-density units (71 inbound, 31 outbound for a total of 102 trips). Consistent with the May 2006 TIA, approximately 30 percent of the project trips are anticipated to be pedestrian trips to/from the North Village area. The remaining project trips (70 percent vehicles) included approximately 20 percent to/from the north, and 10 percent to/from the south via Minaret Road, 20 percent to/from the east via Main Street, and 10 percent to/from the west via Canyon Boulevard. Because the cumulative no project and plus project scenarios are affected by the increase in units, LSA conducted new cumulative LOS analyses using the Highway Capacity Manual (HCM) 2000 methodology and the Traffix software. LSA overlaid the additional Intrawest South Hotel project vehicle trips onto the cumulative no project and plus project traffic volumes of the seven study area intersections using the TIA trip distribution assumptions described above.

With the increase in trips related to the Intrawest South Hotel project, there is a slight increase in delay (less than one second) at Minaret Road/Main Street-Lake Mary Road and Minaret Road/Forest Trail; however, both intersections are expected to operate at satisfactory LOS D or better with and without the Mammoth Hillside project. The other five study area intersections are unaffected by the increase in units at the Intrawest South Hotel site[2]. It should be noted that the proposed mitigation measure at Lakeview Boulevard/Lake Mary Road to restripe the existing southbound approach, to provide a dedicated southbound left and dedicated southbound right, has already been implemented, resulting in satisfactory LOS at this intersection. In conclusion, the increase of 102 high-density units on the Intrawest South Hotel site would not affect the results of the Mammoth Hillside TIA prepared in May 2006.

[2] Traffic modeling does not reflect delays due to winter storm conditions. It is industry standard practice to conduct traffic modeling based on normal or clear conditions.

The proposed Project would allow a maximum of 404 rooms on the Mammoth Hillside site, which requires an increase in density in the NVSP from 3,317 to 3,404 rooms. LSA prepared a Trip Generation Characteristics Memorandum on April 6, 2017 that concluded that the Project, which would allow a maximum of 404 rooms on the Mammoth Hillside site, would not exceed the vehicle trips from the previous analysis of 470 rooms (refer to Appendix B). Therefore, no additional traffic analysis would be required. The following Mitigation Measures within the Final EIR are still applicable: 5.4-1c, 5.4-2c, 5.4-2i, 5.4-3a, and 5.4-4 through 5.4-6.

## 3.5 AIR QUALITY

### AIR QUALITY

Stationary area source emissions would be generated by the consumption of natural gas or propane for space and water heating devices, the operation of landscape maintenance equipment, and the use of consumer products. Stationary energy emissions would also result from energy consumption associated with future development at the Project site. Mobile emissions would be generated by the motor vehicles traveling to and from the site. The Final EIR determined that, on a cumulative level, the NVSP would contribute to a current violation of the State and Federal $PM_{10}$ standards and that this contribution would be significant and unavoidable.

The overall increase in density in the NVSP proposed by the Project is 2.6 percent, and as previously discussed in Section 3.4, vehicle trips are not anticipated to substantially increase from what was previously analyzed. With implementation of identified Mitigation Measures 5.5-1a and 5.5-1b, which mitigate short-term air quality impacts, and Mitigation Measures 5.2-2a through 5.2-2c, which mitigates long-term $PM_{10}$ air quality impacts, the proposed Project would not result in any new, different, or potentially adverse air quality impacts not previously considered and addressed in the Final EIR.

### GREENHOUSE GAS EMISSIONS

Although the Final EIR did not include a greenhouse gas (GHG) analysis, a supplemental environmental analysis of GHG impacts cannot be required absent new information on that front.[3] Information on the effect of GHG emissions on climate was known long before the Town certified the Final EIR. Thus, the effect of GHG emissions on climate could have been raised when the Town considered the previous environmental documentation including the Final EIR. A challenge to an EIR must be brought within 30 days of the lead agency's notice of approval and no challenges were brought forward regarding the EIR and GHG emissions. (Pub. Resources Code, § 21167(b).) Under Public Resources Code section 21166(c), an agency may not require a supplemental environmental review unless new information, which was not known and could not have been known at the time the EIR was approved, becomes available. After a project has been subjected to environmental review, the statutory presumption flips in favor of the project proponent and against further review.[4] "'[S]ection 21166 comes into play precisely because in-depth review has already occurred [and] the time for challenging the sufficiency of the original EIR has long since expired ...'" (*Id.*, 1050.) There is no competent evidence of new information of severe impact, and thus the Town may rely on an addendum. Accordingly, the Town finds that GHG impacts and climate change are not "new information" under Public Resources Code Section 21166.

[3] *Citizens for Responsible Equitable Environmental Development (CREED) v. City of San Diego*, (2011) 196 Cal.App.4th 515, 531.

[4] *Moss v. County of Humboldt* (2008) 162 Cal.App.4th 1041, 1049-1050.

The increased density proposed by the Project and the proximity to diverse land uses, a major transit hub, and the Mammoth Mountain Ski Area gondola would reduce the distance people travel and provide greater options for the mode of travel they choose. Higher density also increases transit ridership and promotes the Town's "feet first" policies in the General Plan Mobility Element (see General Plan policies in Section 3.1). According to the California Air Pollution Control Officer's Association (CAPCOA), designing projects with increased densities reduces GHG emissions associated with traffic by reducing travel distances, and provides greater options for other modes of travel.[5] Increased density can also provide a foundation for implementing various other GHG reduction measures. For example, transit ridership increases with density, which justifies enhanced transit service. GHG emissions would be nominal in relation to the global scale of GHG emissions, and there is no evidence that mitigation is necessary for the proposed density and lot coverage increases to further demonstrate compliance with the GHG reduction targets of Assembly Bill 32.

## 3.6 NOISE

The Final EIR determined that after implementation of recommended mitigation measures, development of the Approved TTM project would result in less than significant impacts regarding short-term, long-term, stationary, and cumulative noise impacts. Access would be taken from Lake Mary Road and Canyon Boulevard. Traffic control, site security, construction worker parking, material storage, and haul routes must be defined within the Construction Management Plan and approved by the Town, as well as coordinated with other construction activities in the vicinity.

The proposed Project would not alter the Approved TTM project. The Project would allow a 2.6 percent increase in overall density in the NVSP and a 2.3 percent lot coverage increase in the PR Zone of the NVSP and is not anticipated to increase noise impacts beyond what was analyzed in the Final EIR. The following mitigation measures would reduce noise impacts to a less than significant level: Mitigation Measures 5.6-1a through 5.6-1c, which mitigate short-term construction noise impacts, Mitigation Measures 5.6-2a and 5.6-2b, which mitigate long-term noise impacts, and Mitigation Measures 5.6-3a through 5.6-3d, which mitigate stationary noise impacts. Pursuant to Mitigation Measure 5.6-3a, a site-specific noise analysis would be required to determine the impact of stationary noise.

## 3.7 GEOLOGY, SOILS, AND SEISMICITY

The Final EIR concluded that impacts regarding geology, soils, and seismicity would be less than significant with implementation of recommended mitigation measures. The Final EIR analyzed potential impacts regarding fault rupture, seismic ground shaking and ground failure, landslides, soil erosion, and unstable and expansive soils. A preliminary geotechnical report was prepared based on conceptual plans by Sierra Geotechnical Services, Inc. in March 2004. The report indicated that project engineering is feasible; however, final grading and foundation plans should be reviewed to determine whether the conclusions of the report warrant reconsideration.

The proposed Project would allow a 2.6 percent increase in overall density in the NVSP and a 2.3 percent lot coverage increase in the PR Zone of the NVSP. If in the future additional allowed density or lot coverage is requested to be accommodated on the Project site, the Approved TTM

[5] California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, August 2010.

project would need to be amended. According to the Final EIR, individual projects would be subject to review and approval by the Town Engineer on a project-by-project basis and conditions may be imposed as a result of site-specific studies in compliance with applicable Town, State, and Federal codes. Thus, the proposed Project would not increase impacts beyond those anticipated in the Final EIR. The following mitigation measures would reduce impacts to a less than significant level: Mitigation Measure 5.7-1 mitigates impacts on topography, Mitigation Measures 5.7-2a through 5.7-2c mitigate impacts on slopes and stability, Mitigation Measure 5.7-4 mitigates impacts relating to erosion hazards, Mitigation Measure 5.7-6 mitigates impacts relating to seismic hazards, and Mitigation Measure 5.7-7 mitigates impacts relating to volcanic hazards.

## 3.8 HYDROLOGY AND DRAINAGE

The Final EIR concluded that impacts regarding hydrology and drainage would be less than significant with implementation of recommended mitigation measures. A preliminary drainage study was prepared by CFA, Inc., in November 2005 for the Mammoth Hillside project. According to the drainage study, the drainage system would utilize drop inlets, swales, and grading to direct flows from the proposed structures. Erosion control and storm water treatment measures would be placed in areas of possible erosion.

The proposed Project would allow a 2.6 percent increase in overall density in the NVSP and a 2.3 percent lot coverage increase in the PR Zone of the NVSP. If in the future additional allowed density or lot coverage is requested to be accommodated on the Project site, the Approved TTM project would need to be amended and would be reviewed for compliance with applicable hydrology and drainage standards. Thus, the proposed Project would not increase impacts beyond those anticipated in the Final EIR. The following mitigation measures would reduce impacts to a less than significant level: Mitigation Measures 5.8-1a through 5.8-1c would mitigate impacts relating to drainage and runoff, and Mitigation Measures 5.8-2a through 5.8-2d and 5.8-3 would mitigate impacts relating to surface water quality.

## 3.9 BIOLOGICAL RESOURCES

The Final EIR determined that after implementation of recommended mitigation measures, development of the Approved TTM project would result in less than significant impacts. Potential impacts to species of concern, sensitive natural communities, wildlife corridors, and cumulative conditions were analyzed in the Final EIR. Mature trees removal and replacement was also addressed where tree removal is required to accommodate structures, access, and street frontage improvements.

The proposed Project would allow a 2.6 percent increase in overall density in the NVSP and a 2.3 percent lot coverage increase in the PR Zone of the NVSP. If additional allowed density or lot coverage is requested to be accommodated on the Project site, modifications to the Approved TTM would be required and would be reviewed for compliance with applicable standards and design guidelines. Also, the Project would not amend development standards that would alter the allowed building area on the site (i.e., setbacks). Therefore, the proposed Project would not increase impacts beyond those anticipated in the Final EIR. The following mitigation measures would still be applicable: Mitigation Measures 5.9-2a through 5.9-2j would mitigate impacts relating to sensitive natural communities.

## 3.10 PUBLIC SERVICES AND UTILITIES

The Final EIR analyzed potential impacts to public services including fire, police, schools, parks, and other public facilities as well as potential impacts to utilities including wastewater, stormwater drainage facilities, water supply, and solid waste. The Final EIR concluded that development of the Approved TTM project would create increased demand on utilities and service systems serving the area; however, impacts would be less than significant with incorporation of mitigation measures.

The proposed Project would allow a 2.6 percent increase in overall density in the NVSP and a 2.3 percent lot coverage increase in the PR Zone of the NVSP. If additional allowed density or lot coverage is requested to be accommodated on the Project site, modifications to the Approved TTM would be required; however, density or lot coverage would not exceed that allowed in the NVSP Plaza Report and Specialty Lodging zones that apply to the Project site (e.g., 80 rooms per acre and 75% lot coverage in the Plaza Resort zone). As a result, the proposed Project's demand for public services and utilities is anticipated to be similar to that identified in the Final EIR. Furthermore, Development Impact Fees (DIF) would be paid in accordance with the Town's current DIF Schedule to mitigate impacts on public facilities and services covered by the DIF Program. Additionally, the Final EIR determined that with implementation of Mitigation Measures 5.10-1a through 5.10-1c, which mitigate impacts relating to fire protection and police protection, Mitigation Measure 5.10-3, which mitigates impacts to schools, Mitigation Measure 5.10-4a which mitigates impacts on snow removal/roadway maintenance, libraries and recreation facilities, Mitigation Measures 5.10-7 and 5.10-8, which mitigate impacts to wastewater (sewer) and water, including payment of fees to Mammoth Community Water District (MCWD), and Mitigation Measure 5.10-9, which mitigates impacts relating to solid waste, and compliance with applicable Town requirements, service or utility provider requirements, and Town Codes and Ordinances, potential impacts would be reduced to a less than significant level. Therefore, the proposed Project would not result in any new, different or potentially adverse public services and utilities impacts not previously considered and addressed in the Final EIR.

