

Memorandum

To: CHAIR AND COMMISSIONERS

CTC Meeting: February 26-27, 2003

Reference No.: 2.1a.(7)
Action Item

From: ROBERT L. GARCIA
Chief Financial Officer

Prepared by: Jim Nicholas
Division Chief
Transportation Programming

Ref: **STIP AMENDMENT 02S-045 ACTION**

Action Update: The Action Item has been revised from the notice to include an attachment from the Town of Mammoth Lakes Public Works Department summarizing the Meridian Boulevard Rehabilitation project.

The Mono County Local Transportation Commission (LTC) is requesting the California Transportation Commission (Commission) to approve this State Transportation Improvement Program (STIP) amendment. This amendment was noticed at the December 2002 Commission meeting. At the time of Notice, the Commission had questions and asked Mono County LTC to respond to their questions when the item is presented for Action in February 2003.

The Town of Mammoth Lakes proposes to revise the scope for the Meridian Boulevard Project (PPNO 2505) in Mono County. The proposed scope will reduce the existing width of roadway from 64 feet to 45 feet, reduce the number of lanes from four lanes to two lanes plus a center turn lane, and replace the traffic signal with a roundabout at Meridian and Minaret Road. This is a revenue neutral programming action.

RECOMMENDATION:

The Department of Transportation (Department) recommends that Mono County LTC provide, at the time of Action, details on the proposal, explain why reducing the capacity of Meridian Boulevard is a reasonable expenditure of STIP funds and what impacts the project could have on other transportation facilities in the area.

BACKGROUND:

The Meridian Boulevard project was originally programmed in the 1998 STIP to rehabilitate the existing four-lane roadway. In 2000, the Town of Mammoth Lakes adopted a Subsequent Program Environmental Impact Report (EIR) for the North Village Specific Plan Amendment. The EIR identified reductions in overall traffic for Meridian Boulevard based on reduced number of housing build out for the village and the current no-build scenario for redevelopment. Due to the reduced traffic counts, the Town’s Circulation Element adopted by the Town Council recommends that Meridian Boulevard be reduced from four lanes to three lanes, with the third lane as a center turn lane.

Traffic analysis also indicates that the existing traffic signal at the intersection of Meridian and Minaret Road is not needed based on future build out traffic warrants. A report prepared by the Town’s transportation consultant finds that a roundabout is more appropriate for traffic flow through this intersection. Therefore, the Town of Mammoth Lakes would like to replace the existing traffic signal with a roundabout and reduce the curb-to-curb width of Meridian Boulevard from 64 feet to 45 feet to accommodate three lanes of traffic.

The Mono County Local Transportation Commission (LTC) requests that the project scope be reduced as indicated above to reflect the changes in LTC Policy for more Traffic Calming and Context Sensitive Solutions to solve transportation issues.

RESOLUTION:

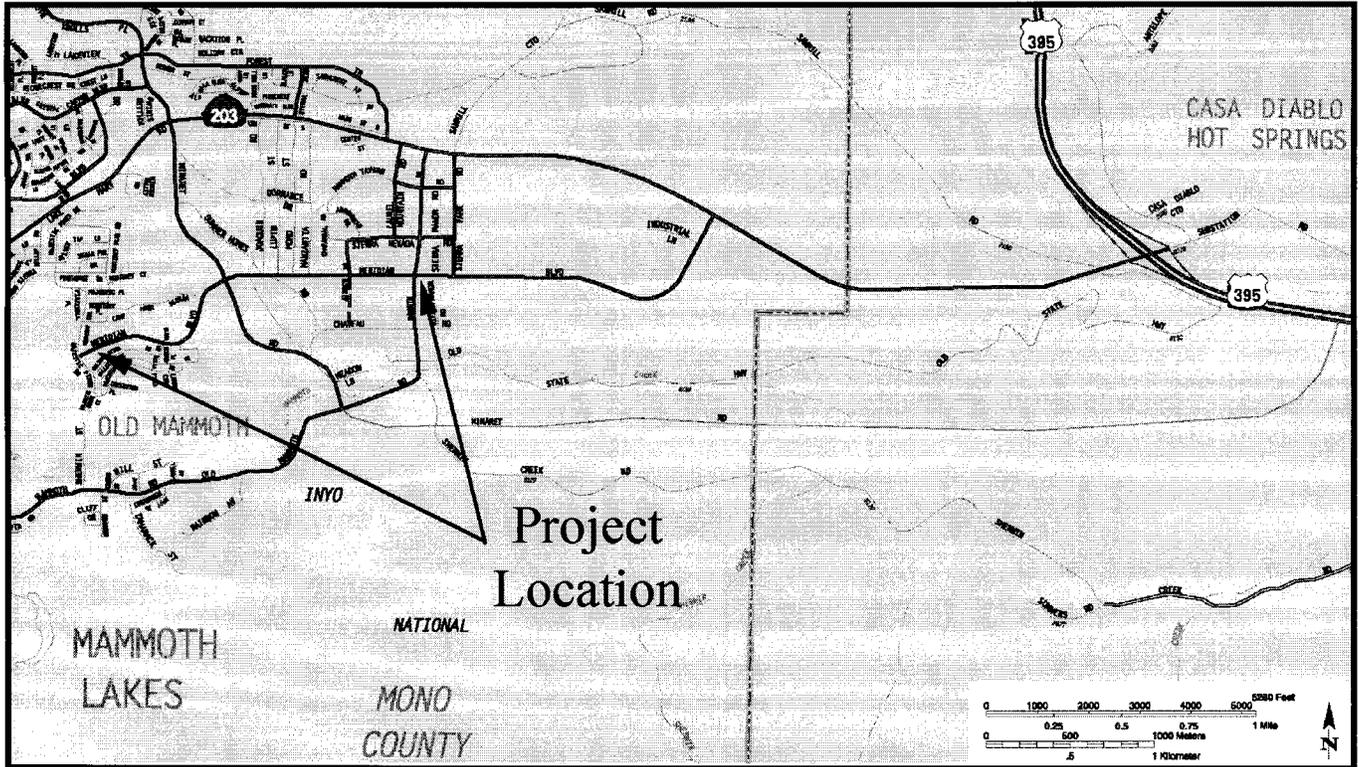
Resolved, that the California Transportation Commission (Commission) revise the 2002 State Transportation Improvement Program (STIP) at the end of the 30-day notice period as follows:

