

# 10 TRANSPORTATION AND CIRCULATION

## 10.1 INTRODUCTION

This chapter describes existing transportation conditions within the Placer County Tahoe Basin Area Plan area, presents the regulations applicable to the Plan area, and evaluates the potential transportation impacts that could result from implementation of the Placer County Tahoe Basin Area Plan and the Tahoe City Lodge. As discussed in Chapter 4, “Approach to Environmental Analysis,” this analysis is provided to fully document the environmental effects of the four Area Plan and lodge alternatives. The broad geography and long timeframe to which the Area Plan applies and the policy-oriented nature of its guidance is such that the EIR/EIS is prepared at a programmatic level, i.e., a more general analysis of each resource area with a level of detail and degree of specificity commensurate with the overall planning level of the Area Plan. Similarly, because the Kings Beach design concept lacks sufficient detail for definitive impact analysis, that portion of the project is also evaluated in a programmatic fashion. The proposed Tahoe City Lodge represents a project that contains a greater level of detail and specificity such that a project-level analysis is included in this chapter. Cumulative transportation impacts are presented in Chapter 19, “Cumulative Impacts.”

The primary issues raised during scoping that pertain to transportation included:

- ▲ roadway and intersection level of service;
- ▲ impact on regional vehicle miles traveled;
- ▲ impacts on transit, bicycle, and pedestrian modes; and
- ▲ parking impacts of the Tahoe City Lodge.

The methods of analysis used in this chapter are generally consistent with standard traffic engineering practice, using standard Highway Capacity Manual 2010 analysis methodologies, as well as trip generation procedures and data provided by the Institute of Transportation Engineers. Information on existing and forecasted transportation conditions is based on recent traffic counts, Caltrans traffic volumes, the TRPA TransCad transportation model, a review of existing and proposed facilities, and traffic forecasts from plans and projects adjacent to the Tahoe Basin.

Because the Area Plan does not propose site-specific changes to ingress or egress routes, or travel route alignments, or parking configurations; site-specific safety hazards and site-specific parking impacts associated with the Area Plan are not evaluated. The Area Plan and lodge alternatives would not propose new airports, rail lines, or waterborne facilities; nor would they alter travel demand to the extent that they would result in changes to existing air, rail, or waterborne travel patterns. Because the alternatives would not affect air, rail, or waterborne travel patterns, the effects on these transportation systems are not evaluated. The effects of the alternatives on emergency access are evaluated in Chapter 18, “Hazards, Hazardous Materials, and Risk of Upset.”

## 10.2 REGULATORY SETTING

Numerous transportation-related standards and criteria apply to the Plan area. Key transportation regulations and standards are summarized below.

### 10.2.1 Tahoe Regional Planning Agency

#### LAKE TAHOE REGIONAL PLAN

Chapter 3, Transportation Element, of the Regional Plan provides goals and policies that are intended to establish a safe, efficient, and integrated transportation system that provides quality mobility options for all

sectors of the population, supports the region's economic base, enhances quality of life, and maximizes opportunities for environmental benefits. The Transportation Element includes transportation goals, policies, and implementation measures that address multiple aspects of transportation planning and interact to create a successful multi-modal transportation system. TRPA's Goals and Policies sets standards for vehicle "level of service (LOS)." A more detailed definition of LOS is provided below. The TRPA Goals and Policies require that peak period traffic flow not exceed the following:

- ▲ LOS C on rural recreational/scenic roads;
- ▲ LOS D on rural developed area roads;
- ▲ LOS D on urban developed area roads;
- ▲ LOS D for signalized intersections; and
- ▲ LOS E may be acceptable during peak periods in urban areas, not to exceed 4 hours per day.

These vehicle LOS standards may be exceeded when provisions for multi-modal amenities and/or services (such as transit, bicycling, and walking facilities) are adequate to provide mobility for users at a level that is proportional to the project-generated traffic in relation to overall traffic conditions on affected roadways. While the Tahoe Regional Planning Compact looks to "reduce the dependency on the private automobile" there are currently no adopted requirements or standards regarding the quality of service of other travel modes (i.e.; transit, biking, or walking) that could potentially reduce the demand on the roadway system. While TRPA does not have specific standards for roundabouts, the TRPA LOS standards for signalized intersections are assumed to apply to the roundabout worst movement. TRPA has no standards specific to unsignalized intersections.

## REGIONAL TRANSPORTATION PLAN

The Tahoe Metropolitan Planning Organization's (TMPO's) *Regional Transportation Plan: Mobility 2035* (TRPA and TMPO 2012) is Lake Tahoe's blueprint for a regional transportation system that enhances the quality of life in the Tahoe region, promotes sustainability, and offers improved mobility options for people and goods. Important objectives of the plan are to reduce the overall environmental impact of transportation in the region, create walkable, vibrant communities, and provide real alternatives to driving. Mobility 2035 presents 14 goals that are consistent with regional and federal requirements that focus on a reduction in dependency on the automobile and give preference to projects that increase the capacity of the region's transportation system through public transportation projects and programs.

## ENVIRONMENTAL THRESHOLD CARRYING CAPACITIES

Two threshold standards pertaining to air quality are set forth in terms of basin-wide vehicle miles traveled (VMT). These thresholds are applicable to transportation analyses. VMT is a computed value, which correlates to the extent of an area's reliance on the private automobile for trip making. The TRPA TransCAD Travel Demand Model provides a forecast of the number of trips made on the highway network and the distance between trip origins and destinations for each trip purpose. Total VMT is the sum of all these trip lengths.

Two air quality management threshold standards that relate to transportation facilities in the region: (1) the reduction in VMT by 10 percent from 1981 base year conditions to reduce nitrate deposition; and (2) the reduction in VMT by 10 percent from 1981 base year conditions to improve visibility. The VMT threshold is periodically updated whenever TRPA updates its transportation model. The most recent VMT threshold was calculated at 2,030,938 for a peak summer day, based on the 2014 model update. This differs slightly from the VMT threshold of 2,067,600 which was documented in the 2012 Regional Plan Update EIS. Since 2002, traffic volumes in the Tahoe Basin have generally continued an overall declining trend, indicating that the basin-wide VMT threshold is currently being achieved. Based on the most recent modeling completed in support of the 2016 Regional Transportation Plan, the existing VMT in the Tahoe Basin over the course of a peak summer weekday is approximately 1,937,070 (TRPA, 2016).

## CODE OF ORDINANCES

Transportation and mobility requirements for Area Plans are included in Code Section 13.5, Contents of Area Plans. Changes in daily vehicle trip ends (DVTE) as a result of a change in project operation are discussed in Section 65.2, Traffic and Air Quality Mitigation Program, of the TRPA Code. Temporary activities are governed by Section 2.3.6, and construction projects are required to comply with TRPA's standard conditions of approval.

### 10.2.2 State

#### CALTRANS TRANSPORTATION CORRIDOR CONCEPT REPORT

The California Department of Transportation (Caltrans) prepares Transportation Corridor Concept Reports for each highway in the state system which include a "20 Year Concept LOS" for each segment. Reflecting forecast conditions and the limited opportunities to expand capacity in the Tahoe Region, the most recent Transportation Corridor Concept Reports (2012) for the three state highways identify the following:

<u>Roadway</u>	<u>Segment</u>	<u>20-Year Concept LOS</u>
SR 28	All	E
SR 89	El Dorado County Line to SR 28	E
SR 89	SR 28 to Nevada County Line	E
SR 267	All	D

Although this report provides LOS standards for intersection and roadway operations, the standards set forth by the TRPA typically govern over the state standards for projects located within the Tahoe Basin, but any projects affecting a state highway are also subject to Caltrans review. Because the LOS standards set forth by the TRPA are more stringent, they are applied in this analysis.

### 10.2.3 Placer County

#### PLACER COUNTY GENERAL PLAN

The circulation element of the Placer County General Plan provides guidance to help achieve efficiency and economy in the transportation system, and to facilitate the planning required to maintain and expand the existing transportation network. Goal 3.A of the General Plan is to provide for the long range planning and development of the county's roadway system. To meet this goal, the county manages its roadway system to maintain a LOS C on all roadways except within 0.5 mile of state highways, where the LOS standard is LOS D. The LOS standard in the county's Congestion Management Plan (CMP) for signalized intersections located along state highways is "E." If the worst movement on an unsignalized intersection in Placer County exceeds LOS standards, a "Peak-Hour" signal warrant analysis, consistent with the Manual of Uniform Traffic Control Devices (MUTCD), is required. If the intersection attains minimum signal warrant volumes, mitigation is required.

Placer County may allow exceptions to its LOS standards where it finds that the improvements or other measures required to achieve the LOS standards is unacceptable based on established criteria. In allowing any exceptions to established LOS standards, the county shall consider the following factors:

- ▲ The number of hours per day that the intersection or roadway segment would operate the conditions worse than the standard.
- ▲ The ability of the required improvement to significantly reduce peak-hour delay and improve traffic operations.
- ▲ The right-of-way needs and the physical impacts on surrounding properties.

- ▲ The visual aesthetics of the required improvement and its impact on community identity and character.
- ▲ Environmental impacts including air quality and noise impacts.
- ▲ Construction and right-of-way acquisition costs.
- ▲ The impacts on general safety.
- ▲ The impacts of the required construction phasing and traffic maintenance.
- ▲ The impacts on quality of life as perceived by residents.
- ▲ Consideration of other environmental, social or economic factors on which the county may base findings to allow exceedance of the standards.

Exceptions to the standards will only be allowed after all feasible measures and options are explored, including alternative forms of transportation. Where TRPA LOS standards are more stringent than county standards, the TRPA standards apply.

## 10.3 ENVIRONMENTAL SETTING

This section describes the existing and planned transportation facilities and existing traffic conditions in the Plan area.

### 10.3.1 Existing Roadways and Study Intersections

The region is served by a network of state, Placer County, Forest Service, State Parks and private roadways. Due to topographical constraints, the overall network is very limited with few alternate routes.

#### STATE HIGHWAYS

The primary through roadways in the area consists of the three state highways, as described below.

**State Route (SR) 28** is the major roadway serving Lake Tahoe's North Shore. It provides a link between Incline Village, Nevada and Tahoe City. SR 28 is typically a two-lane facility with one lane of travel in each direction. A center two-way left-turn lane is provided in Tahoe City, Tahoe Vista, and Kings Beach. The posted speed limit along SR 28 varies from 25 to 45 miles per hour through the Plan area.

**SR 267** is a two-lane highway running in a general northwest-southeast alignment between Interstate 80 in Truckee and SR 28 in Kings Beach. This highway consists of two travel lanes, with a speed limit of 55 miles per hour in the rural sections. It climbs almost 1,000 feet in elevation from Lake Tahoe to Brockway Summit.

**SR 89** serves the Truckee River Canyon and West Shore, as part of the overall route connecting Alpine County on the south with I-5 in Siskiyou County on the north. As the most direct all-weather road connecting the Tahoe area to I-80 and the Sacramento and San Francisco Bay areas, it carries the greatest traffic volumes into the North and West Shores of Lake Tahoe. It also provides access to Squaw Valley and Alpine Meadows. SR 89 is generally two lanes in width, with additional turn lanes at major intersections. Within the Plan area, the speed limit varies from 25 to 45 miles per hour.

**Traffic control** on State Highways in the Plan area includes stop signs and three traffic signals along SR 28 (at SR 89 in Tahoe City, at National Avenue in Tahoe Vista, and at SR 267 in Kings Beach), as well as two roundabouts in Kings Beach (at Bear Street and at Coon Street). In addition, a winter traffic management

program is operated in Tahoe City during afternoons on peak winter ski days, coning two east-bound through lanes and an eastbound right-turn lane to increase capacity and reduce congestion.

## COUNTY ROADWAYS

The majority of roadways in the Plan Area are owned and maintained by Placer County. Snow removal is an important element of county roadway activities. With the highest average snowfall of any county in the lower 48 states, Placer County's snow removal program ranks among the largest four in California.

## STUDY INTERSECTIONS

The study intersections below are included in this analysis, The study intersections were identified by Placer County and TRPA as the primary intersections that would be most likely to be affected by Area Plan provisions.

- ▲ SR 28/SR 89 (Tahoe City Wye intersection)
- ▲ SR 28/Mackinaw Road
- ▲ SR 28/Grove Street
- ▲ SR 28/SR 267
- ▲ SR 28/Bear Street
- ▲ SR 28/Coon Street

The existing lane configuration and traffic controls at these study intersections are illustrated in Exhibit 10-1.