## 3.11 CULTURAL RESOURCES

The Final EIR analyzed potential impacts to historical, archaeological, and paleontological resources, as well as the disturbance of human remains. The Final EIR concluded that impacts regarding cultural resources would be less than significant with implementation of recommended mitigation measures.

The proposed Project would allow a 2.6 percent increase in overall density in the NVSP and a 2.3 percent lot coverage increase in the PR Zone of the NVSP. If additional allowed density or lot coverage is requested to be accommodated on the Project site, modifications to the Approved TTM project would be required. The Project would not amend development standards that would alter the allowed building area on the site (i.e., setbacks). Therefore, the proposed Project would not increase impacts beyond those anticipated in the Final EIR.

It is acknowledged that the Town has initiated the tribal consultant process for the purposes of Senate Bill (SB) 18 for the proposed Amendment on January 17, 2017. Tribes listed on the California Tribal Consultation List prepared by Native American Heritage Commission (NAHC) for the Town were notified for the purposes of SB 18. As part of this process, each of the listed tribes have been provided notification by the Town and the opportunity to consult with the Town regarding the proposed Project. To date, the Walker River Reservation and Bridgeport Indian

Colony have expressed no interest in consultation for the Project. The Bishop Tribal Council requested a current Cultural Resources Report for the proposed Project, and the Town provided the most recent Archaeological Survey for the North Village in response. No other responses have been received.

The following mitigation measures would still be applicable: Mitigation Measure 5.11-1e, which mitigates impacts relating to archaeological/historical resources and Mitigation Measure 5.11-2, which mitigates impacts on burial sites.

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# 4.0 DETERMINATION/ADDENDUM CONCLUSION

As detailed in the analysis presented above, this Addendum supports the conclusion that the proposed density and lot coverage increases would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects in the Final EIR. No new information has become available and no substantial changes to the circumstances (under which the Project was being undertaken) since the certification of the Final EIR has occurred. There are no new mitigation measures required and no new alternatives available that would substantially reduce the environmental effects beyond those previously described in the Final EIR.

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# 5.0 ADDENDUM PREPARATION SOURCES/REFERENCES

1. CFA Inc., *Preliminary Drainage Report for the Mammoth Hillside Project*, November 18, 2005.

2. LSA Associates, Inc., *Mammoth Hillside Traffic Analysis Addendum*, April 3, 2017.

3. LSA Associates, Inc., *Traffic Impact Analysis*, May 2006.

4. LSA Associates, Inc., *Trip Generation Characteristics for a Proposed Amendment to the Mammoth Hillside Project*, April 6, 2017.

5. Town of Mammoth Lakes, *Addendum to the Subsequent Program Environmental Impact Report for the North Village Specific Plan Amendment (SCH No. 99-092082)* [Addendum for Use Permit 2007-14], March 14, 2008.

6. Town of Mammoth Lakes, *Concept Review 16-001 Workshop to Review the Proposed Density Increase and Conceptual Designs for the Mammoth Hillside Project*, September 14, 2016.

7. Town of Mammoth Lakes, *Environmental Documentation Relating to The Mammoth Hillside Project Within the Village at Mammoth Based on the Subsequent Program Environmental Impact Report for the North Village Specific Plan Amendment (SCH No. 99-092082)* [Addendum for Tentative Tract Map 36-235 and Use Permit 2005-09], 2006.

8. Town of Mammoth Lakes, *Final Environmental Impact Report North Village Specific Plan*, February 1991.

9. Town of Mammoth Lakes, *North Village Specific Plan*, 2000 (amended January 19, 2005, May 21, 2008, October 7, 2009, September 17, 2014, and December 3, 2014).

10. Town of Mammoth Lakes, *North Village Specific Plan Environmental Impact Report Addendum*, May 1994.

11. Town of Mammoth Lakes, *Subsequent Program Environmental Impact Report for the North Village 1999 Specific Plan Amendment*, October 13, 2000.

12. Town of Mammoth Lakes, *Town of Mammoth Lakes General Plan 2007*, 2007 (updated most recently in 2016).

13. Town of Mammoth Lakes, *Town of Mammoth Lakes Municipal Code*, codified through Ordinance No. 16-02, passed March 16, 2016 (Supp. No. 29).

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# Appendix A – NVSP Final EIR Mitigation Measures

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**The following are the applicable mitigation measures as derived from the North Village Specific Plan Final EIR.**

## AESTHETICS

5.3-1a To the maximum extent practical, the proposed project shall retain forested areas, and the development shall remain subordinate to the natural character of the site and surrounding landscape.

5.3-1b Prior to final approval of project development plans, the applicant shall submit a tree preservation and replacement plan pursuant to the Municipal Code, Zoning, requirements related to grading and clearing. The Preservation and Replacement Plan, including the type, size, number, and location of replacement trees shall be subject to the approval of the Town of Mammoth Lakes Community Development Director.

5.3-1c Contour grading shall be used to blend manufactured slopes into the natural terrain. Grading shall be minimized to preserve existing landform and vegetation to the greatest extent possible.

5.3-1d The landscape design for the site shall maximize the use of existing vegetation, and where new plants are introduced, they shall include, and/or blend with, plants native to the Mammoth Lakes environment. Landscape plans for the site shall be completed by a certified landscape architect.

5.3-1e To the maximum extent feasible practical, native trees and landscaping shall be concentrated around all structures located on the project site.

5.3-1f Grading techniques shall be used which minimize the area of disturbance and shall incorporate such methods as decorative retaining walls rather than slopes to minimize the area of disturbance.

5.3-1j Staging locations shall be indicated on project Building Permit and Grading Plans and shall be subject to review by the Town of Mammoth Lakes Community Development Director in accordance with Municipal Code requirements.

5.3-1k Upon submittal of Final Development Plans to the Town for the individual development sites, the applicant shall demonstrate that long-range views of the Sherwin Range are incorporated into the project design.

5.3-1m A forested buffer shall be maintained for parcels which front along Lake Mary Road, along Minaret Road (south of Main Street) and along the boundaries of the Specific Plan area. The buffers for properties with frontage along Lake Mary Road and Minaret Road south of Main Street shall consist of preservation of trees within the 200 foot and 80 foot right-of-ways, respectively, to the extent vehicular and pedestrian travel is not impeded, coupled with the setback requirements of the development sites. The buffer for properties adjacent to the Specific Plan boundaries shall be defined as a building setback area of no less than 20 feet to buildings up to 35 feet tall. Portions of buildings which exceed 35 feet adjacent to the Specific Plan boundaries shall require an additional setback of generally 1 foot for every two feet of building height beyond the 20 foot minimum setback. Trees shall be maintained within the buffer area, except for required vehicular and pedestrian access. This will require that buildings be designed and constructed so that the buffer area is maintained. Where existing structures encroach into this buffer area, building demolition may be permitted subject to a revegetation plan which recreates a buffer. Where few trees exist in the buffer area, a 20 foot setback to

buildings shall be maintained and additional area(s) of existing trees shall be preserved and protected to create a forested character within the development.

5.3-2a Adoption of the North Village Specific Plan shall include all provisions for design review stated in the Plan, with all phases and developments proposed within the Specific Plan area undergoing review by a Town-appointed Design Review Committee and/or Planning Commission.

5.3-2b The architectural style for the development shall blend with the site's natural setting. Rooflines shall reflect (step down) the slope of the site, and natural "earth tone" colors and materials such as stone and wood shall be emphasized. Conformance shall be assured through the Town's design review procedures.

5.3-3a The Design Guidelines shall require that all exterior lighting be designed and located so as to avoid intrusive effects on adjacent residential properties and undeveloped areas adjacent to the project site. Low-intensity street lighting and low-intensity exterior lighting shall be used throughout the development to the degree feasible. Lighting fixtures shall use shielding, if necessary, to prevent spill lighting on adjacent off-site uses.

5.3-3b Lighting used for various components of the development plan be reviewed under North Village Specific Plan design guidelines which shall include review of light intensity levels, fixture height, fixture location, and design.

5.3-3c The project shall use minimally reflective glass and all other materials used on exterior buildings and structures (including the gondola cabins and towers) shall be selected with attention to minimizing reflective glare.

5.3-3d Vegetative buffers shall be used to reduce light intrusion on residential development and on forested areas located adjacent to the project site.

**TRAFFIC**

5.4-1c Installation of a traffic signal at the intersection of Forest Trail/Main Street Mitigation Measure consistent with the Town of Mammoth Lakes' Developer Fee (DIF) Program, Project #Tc-05.

5.4-2c Restripe roadway to include two travel lanes and a continuous left turn lane, or other measure designed to achieve an acceptable LOS (LOS D or better) on Meridian Boulevard from Majestic Pines to Old Mammoth Road.

5.4-2i The Millers Siding/Lake Mary Road intersection shall be improved by the installation of a traffic signal, provision of dual southbound left turn lanes, and the provision on the westbound approach for one through lane and one dedicated right turn, or other measure designed to achieve an acceptable LOS (LOS D or better) at the Millers Siding/Lake Mary Road intersection.

5.4-3a Prior to the approval of a development project, the applicant shall submit a shared parking analysis for review and approval by the Planning Commission to determine the appropriate mix of land uses that would be accommodated by the proposed parking. The study shall consider the type of uses (i.e., office, retail and restaurant) and their variations in peak parking demand as the result of different activity patterns, and attractions to two or more land uses on one visit to the development. The shared parking analysis shall be based on the 1999 Specific Plan Amendment parking rates or the Town's parking rates where applicable. The study methodology shall be based on the *Urban Land Institute Shared Parking Manual*, 1983.

5.4-4 The developer shall incorporate into the design of the roundabout the design, lighting, and landscaping features noted in the *Feasibility Study: Mammoth Roundabout* (Ourston & Doctors, November 1, 1998) with final approval by the Town and Caltrans. At a minimum these shall include:

- To slow traffic on entry, adequate vehicle path deflection shall be provided through approach roads aimed at the central island. These shall veer to the right immediately before the yield lines.

- Additional street lights shall be installed at the roundabout and on its approaches back to a distance of 200 feet from the yield lines. The lighting shall provide at least 1.9 foot candles of horizontal luminance. Street lights shall be evenly spaced in a ring around the outside of the roundabouts and along the approaches to the roundabout.

- The outer margin of the central island shall have low ground cover which provides adequate stopping sight distance for circulating traffic. The central portion of the island shall be available for objects of any height, including trees, walls, and public art.

- Pedestrian crossing shall be divided into two stages: from the near-side wheelchair ramp out to the splitter island, and then from the splitter island to the far-side wheelchair ramp.

5.4-5 The developer shall prepare and provide to the Town Engineer for review and approval, a Traffic Control Officer Monitoring Plan. The Plan shall outline at a minimum, scheduled days of monitoring together with a program to determine additional days of monitoring as may be determined by projected occupancy rates, performance criteria, duration of monitoring, and responsible parties.

5.4-6 New development shall participate on a fair share basis in the development and operation of a community-wide winter transit system to achieve the ridership levels assumed in the MTM.

**AIR QUALITY**

5.5-1a In order to reduce fugitive dust emissions, each development project shall obtain permits, as needed, from the Town and the State APCD and shall implement measures during grading and/or construction of the individual development sites to ensure compliance with permit conditions and applicable Town and APCD requirements.

a. The individual development projects shall comply with State, APCD, Town, and Uniform Building Code dust control regulations, so as to prevent the soil from being eroded by wind, creating dust, or blowing onto a public road or roads or other public or private property.

b. Adequate watering techniques shall be employed on a daily basis to partially mitigate the impact of construction-generated dust particulates.

c. Clean-up on construction-related dirt on approach routes to individual development sites/improvements shall be ensured by the application of water and/or chemical dust retardants that solidify loose soils. These measures shall be implemented for construction vehicle access, as directed by the Town Engineer. Measures shall also include covering, watering or otherwise stabilizing all inactive soil piles (left more than 10 days) and inactive graded areas (left more than 10 days).

d. Any vegetative ground cover to be utilized on the individual development sites/improvements shall be planted as soon as possible to reduce the amount of open space subject to wind erosion. Irrigation shall be installed as soon as possible to maintain the ground cover.

e. All trucks hauling dirt, soil or other loose dirt material shall be covered.