Revises:

County	CT District	PPNO	EA	Element	Const. Year	PM Back	PM Ahead	Route/Corridor					
Mono	09	2505	955048	LA	2002-03	--	--	--					
Implementing Agency:		PA&ED	Town of Mammoth Lakes	AB 3090	PS&E	Town of Mammoth Lakes	AB 3090						
(by component)		R/W	Town of Mammoth Lakes	AB 3090	CON	Town of Mammoth Lakes	AB 3090						
RTPA/CTC :		Mono County Local Transportation Commission (LTC)											
Project Title:		Meridian Blvd. Rehabilitation Reconstruction											
Location:		Sierra Park Blvd. to Majestic Pines Drive (Eagle Portal). Meridian Blvd. from Old Mammoth Road to Lodestar Drive. Project is located south of Route 203 within the corporate limits of Mammoth Lakes.											
Description:		Rehabilitate existing roadway surface, remove all cross street gutters, replace storm drains where needed, replace failed curbs, sidewalk, and shoulders. Reconstruct roadway by reducing curb-to-curb width from 64 feet to 45 feet, reduce the number of lanes on Meridian from four lanes to three lanes with the third lane a center turn lane, and replace/rehabilitate drainage structures, sidewalks, curb and gutter where needed. In addition, remove the traffic signal at the intersection of Meridian/Minaret Road and replace with a roundabout.											
(DOLLARS IN THOUSANDS)													
FUND	TOTAL	Project Totals by Fiscal Year						Project Totals by Component					
		Prior	02/03	03/04	04/05	05/06	06/07	PA&ED (E & P)	PS&E (Design)	R/W SUP	CON SUP	R/W	CON
STIP Programming – RIP													
Existing	\$2,667	\$138	\$2,529					\$138					\$2,529
Change													
Proposed	\$2,667	\$138	\$2,529					\$138					\$2,529

STIP AMENDMENT 02S-045

Location Map



09-Mono
PPNO 2505

Location: In the Town of Mammoth Lakes,
Meridian Blvd. from Old Mammoth
Road to Lodestar Drive.

Description: Reduce the number of lanes on
Meridian from four lanes to three lanes
with the third lane a center turn lane,
and replace traffic signal at
Meridian/Minaret Road with a
roundabout.



ATTACHMENT



**PUBLIC WORKS
DEPARTMENT**

*P. O. Box 1609 Mammoth Lakes, CA 93546
(760) 934-8989 Fax (760) 934-8608*

January 15, 2003

Mr. Jim Nicholas, Chief
Transportation Programming
Caltrans
P.O. Box 942873
Sacramento, CA 94273-0001

SUBJECT: Meridian Boulevard Rehabilitation Scope Amendment

Dear Mr. Nicholas:

I want to present to you an overview, history, and description of the Meridian Boulevard (Blvd) scope amendment prior to the February 27, 2003 CTC meeting. I'm confident that you will have a better understanding and knowledge of the project and its importance to the Town of Mammoth Lakes.