### 10.3.2 Existing Traffic Volumes and LOS

#### EXISTING TRAFFIC VOLUME TRENDS

Traffic volume counts are regularly conducted by Caltrans. The available traffic counts on SR 28 for 2005 through 2014 (the most recent year available) throughout the Plan area were reviewed, and the results are illustrated in Appendix G. Based on the average daily volumes (ADTs) in the peak month of traffic activity (July or August), traffic volumes have generally declined in the Plan area since 2005, except at one of the two points in Kings Beach. The overall trend of declining traffic volumes pre-dates the beginning of the most recent recession in 2007, and is, therefore, not likely the result of cyclical economic changes. The ADT on SR 28 at a point on the top of Dollar Hill (just east of Tahoe City) for every day during the summer of 2015 was also reviewed, and the results are illustrated in Appendix G. The highest ADT at this location occurred in July. In addition, the variation in ADT by day of week was reviewed, and the results indicate the highest ADT typically occurred on Friday.

#### EXISTING INTERSECTION TRAFFIC VOLUMES

The existing intersection traffic volumes are based on traffic counts completed for this project, and counts performed within the last 5 years in support of other projects within the Plan area. Where multiple counts occurred at the same intersection, the higher traffic volumes are used. This approach is conservative because if existing traffic volumes are higher, then the addition of project-related traffic to those existing volumes will result in higher estimated traffic volumes and, therefore, relatively greater traffic impacts. Existing intersection traffic volumes are illustrated in Exhibit 10-2. Intersection PM peak-hour traffic volumes for busy summer conditions were drawn from the following sources:

- ▲ SR 28/Proposed Tahoe City Lodge Access – LSC traffic count conducted on July 21, 2015
- ▲ SR 89/SR 28 (Tahoe City Wye) – SR 89/Fanny Bridge Community Revitalization Project Draft EIR/EIS/EA

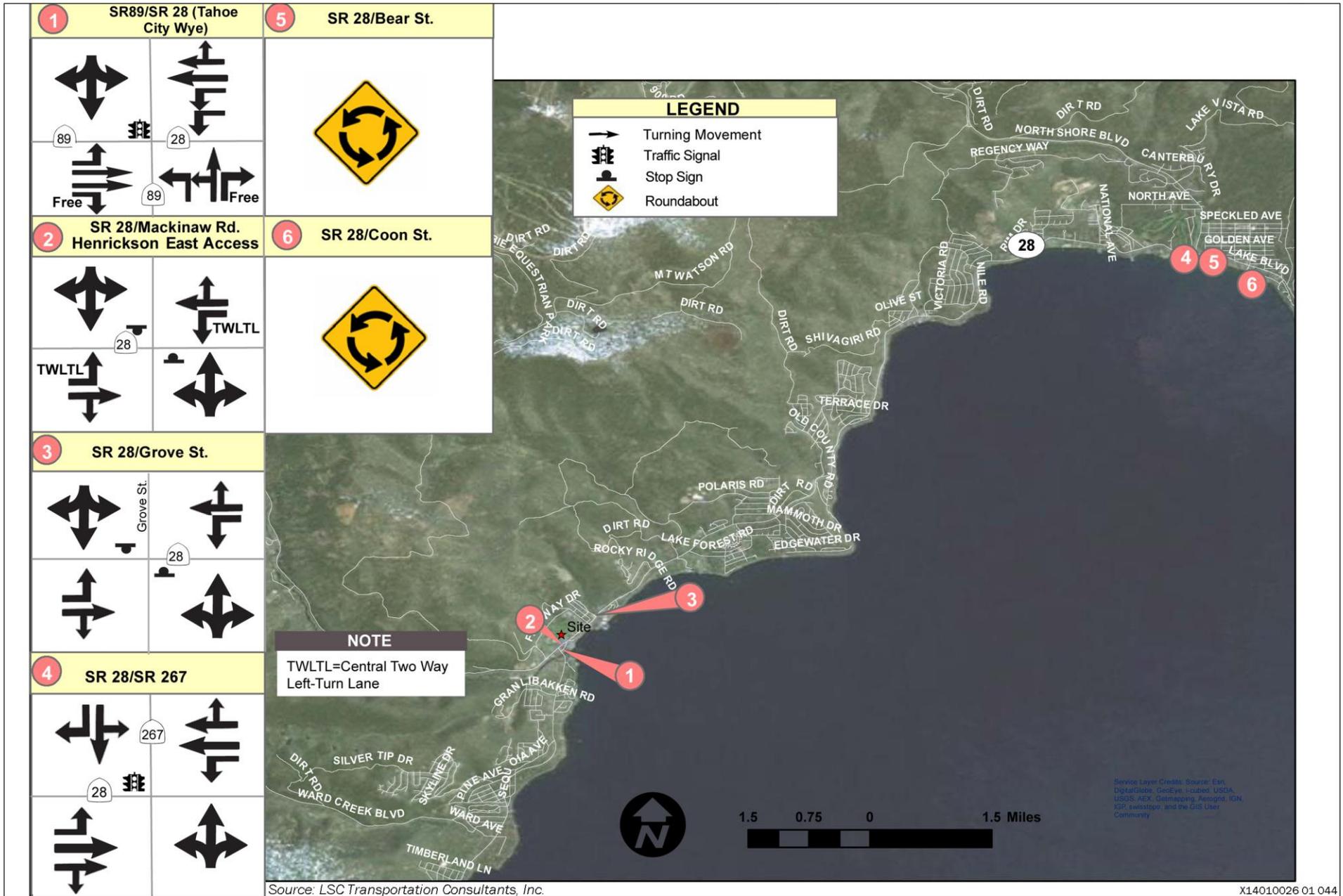


Exhibit 10-1

Existing Lane Configurations and Controls at Major Intersections



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Source: LSC Transportation Consultants, Inc.

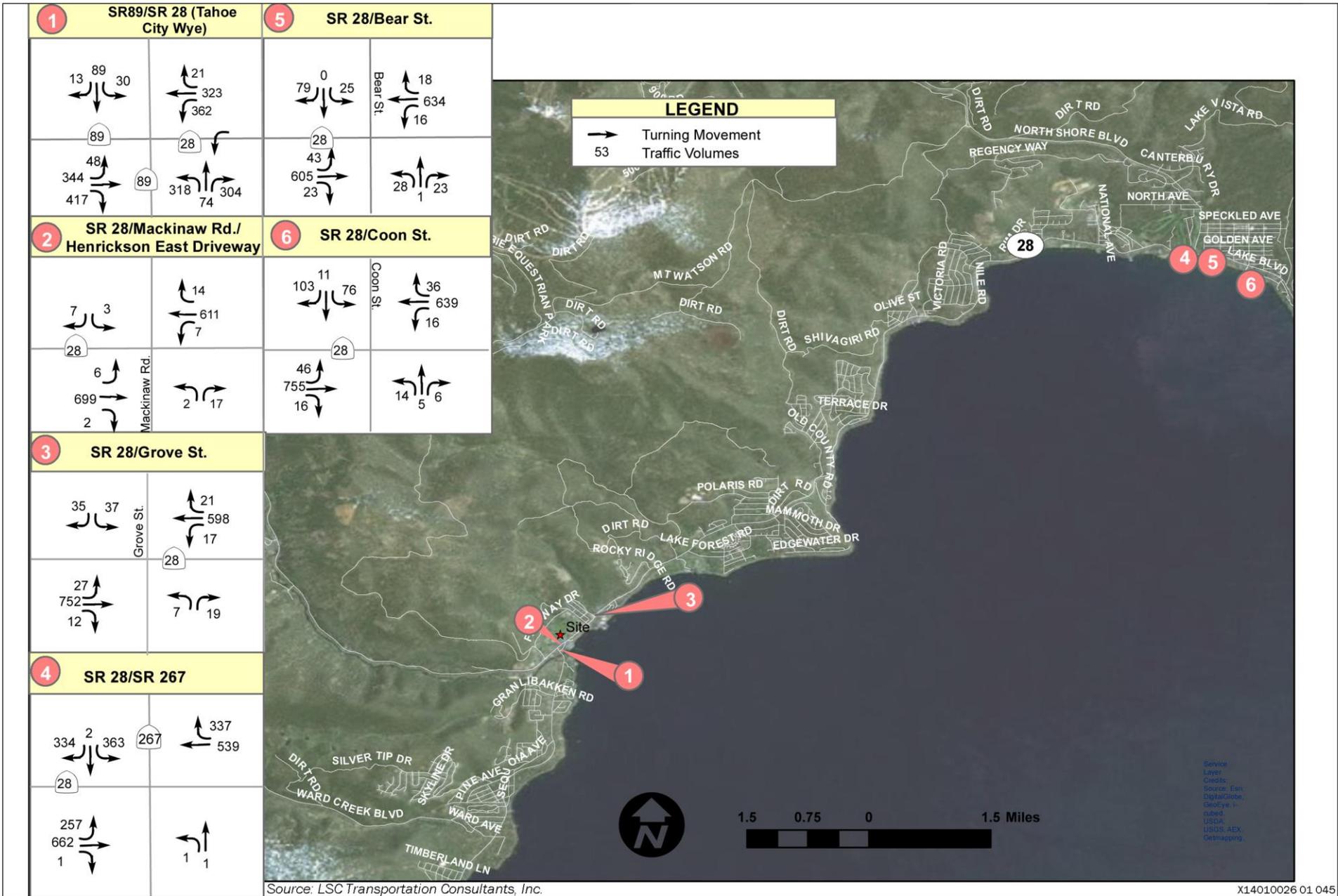


Exhibit 10-2

PM Peak Hour Volumes – Existing Conditions



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- ▲ SR 28/Mackinaw Road – LSC traffic count conducted on July 21, 2015
- ▲ SR 28/Grove Street – SR 89/Fanny Bridge Community Revitalization Project Draft EIR/EIS/EA
- ▲ SR 28/SR 267 – LSC traffic count conducted on August 1, 2014
- ▲ SR 28/Bear Street – LSC traffic count conducted on July 29, 2011
- ▲ SR 28/Coon Street – counts conducted on September 4, 2015 for the Kings Beach State Recreation Area General Plan Revision Project

## EXISTING INTERSECTION LEVEL OF SERVICE

The existing LOS at each study intersection is summarized in Table 10-1, and the LOS model output is included in Appendix G.

As shown in Table 10-1, the existing LOS F conditions at the SR 28/Grove Street intersection reflect the long delays for movements (particularly left turns) onto SR 28 at stop-sign-controlled intersections along the major highways. The other study intersections currently meet LOS standards.

**Table 10-1 Placer County Area Plan – Existing Intersection Level of Service Summary**

Intersection	Type of Control <sup>1</sup>	Existing Conditions		
		Delay (sec)	LOS	
SR 28 / SR 89 (TC "Wye") - With Fanny Bridge Project	Traffic Signal	21.1	C	
SR 28 / Mackinaw Rd	Stop-Control	15.2	C	
SR 28 / Grove Street	Stop-Control	227.3	F	
SR 28 / SR 267	Traffic Signal	31.8	C	
SR 28 / Bear Street	Roundabout	Worst Approach	10.5	B
		Total Intersection	9.9	A
SR 28 / Coon Street	Roundabout	Worst Approach	15.8	C
		Total Intersection (Average)	12.7	B

<sup>1</sup> LOS for signalized intersections is reported as average total intersection delay. LOS for stop-controlled and roundabout intersections is reported as worst movement delay.  
Source: LSC Transportation Consultants, Inc. 2016

## EXISTING ROADWAY TRAFFIC VOLUMES

The existing Peak Month Average Daily Traffic (ADT) volumes for segments of SR 89 and SR 28 in Tahoe City and Kings Beach are shown in Table 10-2. These are drawn from Caltrans 2014 traffic volume data. As shown, the highest ADT in Tahoe City (22,300) occurs on SR 89 immediately south of the Wye intersection, and the highest ADT on SR 28 (28,000) occurs in Kings Beach at a point between SR 267 and Bear Street.

For purposes of the roadway LOS analysis, peak-hour directional traffic volumes were estimated based upon the volumes at the adjacent study intersections, with the exception of the following segments, which are relatively far from the study intersections:

- ▲ SR 89 between Fanny Bridge and Sunnyside – The peak-hour traffic volumes for this roadway segment are based on the volumes provided in the SR 89/Fanny Bridge Community Revitalization Project DEIR/EIS/EA.