5.5-1b To reduce the potential of spot violations of the CO standards and odors from construction equipment exhaust, unnecessary idling of construction equipment shall be avoided.

5.5-2a In order to reduce emissions associated with both mobile and stationary sources (i.e., wood burning stoves and fireplaces), all individual development projects shall adhere to the regulations contained in the *Air Quality Management Plan for the Town of Mammoth Lakes* and Chapter 8.30, *Particulate Emission Regulations*, of the Town's Municipal Code. The commercial use tenants throughout the Specific Plan area shall, at a minimum, include the following, as appropriate:

- Bicycle racks, lockers or secure storage areas for bicycles;
- Transit access, including bus turnouts;
- Site access design shall avoid queuing in driveways; and
- Mulch, groundcover and native vegetation to reduce dust.

5.5-2b Each project shall contribute on a fair share basis to the Town's street sweeping operations in order to reduce emissions and achieve the required Federal standard.

5.5-2c New development within the Specific Plan area shall not be permitted to utilize wood burning appliances unless the Federal standard is documented to not be exceeded.

**NOISE**

5.6-1a Pursuant to Chapter 8.16.090 of the Town's Noise Ordinance, construction activities shall be limited to the hours of 7:00 a.m. to 8:00 p.m. Monday through Saturday prohibited on Sunday or holidays, or as otherwise permitted by Chapter 8.16.090.

5.6-1b Construction equipment shall be muffled or controlled if required, to meet Chapter 8.16 requirements for maximum noise generated by construction equipment. Contracts shall specify that engine-driven equipment be fitted with appropriate noise mufflers.

5.6-1c The construction contractor shall provide temporary sound barriers around pile driving sites to the satisfaction of the Town Engineer should such activities take place in areas within 400 feet of existing residential units, if required to meet Chapter 8.16 requirements.

5.6-2a The proposed project shall be located or architecturally designed to reduce the project noise impacts upon properties adjacent to each master planned area or project property line, such that the exterior noise levels will not exceed Town Noise Ordinance requirements for an urban and multiple family setting. Design features could include setbacks, berms, landscaping, and architectural features, adjacent to both arterial and interior streets.

5.6-2b Multi-family buildings shall be located or architecturally designed so the interior noise level will not exceed 45 Ldn. As a minimum, multi-family housing shall comply with Title 24 of the California Code of Regulations.

5.6-3a Prior to Final Development Plan approval for individual development projects within the Specific Plan area, a subsequent noise analysis shall be prepared, to the satisfaction of the Town Engineer, which demonstrates the site placement of stationary noise sources would not exceed criteria established in Section 8.16 of the Town's Noise Ordinance Code at perimeter property lines of master planned areas or projects.

5.6-3b Prior to Final Development Plan approval for individual development projects within the Specific Plan area, a subsequent noise analysis shall be prepared, to the satisfaction of the Town Engineer, which demonstrates the site placement of PA systems entertainment venues or other stationary noise sources would not exceed criteria established within the State Noise Insulation Standards (California Code of Regulations, Title 24) for adjacent residences.

5.6-3c Outdoor PA systems shall not be permitted to operate between the hours of 10:00 p.m. and 7:00 a.m. and shall not exceed the Town's Noise Ordinance standards at perimeter property lines of master planned areas or project property lines. Adherence with this measure is subject to periodic site inspections by the Town of Mammoth Lakes.

5.6-3d Directional speakers shall be shielded and/or oriented away from off-site residences to the satisfaction of the Town Building Inspector.

## GEOLOGY, SOILS AND SEISMICITY

5.7-1 Prior to issuance of grading or building permits, geotechnical studies shall be completed and their recommendations shall be incorporated in the project design, as stipulated in the Town's Safety Policy #26.

5.7-2a Soils and foundation analyses shall be approved by Town staff prior to final project design approval, as stipulated in the Town's Safety Policy #18. All measures required by the Town shall be incorporated into final grading and building plans.

5.7-2b The project applicant shall provide grading plans and receive approval from the Town Engineer. Said plans shall also show that new slopes within the project area are designed pursuant to slope requirements set forth within the Specific Plan and the standards of the Town's Municipal Code.

5.7-2c All work shall be overseen by a licensed Civil Engineer (CE), Certified Engineering Geologist (CEG), or similar appropriately qualified professional, who shall report to the Town Engineer in order to ensure the standards of the applicable Codes are met.

5.7-4 A comprehensive Erosion and Sediment Transport Control Plan shall be prepared by the project applicant and approved by the Town Engineer prior to the issuance of any grading or building permits. The Plan shall be included in the project design, as stipulated in the Town's Safety Policy #18. The Plan shall also meet the requirements of the Regional Water Quality Control Board and the Town Municipal Code.

5.7-6 The project applicant shall complete the geotechnical studies and incorporate their recommendations in the project design, as stipulated in the Town's Safety Policy #26. All structures shall be designed and built to at least the standards of UBC Seismic Zone 4.

5.7-7 Each project operator shall cooperate with the Town in designing and disseminating information to assist citizens and visitors in responding to emergency situations that are likely to arise (Safety Policy #31). All structures shall be designed and built to at least the standards of UBC Seismic Zone 4.

## HYDROLOGY AND DRAINAGE

5.8-1a All drainage collection, retention, and infiltration facilities on the individual development sites shall be constructed and maintained in accordance with the *Mammoth Lakes SDMP* and shall be designed in accordance with the *Master Plan Design Manual,* to the satisfaction of the Town of Mammoth Lakes Town Engineer, prior to the issuance of grading permits.

5.8-1b A more complete hydrology analysis for design purposes shall be required to be completed to estimate the amounts of runoff which will be required to be retained on-site for each development. The analysis shall be approved prior to issuance of a grading permit.

5.8-1c The following water conservation procedures shall be incorporated into project elements where feasible:

- Landscape with low water-using plants;
- Install efficient irrigation systems that minimize runoff and evaporation and maximize the water that will reach the plant roots, such as drip irrigation, soil moisture sensors, and automatic irrigation systems; and
- Use pervious paving material whenever feasible.

5.8-2a An Erosion and Sediment Control Plan shall be prepared by the project proponents of individual development projects prior to issuance of grading permits. The Plan shall be reviewed and approved by the Town of Mammoth Lakes and the Lahontan Regional Water Quality Control Board and be in accordance with the erosion control guidelines as contained in the *Mammoth Lakes SDMP* and be in compliance with the Water Quality Control Plan (for the Lahontan Region [Basin Plan]). General grading activities, including those related to demolition and construction, would be regulated by the Uniform Building Code and Town of Mammoth Lakes Grading Ordinance. The required Erosion and Sediment Control Plan shall outline methods that will be implemented to control erosion and sediment transport from graded or cleared portions of the individual redevelopment/ improvement sites.

5.8-2b Prior to issuance of grading permits for individual development projects of five acres or greater in size, the project applicant/ owner shall file for a National Pollutant Discharge Elimination System (NPDES) permit with the Lahontan Regional Water Quality Control Board and abide by the conditions of the permit as issued. A copy of the Notice of Intent, Storm Water Pollution Prevention Plan, and Monitoring Plan shall be submitted to the Town of Mammoth Lakes Engineering Department prior to commencing grading operations.

5.8-2c For individual development projects involving construction of six or more dwelling units or commercial developments that involve soil disturbance on 3 acre or more, a Waste Discharge Report (related to soil disturbance) shall be prepared by the individual project applicant(s) and submitted to the Lahontan Regional Water Quality Control Board not less than 90 days before the intended start of construction activities of a new development to obtain a Waste Discharge Permit to be issued or waiver to ensure that proper control measures for the protection of water quality are taken and adhered to during all phases of the development project. A copy of the Waste Discharge Report shall be submitted to the Town of Mammoth Lakes engineering division prior to issuance of a grading permit for the project.

5.8-2d The Report of Waste Discharge shall contain a description of, and time schedule for implementation, for both the interim erosion control measures to be applied during project construction, and short- and long-term erosion control measures to be employed after the construction phase of the project. The descriptions shall include appropriate engineering drawings, criteria, and design calculations. The report guidelines are as follows:

- Drainage collection, retention, and infiltration facilities shall be constructed and maintained to prevent transport of the runoff from a 20-year, 1-hour design storm from the project site. A 20-year, 1-hour design storm for the Mammoth Lakes area is equal to 1.0 inch (2.5 cm) of rainfall in 1 hour.

- Surplus or waste materials shall not be placed in drainage ways or within the 100-year flood plain of surface waters.

- All loose piles of soil, silt, clay, sand, debris, or earthen materials shall be protected in a reasonable manner to prevent any discharge to waters of the State.

- Dewatering shall be done in a manner so as to prevent the discharge of earthen materials from the site.

- All disturbed areas shall be stabilized by appropriate soil stabilization measures by October 15 of each year.

- All work performed between October 15th and May 1st of each year shall be conducted in such a manner that the project can be winterized within 48 hours.

- Where possible, existing drainage patterns shall not be significantly modified.

- After completion of a construction project, all surplus or waste earthen material shall be removed from the site and deposited at a legal point of disposal.

- Drainage swales disturbed by construction activities shall be stabilized by the addition of crushed rock or riprap, as necessary, or other appropriate stabilization methods.

- All nonconstruction areas shall be protected by fencing or other means to prevent unnecessary disturbances.

- During construction, temporary erosion control facilities (e.g., impermeable dikes, filter fences, hay bales, etc.) shall be used as necessary to prevent discharge of earthen materials from the site during periods of precipitation or runoff.

- Revegetated areas shall be regularly and continually maintained in order to assure adequate growth and root development. Physical erosion control facilities shall be placed on a routine maintenance and inspection program to provide continued erosion control integrity.

- Where construction activities involve the crossing and/or alteration of a stream channel, such activities shall be timed to occur during the period in which streamflow is expected to be lowest for the year.

5.8-3 Best Management Practices (BMPs) shall be implemented as part of future individual development sites to the satisfaction of the Lahontan Regional Water Quality Control Board and NPDES Program requirements in order to protect the receiving waters from degradation and correct existing problems. BMPs include structural controls such as retention/detention basins, oil-water separators, which could be implemented in the overall design of the proposed drainage facilities for individual development sites.

**BIOLOGICAL RESOURCES**

5.9-2a The project shall preserve existing native vegetation to the maximum extent feasible. Landscaping shall emphasize the use of native plants indigenous to the Jeffrey Pine-Fir Forest plant community. Whenever possible, native plants used on-site shall be selected for their replacement habitat value. Site designs shall be subject to the Design Review procedure of the Town.

5.9-2b Landscape materials shall be used that allow for the protection and preservation of existing trees. Native plant species, preferably from seed or cuttings from local plants, shall be used where possible. The Landscape Plan shall be approved by the Planning Director prior to issuance of any construction permits.

5.9-2c Irrigation, fertilization, and other landscape management practices shall be designed to minimize effects on existing trees and other vegetation.

5.9-2d To the extent possible, native vegetation shall be retained and protected during construction. A Revegetation Plan, prepared by a qualified Landscape Architect and approved by the Town of Mammoth Lakes, shall be completed prior to the commencement of the project which will describe in detail the species of trees and shrubs which will be used, where they will be planted, and in what numbers, and the methods of planting and maintenance which will ensure successful growth. It shall include a monitoring program to follow the progress of new plantings and ensure replacement of unsuccessful plants. Landscaping with native species of trees and shrubs shall be undertaken to enhance wildlife use of cleared areas.

5.9-2e Under AB3180, once mitigation plans designed to off-set habitat losses are approved and the specific areas where they will be located are identified, the proponent must provide a program to monitor their progress for a period of time (usually three to five years) deemed sufficient by the Planning Director to assure their successful development. Adequate security shall be deposited with the Town to ensure successful implementation of this measure.

5.9-2f All construction activities, including movement and storage of vehicles and the storage of building and other materials, shall be confined to areas slated for development. Care shall be taken during construction to avoid damage to vegetation and habitats not directly involved in project construction. Any vegetation inadvertently damaged outside of the area slated for development shall be replaced on a one-to-one basis on- or off-site. Off-site replacement shall require the approval of the Town Planning Director.