OVERVIEW:

The Town of Mammoth Lakes is committed to creating a multi-modal, integrated transit community by establishing a year-round transit system, an interlinked sidewalk, paved trail and on-street bike lane network, strategic parking facilities, and reliable air service that fit together and work for guests and residents alike for the Town of Mammoth Lakes. The Town's vision statement and General Plan reflect this approach to multi-modal transportation and a copy of the Vision Statement is attached for your use. The Vision Statement discourages the expansion of arterial, collector, and local roadways and expansion of these roadways shall be accomplished if other modes to transportation are not capable of serving the community in a convenient and reliable manner. We also feel that the Vision of the Town is consistent with the State's definition of context sensitive, providing a multi-modal approach to transportation.

For Meridian Blvd, we are structuring this project specifically to meet the vision of the Town with bus pullouts, adequate year-round sidewalks, on-street bike paths, concentrated parking near a ski portal (Juniper Springs), and an efficient functioning roundabout replacing a traffic

signal at the Minaret/Meridian Boulevard intersection. All of these features meet the goals and objectives of the Town's Vision Statement and General Plan.

HISTORY:

In the 1960's, Meridian was a four-lane dirt road and was planned for connection to State Route 203 (Lake Mary Road), which was scheduled to transverse the Sierra over Mammoth Pass to Fresno. Because of the Wilderness Act, the State of California abandoned Lake Mary Road as a trans-sierra route and moved 203 to Minaret Road, which provides access to the Mammoth Mountain Ski Area's main lodge. In the 1970's, Mono County (Mammoth was unincorporated) adopted a plan for the Mammoth area that called for a Village at the Meridian/Minaret intersection. This Village consisted of:

- 600 residential units
- 62,000 square feet of commercial
- Recreational facilities, including tennis, pools, ice center, etc.

Based on this Village, Meridian was recommended to be five lanes (four through lanes and a center turn lane) with a capacity of 22,000 vehicles per day (vpd). Mono County built Meridian with four lanes based on this Village plan. After incorporation in 1984, the Town abandoned this concept and the land is now designated for public use.

PROJECT DESCRIPTION:

The Meridian Boulevard project reduces the cross section of the road from its current width of 64 feet to 45 feet. The Town wishes to make the following improvements:

- Two travel lanes plus a center turn lane
- Sidewalks open year-round
- On-street bike lanes
- On-street parking for skiers at Juniper Springs Lodge
- Bus pullouts
- Curb and gutter improvements
- Design speed of 25 miles per hour (mph).
- Roundabout in place of the current traffic signal

These improvements will reduce the current maintenance costs by reducing the cross-section. These costs include snow removal, pavement maintenance, pavement striping, and traffic signal maintenance. We estimate the Town will save \$30,000 a year in maintenance costs that can be used for other purposes. Additional land behind the sidewalk will be used for snow storage.

On-street shoulder parking will be eliminated. Because of snow removal, the Town does not allow on-street parking between November and April. We only allow parking in the summer on Meridian Blvd. However, in one case the Town Code allows on-street skier parking for Juniper Springs on a temporary basis, until Mammoth Mountain Ski Area creates a new

parking facility and base lodge area. We intend to relocate all skier parking near Juniper Springs Lodge as separate diagonal parking.

Peak Saturday trips for Meridian in 2011 are projected to be 11,000 vehicles per day (vpd). District 9 was concerned that by reducing the lanes from four to three, traffic would divert to 203. The Town prepared an intersection traffic report to determine impacts to 203. All intersection turning movements from Meridian to side streets maintained a Level of Service "C" or better, indicating that reducing the number of lanes will not impact State Route 203. A copy of the report is attached for your review.

We believe this project meets and exceeds all criteria for context sensitive solutions to transportation problems, providing bus pullouts, sidewalks, bike lanes, a roundabout and parking. We welcome you to visit Mammoth Lakes and see for yourself facilities built and under construction that meets the Town's vision for context sensitive solutions.

Again, I hope the CTC will look favorably on February 27, 2003 to our request for a scope change for Meridian Blvd. If you have any further questions, call me at (760) 934-8989, extension 257.

Sincerely,



R. Steve Black
Public Works Director

RSB:MAJ:mj

Attachments:

Town Vision Statement
Meridian Village Plan
Intersection Analysis

CC: Thomas Hallenback, Caltrans 9
Craig Holste, Caltrans 9
Steve Julian, Town Manager
Caltrans Chrono File
Project Files

Appendix "A"

Town of Mammoth Lakes

Vision Statement

December, 1992

**Reformatted with
minor revisions
May, 1998**

Town of Mammoth Lakes Vision Statement

Mammoth Lakes will be a high quality, destination resort community with year-round recreation opportunities. The natural environment will be the dominant feature in all public policy and development issues, and will coexist with a high quality resort center. The community will be stable, strong, safe, and family oriented. There will be high quality local educational and training opportunities, and a wide range of facilities to support recreational and cultural pursuits. Automobile usage will be minimized due to the efficient pedestrian and transit system.