- SR 28 between Dollar Hill and Tahoe Vista – The peak-hour traffic volumes on this segment are based on hourly traffic volumes from a Caltrans permanent count station located at a point immediately east of Dollar Hill.

**Table 10-2 Placer Area Plan Existing Average Daily Traffic (ADT) Volumes for Select Segments of SR 89 and SR 28**

Segment		
SR 89	Between Mackinaw Rd and SR 28	22,300
SR 28	Between West Lake Blvd and Mackinaw Rd	16,900
SR 28	Between Mackinaw Rd and Grove St	16,900
SR 28	Between Grove St and Jackpine St	20,000
SR 28	Between Beach St and SR 267	21,300
SR 28	Between SR 267 and Bear St	28,000
SR 28	Between Bear St and Coon St	19,500
SR 28	Between Coon St and Fox St	18,000

Source: Caltrans 2014

The existing peak-hour roadway volumes by direction are presented in Table 10-3.

**Table 10-3 Existing Roadway LOS for Select Locations along SR 28, SR 89, and SR 267**

		Volume	LOS
SR 89, West of Tahoe City	Eastbound	809	D
	Westbound	654	D
SR 89, Granlibakken Road to Sunnyside	Northbound	533	D
	Southbound	746	D
SR 28, Between the Wye and Grove Street <sup>1</sup>	Eastbound	<b>791</b>	<b>F</b>
	Westbound	706	E
SR 28, Dollar Hill to Tahoe Vista	Eastbound	585	C
	Westbound	479	C
SR 28, East of SR 267 <sup>2</sup>	Eastbound	1,025	D
	Westbound	876	C
SR 267, North of SR 28	Northbound	595	D
	Southbound	699	D

**Bold** indicates that the LOS standard is exceeded. Note that a bold "E" indicates LOS E for 5 hours or more, which exceeds the TRPA LOS standard.

<sup>1</sup> Capacity for SR 28 in Tahoe City: eastbound 750 vehicles per hour; westbound 731 vehicles per hour, as estimated by LSC Transportation Consultants, Inc. as a part of the *Kings Beach Urban Improvement Project Traffic Study* (LSC 2007). The methodology used in developing these estimates is described in Appendix G.

<sup>2</sup> Capacity for SR 28 in Kings Beach: eastbound 1,241 vehicles per hour; westbound 1,171 vehicles per hour, as estimated by LSC Transportation Consultants, Inc. as a part of the *Kings Beach Urban Improvement Project Traffic Study* (LSC 2007). The methodology used in developing these estimates is described in Appendix G.

Source: LSC Transportation Consultants, Inc. 2016

## Existing Roadway Level of Service

Existing roadway LOS is shown in Table 10-3 for the following key roadway locations in the study area:

- SR 89 west of Tahoe City
- SR 89 between Granlibakken Road and Sunnyside (West Shore)

- ▲ SR 28 between the Wye and Grove Street (Tahoe City)
- ▲ SR 28 between Dollar Hill and Tahoe Vista
- ▲ SR 28 in Kings Beach east of SR 267
- ▲ SR 267 immediately north of SR 28

Roadway capacity for SR 28 through Tahoe City and Kings Beach was determined from traffic counts and an assessment of factors that limit roadway capacity in these areas, as described in Appendix G. As indicated in Table 10-3, all study roadway segments currently operate at LOS D or better, with the exception of SR 28 between the Wye and Grove Street in Tahoe City, which operates at LOS F in the eastbound direction.

During peak summer days (generally early July through mid-August) from approximately 10:00 a.m. to 4:00 p.m. drivers on SR 89 northbound and SR 28 in both directions through the Tahoe City core area experience substantial (20 minute or more) delays due to a combination of factors including pedestrian crossings, parking maneuvers, vehicular turning movements, and bicyclists. The factors having the greatest impacts on roadway capacity in Kings Beach are conflicts with driveway turning movements, pedestrians crossing the highway, and drivers searching for on-street parking spaces.

## Planned Major Roadway Projects

There are two planned projects that will modify the roadway network over the next few years:

- ▲ The Lakeside Project is a Caltrans project that will implement water quality improvements along SR 89 between Tahoe City and Tahoma. The project includes widening in key areas such as Sunnyside and Homewood to provide left turn lanes; and construction of a multi-purpose bicycle/pedestrian trail directly adjacent to the highway in the Homewood area that would link existing trail segments. The project is planned for completion in fall 2016.
- ▲ The SR 89/Fanny Bridge Community Revitalization Project will address existing traffic congestion and improve bicycle and pedestrian access in the Fanny Bridge area through a realignment of SR 89 to the west of the existing bridge. Construction is currently underway, and it is expected to be completed in 2017. The project is led by the Tahoe Transportation District. It will include a roundabout to replace the existing signal at the Tahoe City Wye.

### 10.3.3 Transit Network

As a tourist destination with a limited roadway network, public transit services are an important component of the transportation system in the Plan area. As discussed below, the region is served by a mix of public and private transit services.

#### TAHOE-TRUCKEE AREA REGIONAL TRANSIT

The Tahoe Area Regional Transit (TART) system is operated by the Placer County Department of Public Works and Facilities. Services are as follows:

- ▲ TART's "Main Line" route operates on SRs 28 and 89 along the northern and western shores of Lake Tahoe from Sugar Pine Point State Park in El Dorado County on the southwest to Incline Village, Nevada on the northeast. During the summer, half-hourly service is provided between Tahoe City and Incline Village, while hourly service is provided along the West Shore. During the winter and off-season, half-hourly service is provided between North Stateline and Incline Village and hourly service is provided for the remainder of the Main Line route.
- ▲ The SR 89 Route provides hourly service between Tahoe City and Truckee, via Squaw Valley, year-round.

- ▲ The SR 267 Route operates hourly between Truckee, Northstar Village, Kings Beach and Crystal Bay year-round.
- ▲ The Subsidized Taxi Service is provided to persons eligible under the Americans with Disability Act that cannot access the fixed route service. It is provided for all portions of eastern Placer County, through a contractor.

Throughout the year, TART service operates approximately from 6:00 a.m. to 6:45 p.m., seven days a week and 364 days per year (the exception being Christmas).

TART carries approximately 337,700 passenger-trips per year (LSC 2016). The largest proportion is carried on the Mainline Route (212,800) followed by the SR 89 Route (90,700) and the SR 267 Route (32,505). Ridership trends indicate a 13.3 percent reduction over the most recent five years, per the *Systems Plan Update for the Tahoe Truckee Area Regional Transit in Eastern Placer County* (LSC, 2016). The Tahoe City Transit Center, located along SR 89 just to the south of the Truckee River, provides a hub for all TART routes, the Emerald Bay Trolley, skier shuttles, and provides park-and-ride parking.

Area Plan Alternatives 1, 2 and 3 include policies committing Placer County to: (1) funding public transit to make it a viable transportation alternative; (2) implementing transit improvements described in the 2016 TART Service Plan; (3) implementing developer funding mechanisms (such as service area zones of benefit); and (4) linking increased transit services with increases in transit demand. The relevant Area Plan policies are listed below.

- ▲ **Policy T-P-26:** Working with Federal, State, Local Government and Private sector partners, secure adequate funding and implement the TART Systems Plans that transit is a viable transportation alternative within the service area.
- ▲ **Policy T-P-27:** The County shall require fair share funding contributions by new development subject to discretionary approval or redevelopment that increases density, overall square footage and/or occupancy load for implementation of transit services to meet future demand. On-site transit systems as well as off-site transit alternatives and park and ride facilities must be demonstrated to be a viable transportation alternative and result in vehicle trip reductions for each new development.
- ▲ **Policy TP-29:** On an annual basis, Placer County, in consultation with the Tahoe Regional Planning Agency, shall identify fiscal year priorities and develop an implementation strategy within current available funding to meet the overall priorities identified in the TART Systems Plan, including the following:
  - Winter 30 Minute Service on North Shore
  - Off Season Evening Service South of Squaw and Northstar
  - Winter 30 Minute Service South of Squaw and Northstar
  - Winter and Summer 30 Minute Service South of Squaw Valley and Northstar
  - Eliminate transit fares

## NORTH LAKE TAHOE EXPRESS

The North Lake Tahoe Express provides service between the Reno Tahoe International Airport and the North/West Shores of Lake Tahoe. Service is available year-round, from about 3:30 a.m. to 11:30 p.m. Three routes are operated: a Red Line serving Truckee, Squaw Valley, Tahoe City and the West Shore, a Green Line serving Truckee and Northstar, and a Blue Line serving Incline Village and Kings Beach/Tahoe Vista. Base fare is \$45 one way or \$85 round trip, with discounts for groups.

## NIGHT RIDER

Free night services are operated in both summer and winter, connecting Squaw Valley, the West Shore, the North Shore and Northstar. Service is operated every hour, as late as 2:00 a.m., and funded by the Truckee North Tahoe Transportation Management Association.

## EMERALD BAY TROLLEY

A free shuttle service is operated from the Tahoe City Transit Center to the South Y Transit Center in South Lake Tahoe. The shuttle serves recreational activity centers along the West Shore, and provides a link between North Shore and South Shore Trolley services. Funded by the U.S. Forest Service (USFS), trolleys provide hourly service departing the Tahoe City Transit Center from 9:30 a.m. to 5:30 p.m., between June 27 and Labor Day.

## SKI AREA SHUTTLE SERVICES

Ski shuttle services operated by Placer County connect the North Shore, West Shore (including Homewood Mountain Resort) and Squaw Valley (including the Squaw Valley base area). This consists of two a.m. runs and two p.m. runs operated on weekends and in peak holiday periods, designed to connect lodging areas with the Homewood and Squaw Valley lifts. In addition, Northstar California operates daily service through the ski season traveling from Incline Village through Kings Beach and Tahoe Vista to the Northstar base once in the a.m. period and returning with one trip in the p.m. period.

### 10.3.4 Pedestrian and Bicycle Network

The Tahoe City Public Utility District (TCPUD) operates a series of multipurpose recreational trails along the Truckee River between Tahoe City and Squaw Valley, along the West Shore between Tahoe City and Sugar Pine Point State Park (with several sections of Class III signed route along low-volume residential streets and a missing 0.9-mile section), and along the North Shore from Tahoe City to Dollar Hill. These facilities total 16.2 miles in length. TCPUD also operates a new 0.9-mile lakefront trail through the core of Tahoe City from Commons Beach to the State Park Campground.

The Pinedrop Trail is a 1.5 mile shared use path connecting Pinedrop Drive (near SR 267) with the North Tahoe Regional Park in Tahoe Vista, operated by the North Tahoe Public Utility District. In addition, the National Avenue Bike Path consists of a separated shared use Class I facility along National Avenue from SR 28 to Donner Road (the road providing access to the Regional Park).

SR 28 between Tahoe City and Kings Beach includes Class II (striped) bike lanes. Sidewalks are provided in Tahoe City along both sides of a 0.7-mile-long section of SR 28. In addition, sidewalks were recently constructed along SR 28 between Bear Street and Coon Street as a part of the Kings Beach Commercial Core Improvement Project, as well as along portions of Brook Avenue, Steelhead Avenue, Minnow Avenue, Fox Street, Coon Street, Deer Street, Secline Street, and Chipmunk Street.

The region also encompasses an extensive network of unpaved trails, including USFS trails, California State Park trails, and 36 miles of the Tahoe Rim Trail. Portions of the Tahoe Rim Trail are also part of the Pacific Crest Trail, stretching from Mexico to Canada.

## PLANNED BICYCLE/PEDESTRIAN FACILITIES

Placer County has taken the lead in a multi-agency effort to construct the Dollar Creek Shared Use Trail. This facility would stretch 2.2 miles northward from the current end of the TCPUD's North Shore Trail atop Dollar Hill, serving nearby residential neighborhoods. It is envisioned as an initial element of an ultimate multi-

purpose trail stretching to the North Tahoe Regional Park. Other connections off of this facility have also been proposed to extend northward to Northstar and Truckee.

TCPUD is leading the effort to fill the “Homewood Hole,” a 0.9-mile gap in the West Shore Trail between Cherry Street and Fawn Street, where cyclists currently must ride along an uneven highway shoulder. Portions directly adjacent to the state highway are planned for construction as part of the Caltrans Lakeside erosion control project, while another portion is planned for construction as part of development of Homewood Mountain Resort.

A shared use path is planned along the south (lake) side of SR 28 between Chipmunk Street to Secline Street, connecting bike lanes on the discontinuous segments of Brockway Vista Road with a separated facility through the State Beach area.