5.9-2g To prevent erosion and siltation into intermittent creeks, areas cleared of vegetation, fill or other materials shall be stabilized after clearing and grading. Hay bales, silt screens or similar devices shall be used to prevent siltation. To further protect the drainage system and prevent erosion, all grading and construction shall be completed during the summer months, or after October 15 of each year be in a condition to be stabilized within 48 hours should inclement weather threaten.

5.9-2h A Forest Condition Survey shall be conducted by a professional forester and approved by the Town of Mammoth Lakes, prior to the commencement of each individual development project. All trees greater than 12-inches DBH (Diameter breast height (54 inches above ground)) and significant stands on each project site shall be mapped prior to issuance of grading permits or clearing. A registered forester or arborist shall then determine the age and condition of these trees and whether they should be retained or removed based upon health and visual significance of the trees, except for removal required by approved improvements. Once this determination

is made, those trees shall be retained and integrated into the design of each project. A program of specific protection measures shall be prepared by the developer and approved by the Town prior to issuance of any construction permits (e.g., construction fencing, grading controls, grading design, etc.). Any trees removed unavoidably by each final project approval shall be in accordance with Town policies. Off-site replacement shall require approval by the Town's Planning Director.

5.9-2i Slash generated from construction or thinning operations shall be hauled from the site concurrently with the operation to prevent a breeding site for IPS (bark beetle). Logs shall be removed from the site as soon as possible.

5.9-2j Construction and site development, such as grading and trenching, shall be prohibited within the dripline of retained trees. Equipment shall not be stored or driven under trees. Grading shall not cover the ground surface within the dripline of existing trees. Grading limits shall be clearly defined and protected.

## PUBLIC SERVICES AND UTILITIES

5.10-1a Each project shall contribute a fair share financial contribution for an emergency services facility (fire and police) to be located on the site of Fire Station No. 1 on Main Street.

5.10-1b Access roads to all structures, and areas of use, shall comply with Mammoth Lakes Fire Protection District Ordinance 98-01.

5.10-1c An approved water supply system capable of supplying required fire flow for fire protection purposes, as determined by the Fire District, shall be provided.

5.10-3 Developer Fees for commercial uses and foot for residential uses (condominiums).

5-10-4a The project proponent shall contribute a fair share financial contribution in accordance with the Town's DIF Mitigation Program established under Resolution 98-06.

5.10-7 The project applicant shall pay the appropriate fees to the MCWD. All new wastewater conveyance facilities shall be located within public rights-of-way or utility easements.

5.10-8 The project applicant shall pay the appropriate fees to the MCWD. All new water conveyance facilities shall be installed within public rights-of-way or utility easements.

5.10-9 Prior to issuance of a building permit, the applicant shall provide an Integrated Solid Waste Management Plan (ISWMP) consistent with the Town's SRRE. The plan shall address, at a minimum, the following measures: construction demolition; recycling; composting; source reduction programs; storage areas for collected recyclable materials, and disposal of hazardous waste materials used on-site.

## CULTURAL RESOURCES

5.11-1e In the event that a material of potential cultural significance is uncovered during grading activities on the project site, all grading in the area of the uncovered material shall cease and the project applicant shall retain a professional archaeologist to evaluate the quality and significance of the material. Grading shall not continue in the area where a material of potential cultural significance is uncovered until resources have been completely removed by the archaeologist and recorded as appropriate.

5.11-2 If human remains are discovered, work shall cease and an appropriate representative of Native American Indian groups and the County Coroner shall both be informed and consulted, as required by State law.

# Appendix B – Traffic Memorandums

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LSA

BERKELEY
CARLSBAD
FRESNO
IRVINE
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

April 6, 2017

Ruth Truxler, Associate Planner
Community and Economic Development Department
Town of Mammoth Lakes
P.O. Box 1609
Mammoth Lakes, CA 93546

Subject: Trip Generation Characteristics for a Proposed Amendment to the Mammoth Hillside Project

Dear Ms. Truxler:

LSA Associates, Inc. (LSA) has reviewed the previously approved and currently proposed descriptions for the Mammoth Hillside project. As stated in the Mammoth Hillside Traffic Impact Analysis (TIA) prepared by LSA on May 2, 2006, the previous project included a total of 470 bedrooms within 303 units. A complete project description from the TIA (i.e., units, types, and bedrooms) is provided as an attachment. The current proposal for the Mammoth Hillside project includes 404 bedrooms with no designation of number of units, which are 66 bedrooms less than previously analyzed and approved. Therefore, the current project of a maximum of 404 bedrooms would not exceed the vehicle trips from the previous project of 470 bedrooms. As such, no additional traffic analysis should be required for the Mammoth Hillside project.

If you have any questions, please call me at (949) 553-0666.

Sincerely,

**LSA ASSOCIATES, INC.**

Les Card, P.E.
Principal

Dean Arizabal
Associate

Attachment: Project Description from the Mammoth Hillside TIA (Page 1)

cc: David Harvey
Bill Myers

# MAMMOTH HILLSIDE
# TRAFFIC IMPACT ANALYSIS

## INTRODUCTION

The purpose of this Traffic Impact Analysis (TIA) is to assess potential circulation impacts associated with the development of the Mammoth Hillside project on the existing circulation system of the Town of Mammoth Lakes (Town).

This report will focus on the short-range (near-term) impacts of the Mammoth Hillside project. The existing typical winter Saturday condition will be considered to be the baseline condition in this TIA. This analysis provides an assessment of the Mammoth Hillside traffic impacts and the determination of traffic mitigation as required for California Environmental Quality Act (CEQA) compliance.

## PROJECT DESCRIPTION

The Mammoth Hillside project is located north of Lake Mary Road, south of Hillside Drive, west of Canyon Boulevard, and east of Lakeview Boulevard. Phase I of the project consists of 103 studio/ one-bedroom condominium units, 52 two-bedroom condominium units (20 with lock-offs), 34 three-bedroom condominium units (12 with lock-offs), 4 four-bedroom condominium units, 37 employee housing units, and 5,800 square feet of retail use. Phase II of the project consists of 26 three-bedroom townhome units and 15 two-bedroom townhome units. Access to the project site will be provided via full-access driveways on Canyon Boulevard (primary access), and Lakeview Boulevard. The location of Mammoth Hillside is shown in Figure 1. The project site plan is illustrated in Figure 2.

## METHODOLOGY

The analysis of traffic impacts examines the following conditions:

1. Existing conditions
2. Cumulative baseline (existing plus approved projects) conditions
3. Cumulative plus project conditions

Typical winter Saturday peak-hour baseline conditions were used to analyze traffic impacts for the existing and cumulative (existing plus approved project) conditions. The design day used in this study is a typical winter Saturday, which occurs 15–20 times a year. In the context of standard engineering practice, even the typical winter Saturday represents a conservative approach to traffic planning and mitigation. Typical winter Saturday peak-hour traffic counts previously conducted by the Town and other approved traffic studies were utilized. For intersections where existing traffic counts were not available, LSA extrapolated existing counts from other adjacent intersections and traffic counts from the Grayfox Planned Unit Development Traffic Analysis (October 22, 2004) prepared by LSA as wellas the General Plan Update Traffic Analysis (November 2004) prepared by LSC Transportation Consultants, Inc.

LSA

BERKELEY
CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

April 3, 2017

Jennifer Daugherty, AICP
Lisa Wise Consulting
983 Osos Street
San Luis Obispo, CA 92401

Subject: Mammoth Hillside Traffic Analysis Addendum

Dear Ms. Daugherty:

LSA is pleased to submit this update to the Traffic Impact Analysis (TIA) for the Mammoth Hillside project in the Town of Mammoth Lakes, California. As a part of this TIA, 149 high-density units were assumed for the Intrawest South Hotel as a cumulative project located on the southeast corner of Minaret Road/Forest Trail. Since the preparation of the TIA in May 2006, this cumulative project has increased from 149 high-density units to 251 high-density units. As such, this traffic analysis addendum is required for evaluating the additional 102 high-density units on the Intrawest South Hotel site.

The May 2006 Mammoth Hillside TIA evaluated intersection levels of service (LOS) using the *Highway Capacity Manual* (HCM) 2000 methodology and the Traffix software for three scenarios (Existing, Cumulative, and Cumulative Plus Project). The study area included the following seven intersections:

1. Minaret Road/Main Street–Lake Mary Road
2. Minaret Road/Forest Trail
3. Canyon Boulevard/Lake Mary Road
4. Lakeview Boulevard/Lake Mary Road
5. Canyon Boulevard/Hillside Drive
6. Lakeview Boulevard/Hillside Drive
7. Lakeview Boulevard/Canyon Boulevard

In order to update the traffic analysis of the Mammoth Hillside TIA, LSA generated Typical Winter Saturday peak-hour trips for the 102 additional high-density units (71 inbound, 31 outbound for a total of 102 trips). Consistent with the TIA, approximately 30 percent of the project trips are anticipated to be pedestrian trips to/from the North Village area. The remaining project trips (70 percent vehicles) included approximately 20 percent to/from the north, and 10 percent to/from the south via Minaret Road, 20 percent to/from the east via Main Street, and 10 percent to/from the west via Canyon Boulevard.

Because the cumulative no project and plus project scenarios are affected by the increase in units, LSA conducted new cumulative LOS analyses using the HCM 2000 methodology and the Traffix software. LSA overlaid the additional Intrawest South Hotel project vehicle trips onto the cumulative no project and plus project traffic volumes of the seven study area intersections using the TIA trip distribution assumptions described above. All Traffix analysis worksheets have been provided as an attachment and are summarized in Table A (attached).

As seen in Table A, there is a slight increase in delay (less than one second) at Minaret Road/Main Street-Lake Mary Road and Minaret Road/Forest Trail; however, both intersections are expected to operate at satisfactory LOS D or better with and without the Mammoth Hillside project. The other five study area intersections are unaffected by the increase in units at the Intrawest South Hotel site. It should be noted that the proposed mitigation measure at Lakeview Boulevard/Lake Mary Road to restripe the existing southbound approach, to provide a dedicated southbound left and dedicated southbound right, has already been implemented, resulting in satisfactory LOS at this intersection.

In conclusion, the increase of 102 high-density units on the Intrawest South Hotel site would not affect the results of the Mammoth Hillside TIA prepared in May 2006.

If you have any questions, please contact me at (949) 553-0666.

Sincerely,

**LSA Associates, Inc.**

Dean Arizabal
Associate

Les Card, P.E.
Principal

Attachments: Table A – Cumulative Plus Project Typical Winter Saturday Intersection LOS Summary
Traffix Analysis Worksheets


## Table A: Cumulative Plus Project Typical Winter Saturday Intersection LOS Summary

| Intersection | Intrawest South Hotel Description | Cumulative | | Cumulative Plus Project | | Δ |
|---|---|---|---|---|---|---|
| | | Delay (sec) | LOS | Delay (sec) | LOS | |
| 1 Minaret Road/Main Street-Lake Mary Road | 149 units[1] | 35.7 | D | 43.3 | D | 7.6 |
| | 251 units[2] | 35.9 | D | 43.4 | D | 7.5 |
| | Δ | 0.2 | | 0.1 | | |
| 2 Minaret Road/Forest Trail * | 149 units[1] | 10.5 | B | 11.4 | B | 0.9 |
| | 251 units[2] | 11.1 | B | 12.1 | B | 1.0 |
| | Δ | 0.6 | | 0.7 | | |
| 3 Canyon Boulevard/Lake Mary Road | 149 units[1] | 11.3 | B | 12.1 | B | 0.8 |
| | 251 units[2] | 11.3 | B | 12.1 | B | 0.8 |
| | Δ | 0.0 | | 0.0 | | |
| 4 Lakeview Boulevard/Lake Mary Road + | 149 units[1] | **62.4** | **F** | **68.4** | **F** | 6.0 |
| | *with mitigation* [3] | - | - | *27.3* | *D* | - |
| | 251 units[2] | **62.4** | **F** | **68.4** | **F** | 6.0 |
| | *with mitigation* [3] | - | - | *27.3* | *D* | - |
| | Δ | *0.0* | | *0.0* | | |
| | Δ *with mitigation* [3] | - | | *0.0* | | |
| 5 Canyon Boulevard/Hillside Drive + | 149 units[1] | 9.9 | A | 10.1 | B | 0.2 |
| | 251 units[2] | 9.9 | A | 10.1 | B | 0.2 |
| | Δ | 0.0 | | 0.0 | | |
| 6 Lakeview Boulevard/Hillside Drive + | 149 units[1] | 10.1 | B | 10.1 | B | 0.0 |
| | 251 units[2] | 10.1 | B | 10.1 | B | 0.0 |
| | Δ | 0.0 | | 0.0 | | |
| 7 Lakeview Boulevard/Canyon Boulevard + | 149 units[1] | 14.9 | B | 15.3 | C | 0.4 |
| | 251 units[2] | 14.9 | B | 15.3 | C | 0.4 |
| | Δ | 0.0 | | 0.0 | | |