The following narrative describes what the Mammoth Lakes community has stated it hopes to become in the future.

Maintaining a Strong Community

While residents of Mammoth Lakes appreciate the natural wonder of the area, they make their homes and raise their families here because of the cohesive small town atmosphere and the opportunities for quality education, recreation, and social interaction.

Comprehensive water, energy and environmental policies have enabled development to occur within the carrying capacity of our resources, with careful attention to retaining a high quality of life for residents and visitors. Levels of service for fire, police and health care remain consistently high in conjunction with continued growth.

All residential developments have tried to protect steeper slopes and natural vegetation. Design and site planning techniques promote the preservation of open space and limit amounts of impervious surfaces. Development standards limit mass, guide development on ridges, bluffs and hillsides, and encourage building materials that complement the surrounding natural environment.

The mix of single family homes, apartments and condominiums provide a variety of housing types for families and residents of all income levels throughout the community. High-density neighborhoods are concentrated around activity areas, with lower densities occurring at the periphery of Town.

Of the neighborhoods in the community, Old Mammoth is more rural in nature and densities are lower. Properties along Mammoth Creek and the Bluffs have been especially attentive to design and site planning to protect the view-shed within which they are located. Most condominiums serve visitors and second homeowners who wish to enjoy a more relaxed stay in Mammoth Lakes. Older condominiums have been refurbished improving community aesthetics and contributing to the overall resident housing stock.

Low-income housing and employee housing developments are located throughout town. All sizes and styles of units have been developed to meet the needs of families, singles, and unrelated households. The resorts have provided much of their own housing on-site to accommodate their employees and families they generate. Likewise,

affordable housing has been developed in the center of town to take advantage of the proximity to services, employment and transit. Single-room-occupancies and small apartments have been built within commercial developments in the resorts to bring people closer to their place of employment and provide some vitality to the districts.

The service commercial center is located near Meridian Blvd. and Old Mammoth Road. It contains the most service-oriented business for residents and visitors. Offices, grocery and clothing stores, restaurants, theaters and small businesses are found here. The schools and hospital are nearby. The area is the center of our community's daily lives.

While emphasizing pedestrian circulation, transit serves the district and public and private parking is available near every business. Community activities are frequently held here because of the constant flow of people who come to take care of local needs. Shopping centers have been upgraded with new facades and landscaping. Lodging and residential areas are located between and around the commercial center, providing housing and accommodations near transit facilities and commercial services.

Industrial uses have been relocated from the commercial districts in the community to the Industrial/Business Park at the east of Town. Cottage industries relating to the recreation uses in the area are located here as well as construction-related and heavy commercial uses. Design standards require some screening of uses from surrounding areas.

The Town has continued to expand recreational and educational facilities, commensurate with growth and based upon the resources of the natural environment. New educational facilities have been developed with gymnasiums, learning facilities and recreational facilities available for community use in the South Gateway. Neighborhood parks with easy pedestrian access have been established to complement the community parks. Networks of trails connect most parks, neighborhoods, and the commercial/employment centers.

A recycling center has been provided to meet the needs of the community. Convenient government service is available to citizens.

A variety of art and cultural facilities are available. The indoor/outdoor theater is heavily used for all types of events. Education of and respect for the natural environment is promoted through interpretive exhibits, nature trails, stream viewing chambers, and other public facilities.

Ice skating, golfing, swimming and outdoor activities of all types are available, whether provided by the private sector through dedications or by the public sector through available financing alternatives.

Building a Successful, High Quality Resort

Mammoth Lakes is the hub of recreational opportunities in the Eastern Sierra. Along with the diverse experiences available within the Town, major local and regional recreational attractions are within easy access. Fishing and hiking are also available nearby.

Recreation is the economic engine. Through promotion of recreation activities the town has achieved greater economic stability. While further development to increase recreation options is recognized, it must be in accordance with our setting, natural resources and economic means. An emphasis on the quality of each experience and how it affects the capacity of the natural environment are carefully evaluated.

Mammoth Mountain Ski Area is one of the best ski experiences anywhere. The ski area has expanded to a capacity of 24,000 skiers, which are served from five base lodges. Access to the ski area facilities has been improved with in-town gondolas, and from public transportation which delivers people to any one of the five base lodges quickly and economically from anywhere in town.