The Kings Beach Commercial Core Improvement Project will construct sidewalks along SR 28 between SR 267 and Beaver Avenue, as well as the missing segment of Class II bike lanes east of 267.

## 10.4 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### 10.4.1 Methods and Assumptions

Estimates of land uses, including assumptions about the location and extent of existing and new residential, commercial, and tourist development, are fundamental to the transportation analysis. The Regional Plan Update EIS (TRPA 2012) established limits on the amount and type of development that could occur under the Area Plan alternatives, and it analyzed complete build-out of the Tahoe Basin by the year 2035. The Area Plan alternatives have a planning horizon of approximately 20 years, which also equates to around the year 2035. Therefore, the 2035 land use assumptions for the adopted Regional Plan Update alternative (Regional Plan Update Alternative 3) from the Regional Plan Update EIS were used as the starting point to develop land use scenarios for the Area Plan alternatives. The Regional Plan Update EIS reflected complete build-out of allowed development in the Tahoe Basin, including the entire area covered by the proposed Placer County Tahoe Basin Area Plan. The Regional Plan Update land use scenario included assumptions about the location and amount of new and transferred development within the Plan area, the transportation effects of which were modeled with TRPA’s TransCad Transportation Demand model. These land use assumptions and a summary of the TransCad Transportation Demand Model are provided in the Regional Plan Update Draft EIS on pages 3.3-28 through 3.3-39, with additional detail provided in the Regional Plan Update Draft EIS Appendix E, Part 7, Methodology for Estimating VMT and GHG Emissions.

While the Regional Plan Update 2035 land use scenario reflected build-out of the maximum amount of development allowed under the Area Plan alternatives, the Area Plan alternatives include policies and standards that could result in variations in land use patterns that would be different than those analyzed in the Regional Plan Update EIS. To evaluate the transportation effects of land use patterns likely to result from implementation of each Area Plan and lodge alternative, the Regional Plan land use assumptions were modified to reflect policies and standards included in each Area Plan alternative and features of the associated lodge alternatives. These modified land use assumptions were then modeled using the TRPA TransCad Transportation Demand Model. The TransCad model evaluated the following five scenarios that provide the basis for the analysis in this section (see Appendix G for additional detail):

- ▲ 2015 baseline – The Regional Plan Update 2010 baseline scenario with the addition of development that has been constructed within the Plan area since 2010.
- ▲ Alternative 1 in 2035 – The Regional Plan Update 2035 scenario with modifications to reflect the Tahoe City Town Center boundary change, the commercial floor area (CFA) to tourist accommodation unit (TAU)

conversions, allowances for secondary residential units, the Kings Beach Center Design Concept, the proposed Tahoe City Lodge, and zoning proposed in Alternative 1.

- ▲ Alternative 2 in 2035 – The Regional Plan Update 2035 scenario with modifications to reflect allowances for secondary residential units, the Kings Beach Center Design Concept, the reduced-scale Tahoe City Lodge, and zoning proposed in Alternative 2.
- ▲ Alternative 3 in 2035 – The Regional Plan Update 2035 scenario with modifications to reflect the increased density allowed for affordable housing in Town centers, Tahoe City Town Center boundary change, CFA to TAU conversions, allowances for secondary residential units, the Kings Beach Center Design Concept, the reduced-height Tahoe City Lodge, and other zoning proposed in Alternative 3.
- ▲ Alternative 4 in 2035 – The Regional Plan Update 2035 scenario with modifications to reflect reduced density limits in Town centers, increased occupancy at the existing commercial complex at the Tahoe City Lodge site, and zoning proposed in Alternative 4.

The 2035 land use scenarios generate traffic volumes and VMT estimates that are conservatively high because they also reflect growth throughout the rest of the Tahoe Region, outside of the Plan area. A review of the TRPA TransCAD model forecasts at the two external access points in the Placer County area (SR 89 just south of Alpine Meadows Road, and SR 267 at Brockway Summit) indicated that the model reflects some but not all of the possible growth in external traffic volumes at these two points. To clearly disclose and evaluate the effects of the proposed Area Plan alternatives, this additional external growth in traffic is not included in the 2035 year alternative scenarios. In the cumulative scenarios in Chapter 19, traffic volumes are increased to reflect traffic that could enter the Plan area as a result of build-out of nearby areas outside of the Tahoe Basin, particularly Truckee, Martis Valley, and the Squaw Valley/Alpine Meadows areas.

Roadway segment LOS is analyzed based on standard Highway Capacity Manual (HCM) 2010 methodologies, except for the segments of SR 28 located in Town center areas (Tahoe City and Kings Beach). As there is no standard traffic engineering analysis technique regarding the capacity associated with urban three-lane roadways operating under congested conditions with heavy parking, pedestrian and bicycle activity, the capacity of these segments was estimated as a part of the traffic study for the Kings Beach Urban Improvement Project. The methodology used in developing the capacity estimates is described in Appendix G. Intersection LOS is evaluated using the Synchro software package, which implements the Highway Capacity Manual (Transportation Research Board 2010) methodologies. Because traffic volumes on the roadway network in the Plan area are greater in the summer than in the winter, the analysis is conducted for summer conditions only. Traffic volumes in the Plan area are substantially greater in the PM peak hour than in the a.m. peak hour. To reflect the worst-case scenario, the analysis is conducted for the PM peak-hour period, for the busiest day of the week (a Saturday in August).

The first step in the analysis of traffic impacts is to estimate the peak-hour and daily traffic volumes under each alternative. The intersection volumes for each Area Plan alternative are developed based upon output from the TRPA's TransCAD Travel Demand Model. Next, the PM peak-hour LOS at each study intersection is evaluated under each study scenario.

The following methods and assumptions were used to evaluate the project-level transportation effects of the Tahoe City Lodge alternatives:

- ▲ The number of trips generated is estimated based on the characteristics of each lodge alternative. Next, an estimated distribution pattern for trips arriving and departing the site is developed. The project-generated traffic volumes are assigned to the study intersections, based upon the distribution pattern and travel route assumptions.
- ▲ To address the potential for the project to impact traffic safety conditions, the interaction between the Tahoe City Lodge access intersection and the Mackinaw Road intersection on the opposite side of SR 28 is evaluated.

- ▲ Under lodge Alternatives 1 and 3, two events are assumed to occur in the proposed clubhouse meeting/event facilities over the course of the day, with an average vehicle occupancy rate for meeting/event attendees of approximately 2.5 persons per vehicle. This vehicle occupancy rate is consistent with other approved traffic studies in the Basin, and it is consistent with the TRPA 2014 Travel Summer Mode Share Survey, which indicates in average vehicle occupancy rate of approximately 2.56 persons per vehicle for recreational trips. (These assumptions do not apply to the lodge Alternatives 2 and 4, as they do not include the clubhouse meeting/event facilities.)
- ▲ Because the proposed Tahoe City Lodge development would share parking with the golf course/clubhouse uses, the parking analysis considers all of the parking needs at the site. First, the parking demand of the individual land uses proposed as part of each action alternative is estimated. Next, reductions for internal capture (i.e., visitors who are already on-site for another purpose), non-auto travel, and the effect of shared parking are considered. Finally, the peak parking demand is compared to the proposed parking supply, to determine the overall parking balance.

A detailed discussion of methods and assumptions used in this analysis is provided in Appendix G.

## 10.4.2 Significance Criteria

Significance criteria relevant to transportation and circulation are summarized below.

### TRPA CRITERIA

Based on the “Transportation and Circulation” criteria from TRPA’s Initial Environmental Checklist, an alternative would result in a significant impact to transportation and circulation if it would:

- ▲ Substantially impact existing highway systems or alter present patterns of circulations, defined here as:
  - cause a study roadway within a rural area to worsen from LOS D or better to LOS E or worse;
  - cause a study roadway within an urban area to degrade as follows:
    - worsen from LOS E or better to LOS F;
    - worsen from LOS D or better to LOS E for 5 hours or more;
    - worsen from LOS E (for 4 hours per day or less) to LOS E for 5 hours or more; or
    - worsen an LOS F condition.
  - cause a study intersection controlled by signal or roundabout to worsen from LOS A through D or less than 5 hours per day of LOS E to LOS F or to LOS E for 5 or more hours per day;
  - cause a study intersection not controlled by signal or roundabout to worsen from LOS A through E to LOS F, or to increase delay where LOS F currently exists; or
  - cause daily traffic levels along Fairway Drive to exceed 2,500 vehicles per day or exacerbate no-project levels exceeding this value.
- ▲ cause total VMT within the Tahoe Region to exceed the TRPA Air Quality Threshold value of 2,030,938;
- ▲ result in inadequate transit service to meet demand or substantively negatively impact existing transit operations;
- ▲ result in inadequate parking conditions;

- ▲ substantially increase traffic hazards to bicyclists and pedestrians, or substantially impact existing bicycle/pedestrian facilities; or
- ▲ substantially increase hazards due to a design feature or incompatible uses.

## CEQA CRITERIA

Based on Appendix G of the State CEQA Guidelines and the Placer County CEQA Checklist, impacts to “Transportation and Circulation” would be significant if the project would:

- ▲ Conflict with an applicable plan, policy or ordinance related to the circulation system, or conflict with an applicable congestion management program; such that it would cause the LOS or VMT standards described under the TRPA criteria to be exceeded;
- ▲ substantially increase hazards due to a design feature or incompatible use; or
- ▲ substantially decrease the performance or safety of transit, bicycle, and pedestrian facilities.

As noted above, the alternatives would not affect air, rail, or waterborne travel patterns, so the effects on these transportation systems are not evaluated. The effects of the alternatives on emergency access are evaluated in Chapter 18, “Hazards, Hazardous Materials, and Risk of Upset.”

Note that Placer County recently (October 2015) adopted an *Impact Analysis Methodology of Assessment*, which provides some flexibility allowing relatively small increases in traffic to be considered to not exceed minimum LOS policies. As TRPA standards do not provide this flexibility, to be conservative, this flexibility is not assumed for purposes of this environmental document.

### 10.4.3 Environmental Effects of the Project Alternatives

#### Impact 10-1: Roadway level of service

Under all Area Plan alternatives (Alternatives 1, 2, 3, and 4), future development and redevelopment would occur in the Plan area that would cause the level of service (LOS) on SR 28 between the Tahoe City Wye and Grove Street to continue to operate at an unacceptable level. This impact would be **significant** for all alternatives. Implementation of Mitigation Measure 10-1a, 10-1b, and 10-1c would reduce LOS effects of Alternatives 1, 2, and 3 by providing a pedestrian hybrid beacon crossing at the SR 28 and Grove Street intersection, which would reduce the influence of pedestrian crossings on LOS; by establishing a County Service Area Zone of Benefit to fund expansion of transit capacity, which would reduce traffic volumes; and by having development projects pay Tahoe area traffic mitigation fees to Placer County to fund identified regional Capital Improvement Projects. While Mitigation Measures 10-1a, 10-1b, and 10-1c would reduce LOS deterioration, the roadway LOS after implementation of the mitigation measures would remain unacceptable and no additional mitigation is feasible. In recognition of the LOS conditions in the Tahoe City Town Center, Area Plan Alternatives 1 through 3 would revise the LOS standards to allow LOS F during peak periods in town centers (Area Plan Policy T-P-6). The future LOS conditions would not exceed the proposed LOS standard for Area Plan Alternatives 1 through 3. However, because the alternatives would result in LOS that exceeds existing TRPA standards and no additional mitigation is feasible, this impact is considered **significant and unavoidable** for all alternatives.

Tahoe City Lodge Alternatives 1 and 3 would not add traffic volumes in a direction or location that would exacerbate an existing LOS deficiency or degrade an existing acceptable LOS. Tahoe City Lodge Alternatives 1 and 3 would still be subject to payment of traffic mitigation fees prior to issuance of any building permits, and this would reduce the project’s impact on roadway LOS to **less-than-significant**. Tahoe City Lodge Alternative 2 would create a reduction in traffic volumes, resulting in a **beneficial** impact to roadway LOS. Under Tahoe City Lodge Alternative 4, the additional traffic would exacerbate the existing LOS deficiency in the eastbound

direction on SR 28 in Tahoe City and degrade the existing acceptable LOS in the westbound direction to an unacceptable level during the peak period. Because mitigation measures cannot be required for a no-project alternative, Tahoe City Lodge Alternative 4 would have a **significant and unavoidable** impact on roadway LOS.