[1] Mammoth Hillside Traffic Impact Analysis (LSA Associates, Inc., May 2006)

[2] Current approval includes 251 units (an additional 102 units)

[3] Restriping the shared southbound left-turn/right-turn lane to provide a dedicated southbound left-turn lane and dedicated southbound right-turn lane

Δ = change

* = roundabout intersection

+ = unsignalized intersection

**F** = unsatisfactory level of service (LOS)

sec = seconds

Mammoth Hillside(11-8-05)

Scenario Report

| | |
|---|---|
| Scenario: | Cumulative 2017 Weekend |
| Command: | Default Command |
| Volume: | 2017 |
| Geometry: | Existing |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | Cumulative No Project |
| Trip Distribution: | Default Trip Distribution |
| Paths: | Default Path |
| Routes: | Default Route |
| Configuration: | Default Configuration |

Mammoth Hillside(11-8-05)

Turning Movement Report
None + Cumulative

| Volume Type | Northbound Left | Thru | Right | Southbound Left | Thru | Right | Eastbound Left | Thru | Right | Westbound Left | Thru | Right | Total Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 Minaret Rd/Main St-Lake Mary Rd | | | | | | | | | | | | | |
| Base | 122 | 101 | 104 | 536 | 253 | 126 | 72 | 460 | 192 | 83 | 316 | 103 | 2468 |
| Added | 108 | 89 | 2 | 59 | 93 | 36 | 35 | 67 | 92 | 5 | 82 | 78 | 746 |
| PassBy | 0 | 7 | 0 | 10 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 42 |
| Total | 230 | 197 | 106 | 605 | 349 | 162 | 107 | 527 | 284 | 88 | 398 | 203 | 3256 |
| #2 Minaret Rd/Forest Trail | | | | | | | | | | | | | |
| Base | 246 | 81 | 2 | 1 | 442 | 178 | 78 | 54 | 265 | 1 | 17 | 0 | 1365 |
| Added | 0 | 55 | 67 | 16 | 86 | 0 | 0 | 0 | 0 | 29 | 0 | 7 | 260 |
| PassBy | 3 | 6 | 0 | 0 | 14 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 30 |
| Total | 249 | 142 | 69 | 17 | 542 | 178 | 78 | 54 | 272 | 30 | 17 | 7 | 1655 |
| #3 Canyon Blvd/Lake Mary Rd | | | | | | | | | | | | | |
| Base | 0 | 0 | 0 | 327 | 0 | 18 | 12 | 352 | 0 | 0 | 334 | 307 | 1350 |
| Added | 0 | 0 | 0 | 136 | 0 | 21 | 27 | 37 | 0 | 0 | 31 | 181 | 433 |
| Total | 0 | 0 | 0 | 463 | 0 | 39 | 39 | 389 | 0 | 0 | 365 | 488 | 1783 |
| #4 Lakeview Blvd/Lake Mary Rd | | | | | | | | | | | | | |
| Base | 0 | 0 | 0 | 294 | 0 | 174 | 116 | 56 | 0 | 0 | 120 | 213 | 973 |
| Added | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 62 | 0 | 0 | 50 | 2 | 116 |
| Total | 0 | 0 | 0 | 296 | 0 | 174 | 116 | 118 | 0 | 0 | 170 | 215 | 1089 |
| #5 Canyon Blvd/Hillside Dr | | | | | | | | | | | | | |
| Base | 15 | 173 | 136 | 10 | 275 | 10 | 10 | 10 | 12 | 60 | 10 | 20 | 741 |
| Added | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 15 | 173 | 136 | 10 | 275 | 10 | 10 | 10 | 12 | 60 | 10 | 20 | 741 |
| #6 Lakeview Blvd/Hillside Dr | | | | | | | | | | | | | |
| Base | 0 | 139 | 26 | 6 | 108 | 0 | 0 | 0 | 0 | 30 | 0 | 5 | 314 |
| Added | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 139 | 26 | 6 | 108 | 0 | 0 | 0 | 0 | 30 | 0 | 5 | 314 |
| #7 Lakeview Blvd/Canyon Blvd | | | | | | | | | | | | | |
| Base | 130 | 0 | 14 | 0 | 0 | 0 | 0 | 281 | 94 | 20 | 183 | 0 | 722 |
| Added | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 130 | 0 | 14 | 0 | 0 | 0 | 0 | 281 | 94 | 20 | 183 | 0 | 722 |





Mammoth Hillside(11-8-05)

Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Del/ Veh | V/ C | Future LOS | Del/ Veh | V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 1 Minaret Rd/Main St-Lake Mary R | C | 20.0 | 0.682 | D | 35.9 | 0.964 | +15.858 D/V |
| # 2 Minaret Rd/Forest Trail | A | 7.8 | 0.662 | B | 11.1 | 0.801 | + 0.139 V/C |
| # 3 Canyon Blvd/Lake Mary Rd | A | 10.0 | 0.403 | B | 11.3 | 0.627 | + 1.292 D/V |
| # 4 Lakeview Blvd/Lake Mary Rd | D | 34.3 | 0.633 | F | 62.4 | 0.756 | +28.043 D/V |
| # 5 Canyon Blvd/Hillside Dr | A | 9.9 | 0.397 | A | 9.9 | 0.397 | + 0.000 V/C |
| # 6 Lakeview Blvd/Hillside Dr | B | 10.1 | 0.042 | B | 10.1 | 0.042 | + 0.000 D/V |
| # 7 Lakeview Blvd/Canyon Blvd | B | 14.9 | 0.264 | B | 14.9 | 0.264 | + 0.000 D/V |

Mammoth Hillside(11-8-05)

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

Intersection #1 Minaret Rd/Main St-Lake Mary Rd

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cycle (sec): | 50 | | | Critical Vol./Cap.(X): | | | 0.964 | | | | | | | | | |
| Loss Time (sec): | 12 | | | Average Delay (sec/veh): | | | 35.9 | | | | | | | | | |
| Optimal Cycle: | 85 | | | Level Of Service: | | | D | | | | | | | | | |
| Street Name: | Minaret Rd | | | | | | Main St-Lake Mary Rd | | | | | | | | | |
| 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 | | | Split Phase | | | Split Phase | | | | | | |
| Rights: | Include | | | Include | | | Include | | | Ovl | | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | | |
| Lanes: | 1 | 0 1 | 0 1 | 2 | 0 0 | 1 0 | 1 | 0 2 | 0 1 | 1 | 0 2 | 0 1 | | | | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 122 | 101 | 104 | 536 | 253 | 126 | 72 | 460 | 192 | 83 | 316 | 103 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 122 | 101 | 104 | 536 | 253 | 126 | 72 | 460 | 192 | 83 | 316 | 103 | | | | |
| Added Vol: | 108 | 89 | 2 | 59 | 93 | 36 | 35 | 67 | 92 | 5 | 82 | 78 | | | | |
| PasserByVol: | 0 | 7 | 0 | 10 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | | | | |
| Initial Fut: | 230 | 197 | 106 | 605 | 349 | 162 | 107 | 527 | 284 | 88 | 398 | 203 | | | | |
| User Adj: | 1.00 | 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: | 242 | 207 | 112 | 637 | 367 | 171 | 113 | 555 | 299 | 93 | 419 | 214 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Reduced Vol: | 242 | 207 | 112 | 637 | 367 | 171 | 113 | 555 | 299 | 93 | 419 | 214 | | | | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| FinalVolume: | 242 | 207 | 112 | 637 | 367 | 171 | 113 | 555 | 299 | 93 | 419 | 214 | | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | | |
| Adjustment: | 0.95 | 1.00 | 0.85 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 | 0.85 | 0.95 | 0.95 | 0.85 | | | | |
| Lanes: | 1.00 | 1.00 | 1.00 | 2.00 | 0.68 | 0.32 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | | | | |
| Final Sat.: | 1805 | 1900 | 1615 | 3502 | 1235 | 573 | 1805 | 3610 | 1615 | 1805 | 3610 | 1615 | | | | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.11 | 0.07 | 0.18 | 0.30 | 0.30 | 0.06 | 0.15 | 0.19 | 0.05 | 0.12 | 0.13 | | | | |
| Crit Moves: | **** | | | **** | | | | | **** | | **** | | | | | |
| Green/Cycle: | 0.14 | 0.14 | 0.14 | 0.31 | 0.31 | 0.31 | 0.19 | 0.19 | 0.19 | 0.12 | 0.12 | 0.43 | | | | |
| Volume/Cap: | 0.96 | 0.78 | 0.50 | 0.59 | 0.96 | 0.96 | 0.32 | 0.80 | 0.96 | 0.43 | 0.96 | 0.31 | | | | |
| Delay/Veh: | 68.0 | 35.0 | 21.6 | 15.5 | 46.1 | 46.1 | 18.0 | 25.9 | 61.3 | 21.7 | 55.7 | 9.7 | | | | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| AdjDel/Veh: | 68.0 | 35.0 | 21.6 | 15.5 | 46.1 | 46.1 | 18.0 | 25.9 | 61.3 | 21.7 | 55.7 | 9.7 | | | | |
| LOS by Move: | E | D | C | B | D | D | B | C | E | C | E | A | | | | |
| HCM2kAvgQ: | 8 | 5 | 2 | 5 | 14 | 14 | 2 | 7 | 10 | 2 | 8 | 2 | | | | |

Note: Queue reported is the number of cars per lane.





Mammoth Hillside(11-8-05)

Level Of Service Computation Report
FHWA Roundabout Method (Future Volume Alternative)

Intersection #2 Minaret Rd/Forest Trail

Average Delay (sec/veh): 11.1  Level Of Service: B

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Street Name: | Minaret Rd | | | | | | Forest Trail | | | | | | | | | |
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | | | | | |
| Movement: | L | - T | - R | L | - T | - R | L | - T | - R | L | - T | - R | | | | |
| Control: | Yield Sign | | | Yield Sign | | | Yield Sign | | | Yield Sign | | | | | | |
| Lanes: | 1 | | | 1 | | | 1 | | | 1 | | | | | | |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 246 | 81 | 2 | 1 | 442 | 178 | 78 | 54 | 265 | 1 | 17 | 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: | 246 | 81 | 2 | 1 | 442 | 178 | 78 | 54 | 265 | 1 | 17 | 0 | | | | |
| Added Vol: | 0 | 55 | 67 | 16 | 86 | 0 | 0 | 0 | 0 | 29 | 0 | 7 | | | | |
| PasserByVol: | 3 | 6 | 0 | 0 | 14 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | | | | |
| Initial Fut: | 249 | 142 | 69 | 17 | 542 | 178 | 78 | 54 | 272 | 30 | 17 | 7 | | | | |
| User Adj: | 1.00 | 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: | 277 | 158 | 77 | 19 | 602 | 198 | 87 | 60 | 302 | 33 | 19 | 8 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Reduced Vol: | 277 | 158 | 77 | 19 | 602 | 198 | 87 | 60 | 302 | 33 | 19 | 8 | | | | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| FinalVolume: | 277 | 158 | 77 | 19 | 602 | 198 | 87 | 60 | 302 | 33 | 19 | 8 | | | | |
| PCE Module: | | | | | | | | | | | | | | | | |
| AutoPCE: | 277 | 158 | 77 | 19 | 602 | 198 | 87 | 60 | 302 | 33 | 19 | 8 | | | | |
| TruckPCE: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| ComboPCE: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| BicyclePCE: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| AdjVolume: | 277 | 158 | 77 | 19 | 602 | 198 | 87 | 60 | 302 | 33 | 19 | 8 | | | | |
| Delay Module: >> Time Period: 0.25 hours << | | | | | | | | | | | | | | | | |
| CircVolume: | 166 | | | 329 | | | 654 | | | 521 | | | | | | |
| MaxVolume: | 1111 | | | 1022 | | | 847 | | | 919 | | | | | | |
| PedVolume: | 0 | | | 0 | | | 0 | | | 0 | | | | | | |
| AdjMaxVol: | 1111 | | | 1022 | | | 847 | | | 919 | | | | | | |
| ApproachVol: | 511 | | | 819 | | | 449 | | | 60 | | | | | | |
| ApproachV/C: | 0.46 | | | 0.80 | | | 0.53 | | | 0.07 | | | | | | |
| ApproachDel: | 6.0 | | | 16.0 | | | 8.9 | | | 4.2 | | | | | | |
| ApproachLOS: | A | | | C | | | A | | | A | | | | | | |
| Queue: | 2.5 | | | 8.9 | | | 3.2 | | | 0.2 | | | | | | |