Sherwin/Snowcreek Ski Area serves up to 8000 skiers from a base lodge within Snowcreek Resort. While primarily a ski area, the resort provides golfing, tennis, ice skating, and other recreational pursuits.

The Lakes Basin is a heavily used fishing, Nordic skiing, snowmobiling area. Camping, climbing and boating are all experiences pursued by both avid and first-time outdoor enthusiasts. Through a sustained fishing enhancement program and special events, Mammoth Lakes has become a premier trophy trout area.

Throughout the community there are both public and private recreation facilities. Gymnasiums, tennis courts, swimming pools, softball and soccer

fields and other community oriented recreation opportunities are plentiful. Mammoth Lakes has provided the visitor with a selection of four full service resorts, each with its own identity and character, in addition to Mammoth Mountain's accommodations and services. North Village, Sierra Star, Juniper Ridge and Snowcreek provide for over 4000 lodging units combined. Housing and shopping opportunities, as well as numerous amenities are available in each resort making it convenient for visitors, employees and residents to enjoy their stay without the need for services beyond the resort. Easy pedestrian access among all facilities and amenities in the resort make each resort an attraction unto itself. The architecture and sense of scale are different in each to reflect the surroundings of the immediate area.

North Village (Gondola Village) is a bustling, tightly knit pedestrian resort containing many hotels, inns, restaurants and shops. There are many restaurants and shops oriented around a central plaza. Community and cultural activities are planned throughout the year on the plaza and in the meeting halls. The gondola to Mammoth Mountain leaves from the plaza area making North Village a premier winter destination. Parking is understructure and housing is provided on-site for those people wishing to reside closer to work and play.

Lodestar (Sierra Star) is a true four-season resort. Full-service hotels, condominiums, single-family housing and shopping areas front onto lakes and a golf course. Tall trees frame the lakes and hotels offering a secluded outdoor experience. Again, the car is subordinate

to the pedestrian. Golfing, ice-skating, hiking, bicycling, tennis, swimming, strolling and cross-country skiing are activities enjoyed at Sierra Star. Commercial establishments are sufficient to serve Sierra Star and are not community oriented. Conference facilities provide strong activity in the fall and spring.

Juniper Ridge has one of the most spectacular settings in Town. Because it is in such a prominent viewshed, its presence is more subdued, with architecture and scale which blends into the surroundings. A large resort lodge and small supporting shops are the mainstay of this resort. Some amenities are available, including ski-in/ski-out accommodations. Housing is available on-site for renters and owner occupants. Juniper Ridge is a major skier destination, due to the upgraded gondola and base lodge facilities, and the public transit system.

Snowcreek Resort offers a variety of recreational experiences. Skiing, golfing, ice-skating, bicycling, hiking, tennis, and fishing are available. Full-service hotels, an athletic club, conference facilities, inns, shopping centers and restaurants, are found at the base of the Sherwin Mountains in a "village" setting. Condominiums and single family homes about the golf course and the National Forest. Meadows and creeks are preserved and walking or bicycling through the village is commonplace.

Mammoth Mountain has its own high quality accommodations and recreational experiences to offer. It also provides access to the Mountain Bike Park and the Minaret Vista/Devil's Postpile. It

has the unique setting of being surrounded by forests and lakes, yet is close enough to Town to take advantage of the experiences being offered by the Community.

The Main Street Commercial Area is an equally important commercial district. As the primary entrance to Town, it is the focus of Town activities. The Main Street commercial area caters to visitor activities focusing around a visitor's center. Small shops, restaurants, cafes and courtyards front along the pedestrian promenade. People enjoy this "town center" because of the variety of plazas and gathering places available to meet friends and experience the small town atmosphere. Design of buildings and landscaping is compatible, forming an identifiable town center. Public parking is available, but separated from the pedestrian experience. Connection to the commercial uses on the north side of Main Street is safe and convenient. The town's transit routes connect here so access is available to and from all parts of the community. Motels, small chalets and residences surround the "town center".

There are two gateways into town. Until one reaches town from Highway 395 there is only the natural landscape to enjoy. The gateway to Town is marked by the USFS Visitors Center and campground, inviting landscaping and lighting, medians separating east and westbound travel lanes in the highway, pathways for bicycling and walking and the Town center with its "quaint" and cohesive shops and restaurants.

Entering town from Meridian Blvd. one passes by the educational facilities and the well-screened Industrial/Business

Park on the way to the commercial business district.

The resorts have progressed only when market conditions and financing dictate and when water, transportation, drainage and other community services are in place, or are developed concurrent with each resort development. No faction of the community has been forced to sacrifice to allow another element to proceed.