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### Placer County Tahoe Basin Area Plan Program-Level Analysis

#### **Alternative 1: Proposed Area Plan**

Under Alternative 1, future development or redevelopment projects could result in additional vehicle trips that would affect roadway LOS standards. Alternative 1 also includes Policy T-P-6, which would revise the LOS standard for roadways within town centers. Policy T-P-6 reads as follows:

“Maintain consistency with Level of Service (LOS) and quality of service standards identified in the Regional Transportation Plan (RTP), with the exception of intersections and roadway segments within the town center boundaries where LOS F is acceptable during peak periods. The RTP allows for possible exceptions to the LOS standards outside the town center boundaries when provisions for multi-modal amenities and/or services (such as transit, bicycling and walking facilities) are incorporated and found to be consistent with Policy T-10.7 of the RTP.”

This policy, in combination with proposed multi-modal improvements, is intended to promote increased use of non-automobile transportation modes. Adoption of this policy would modify the LOS standard for roadways within town centers within the Plan area, to promote increased use of multi-modal transportation options. Future projects would continue to mitigate traffic impacts based on the size and trips generated by the proposed development consistent with Placer County Code Article 15.28.010 and TRPA Code Section 65.2. Because this policy would not change actual traffic levels within the Plan area and it would not alter the requirements for project-level mitigation of traffic impacts, it would have no effect on roadway LOS.

The 2035 summer peak-hour intersection volumes for the project alternative scenarios are shown in Table 10-4. The 2035 roadway segment ADTs under the various project alternatives are shown in Table 10-5. Also note that the land use forecasts shown in these tables include the maximum number of commodities for the Kings Beach Center design concept allowed under each Alternative.

A comparison with the existing summer peak-hour volumes indicates that implementation of Alternative 1 would increase the total peak-hour traffic volumes in the study area by an average of approximately 4.5 percent. Compared to existing conditions, Alternative 1 would generally increase the ADT volumes along SR 28 by an average of approximately 2.8 percent.

The roadway LOS analysis is summarized in Table 10-6. As shown, implementation of Alternative 1 would degrade the LOS on SR 28 between the Wye and Grove Street in Tahoe City from an acceptable LOS E (LOS E for 4 hours per day or less) in the westbound direction to an unacceptable LOS E (LOS E for 5 hours or more). In the eastbound direction, although the peak-hour traffic volume would decrease, it would continue to operate at an unacceptable LOS F. In addition, although SR 267 north of SR 28 would degrade from LOS D to LOS E in the southbound direction, it would remain at an acceptable level (LOS E for 4 hours per day or less). The LOS at the remaining study segments would not change. Because the LOS on SR 28 in Tahoe City would exceed the TRPA LOS standard, this impact is considered **significant**.

**Table 10-4 Intersection Peak-Hour Turning Movement Volumes – 2035 Scenarios**

Segment			Number of Vehicles											Total Vehicles	
			Northbound			Southbound			Eastbound			Westbound			
			Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through		Right
<b>Existing (2015)</b>															
1	SR89	SR28 (TC Wye)	318	74	304	30	89	13	48	344	417	362	323	21	2,343
2	SR28	Mackinaw Rd/Henrikson (East)	2	0	17	3	0	7	6	699	2	7	611	14	1,368
3	SR28	Grove St	7	0	19	37	0	35	27	752	12	17	598	21	1,525
4	SR28	SR267	1	1	0	363	2	334	257	662	1	0	539	337	2,497
5	SR28	Bear St	28	1	23	25	0	79	43	605	23	16	634	18	1,495
6	SR28	Coon St	14	5	6	76	11	103	46	755	16	16	639	36	1,723
7	SR28	TC Lodge Site Access	-	-	-	14	-	7	10	721	-	-	659	11	1,422
<b>Alternative 1</b>															
1	SR89	SR28 (TC Wye)	96	34	165	39	42	51	76	521	79	211	491	26	1,831
2	SR28	Mackinaw Rd	2	-	18	-	-	-	-	722	3	9	650	-	1,404
3	SR28	Grove St	7	0	19	51	0	48	37	719	12	17	603	29	1,542
4	SR28	SR267	1	1	0	367	2	386	279	666	1	0	562	323	2,589
5	SR28	Bear St	29	1	23	41	0	130	74	601	23	27	636	18	1,602
6	SR28	Coon St	14	5	6	125	11	169	79	729	36	27	620	36	1,857
7	SR28	TC Lodge Site Access	-	-	-	11	-	15	54	714	-	-	620	32	1,446
<b>Alternative 2</b>															
1	SR89	SR28 (TC Wye)	97	34	155	39	42	51	76	483	80	212	486	26	1,782
2	SR28	Mackinaw Rd	2	-	18	-	-	-	-	712	3	11	622	-	1,368
3	SR28	Grove St	7	0	19	57	0	54	44	716	12	17	570	34	1,531
4	SR28	SR267	1	1	0	359	2	414	295	664	1	0	553	315	2,604
5	SR28	Bear St	29	1	23	42	0	131	74	597	23	28	623	18	1,589
6	SR28	Coon St	15	5	6	126	11	171	80	731	35	28	623	36	1,867
7	SR28	TC Lodge Site Access	-	-	-	2	-	2	2	712	-	-	627	1	1,341

**Table 10-4 Intersection Peak-Hour Turning Movement Volumes – 2035 Scenarios**

Segment			Number of Vehicles											Total Vehicles	
			Northbound			Southbound			Eastbound			Westbound			
			Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through		Right
<b>Alternative 3</b>															
1	SR89	SR28 (TC Wye)	93	34	174	39	42	51	76	535	76	220	503	26	1,869
2	SR28	Mackinaw Rd	2	-	18	-	-	-	-	744	3	10	668	-	1,445
3	SR28	Grove St	7	0	19	60	0	57	42	733	12	17	603	33	1,583
4	SR28	SR267	1	1	0	368	2	403	295	670	1	0	561	327	2,629
5	SR28	Bear St	29	1	23	37	0	117	67	602	23	25	636	18	1,578
6	SR28	Coon St	14	5	6	112	11	152	72	709	29	25	597	36	1,767
7	SR28	TC Lodge Site Access	-	-	-	11	-	15	54	736	-	-	638	32	1,486
<b>Alternative 4</b>															
1	SR89	SR28 (TC Wye)	89	34	172	39	42	51	76	511	70	223	508	26	1,842
2	SR28	Mackinaw Rd/Site Access (East)	2	0	18	17	0	19	16	759	3	10	653	38	1,535
3	SR28	Grove St	7	0	19	50	0	47	36	735	12	17	583	28	1,535
4	SR28	SR267	1	1	0	367	2	406	287	671	1	0	556	320	2,613
5	SR28	Bear St	28	1	23	42	0	133	74	601	23	27	626	18	1,596
6	SR28	Coon St	14	5	6	128	11	173	79	736	36	27	621	36	1,872
7	SR28	TC Lodge Site Access	-	-	-	10	-	4	14	768	-	-	671	3	1,470

Source: LSC Transportation Consultants, Inc. 2016

**Table 10-5 Roadway ADT under 2035 Scenarios**

Roadway Segment		Average Daily Volumes				
		Existing (2015)	Alt 1	Alt 2	Alt 3	Alt 4
SR 89	Between Mackinaw Rd and SR 28 <sup>1</sup>	22,300	8,900	8,900	9,100	9,000
SR 28	Between West Lake Blvd and Mackinaw Rd	16,900	17,700	17,100	18,300	18,100
SR 28	Between Mackinaw Rd and Grove St	16,900	17,500	17,100	18,000	18,700
SR 28	Between Grove St and Jackpine St	20,000	19,900	19,600	20,300	19,800
SR 28	Between Beach St and SR 267	21,300	22,500	22,900	22,900	22,800
SR 28	Between SR 267 and Bear St	28,000	28,300	27,800	28,400	28,200
SR 28	Between Bear St and Coon St	19,500	20,400	20,500	19,500	20,600
SR 28	Between Coon St and Fox St	18,000	18,200	18,300	17,500	18,300

<sup>1</sup> Reductions in ADT on SR 89 between Mackinaw Road and SR 28 under Alternatives 1 through 4 are partially the result of implementing the SR 28/Fanny Bridge Community Revitalization Project.

Source: LSC Transportation Consultants, Inc. 2016

**Table 10-6 Roadway LOS in 2035 Scenarios**

Intersection	Urban/ Rural	Approach	Existing (2015)		Alt 1		Alt 2		Alt 3		Alt 4	
			# of vehicles	LOS	# of vehicles	LOS	# of vehicles	LOS	# of vehicles	LOS	# of vehicles	LOS
SR 89, West of Tahoe City	Rural	Eastbound	809	D	854	D	836	D	847	D	800	D
		Westbound	654	D	674	D	675	D	673	D	661	D
SR 89, Granlibakken Rd to Sunnyside	Rural	Northbound	533	D	549	D	537	D	554	D	540	D
		Southbound	746	D	752	D	761	D	750	D	730	D
SR 28, Between Wye and Grove St <sup>1,2</sup>	Urban	Eastbound	<b>791</b>	<b>F</b>	<b>768</b>	<b>F</b>	<b>772</b>	<b>F</b>	<b>787</b>	<b>F</b>	<b>795</b>	<b>F</b>
		Westbound	706	E	<b>728</b>	<b>E</b>	<b>724</b>	<b>E</b>	<b>749</b>	<b>F</b>	<b>757</b>	<b>F</b>
SR 28, Dollar Hill to Tahoe Vista	Rural	Eastbound	585	C	618	C	629	C	630	C	627	C
		Westbound	479	C	506	C	515	C	516	C	513	C
SR 28, East of SR 267 <sup>1,3</sup>	Urban	Eastbound	1,025	D	1,032	D	1,023	D	1,037	D	1,038	D
		Westbound	876	C	886	C	867	C	888	C	876	C
SR 267, North of SR 28 <sup>1,3</sup>	Urban	Northbound	595	D	603	D	611	E	623	E	608	E
		Southbound	699	D	755	E	775	E	773	E	775	E

**Bold** indicates that the LOS standard is exceeded. Note that a bold "E" indicates LOS E for 5 hours or more, which exceeds the TRPA LOS standard.

<sup>1</sup> Capacity for SR 28 in Tahoe City: eastbound 750 vehicles per hour; westbound 731 vehicles per hour, as estimated by LSC Transportation Consultants, Inc. as a part of the *Kings Beach Urban Improvement Project Traffic Study* (LSC 2007). The methodology used in developing these estimates is described in Appendix G.

<sup>2</sup> Capacity for SR 28 in Kings Beach: eastbound 1,241 vehicles per hour; westbound 1,171 vehicles per hour, as estimated by LSC Transportation Consultants, Inc. as a part of the *Kings Beach Urban Improvement Project Traffic Study* (LSC 2007). The methodology used in developing these estimates is described in Appendix G.

Source: LSC Transportation Consultants, Inc. 2016

**Alternative 2: Area Plan with No Substitute Standards**

Alternative 2 would allow future development that could affect roadway LOS. Like Alternative 1, Alternative 2 would also revise LOS standards within town centers to allow LOS F when opportunities for multi-modal transportation exist. For the same reasons described under Alternative 1, this change in the LOS standard would not affect roadway LOS levels.

A comparison with the existing summer peak-hour traffic volumes indicates that implementation of Alternative 2 would increase the total peak-hour traffic volumes in the study area by an average of

approximately 4.1 percent. Compared to existing conditions, the ADT along SR 28 would increase at some locations and decrease at other locations, with an average percent growth in ADT of approximately 1.9 percent.

As compared to existing conditions, implementation of Alternative 2 would degrade the LOS on SR 28 between the Wye and Grove Street in Tahoe City from an acceptable LOS E (LOS E for 4 hours per day or less) in the westbound direction to an unacceptable LOS E (LOS E for 5 hours or more). In the eastbound direction, although the peak-hour traffic volume would decrease, it would continue to operate at an unacceptable LOS F. In addition, although SR 267 north of SR 28 would degrade from LOS D to LOS E in both directions, it would remain at an acceptable level (LOS E for 4 hours per day or less). The LOS at the remaining study segments would not change. This impact is nearly same to that under Alternative 1, as there is only a difference of approximately four vehicles per hour in each direction on SR 28. Because the LOS on SR 28 in Tahoe City would exceed the TRPA LOS standard, this impact is considered **significant**.