Mammoth Hillside(11-8-05)

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

Intersection #3 Canyon Blvd/Lake Mary Rd

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cycle (sec): | 50 | | | Critical Vol./Cap.(X): | | | 0.627 | | | | | | | | |
| Loss Time (sec): | 12 | | | Average Delay (sec/veh): | | | 11.3 | | | | | | | | |
| Optimal Cycle: | 44 | | | Level Of Service: | | | B | | | | | | | | |
| Street Name: | Canyon Blvd | | | | | | Lake Mary Rd | | | | | | | | |
| 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 | | | Permitted | | | Permitted | | | | | |
| Rights: | Include | | | Include | | | Include | | | Include | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | |
| Lanes: | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1! | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | | |
| Volume Module: | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 327 | 0 | 18 | 12 | 352 | 0 | 0 | 334 | 307 | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Initial Bse: | 0 | 0 | 0 | 327 | 0 | 18 | 12 | 352 | 0 | 0 | 334 | 307 | | | |
| Added Vol: | 0 | 0 | 0 | 136 | 0 | 21 | 27 | 37 | 0 | 0 | 31 | 181 | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Initial Fut: | 0 | 0 | 0 | 463 | 0 | 39 | 39 | 389 | 0 | 0 | 365 | 488 | | | |
| User Adj: | 1.00 | 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 | 0 | 0 | 487 | 0 | 41 | 41 | 409 | 0 | 0 | 384 | 514 | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Reduced Vol: | 0 | 0 | 0 | 487 | 0 | 41 | 41 | 409 | 0 | 0 | 384 | 514 | | | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| FinalVolume: | 0 | 0 | 0 | 487 | 0 | 41 | 41 | 409 | 0 | 0 | 384 | 514 | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.94 | 1.00 | 0.94 | 0.52 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | | | |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.86 | 0.00 | 0.14 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | | | |
| Final Sat.: | 0 | 0 | 0 | 3330 | 0 | 259 | 986 | 1900 | 0 | 0 | 1900 | 1615 | | | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 | 0.16 | 0.04 | 0.22 | 0.00 | 0.00 | 0.20 | 0.32 | | | |
| Crit Moves: | | | | | | **** | | | | | | **** | | | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.25 | 0.51 | 0.51 | 0.00 | 0.00 | 0.51 | 0.51 | | | |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.58 | 0.00 | 0.63 | 0.08 | 0.43 | 0.00 | 0.00 | 0.40 | 0.63 | | | |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 17.3 | 0.0 | 18.1 | 6.4 | 8.0 | 0.0 | 0.0 | 7.9 | 10.5 | | | |
| 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: | 0.0 | 0.0 | 0.0 | 17.3 | 0.0 | 18.1 | 6.4 | 8.0 | 0.0 | 0.0 | 7.9 | 10.5 | | | |
| LOS by Move: | A | A | A | B | A | B | A | A | A | A | A | B | | | |
| HCM2kAvgQ: | 0 | 0 | 0 | 4 | 0 | 5 | 0 | 4 | 0 | 0 | 4 | 7 | | | |

Note: Queue reported is the number of cars per lane.





Mammoth Hillside(11-8-05)

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

Intersection #4 Lakeview Blvd/Lake Mary Rd

Average Delay (sec/veh): 27.8  Worst Case Level Of Service: F[ 62.4]

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Street Name: | Lakeview Blvd | | | | | | Lake Mary Rd | | | | | | | | |
| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 1! | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | | |
| Volume Module: | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 294 | 0 | 174 | 116 | 56 | 0 | 0 | 120 | 213 | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Initial Bse: | 0 | 0 | 0 | 294 | 0 | 174 | 116 | 56 | 0 | 0 | 120 | 213 | | | |
| Added Vol: | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 62 | 0 | 0 | 50 | 2 | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Initial Fut: | 0 | 0 | 0 | 296 | 0 | 174 | 116 | 118 | 0 | 0 | 170 | 215 | | | |
| User Adj: | 1.00 | 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 | 0 | 0 | 329 | 0 | 193 | 129 | 131 | 0 | 0 | 189 | 239 | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| FinalVolume: | 0 | 0 | 0 | 329 | 0 | 193 | 129 | 131 | 0 | 0 | 189 | 239 | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | 6.4 | 6.5 | 6.2 | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | |
| FollowUpTim: | xxxxx | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | |
| Capacity Module: | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | 578 | 578 | 189 | 428 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | |
| Potent Cap.: | xxxx | xxxx | xxxxx | 481 | 430 | 858 | 1142 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | |
| Move Cap.: | xxxx | xxxx | xxxxx | 435 | 376 | 858 | 1142 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | |
| Volume/Cap: | xxxx | xxxx | xxxx | 0.76 | 0.00 | 0.23 | 0.11 | xxxx | xxxx | xxxx | xxxx | xxxx | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.4 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 8.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | |
| LOS by Move: | * | * | * | * | * | * | A | * | * | * | * | * | | | |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | 532 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | 13.4 | xxxxx | 0.4 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | 62.4 | xxxxx | 8.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | |
| Shared LOS: | * | * | * | * | F | * | A | * | * | * | * | * | | | |
| ApproachDel: | xxxxxx | | | 62.4 | | | xxxxxx | | | xxxxxx | | | | | |
| ApproachLOS: | * | | | F | | | * | | | * | | | | | |

Note: Queue reported is the number of cars per lane.

Mammoth Hillside(11-8-05)

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

Intersection #5 Canyon Blvd/Hillside Dr

Cycle (sec): 100 | Critical Vol./Cap.(X): 0.397
Loss Time (sec): 0 | Average Delay (sec/veh): 9.9
Optimal Cycle: 0 | Level Of Service: A

| Street Name: | Canyon Blvd | | | | | | Hillside Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | Stop Sign | | | Stop Sign | | |
| 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 | 0 | 1! 0 | 0 | 0 | 1! 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 15 | 173 | 136 | 10 | 275 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 15 | 173 | 136 | 10 | 275 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 15 | 173 | 136 | 10 | 275 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 15 | 173 | 136 | 10 | 275 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 15 | 173 | 136 | 10 | 275 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 15 | 173 | 136 | 10 | 275 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.05 | 0.53 | 0.42 | 0.03 | 0.94 | 0.03 | 0.31 | 0.31 | 0.38 | 0.67 | 0.11 | 0.22 |
| Final Sat.: | 38 | 436 | 343 | 26 | 720 | 26 | 193 | 193 | 231 | 416 | 69 | 139 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.40 | 0.40 | 0.40 | 0.38 | 0.38 | 0.38 | 0.05 | 0.05 | 0.05 | 0.14 | 0.14 | 0.14 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Delay/Veh: | 10.0 | 10.0 | 10.0 | 10.2 | 10.2 | 10.2 | 8.4 | 8.4 | 8.4 | 9.0 | 9.0 | 9.0 |
| 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 |
| AdjDel/Veh: | 10.0 | 10.0 | 10.0 | 10.2 | 10.2 | 10.2 | 8.4 | 8.4 | 8.4 | 9.0 | 9.0 | 9.0 |
| LOS by Move: | A | A | A | B | B | B | A | A | A | A | A | A |
| ApproachDel: | 10.0 | | | 10.2 | | | 8.4 | | | 9.0 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 10.0 | | | 10.2 | | | 8.4 | | | 9.0 | | |
| LOS by Appr: | A | | | B | | | A | | | A | | |
| AllWayAvgQ: | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |

Note: Queue reported is the number of cars per lane.





Mammoth Hillside(11-8-05)

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

Intersection #6 Lakeview Blvd/Hillside Dr

Average Delay (sec/veh): 1.3 | Worst Case Level Of Service: B[ 10.1]

| Street Name: | Lakeview Blvd | | | | | | Hillside Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 1 0 | 0 | 1 | 0 0 | 0 | 0 | 0 0 0 | 0 | 0 | 1! 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 139 | 26 | 6 | 108 | 0 | 0 | 0 | 0 | 30 | 0 | 5 |
| Growth Adj: | 1.00 | 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 | 139 | 26 | 6 | 108 | 0 | 0 | 0 | 0 | 30 | 0 | 5 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 139 | 26 | 6 | 108 | 0 | 0 | 0 | 0 | 30 | 0 | 5 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 139 | 26 | 6 | 108 | 0 | 0 | 0 | 0 | 30 | 0 | 5 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 139 | 26 | 6 | 108 | 0 | 0 | 0 | 0 | 30 | 0 | 5 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.4 | 6.5 | 6.2 |
| FollowUpTim: | xxxxx | xxxx | xxxxx | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | 4.0 | 3.3 |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | 165 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 272 | 272 | 152 |
| Potent Cap.: | xxxx | xxxx | xxxxx | 1426 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 722 | 638 | 900 |
| Move Cap.: | xxxx | xxxx | xxxxx | 1426 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 719 | 635 | 900 |
| Volume/Cap: | xxxx | xxxx | xxxx | 0.00 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.04 | 0.00 | 0.01 |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | 7.5 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | A | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | 741 | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 0.1 | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | 7.5 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 10.1 | xxxxx |
| Shared LOS: | * | * | * | A | * | * | * | * | * | * | B | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | 10.1 | | |
| ApproachLOS: | * | | | * | | | * | | | B | | |

Note: Queue reported is the number of cars per lane.

Mammoth Hillside(11-8-05)

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

Intersection #7 Lakeview Blvd/Canyon Blvd

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: B[ 14.9]

| Street Name: | Lakeview Blvd | | | | | | Canyon Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 1! 0 | 0 | 0 | 0 0 0 | 0 | 0 | 0 0 1 | 0 | 0 | 1 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 130 | 0 | 14 | 0 | 0 | 0 | 0 | 281 | 94 | 20 | 183 | 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: | 130 | 0 | 14 | 0 | 0 | 0 | 0 | 281 | 94 | 20 | 183 | 0 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 130 | 0 | 14 | 0 | 0 | 0 | 0 | 281 | 94 | 20 | 183 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 130 | 0 | 14 | 0 | 0 | 0 | 0 | 281 | 94 | 20 | 183 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 130 | 0 | 14 | 0 | 0 | 0 | 0 | 281 | 94 | 20 | 183 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 6.4 | 6.5 | 6.2 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 551 | 551 | 328 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 375 | xxxx | xxxxx |
| Potent Cap.: | 499 | 445 | 718 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1195 | xxxx | xxxxx |
| Move Cap.: | 492 | 437 | 718 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1195 | xxxx | xxxxx |
| Volume/Cap: | 0.26 | 0.00 | 0.02 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | 0.02 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.1 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 8.1 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | * | * | * | A | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 508 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | 1.2 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 0.1 | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | 14.9 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 8.1 | xxxx | xxxxx |
| Shared LOS: | * | B | * | * | * | * | * | * | * | A | * | * |
| ApproachDel: | | 14.9 | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | | B | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.