The town has a consistent image and character reflecting the alpine and historic setting. New developments have been designed using the vernacular of the immediate surroundings. Likewise, older developments have been renovated to form a cohesive design throughout the commercial districts.

Traffic flow in the community is variable based upon visitor arrival and departure hours. Once visitors and residents reach their destination, automobile travel is subordinate to transit, pedestrian or cycling.

The comprehensive transportation system includes bus transportation, strategically located parking facilities, reliable air transportation, interconnecting paths and bikeways and improved sidewalks.

Expansion of arterial, collector and local roadways has been discouraged and is only accomplished when other modes of transportation are not capable of serving the community in a convenient and reliable manner.

Travel is improved to all major destination areas, and visitors and residents find that private automobile use is unnecessary in most cases.

The airport has been expanded to provide convenient and reliable air service from major market areas. Terminal and runway improvements have made Mammoth Lakes a featured destination for worldwide travelers. Convenient and economical shuttle service delivers visitors to their selected accommodations.

Maintaining a Sustainable Environment

The environment surrounding Mammoth Lakes is the dominant feature in all public policy and development issues. Not only does the environment provide the resources for our recreation and tourism based economy, it places constraints on development through weather, available private lands and the carrying capacity of the air, water, and wildlife resources.

Protecting environmentally and visually sensitive areas from urbanization has retained the alpine character of Mammoth Lakes. Compact development has occurred leaving the National Forest as the backdrop to the community. Open space has been preserved in areas of wetlands, streams and significant slopes and rock outcroppings within and outside the developed area of Town. Stands of trees remain allowing the forest to penetrate into the community. Vistas have been maintained and buildings are subdued in deference to the landscape.

Fish and wildlife share the resources with the community. Water resources have been protected by using primarily groundwater for public use, leaving surface water for recreation and wildlife.

Conservation has been the norm in construction techniques and in domestic habits. Newfound geothermal resources have been used efficiently for heating and recreational purposes.

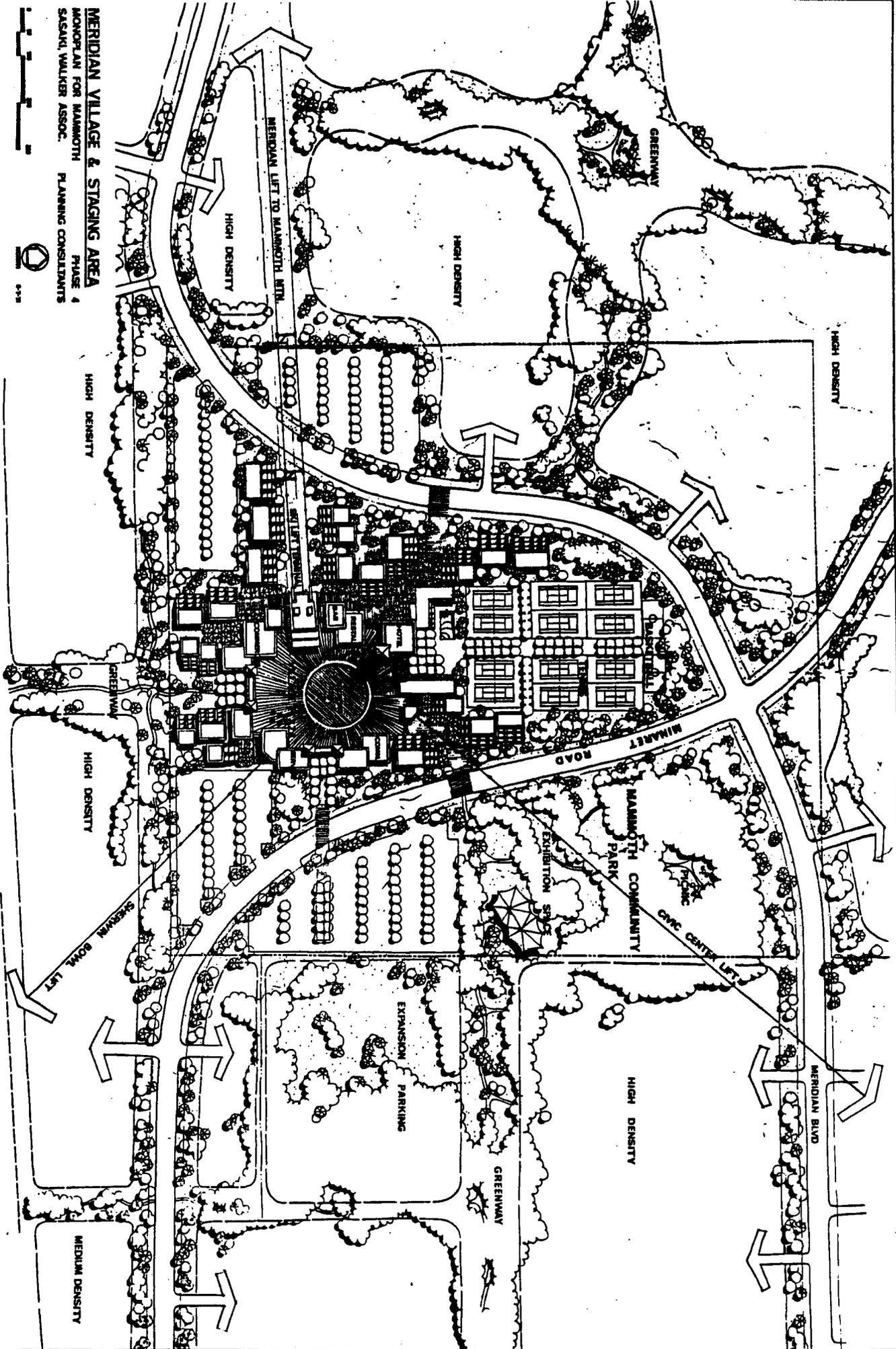
growth and expansion are available through support from the Chamber of Commerce and the Town.