### **Alternative 3: Reduced Intensity Area Plan**

Alternative 3 would allow future development that could affect roadway LOS. Like Alternative 1, Alternative 3 would also revise LOS standards within town centers to allow LOS F when opportunities for multi-modal transportation are available. For the same reasons described under Alternative 1, this change in the LOS standard would not affect roadway LOS levels.

A comparison with the existing summer peak-hour volumes indicates that implementation of Alternative 3 would increase the total peak-hour traffic volumes in the study area by an average of approximately 4.6 percent. Compared to existing conditions, Alternative 3 would increase ADT volumes along SR 28 by an average of approximately 3.1 percent.

Compared to existing conditions, implementation of Alternative 3 would degrade the LOS on SR 28 between the Wye and Grove Street in Tahoe City from an acceptable LOS E (LOS E for 4 hours per day or less) in the westbound direction to an unacceptable LOS F. In the eastbound direction, although the peak-hour traffic volume would decrease slightly, it would continue to operate at an unacceptable LOS F. In addition, although SR 267 north of SR 28 would degrade from LOS D to LOS E in both directions, it would remain at an acceptable level (LOS E for 4 hours per day or less). The LOS at the remaining study segments would not change. This impact is slightly worse than under Alternative 1, as the westbound direction on SR 28 would degrade by one additional level (to LOS F). Because the LOS on SR 28 in Tahoe City would exceed the TRPA LOS standard, this impact would be **significant**.

### **Alternative 4: No Area Plan**

A comparison with the existing summer peak-hour volumes indicates that implementation of Alternative 4 would increase the total peak-hour traffic volumes in the study area by an average of approximately 6.3 percent. Compared to existing conditions, Alternative 4 would increase ADT volumes along SR 28 by an average of approximately 4.2 percent.

As compared to existing conditions, implementation of Alternative 4 would degrade the LOS on SR 28 between the Wye and Grove Street in Tahoe City from an acceptable LOS E (LOS E for 4 hours per day or less) in the westbound direction to an unacceptable LOS F. The eastbound direction would continue to operate at an unacceptable LOS F. In addition, although SR 267 north of SR 28 would degrade from LOS D to LOS E in both directions, it would remain at an acceptable level (LOS E for 4 hours per day or less). The LOS at the remaining study segments would not change. This impact is slightly worse than that under Alternative 1, as the westbound direction on SR 28 would degrade by one additional level (to LOS F). Because the LOS on SR 28 in Tahoe City would exceed the TRPA LOS standard, this impact would be **significant**.

### **Tahoe City Lodge Project-Level Analysis**

To evaluate roadway LOS effects and other project-level effects of the Tahoe City Lodge alternatives, it is necessary to first analyze trip generation, distribution, and traffic assignment for each alternative. Next, the effect on traffic volumes and related roadway LOS is estimated for each alternative.

## Alternative 1: Proposed Lodge

### Trip Generation

Trip generation is the number of vehicle-trips that would have either an origin or destination at the project site. DVTE and peak hour vehicle-trip ends (PHVTE) are determined to analyze the potential impacts from the proposed project. The existing commercial uses are proposed to be removed, and replaced with a 118-room lodge. In addition, the existing one-story golf course clubhouse would be replaced with a new two-story clubhouse. The new ground floor would contain similar uses and square footage as the existing golf course clubhouse, and the new second floor would include 3,000 square feet of meeting and event space. The meeting and event space would be accessory to the lodge and golf course.

The trip generation analysis for the existing and proposed uses at the project site with Alternative 1 is presented in Table 10-7. Standard trip rates provided in the Institute of Transportation Engineers (ITE) *Trip Generation, 9th Edition* manual (ITE 2012) are used to calculate daily and PM peak-hour trip generation. As the busiest period of traffic in the Tahoe Region occurs in the PM period (typically, early afternoon), the trip rates for the PM peak hour are applied. As the ITE *Trip Generation* manual does not provide standard trip rates for meeting and event facilities, the trip generation of the proposed meeting space is estimated based upon an analysis of person-trip activity factored by vehicle occupancy rates and travel modes. These analyses are conducted to reflect peak (100 percent occupancy) use levels of the project site, in order to remain conservative in the estimate of project trip generation.

### Existing Land Uses

Trip generation for the existing land uses at the site is shown in the upper portion of Table 10-7. The existing buildings are partially occupied by a variety of commercial uses, with a leased commercial floor area totaling approximately 14,839 square feet. The following describes the uses, and the available trip generation land use types considered to best represent these uses:

- ▲ Tahoe Diversities – This is a sales office for a hot-tub retailer. The best available trip rates are for the “Furniture Store” land use.
- ▲ Thai Massage – As there are not published rates for massage studios or spas, the best available comparison is the “Hair Salon” category.
- ▲ Vicky’s Cyber Café – This business provides coffee, espresso, and pastries, as well as computer terminals and printers. The trip rates for “Coffee/Donut Shop without Drive-Thru” were applied.
- ▲ D’Lish Catering/Burrito Window – A portion of this space is used as a fast-food burrito shop, with both take-out and tables available. This portion, estimated to be half (including the kitchen prep space) is considered “Fast Food Restaurant.” The remaining space is used for food preparation by a catering firm. As this space does not generate customer trips as it is not a retail use, the most appropriate land use category for estimating trip generation is “Light Industrial.”

The remaining existing uses and their corresponding ITE land use categories are shown in Table 10-7. Standard trip generation rates are based upon studies conducted at suburban locations, which are largely auto-dominant with little walking, bicycling or transit use. In a mixed-use setting served by sidewalks and bicycle trails and close to a transit center, it is appropriate to reduce these rates to reflect non-auto access. There are several sources of information that reflect non-auto use in the vicinity:

- ▲ TMPO conducts surveys every few years of trip patterns at recreation and commercial sites. In summer 2012, surveys were conducted by intercepting persons in the Tahoe City commercial core and asking (among other things) their travel mode to the area. Of a total of 105 valid surveys at this location, 21 percent of the survey respondents indicated that they arrived on foot, by bicycle, or on transit.
- ▲ A recent survey of employees in Squaw Valley indicated that 14 percent arrived by transit or walking/bicycling.

**Table 10-7 Tahoe City Lodge – Alternative 1 Trip Generation at Site Access**

Land Use	ITE Code	ITE Land Category	Quantity	Unit	Trip Generation Rates <sup>1</sup>				Reduction for Internal and Non-Auto Trips	One-Way Vehicle Trips at Site Driveway			
					Daily	PM Peak Hour				Daily	PM Peak Hour		
						In	Out	Total			In	Out	Total
<b>Existing <sup>2</sup></b>													
Jiffy's Pizza	932	High Turnover Restaurant	1.032	KSF	127.15	5.91	3.94	9.85	15%	112	5	4	9
Tahoe Diversities	890	Furniture Store	0.273	KSF	5.06	0.22	0.23	0.45	15%	1	0	0	0
Thai Kitchen	932	High Turnover Restaurant	3.231	KSF	127.15	5.91	3.94	9.85	15%	349	16	11	27
Thai Massage <sup>3</sup>	918	Hair Salon	1.344	KSF	23.71	0.25	1.20	1.45	15%	27	0	2	2
Vicky's Cyber Cafe	936	Coffee Shop w/out Drive-thru	0.600	KSF	779.37	20.38	20.37	40.75	15%	397	10	10	20
Burrito Window <sup>4</sup>	933	Fast Food Restaurant	0.735	KSF	358.00	13.34	12.81	26.15	15%	224	9	7	16
D'Lish Catering	110	Light Industrial	0.735	KSF	6.97	0.12	0.85	0.97	15%	4	0	1	1
Sierra Retro	710	General Office	0.180	KSF	11.03	0.25	1.24	1.49	5%	2	0	0	0
Jeff VanAmstel	710	General Office	0.504	KSF	11.03	0.25	1.24	1.49	5%	5	0	1	1
Tahoe Upcycled Designs	890	Furniture Store	0.336	KSF	5.06	0.22	0.23	0.45	10%	2	0	0	0
Tahoe Basin Reclamation	812	Building Materials & Lumber Store	1.571	KSF	45.16	2.11	2.38	4.49	5%	67	3	4	7
C. Hatt Woodworks	890	Furniture Store	0.315	KSF	5.06	0.22	0.23	0.45	10%	1	0	0	0
Mountain Modern Kitchen & Bath	826	Specialty Retail Center	2.268	KSF	44.32	1.19	1.52	2.71	15%	85	3	2	5
Kila Tahoe LLC	710	General Office	0.315	KSF	11.03	0.25	1.24	1.49	5%	3	0	0	0
Boats on Tahoe	826	Specialty Retail Center	1.400	KSF	44.32	1.19	1.52	2.71	15%	53	2	1	3
<b>Total</b>			14.839	KSF						1,332	48	43	91
<b>Proposed Lodge Project</b>													
Lodge Rooms	310	Hotel	118	Rooms	8.17	0.31	0.30	0.61	15%	819	31	30	61
Restaurant	-	-	3.84	KSF	Use is an accessory to the lodge				-	-	-	-	-
Rooftop Pool/Bar	-	-	6.587	KSF	Use is an accessory to the lodge				-	-	-	-	-
Roof top Bar	925	Drinking Place	1.98	KSF									
New Meeting Space <sup>5</sup>	N/A	N/A	207	Occupants	1.6	0.36	0.04	0.40	5%	314	71	8	79
<b>Total</b>										1,133	102	38	140
<b>Net Change -- Proposed Minus Existing</b>										-199	54	-5	49

Notes: KSF = 1,000 square feet  
<sup>1</sup> Trip generation rates are based on the ITE Trip Generation manual, 9th Edition.  
<sup>2</sup> As of June 2015.  
<sup>3</sup> As a standard daily trip rate is not available for the Hair Salon land use, the daily trip rate is estimated by applying a factor to the peak-hour rate, based upon the daily-to-peak-hour factor for the Specialty Retail land use.  
<sup>4</sup> Standard daily trip rate divided by 2, as Burrito Window is open for lunch, but not dinner.  
<sup>5</sup> Assumptions for the new meeting space include two events per day and a vehicle occupancy of 2.5 persons per vehicle. The trip generation rate for the new meeting space is very conservative because it assumes that none of the persons attending an event are staying at the lodge. The new meeting space is designed as an amenity for lodge guests. It is therefore anticipated that a large percentage of event attendees will be staying at the lodge. Because the trip generation rates assume none of the attendees at the new meeting space are staying at the lodge, trips are, to the extent attendees are staying at the lodge, double-counted and overstated. TRPA and the County are taking this approach to err on the side of conservatism.  
 Source: LSC Transportation Consultants, Inc. 2016

Overall, it is estimated that at least 15 percent of existing travel to and from the current retail and restaurant uses are by non-auto modes. Approximately 10 percent of furniture store trips are assumed to be made via non-auto modes (considering persons walking by the store who decide to go “window shopping,” customers of other on-site uses who also visit the furniture store, and furniture store employees walking/biking to/from lunch, for example). Finally, 5 percent of office trips are assumed to be made via non-auto modes.

Applying the rates to the land use quantities and factoring by the proportion of non-auto travel yields the trip generation estimates shown in the far right columns of Table 10-7. An estimated 1,332 DVTE are generated by existing uses. Of these, an estimated 91 trips occur during the PM peak-hour (48 entering and 43 exiting).

### Proposed Uses

Trip generation rates for the proposed lodge under Alternative 1 are shown in the lower portion of Table 10-7. A reduction for non-auto travel is also appropriate for this land use. The initial trip into the Tahoe Region would have a relatively low proportion of non-auto travel. As an example, an evaluation of guests arriving at lodging in the Squaw Valley area indicates that approximately 3 percent arrive without a car, such as by North Lake Tahoe Express shuttles from the Reno Tahoe International Airport, or by tour bus. However, much of the trip generation of a lodge consists of employee trips, or guest trips made while the guest is staying at the lodge. Given the close proximity of the project site to many walking attractions (Commons Beach, Bridgetender’s Museum, Fanny Bridge, restaurants, shopping, etc.), as well as the availability of public transit and shuttles, a relatively high proportion of the trips made by guests while staying at the lodge would be by non-auto modes. Overall, a 15 percent reduction is appropriate for the proposed lodge.

A portion of the patrons to the on-site restaurant and rooftop pool/bar/exercise room would also be guests of the lodge, thereby not generating additional traffic trips. The proposed restaurant and rooftop bar would be open to the general public. Because these facilities would be readily accessible to lodge guests, most of the users of these facilities would consist of persons already on-site. The ITE definition of the “hotel” land use includes supporting facilities, such as restaurants, cocktail lounges, and limited recreational facilities (e.g., swimming pool). Considering the floor area of these accessory uses, the trip generation associated with these facilities is already reflected in the lodge line item. As such, no additional trips are expected to be generated by the proposed restaurant and rooftop bar.