Mammoth Hillside(11-8-05)

Scenario Report

| | |
|---|---|
| Scenario: | Cumul 2017 + Project Weekend |
| Command: | Default Command |
| Volume: | 2017 |
| Geometry: | Existing |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | Cumulative Plus Project |
| Trip Distribution: | Default Trip Distribution |
| Paths: | Default Path |
| Routes: | Default Route |
| Configuration: | Default Configuration |

Mammoth Hillside(11-8-05)

Turning Movement Report
Cumulative + Project

| Volume Type | Northbound Left | Thru | Right | Southbound Left | Thru | Right | Eastbound Left | Thru | Right | Westbound Left | Thru | Right | Total Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 Minaret Rd/Main St-Lake Mary Rd | | | | | | | | | | | | | |
| Base | 122 | 101 | 104 | 536 | 253 | 126 | 72 | 460 | 192 | 83 | 316 | 103 | 2468 |
| Added | 123 | 89 | 2 | 59 | 93 | 61 | 55 | 95 | 105 | 5 | 115 | 78 | 880 |
| PassBy | 0 | 7 | 0 | 10 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 42 |
| Total | 245 | 197 | 106 | 605 | 349 | 187 | 127 | 555 | 297 | 88 | 431 | 203 | 3390 |
| #2 Minaret Rd/Forest Trail | | | | | | | | | | | | | |
| Base | 246 | 81 | 2 | 1 | 442 | 178 | 78 | 54 | 265 | 1 | 17 | 0 | 1365 |
| Added | 0 | 76 | 67 | 16 | 111 | 0 | 0 | 0 | 0 | 29 | 0 | 7 | 306 |
| PassBy | 3 | 6 | 0 | 0 | 14 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 30 |
| Total | 249 | 163 | 69 | 17 | 567 | 178 | 78 | 54 | 272 | 30 | 17 | 7 | 1701 |
| #3 Canyon Blvd/Lake Mary Rd | | | | | | | | | | | | | |
| Base | 0 | 0 | 0 | 327 | 0 | 18 | 12 | 352 | 0 | 0 | 334 | 307 | 1350 |
| Added | 0 | 0 | 0 | 188 | 0 | 21 | 27 | 46 | 0 | 0 | 42 | 243 | 567 |
| Total | 0 | 0 | 0 | 515 | 0 | 39 | 39 | 398 | 0 | 0 | 376 | 550 | 1917 |
| #4 Lakeview Blvd/Lake Mary Rd | | | | | | | | | | | | | |
| Base | 0 | 0 | 0 | 294 | 0 | 174 | 116 | 56 | 0 | 0 | 120 | 213 | 973 |
| Added | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 62 | 0 | 0 | 50 | 13 | 136 |
| Total | 0 | 0 | 0 | 305 | 0 | 174 | 116 | 118 | 0 | 0 | 170 | 226 | 1109 |
| #5 Canyon Blvd/Hillside Dr | | | | | | | | | | | | | |
| Base | 15 | 173 | 136 | 10 | 275 | 10 | 10 | 10 | 12 | 60 | 10 | 20 | 741 |
| Added | 0 | 9 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| Total | 15 | 182 | 136 | 10 | 285 | 10 | 10 | 10 | 12 | 60 | 10 | 20 | 760 |
| #6 Lakeview Blvd/Hillside Dr | | | | | | | | | | | | | |
| Base | 0 | 139 | 26 | 6 | 108 | 0 | 0 | 0 | 0 | 30 | 0 | 5 | 314 |
| Added | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total | 0 | 141 | 26 | 6 | 110 | 0 | 0 | 0 | 0 | 30 | 0 | 5 | 318 |
| #7 Lakeview Blvd/Canyon Blvd | | | | | | | | | | | | | |
| Base | 130 | 0 | 14 | 0 | 0 | 0 | 0 | 281 | 94 | 20 | 183 | 0 | 722 |
| Added | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 2 | 0 | 9 | 0 | 23 |
| Total | 132 | 0 | 14 | 0 | 0 | 0 | 0 | 291 | 96 | 20 | 192 | 0 | 745 |





Mammoth Hillside(11-8-05)

Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Del/ Veh | V/ C | Future LOS | Del/ Veh | V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 1 Minaret Rd/Main St-Lake Mary R | C | 20.0 | 0.682 | D | 43.4 | 1.020 | +23.381 D/V |
| # 2 Minaret Rd/Forest Trail | A | 7.8 | 0.662 | B | 12.1 | 0.828 | + 0.166 V/C |
| # 3 Canyon Blvd/Lake Mary Rd | A | 10.0 | 0.403 | B | 12.1 | 0.700 | + 2.167 D/V |
| # 4 Lakeview Blvd/Lake Mary Rd | D | 34.3 | 0.633 | F | 68.4 | 0.780 | +34.094 D/V |
| # 5 Canyon Blvd/Hillside Dr | A | 9.9 | 0.397 | B | 10.1 | 0.410 | + 0.013 V/C |
| # 6 Lakeview Blvd/Hillside Dr | B | 10.1 | 0.042 | B | 10.1 | 0.042 | + 0.027 D/V |
| # 7 Lakeview Blvd/Canyon Blvd | B | 14.9 | 0.264 | C | 15.3 | 0.275 | + 0.428 D/V |

Mammoth Hillside(11-8-05)

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

Intersection #1 Minaret Rd/Main St-Lake Mary Rd

Cycle (sec): 50 Critical Vol./Cap.(X): 1.020
Loss Time (sec): 12 Average Delay (sec/veh): 43.4
Optimal Cycle: 102 Level Of Service: D

| Street Name: | Minaret Rd | | | | | | Main St-Lake Mary Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 1 | 0 1 | 2 | 0 0 | 1 0 | 1 | 0 2 | 0 1 | 1 | 0 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 122 | 101 | 104 | 536 | 253 | 126 | 72 | 460 | 192 | 83 | 316 | 103 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 122 | 101 | 104 | 536 | 253 | 126 | 72 | 460 | 192 | 83 | 316 | 103 |
| Added Vol: | 123 | 89 | 2 | 59 | 93 | 61 | 55 | 95 | 105 | 5 | 115 | 78 |
| PasserByVol: | 0 | 7 | 0 | 10 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| Initial Fut: | 245 | 197 | 106 | 605 | 349 | 187 | 127 | 555 | 297 | 88 | 431 | 203 |
| User Adj: | 1.00 | 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: | 258 | 207 | 112 | 637 | 367 | 197 | 134 | 584 | 313 | 93 | 454 | 214 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 258 | 207 | 112 | 637 | 367 | 197 | 134 | 584 | 313 | 93 | 454 | 214 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 258 | 207 | 112 | 637 | 367 | 197 | 134 | 584 | 313 | 93 | 454 | 214 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 1.00 | 0.85 | 0.92 | 0.95 | 0.95 | 0.95 | 0.95 | 0.85 | 0.95 | 0.95 | 0.85 |
| Lanes: | 1.00 | 1.00 | 1.00 | 2.00 | 0.65 | 0.35 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1805 | 1900 | 1615 | 3502 | 1173 | 628 | 1805 | 3610 | 1615 | 1805 | 3610 | 1615 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.14 | 0.11 | 0.07 | 0.18 | 0.31 | 0.31 | 0.07 | 0.16 | 0.19 | 0.05 | 0.13 | 0.13 |
| Crit Moves: | **** | | | | | **** | | | **** | | **** | |
| Green/Cycle: | 0.14 | 0.14 | 0.14 | 0.31 | 0.31 | 0.31 | 0.19 | 0.19 | 0.19 | 0.12 | 0.12 | 0.43 |
| Volume/Cap: | 1.02 | 0.78 | 0.49 | 0.59 | 1.02 | 1.02 | 0.39 | 0.85 | 1.02 | 0.42 | 1.02 | 0.31 |
| Delay/Veh: | 83.4 | 34.4 | 21.6 | 15.6 | 60.8 | 60.8 | 18.5 | 29.7 | 76.9 | 21.5 | 69.8 | 9.6 |
| 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: | 83.4 | 34.4 | 21.6 | 15.6 | 60.8 | 60.8 | 18.5 | 29.7 | 76.9 | 21.5 | 69.8 | 9.6 |
| LOS by Move: | F | C | C | B | E | E | B | C | E | C | E | A |
| HCM2kAvgQ: | 10 | 5 | 2 | 5 | 17 | 17 | 2 | 8 | 11 | 2 | 9 | 2 |

Note: Queue reported is the number of cars per lane.





Mammoth Hillside(11-8-05)

Level Of Service Computation Report
FHWA Roundabout Method (Future Volume Alternative)

Intersection #2 Minaret Rd/Forest Trail

Average Delay (sec/veh): 12.1 Level Of Service: B

| Street Name: | Minaret Rd | | | | | | Forest Trail | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Yield Sign | | | Yield Sign | | | Yield Sign | | | Yield Sign | | |
| Lanes: | 1 | | | 1 | | | 1 | | | 1 | | |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 246 | 81 | 2 | 1 | 442 | 178 | 78 | 54 | 265 | 1 | 17 | 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: | 246 | 81 | 2 | 1 | 442 | 178 | 78 | 54 | 265 | 1 | 17 | 0 |
| Added Vol: | 0 | 76 | 67 | 16 | 111 | 0 | 0 | 0 | 0 | 29 | 0 | 7 |
| PasserByVol: | 3 | 6 | 0 | 0 | 14 | 0 | 0 | 0 | 7 | 0 | 0 | 0 |
| Initial Fut: | 249 | 163 | 69 | 17 | 567 | 178 | 78 | 54 | 272 | 30 | 17 | 7 |
| User Adj: | 1.00 | 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: | 277 | 181 | 77 | 19 | 630 | 198 | 87 | 60 | 302 | 33 | 19 | 8 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 277 | 181 | 77 | 19 | 630 | 198 | 87 | 60 | 302 | 33 | 19 | 8 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 277 | 181 | 77 | 19 | 630 | 198 | 87 | 60 | 302 | 33 | 19 | 8 |
| PCE Module: | | | | | | | | | | | | |
| AutoPCE: | 277 | 181 | 77 | 19 | 630 | 198 | 87 | 60 | 302 | 33 | 19 | 8 |
| TruckPCE: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ComboPCE: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| BicyclePCE: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AdjVolume: | 277 | 181 | 77 | 19 | 630 | 198 | 87 | 60 | 302 | 33 | 19 | 8 |
| Delay Module: >> Time Period: 0.25 hours << | | | | | | | | | | | | |
| CircVolume: | 166 | | | 329 | | | 682 | | | 544 | | |
| MaxVolume: | 1111 | | | 1022 | | | 832 | | | 906 | | |
| PedVolume: | 0 | | | 0 | | | 0 | | | 0 | | |
| AdjMaxVol: | 1111 | | | 1022 | | | 832 | | | 906 | | |
| ApproachVol: | 534 | | | 847 | | | 449 | | | 60 | | |
| ApproachV/C: | 0.48 | | | 0.83 | | | 0.54 | | | 0.07 | | |
| ApproachDel: | 6.2 | | | 17.8 | | | 9.3 | | | 4.3 | | |
| ApproachLOS: | A | | | C | | | A | | | A | | |
| Queue: | 2.7 | | | 9.9 | | | 3.3 | | | 0.2 | | |

Mammoth Hillside(11-8-05)

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

Intersection #3 Canyon Blvd/Lake Mary Rd

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cycle (sec): | 50 | | | Critical Vol./Cap.(X): | | | 0.700 | | | | | | | | |
| Loss Time (sec): | 12 | | | Average Delay (sec/veh): | | | 12.1 | | | | | | | | |
| Optimal Cycle: | 49 | | | Level Of Service: | | | B | | | | | | | | |
| Street Name: | Canyon Blvd | | | | | | Lake Mary Rd | | | | | | | | |
| 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 | | | Permitted | | | Permitted | | | | | |
| Rights: | Include | | | Include | | | Include | | | Include | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | |
| Lanes: | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1! | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | | |
| Volume Module: | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 327 | 0 | 18 | 12 | 352 | 0 | 0 | 334 | 307 | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Initial Bse: | 0 | 0 | 0 | 327 | 0 | 18 | 12 | 352 | 0 | 0 | 334 | 307 | | | |
| Added Vol: | 0 | 0 | 0 | 188 | 0 | 21 | 27 | 46 | 0 | 0 | 42 | 243 | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Initial Fut: | 0 | 0 | 0 | 515 | 0 | 39 | 39 | 398 | 0 | 0 | 376 | 550 | | | |
| User Adj: | 1.00 | 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 | 0 | 0 | 542 | 0 | 41 | 41 | 419 | 0 | 0 | 396 | 579 | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Reduced Vol: | 0 | 0 | 0 | 542 | 0 | 41 | 41 | 419 | 0 | 0 | 396 | 579 | | | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| FinalVolume: | 0 | 0 | 0 | 542 | 0 | 41 | 41 | 419 | 0 | 0 | 396 | 579 | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 0.51 | 1.00 | 1.00 | 1.00 | 1.00 | 0.85 | | | |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.87 | 0.00 | 0.13 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | | | |
| Final Sat.: | 0 | 0 | 0 | 3360 | 0 | 237 | 969 | 1900 | 0 | 0 | 1900 | 1615 | | | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.16 | 0.00 | 0.17 | 0.04 | 0.22 | 0.00 | 0.00 | 0.21 | 0.36 | | | |
| Crit Moves: | | | | | | **** | | | | | | **** | | | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.25 | 0.51 | 0.51 | 0.00 | 0.00 | 0.51 | 0.51 | | | |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.65 | 0.00 | 0.70 | 0.08 | 0.43 | 0.00 | 0.00 | 0.41 | 0.70 | | | |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 18.6 | 0.0 | 19.8 | 6.3 | 7.9 | 0.0 | 0.0 | 7.8 | 12.0 | | | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 18.6 | 0.0 | 19.8 | 6.3 | 7.9 | 0.0 | 0.0 | 7.8 | 12.0 | | | |
| LOS by Move: | A | A | A | B | A | B | A | A | A | A | A | B | | | |
| HCM2kAvgQ: | 0 | 0 | 0 | 5 | 0 | 6 | 0 | 4 | 0 | 0 | 4 | 8 | | | |

Note: Queue reported is the number of cars per lane.