Landscaping has taken many forms. Drought tolerant, native or adaptive species are most abundant, accented by small lawns, and gardens. All properties have either retained the natural landscaping or have revegetated to form a cohesive appearance. Erosion control and a high mountain image have benefited from the landscaping efforts of the community.

Restrictions on the use of natural resources are commensurate with community values. Tree management has preserved many healthy trees within private developments. New, native trees have been planted, where appropriate, promising a healthy forest for the future. The community's acceptance of water conserving devices and drought tolerant and native vegetation has reduced the need for water use restrictions.

Achieving Financial Sustainability

Recreation and visitor services are the mainstay of the economy. New business is primarily recreation or resort oriented. Cottage industries, education and non-tourist dependent business have created year-round employment. Commercial and industrial development has occurred commensurate with the population, which can support such business ventures. Opportunities to make a sustainable living are numerous. Residents are able to obtain job skills through local employment and training opportunities. Opportunity for business



MERIDIAN VILLAGE & STAGING AREA
 MASTER PLAN FOR MANNINGHTH
 PHASE 4
 SASAKI, WALKER ASSOC. PLANNING CONSULTANTS





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December 3, 2002

Mark Jackson
Town of Mammoth Lakes
PO Box 1609
Mammoth Lakes, CA 93546

RE: Transit Financial Planning Workshop

Dear Mr. Jackson:

Per your request, LSC Transportation Consultants, Inc. has conducted a traffic study of the impacts which conversion of Meridian Boulevard from the existing 4-lane cross-section to a 3-lane cross-section would have on traffic volumes on State Route 403 (Main Street) in Mammoth Lakes, California. With the 3-lane cross-section, a central center left-turn lane would be provided along Meridian Boulevard, the existing signal at Old Mammoth Boulevard would remain, and the existing signal at Minaret Road would be replaced by a modern single-lane roundabout. This letter presents the background to the analysis, presents the existing and future traffic volumes, presents the analysis of level of service, and finally presents the conclusions of the analysis.

Background

Meridian Boulevard is a minor arterial roadway, with a total length of approximately 2.4 miles. For most of its length it follows an east-west alignment, approximately 0.5 miles to the south of SR 203. As a number of north-south roadways connect these two east-west roadways, drivers in Mammoth Lakes can choose either SR 203 or Meridian Boulevard for east-west travel. As a result, traffic delays on one of these routes could potentially result in a diversion of traffic to the other route. The specific question to be addressed in this analysis is whether there is a potential for future traffic congestion along Meridian Boulevard to result in traffic diversion onto SR 203.

The key segment of Meridian Boulevard with regards to this question lies between Minaret Road on the west and Sierra Park Road on the east. This is the segment along which traffic volumes are greatest, and where the existing street network provides opportunities for diverting traffic. Traffic control on the roadway is currently provided by signals at Old Mammoth Road and at Meridian Boulevard. All other intersections along this key segments are controlled by Stop signs on the side street (north and south) approaches only.