The trip generation of the proposed clubhouse expansion and meeting space is based on the following additional information/assumptions:

- ▲ A total of approximately 207 occupants are assumed for each meeting event.
- ▲ Two events per day are assumed to occur in the new meeting space, with approximately one-quarter of the trips occurring during the PM peak hour. This assumption is very conservative because two events on a single day is rarely expected to occur and, moreover, even if two events do occur on a single day, not all events will be attended by the maximum number of potential attendees.
- ▲ An average vehicle occupancy rate of 2.5 persons per vehicle is assumed for the events. This vehicle occupancy rate is consistent with other approved traffic studies in the Tahoe Basin, and it is consistent with the TRPA 2014 Travel Summer Mode Share Survey, which indicates in average vehicle occupancy rate of approximately 2.56 persons per vehicle for recreational trips.
- ▲ The trip generation rate for the new meeting space is very conservative because it assumes that none of the persons attending an event are staying at the lodge. Therefore, no reduction is applied for internal trips made between the clubhouse and the lodge. The new meeting space is designed as an amenity for lodge guests. It is therefore anticipated that a large percentage of event attendees will be staying at the lodge. Because the trip generation rates assume none of the attendees at the new meeting space are staying at the lodge, trips are, to the extent attendees are staying at the lodge, double-counted and overstated. TRPA and the County are taking this approach to err on the side of conservatism.
- ▲ Approximately 5 percent of trips to/from the new meeting space are assumed to be made via non-auto travel.

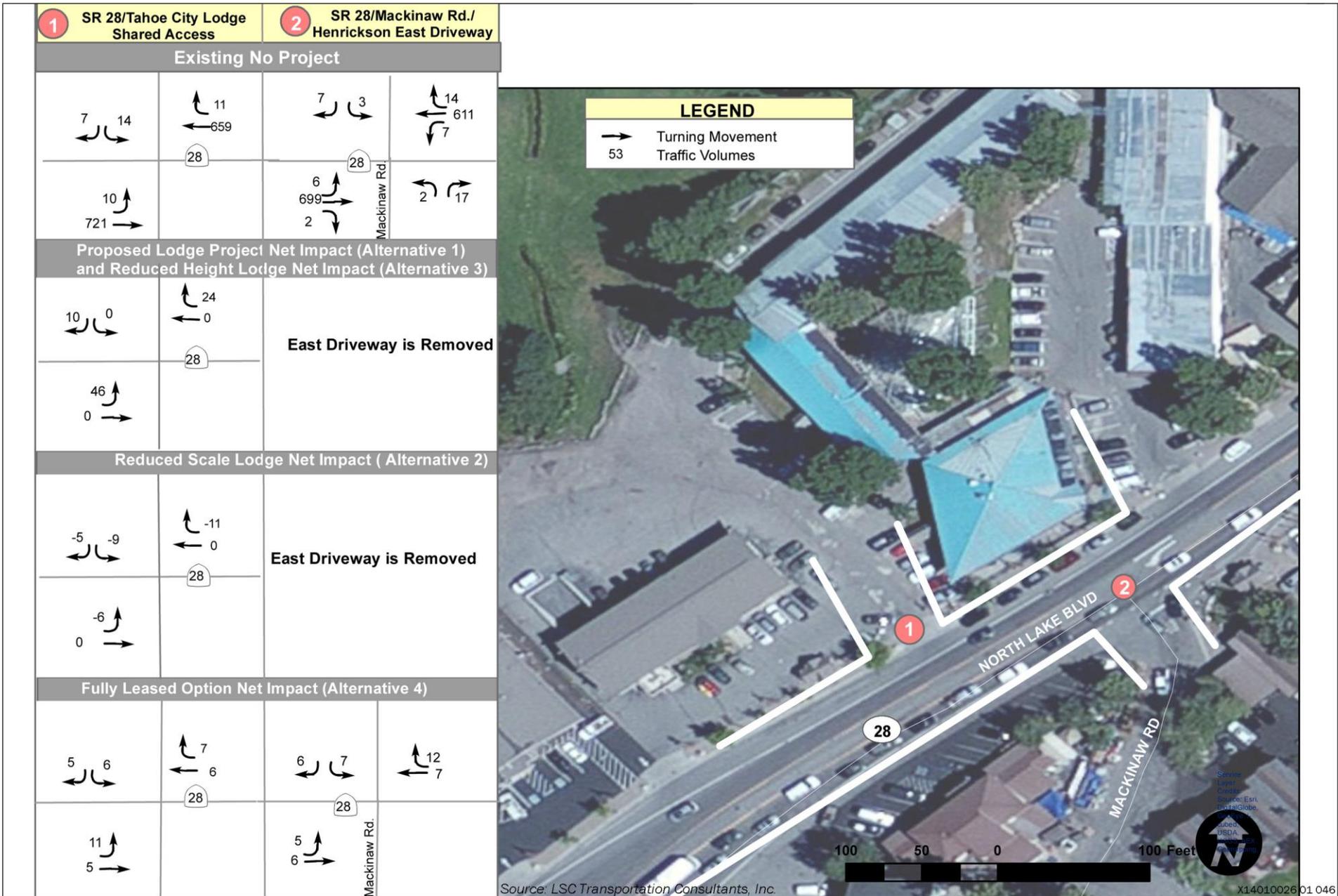


Exhibit 10-3

Tahoe City Lodge PM Peak Hour Traffic Volumes



Dividing person-trips by the average vehicle occupancy rate and factoring by the percent automobile mode yields the vehicular trip generation at the site driveway, as shown in the far right columns in Table 10-7.

### Trip Distribution and Assignment

Applying the rates and non-auto adjustments, the proposed project would generate a total of approximately 1,133 DVTE over the course of a peak summer day, or 199 fewer trips than the existing land uses. During the PM peak hour Alternative 1 would generate 140 one-way trips, 49 trips more than the existing uses. The replacement of the existing commercial uses with the proposed lodge use would add an additional one-way vehicle-trip every 1 minute and 13 seconds, on average, during the busiest traffic hour of the day.

The distribution of traffic arriving and leaving the project site is identified based on existing traffic patterns and the location of recreational, residential/lodging, and commercial land uses within the vicinity of the lodge site. A separate trip distribution pattern is provided for the lodging and commercial/retail uses within the proposed development, reflecting that the lodging land uses would have a slightly greater trip distribution to/from points external to the Tahoe Basin via SR 89 and Kings Beach/Crystal Bay. The estimated weighted average distribution of the project traffic during the summer peak hours is as follows:

- ▲ West Shore – 25 percent
- ▲ SR 89 north of Tahoe City – 35 percent
- ▲ SR 28 east of Tahoe City Lodge site – 40 percent

The net increase in site-generated trips is assigned to the study intersections by applying the distribution pattern to the traffic generation. The resulting “project net impact” on peak-hour traffic volumes at the lodge entrance driveway and Mackinaw Road intersections along SR 28 is illustrated in Exhibit 10-3. The additional trips generated by Alternative 1 would increase the westbound traffic volume on the segment of SR 28 roadway between the Wye and Grove Street by up to approximately 10 vehicle trips (or an increase of up to 1.6 percent) in the peak hour. Alternative 1 would increase the eastbound traffic west of the site by up to approximately 40 vehicles in the peak hour (assuming a maximum-capacity clubhouse meeting/event is entering), but it would not increase the eastbound traffic volume west of Grove Street (given that the existing site-generated commercial traffic would be eliminated and that the lodge use generates a relatively low level of traffic during the peak period on SR 28). A review of the traffic generated by the Lodge Alternative 1 indicates that the project would not add traffic volumes in a direction or location that would exacerbate the existing LOS deficiency in the eastbound direction or degrade the existing acceptable LOS in the westbound direction during the peak period. As such, Lodge Alternative 1 would have a **less-than-significant** impact on roadway LOS.

## Alternative 2: Reduced-Scale Lodge

### Trip Generation

Under Alternative 2, the existing uses are proposed to be removed, and replaced with a 56-room lodge. There would be no golf clubhouse relocation or expansion. The trip generation analysis for the Reduced Scale Lodge is shown in Table 10-8. Standard trip rates provided in the ITE *Trip Generation, 9th Edition* manual (ITE 2012) are used for calculating daily and PM peak-hour trip generation. These rates are reduced to reflect non-auto access using the same reductions applied to the Alternative 1 lodge. Similar to the Alternative 1, considering the floor area of the accessory uses under this alternative, the trip generation associated with these facilities is already reflected in the lodge line item. As such, no additional trips are expected to be generated by the on-site restaurant and bar.

Applying the trip rates and non-auto adjustments, the Alternative 2 would generate approximately 389 DVTE at the site access point over the course of a peak summer day, or 943 fewer trips than the existing land uses at the site. During the PM peak hour, Alternative 2 would generate 29 one-way trips, or 62 fewer trips than the existing uses.

**Table 10-8 Tahoe City Lodge – Alternative 2 Trip Generation at Site Access**

Land Use	ITE Code	ITE Land Category	Quantity	Unit	Trip Generation Rates <sup>1</sup>			Reduction for Internal and Non-Auto Trips	One-Way Vehicle Trips at Site Driveway				
					Daily	PM Peak Hour			Daily	PM Peak Hour			
						In	Out			Total	In	Out	Total
<b>Alt 2 - Reduced Scale Lodge Project (56 units)</b>													
Lodge Rooms	310	Hotel	56	Rooms	8.17	0.31	0.30	0.61	15%	389	15	14	29
Restaurant	-	-	2.63	KSF	Use is an accessory to the lodge			-	-	-	-	-	
Pool Deck/Bar/ Exercise Room	-	-	5.673	KSF	Use is an accessory to the lodge			-	-	-	-	-	
<b>Total</b>										<b>389</b>	<b>15</b>	<b>14</b>	<b>29</b>
<b>Net Change -- Alt 2 minus Existing</b>										<b>-943</b>	<b>-33</b>	<b>-29</b>	<b>-62</b>

Notes: KSF = 1,000 square feet  
<sup>1</sup> PM peak hour rates are based on the ITE Trip Generation manual, 9th Edition.  
 Source: LSC Transportation Consultants, Inc. 2016

**Trip Distribution and Assignment**

The distribution of traffic arriving and leaving the project site under Alternative 2 is the same as that of Alternative 1. The project-generated trips are assigned to the study intersections by applying the distribution pattern to the traffic generation. The resulting “project net impact” on peak-hour traffic volumes at the lodge driveway and Mackinaw Road intersections along SR 28 is illustrated in Exhibit 10-3. The reduction in site-generated trips would reduce the westbound traffic volume on SR 28 east of the Wye by approximately 1.7 percent during the peak hour. Relative to Alternative 1, this alternative would result in lower traffic volumes on the site access driveway. Because Alternative 2 would reduce site-generated trips relative to existing conditions, it would result in a **beneficial** effect on roadway LOS.

**Alternative 3: Reduced Intensity Area Plan/Reduced Height Lodge**

**Trip Generation**

Under Alternative 3, the existing commercial uses would be removed, and replaced with a 118-room lodge consistent with Alternative 1. The trip generation analysis for Alternative 3 is shown in Table 10-9. In addition, the existing golf course clubhouse would be replaced with a new 2-story clubhouse consistent with Alternative 1. Although the sizes of the amenities, such as the restaurant and bar, are smaller under Alternative 3, it is essentially the same as Alternative 1 from a trip generation standpoint. Alternative 3 would generate approximately 1,133 DVTE over the course of a peak summer day, or 199 fewer trips than the existing land uses. As shown in Table 10-9, during the PM peak hour this use would generate 140 one-way trips, 49 trips more than existing uses.

**Trip Distribution and Assignment**

The distribution of traffic arriving and leaving the project site under Alternative 3 is the same as Alternative 1. The “project net impact” on peak-hour traffic volumes at the lodge driveway and Mackinaw Road intersections along SR 28 is also the same as Alternative 1. As will Alternative 1, the additional trips generated by Alternative 3 would not add traffic volumes in a direction or location that would exacerbate the existing LOS deficiency in the eastbound direction or degrade the existing acceptable LOS in the westbound direction during the peak period. As such, Lodge Alternative 3 would have a **less-than-significant** impact on roadway LOS.