Mammoth Hillside(11-8-05)

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

Intersection #4 Lakeview Blvd/Lake Mary Rd

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Delay (sec/veh): | 30.4 | | | Worst Case Level Of Service: F[ 68.4] | | | | | | | | | | | |
| Street Name: | Lakeview Blvd | | | | | | Lake Mary Rd | | | | | | | | |
| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1! | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | | |
| Volume Module: | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 294 | 0 | 174 | 116 | 56 | 0 | 0 | 120 | 213 | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Initial Bse: | 0 | 0 | 0 | 294 | 0 | 174 | 116 | 56 | 0 | 0 | 120 | 213 | | | |
| Added Vol: | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 62 | 0 | 0 | 50 | 13 | | | |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Initial Fut: | 0 | 0 | 0 | 305 | 0 | 174 | 116 | 118 | 0 | 0 | 170 | 226 | | | |
| User Adj: | 1.00 | 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 | 0 | 0 | 339 | 0 | 193 | 129 | 131 | 0 | 0 | 189 | 251 | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| FinalVolume: | 0 | 0 | 0 | 339 | 0 | 193 | 129 | 131 | 0 | 0 | 189 | 251 | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | 6.4 | 6.5 | 6.2 | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | |
| FollowUpTim: | xxxxx | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | |
| Capacity Module: | | | | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | 578 | 578 | 189 | 440 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | |
| Potent Cap.: | xxxx | xxxx | xxxxx | 481 | 430 | 858 | 1131 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | |
| Move Cap.: | xxxx | xxxx | xxxxx | 435 | 375 | 858 | 1131 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | |
| Volume/Cap: | xxxx | xxxx | xxxx | 0.78 | 0.00 | 0.23 | 0.11 | xxxx | xxxx | xxxx | xxxx | xxxx | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.4 | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 8.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | |
| LOS by Move: | * | * | * | * | * | * | A | * | * | * | * | * | | | |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | 530 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | 14.3 | xxxxx | 0.4 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | 68.4 | xxxxx | 8.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | |
| Shared LOS: | * | * | * | * | F | * | A | * | * | * | * | * | | | |
| ApproachDel: | xxxxxx | | | 68.4 | | | xxxxxx | | | xxxxxx | | | | | |
| ApproachLOS: | * | | | F | | | * | | | * | | | | | |

Note: Queue reported is the number of cars per lane.

Mammoth Hillside(11-8-05)

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

Intersection #5 Canyon Blvd/Hillside Dr

Cycle (sec): 100 Critical Vol./Cap.(X): 0.410
Loss Time (sec): 0 Average Delay (sec/veh): 10.1
Optimal Cycle: 0 Level Of Service: B

| Street Name: | Canyon Blvd | | | | | | Hillside Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | Stop Sign | | | Stop Sign | | |
| 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 | 0 | 1! 0 | 0 | 0 | 1! 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 15 | 173 | 136 | 10 | 275 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 15 | 173 | 136 | 10 | 275 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| Added Vol: | 0 | 9 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 15 | 182 | 136 | 10 | 285 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 15 | 182 | 136 | 10 | 285 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 15 | 182 | 136 | 10 | 285 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 15 | 182 | 136 | 10 | 285 | 10 | 10 | 10 | 12 | 60 | 10 | 20 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.04 | 0.55 | 0.41 | 0.03 | 0.94 | 0.03 | 0.31 | 0.31 | 0.38 | 0.67 | 0.11 | 0.22 |
| Final Sat.: | 37 | 444 | 332 | 25 | 720 | 25 | 191 | 191 | 229 | 412 | 69 | 137 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.41 | 0.41 | 0.41 | 0.40 | 0.40 | 0.40 | 0.05 | 0.05 | 0.05 | 0.15 | 0.15 | 0.15 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Delay/Veh: | 10.2 | 10.2 | 10.2 | 10.4 | 10.4 | 10.4 | 8.5 | 8.5 | 8.5 | 9.1 | 9.1 | 9.1 |
| 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 |
| AdjDel/Veh: | 10.2 | 10.2 | 10.2 | 10.4 | 10.4 | 10.4 | 8.5 | 8.5 | 8.5 | 9.1 | 9.1 | 9.1 |
| LOS by Move: | B | B | B | B | B | B | A | A | A | A | A | A |
| ApproachDel: | 10.2 | | | 10.4 | | | 8.5 | | | 9.1 | | |
| Delay Adj: | 1.00 | | | 1.00 | | | 1.00 | | | 1.00 | | |
| ApprAdjDel: | 10.2 | | | 10.4 | | | 8.5 | | | 9.1 | | |
| LOS by Appr: | B | | | B | | | A | | | A | | |
| AllWayAvgQ: | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |

Note: Queue reported is the number of cars per lane.





Mammoth Hillside(11-8-05)

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

Intersection #6 Lakeview Blvd/Hillside Dr

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B[ 10.1]

| Street Name: | Lakeview Blvd | | | | | | Hillside Dr | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 1 0 | 0 | 1 | 0 0 | 0 | 0 | 0 0 | 0 | 0 | 1! 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 139 | 26 | 6 | 108 | 0 | 0 | 0 | 0 | 30 | 0 | 5 |
| Growth Adj: | 1.00 | 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 | 139 | 26 | 6 | 108 | 0 | 0 | 0 | 0 | 30 | 0 | 5 |
| Added Vol: | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 141 | 26 | 6 | 110 | 0 | 0 | 0 | 0 | 30 | 0 | 5 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 141 | 26 | 6 | 110 | 0 | 0 | 0 | 0 | 30 | 0 | 5 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 141 | 26 | 6 | 110 | 0 | 0 | 0 | 0 | 30 | 0 | 5 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.4 | 6.5 | 6.2 |
| FollowUpTim: | xxxxx | xxxx | xxxxx | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | 4.0 | 3.3 |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | 167 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 276 | 276 | 154 |
| Potent Cap.: | xxxx | xxxx | xxxxx | 1423 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 718 | 635 | 897 |
| Move Cap.: | xxxx | xxxx | xxxxx | 1423 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 716 | 632 | 897 |
| Volume/Cap: | xxxx | xxxx | xxxx | 0.00 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.04 | 0.00 | 0.01 |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | 7.5 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | A | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | 737 | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | 0.0 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 0.1 | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | 7.5 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 10.1 | xxxxx |
| Shared LOS: | * | * | * | A | * | * | * | * | * | * | B | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | xxxxxx | | | 10.1 | | |
| ApproachLOS: | * | | | * | | | * | | | B | | |

Note: Queue reported is the number of cars per lane.

Mammoth Hillside(11-8-05)

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

Intersection #7 Lakeview Blvd/Canyon Blvd

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: C[ 15.3]

| Street Name: | Lakeview Blvd | | | | | | Canyon Blvd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 0 1! 0 | | 0 | 0 0 0 0 | | 0 | 0 0 0 1 | | 0 | 0 1 0 0 | | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 130 | 0 | 14 | 0 | 0 | 0 | 0 | 281 | 94 | 20 | 183 | 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: | 130 | 0 | 14 | 0 | 0 | 0 | 0 | 281 | 94 | 20 | 183 | 0 |
| Added Vol: | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 2 | 0 | 9 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 132 | 0 | 14 | 0 | 0 | 0 | 0 | 291 | 96 | 20 | 192 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 132 | 0 | 14 | 0 | 0 | 0 | 0 | 291 | 96 | 20 | 192 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 132 | 0 | 14 | 0 | 0 | 0 | 0 | 291 | 96 | 20 | 192 | 0 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | 6.4 | 6.5 | 6.2 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 4.1 | xxxx | xxxxx |
| FollowUpTim: | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 2.2 | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | 571 | 571 | 339 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 387 | xxxx | xxxxx |
| Potent Cap.: | 486 | 434 | 708 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1183 | xxxx | xxxxx |
| Move Cap.: | 479 | 426 | 708 | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 1183 | xxxx | xxxxx |
| Volume/Cap: | 0.28 | 0.00 | 0.02 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | 0.02 | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 0.1 | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 8.1 | xxxx | xxxxx |
| LOS by Move: | * | * | * | * | * | * | * | * | * | A | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | 495 | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | 1.2 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 0.1 | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | 15.3 | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 8.1 | xxxx | xxxxx |
| Shared LOS: | * | C | * | * | * | * | * | * | * | A | * | * |
| ApproachDel: | | 15.3 | | xxxxxx | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | | C | | * | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.





Mammoth Hillside(11-8-05)

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

Intersection #4 Lakeview Blvd/Lake Mary Rd

Average Delay (sec/veh): 12.7 Worst Case Level Of Service: D[ 27.3]

| Street Name: | Lakeview Blvd | | | | | | Lake Mary Rd | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 0 0 0 | | 0 | 1 0 0 0 | | 1 | 0 1 0 0 | | 0 | 0 0 1 0 | | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 294 | 0 | 174 | 116 | 56 | 0 | 0 | 120 | 213 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 294 | 0 | 174 | 116 | 56 | 0 | 0 | 120 | 213 |
| Added Vol: | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 62 | 0 | 0 | 50 | 13 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 0 | 0 | 305 | 0 | 174 | 116 | 118 | 0 | 0 | 170 | 226 |
| User Adj: | 1.00 | 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 | 0 | 0 | 339 | 0 | 193 | 129 | 131 | 0 | 0 | 189 | 251 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 0 | 0 | 0 | 339 | 0 | 193 | 129 | 131 | 0 | 0 | 189 | 251 |
| Critical Gap Module: | | | | | | | | | | | | |
| Critical Gp: | xxxxx | xxxx | xxxxx | 6.4 | xxxx | 6.2 | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| FollowUpTim: | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Capacity Module: | | | | | | | | | | | | |
| Cnflict Vol: | xxxx | xxxx | xxxxx | 578 | xxxx | 189 | 440 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Potent Cap.: | xxxx | xxxx | xxxxx | 481 | xxxx | 858 | 1131 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Move Cap.: | xxxx | xxxx | xxxxx | 435 | xxxx | 858 | 1131 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Volume/Cap: | xxxx | xxxx | xxxx | 0.78 | xxxx | 0.23 | 0.11 | xxxx | xxxx | xxxx | xxxx | xxxx |
| Level Of Service Module: | | | | | | | | | | | | |
| 2Way95thQ: | xxxx | xxxx | xxxxx | 6.8 | xxxx | 0.9 | 0.4 | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | xxxxx | xxxx | xxxxx | 37.0 | xxxx | 10.4 | 8.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | * | * | * | E | * | B | A | * | * | * | * | * |
| Movement: | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT | LT - | LTR - | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 0.4 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 8.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | A | * | * | * | * | * |
| ApproachDel: | xxxxxx | | | 27.3 | | | xxxxxx | | | xxxxxx | | |
| ApproachLOS: | * | | | D | | | * | | | * | | |

Note: Queue reported is the number of cars per lane.