Forecast of Future Traffic Volumes

Traffic volume forecasts for intersections along Meridian Boulevard were developed in the following steps:

- ❑ Town staff conducted hour-long traffic counts between 2 PM and 6 PM at a total of 16 intersections along Minaret between Majestic Pines (South) and Sierra Park Road, on Saturday, February 2, 2002. This date is considered to represent average winter Saturday conditions, per the Town's adopted roadway design standards. These counts are shown in Table A, attached
- ❑ As the counts were not necessarily conducted during the peak-hour, it was necessary to factor the observed counts to represent peak-hour conditions. The hourly traffic count data collected along Meridian Boulevard by RKJK, Inc. was used to factor the various counts to represent the peak-hour of traffic activity. The resulting estimated peak-hour counts are presented in Table B.
- ❑ Traffic volume forecasts for the Meridian/Old Mammoth, Meridian/Azimuth and Meridian/Minaret intersections were identified, as presented in the *Intrawest Master Plan Traffic Impact Analysis* (LSA Associates, revised June 22, 2000), and the forecast for the Sierra Star Parkway / Meridian intersection was identified in *Mammoth Master Transportation Plan Modeling Support* (RKJK and Associates, Inc., 1998). Note that the LSA study assumes full buildout of the Town's Master Plan land uses (including full development of Mammoth Mountain Ski Area). As there are no through movements on local roadways, this analysis therefore represents the maximum potential future traffic volumes on local roadways.
- ❑ The growth in through traffic volumes along Meridian identified in these forecasts was then used to increase the through volumes at the other intersections. Minor traffic increases over observed values were also estimated for the Mormon Church driveway. In addition, weekday through traffic volumes on Meridian at Sierra Park were increased by 50 percent to reflect future growth in weekday traffic (approximately half the growth in Saturday, reflecting the relatively low proportion of growth expected to occur on weekdays).
- ❑ Traffic volumes were then balanced by adding traffic where needed to ensure that volumes departing one intersection matched volumes arriving at the adjacent intersections. As volumes were adjusted with additions only, this results in conservatively realistically high estimates of future traffic volumes. Future balanced estimates of intersection traffic volumes at buildout of the Town are presented in Table C.

Level of Service Analysis

The appropriate analysis methodology for this roadway segment is to consider the level of service of the individual intersections, rather than the arterial roadway as a whole. The Highway Capacity

Manual 2000 specifies that “*Study lengths shorter than 1 mile should be analyzed as individual intersections and the LOS assessed according to individual intersection criteria.* (page 10-7). As a result, the intersection LOS analysis methodologies presented in the Highway Capacity Manual methodologies (as reflected in the Highway Capacity Software package) and in the SIDRA roundabout analysis software package were applied, as discussed below.

Minaret / Meridian Intersection

The Town has indicated that a modern roundabout design should be pursued at this intersection. An analysis of the future operation of this intersection at buildout of the Town Master Plan (with redevelopment) for the typical winter PM peak-hour indicates that a roundabout is feasible and appropriate. Using the SIDRA software package, an appropriately-designed roundabout would operate at LOS B, with an average delay of 19 seconds – a relatively good level of operation that exceeds that which could be provided with a typical traffic signal unless the roadway approaches were widened. Reflecting the relatively well-balanced volumes on the various approaches, all individual movements will be provided with LOS C or better. The SIDRA output is provided, attached.

Old Mammoth / Meridian Intersection

In keeping with the conclusions of the Old Mammoth Road design study, it is assumed that this intersection will remain signalized. Using the average winter PM peak-hour traffic volumes estimated for Town Master Plan buildout (with redevelopment), this intersection was analyzed using the *Highway Capacity Software* package. With the following recommended configuration, an LOS of C can be attained: on all approaches, a single left-turn, single through, and single right-turn lane should be provided. Average delay for the intersection is calculated to be 32.3 seconds. The HCS output is provided, attached.

Other Intersections Along Meridian Boulevard

All other intersections along the key central segment of Meridian Boulevard are controlled by Stop signs on the side street (north and south) approaches. As the presence of a continual center left-turn lane on Meridian Boulevard will ensure that left-turns off of this roadway would have a minimal impact on through movements, and as through movements have the right-of-way at these intersections, LOS A conditions would prevail for the through movements and there is no potential for significant delays to through movements at these intersections.

Conclusions

Even at full buildout of the Town’s General Plan land use during a busy winter Saturday peak-hour, Meridian Boulevard with the reduced 3-lane cross-section would provide through movements on Meridian with relatively good LOS C conditions at the Old Mammoth and Minaret Road

intersections and LOS A conditions at all other intersections. There would therefore be no significant delay to traffic movements along Meridian Boulevard. As a result, there would be no potential for diversion of traffic volumes onto SR 203.



Thank you for this opportunity to assist the Town in this matter. Please contact me with any questions or comments that you or others might have regarding our analysis.

Respectfully Submitted,

LSC Transportation Consultants, Inc.

by  PE
Gordon R. Shaw, AICP, PE