**Table 10-9 Tahoe City Lodge – Alternative 3 Trip Generation at Site Access**

Land Use	ITE Code	ITE Land Category	Quantity	Unit	Trip Generation Rates <sup>1</sup>			Reduction for Internal and Non-Auto Trips	One-Way Vehicle Trips at Site Driveway				
					Daily	PM Peak Hour			Daily	PM Peak Hour		Total	
						In	Out			In	Out		
<b>Alt 3 - Reduced Height Lodge Project</b>													
Lodge Rooms	310	Hotel	118	Rooms	8.17	0.31	0.30	0.61	15%	819	31	30	61
Restaurant	-	-	2.63	KSF	Use is an accessory to the lodge			-	-	-	-	-	
Pool Deck/Bar/ Exercise Room	-	-	3,444	KSF	Use is an accessory to the lodge			-	-	-	-	-	
New Meeting Space <sup>2</sup>	N/A	N/A	207	Occupants	1.6	0.36	0.04	0.40	5%	314	71	8	79
<b>Total</b>										<b>1,133</b>	<b>102</b>	<b>38</b>	<b>140</b>
<b>Net Change -- Alt 3 minus Existing</b>										<b>-199</b>	<b>54</b>	<b>-5</b>	<b>49</b>

Notes: KSF = 1,000 square feet

<sup>1</sup> Trip generation rates are based on the ITE Trip Generation manual, 9th Edition.

<sup>2</sup> Assumptions for the new meeting space include two events per day and a vehicle occupancy of 2.5 persons per vehicle. The trip generation rate for the new meeting space is very conservative because it assumes that none of the persons attending an event are staying at the lodge. The new meeting space is designed as an amenity for lodge guests. It is therefore anticipated that a large percentage of event attendees will be staying at the lodge. Because the trip generation rates assume none of the attendees at the new meeting space are staying at the lodge, trips are, to the extent attendees are staying at the lodge, double-counted and overstated. TRPA and the County are taking this approach to err on the side of conservatism.

Source: ITE, LSC Transportation Consultants, Inc. 2016

**Alternative 4: No Project**

**Trip Generation**

With Alternative 4, the existing commercial center would be retained and rehabilitated, and the existing total of 26,304 commercial square feet is assumed to be fully leased. The trip generation analysis for this alternative is presented in Table 10-10. Standard trip rates provided in the ITE *Trip Generation, 9th Edition* manual (ITE 2012) are used for the calculation of daily and PM peak-hour trip generation. The assumed land uses and their corresponding ITE land use categories are shown in Table 10-10. Similar to the analysis of existing conditions, a 15-percent reduction is applied to reflect non-auto access. Applying the rates to the land use quantities and factoring by the proportion of non-auto travel yields the trip generation estimates shown in the far right columns of Table 10-10. As indicated, an estimated 3,130 DVTE are estimated to be generated at the site under full occupancy conditions. Of these, an estimated 181 trips occur during the PM peak-hour (102 entering and 79 exiting).

Compared to existing uses at the site, the fully-leased commercial building in Alternative 4 would result in a net increase of approximately 1,819 DVTE and 90 PM peak-hour trips at the site driveways over the course of a peak summer day. Alternative 4 would add an additional one-way vehicle-trip on the site driveways every 40 seconds, on average, during the busiest traffic hour of the day. Note that not all of these trips would be “new” trips to the area.

**Trip Distribution and Assignment**

The distribution of traffic arriving and leaving the project site is identified based upon existing traffic patterns and the location of recreational, residential/lodging, and commercial land uses near the project site. Unlike the analysis of Alternative 1, the trip distribution is concentrated in the local Tahoe City and North Tahoe area, given that this alternative includes only commercial uses. The estimated distribution of the project traffic during the summer peak hours is as follows:

- ▲ West Shore – 22 percent
- ▲ SR 89 north of Tahoe City – 25 percent
- ▲ SR 28 east of Tahoe City Lodge site – 53 percent

**Table 10-10 Tahoe City Lodge – Alternative 4 Trip Generation at Site Access**

Land Use	ITE Code	ITE Land Category	Quantity	Unit	Trip Generation Rates <sup>1</sup>			Reduction for Internal and Non-Auto Trips	One-Way Vehicle Trips at Site Driveway				
					Daily	PM Peak Hour			Daily	PM Peak Hour		Total	
						In	Out			Total	In		Out
<b>Fully Leased Option (Alt 4)</b>													
High Turnover Restaurant	932	High Turnover Restaurant	6.531	KSF	127.15	5.91	3.94	9.85	15%	706	33	21	54
Retail	826	Specialty Retail Center	6.051	KSF	44.32	1.19	1.52	2.71	15%	228	6	8	14
Gym	492	Health/Fitness Club	3.072	KSF	32.93	2.07	1.99	4.06	15%	86	5	5	10
Auto Garage/Repair	942	Automobile Care Center	2.619	KSF	23.72	1.49	1.62	3.11	15%	53	3	4	7
Coffee Shop	936	Coffee/Donut w/out Drive-thru	0.600	KSF	779.37	20.38	20.38	40.75	15%	397	10	10	20
Furniture Store	890	Furniture Store	0.273	KSF	5.06	0.22	0.23	0.45	15%	1	0	0	0
Fast Food Restaurant	933	Fast-Food W/out Drive-thru	1.470	KSF	716.00	13.34	12.81	26.15	15%	895	17	15	32
Spa <sup>2</sup>	918	Hair Salon	1.344	KSF	23.71	0.25	1.20	1.45	15%	27	0	2	2
Bar	925	Drinking Place	4.344	KSF	205.36	7.48	3.86	11.34	15%	758	28	14	42
<b>Total</b>			<b>26.304</b>	<b>KSF</b>						<b>3,151</b>	<b>102</b>	<b>79</b>	<b>181</b>
<b>Net Change – Alt 4 Minus Existing</b>										<b>1,819</b>	<b>54</b>	<b>36</b>	<b>90</b>

Notes: KSF = 1,000 square feet

<sup>1</sup> Trip generation rates are based on the ITE Trip Generation manual, 9th Edition.

<sup>2</sup> As a standard daily trip rate is not available for the Hair Salon land use, the daily trip rate is estimated by applying a factor to the peak-hour rate, based upon the daily-to-peak-hour factor for the Specialty Retail land use

Source: LSC Transportation Consultants, Inc. 2016

The net increase in project trips is assigned to the study intersections by applying the distribution pattern to the traffic generation.

#### **Reductions for Pass-By Trips**

A portion of trips associated with the potential retail uses are expected to be “pass-by” trips, or trips attracted from traffic passing the site on SR 28. Pass-by trips generate traffic on the access driveways, but do not add new traffic on regional roadways (as they are made by vehicles already passing by the site that would divert to the new land use as part of a longer trip). The portion of pass-by trips generated by the retail uses is estimated based on a review of average pass-by trip percentages provided in the ITE *Trip Generation Handbook* for various retail land use types. The estimated pass-by trip percentage for the retail uses is 34 percent.

The project trips are assigned to study intersections by applying the trip distribution pattern to the project trips from Table 10-10. The reductions for pass-by trips are allocated to the various roadways based on existing traffic patterns. Subtracting the number of pass-by trips from the total external trips yields the number of new trips generated on external roadways.

#### **Resulting Traffic Assignment – On SR 28**

An estimated 1,273 new DVTE and 60 new PM peak-hour trips would be generated on the external roadway network with implementation of Alternative 4. Relative to Alternatives 1 through 3, Alternative 4 would result in more traffic using the site driveways, but slightly less “new” traffic on SR 28 (as the retail uses attract some drivers that are currently passing by the site as a part of a longer trip). The additional trips generated by Alternative 4 would increase the westbound traffic volume on the segment of SR 28 roadway between the Wye and Grove Street by up to approximately 19 vehicle trips (or an increase of up to 3.0 percent) in the peak hour. Alternative 4 would increase the eastbound traffic by up to approximately 16 vehicles in the peak hour. A review of the traffic generated by the Lodge Alternative 4 indicates that the additional traffic would exacerbate the existing LOS deficiency in the eastbound direction and degrade the existing acceptable LOS in the westbound direction during the peak period. Because mitigation cannot be required of a no-action alternative, this impact would be **significant and unavoidable**.

### **Mitigation Measure 10-1a: Construct pedestrian crossing improvements at the Grove Street/SR 28 intersection**

*This mitigation measure applies to Area Plan Alternatives 1, 2, and 3.*

As described above, pedestrian crossings, particularly near the SR 28/Grove Street intersection contribute to vehicular congestion and the existing unacceptable LOS conditions at the SR 28/Grove Street intersection. To reduce traffic delays on SR 28 through the Tahoe City Town Center during peak summer periods, Placer County shall construct a pedestrian activated hybrid beacon crossing at the Grove Street and SR 28 intersection in Tahoe City. The Tahoe City Mobility Plan and the Proposed Area Plan already identify this pedestrian crossing as a needed improvement. Article 15.28.010 of the Placer County Code establishes a road network Capital Improvement Program. The payment of traffic impact fees funds the Capital Improvement Program for area roadway improvements, such as the hybrid beacon pedestrian crossing. The implementation of the hybrid beacon pedestrian crossing would consolidate pedestrian crossings, which would reduce the impacts of pedestrian crossings on LOS at the Grove Street/SR 28 intersection.

### **Mitigation Measure 10-1b: Establish a County Service Area Zone of Benefit to fund expansion of transit capacity**

*This mitigation measure applies to Area Plan Alternatives 1, 2, and 3.*

The key constraint to expanding transit capacity is the availability of ongoing transit operating subsidy funding, as discussed in the recently completed System Plan Update for the Tahoe Truckee Area Regional Transit in Eastern Placer County (LSC, 2016). While the proposed Area Plan includes Policy T-P-22 (“Secure adequate funding for transit services so that transit is a viable transportation alternative”), this does not identify a

specific mechanism to assure expansion of transit services to address increased peak demand. To provide an ongoing source of operating funding as well as transit bus seating capacity, Placer County shall establish one or more County Service Area Zones of Benefit encompassing the developable portions of the Plan area. Ongoing annual fees would be identified to fund expansion of transit capacity as necessary to expand seating capacity to accommodate typical peak-period passenger loads. At a minimum, this would consist of four additional vehicle-hours of transit service per day throughout the winter season on each of the following three routes: North Shore (North Stateline to Tahoe City), SR 89 (Tahoe City to Squaw Valley), and SR 267 (North Stateline to Northstar), as well as the expansion of transit fleet necessary to operate this additional service. Fees would be assessed on all future land uses that generate an increased demand for transit services, including residential, lodging, commercial, civic, and recreational land uses.

### **Mitigation Measure 10-1c: Payment of traffic mitigation fees to Placer County**

*This mitigation measure applies to Area Plan Alternatives 1, 2, and 3 and Tahoe City Lodge Alternatives 1 and 3.*

Prior to issuance of any Placer County Building Permits, projects within the Area plan shall be subject to the payment of established Placer County traffic impact fees that are in effect in this area, pursuant to applicable county Ordinances and Resolutions. Traffic mitigation fees shall be required and shall be paid to the Placer County Department of Public Works and Facilities subject to the County Wide Traffic Limitation Zone: Article 15.28.010, Placer County Code. The fees will be calculated using the information supplied. If the use or the square footage changes, then the fees will change. The actual fees paid will be those in effect at the time the payment occurs.

#### **Significance after Mitigation**

Drivers on SR 28 through the Tahoe City core area currently experience substantial delays during peak summer periods due to a combination of factors, including pedestrian crossings, parking maneuvers, vehicular turning movements, and bicyclists. To address the roadway LOS deficiency on SR 28 east of the Wye, Mitigation 10-1a requires the construction and maintenance of a pedestrian activated hybrid beacon crossing at the Grove Street and SR 28 intersection in Tahoe City. Implementation of a pedestrian hybrid beacon would reduce pedestrian impacts to LOS by consolidating the timing and location of pedestrian crossings, and reducing the number of times that vehicles stop for pedestrian crossings, which would reduce the impact of pedestrian crossings on LOS on SR 28 in Tahoe City.

Mitigation Measure 10-1b requires that Placer County establish one or more County Service Area Zones of Benefit encompassing the developable portions of the Plan area. Annual fees would be identified to fund expansion of transit capacity as necessary to expand seating capacity during typical peak-period passenger loads. Fees would be assessed on all future land uses that generate an increased demand for transit services, including residential, lodging, commercial, civic, and recreational land uses. This mitigation measure would provide a funding source for transit expansions, which would reduce traffic volumes and improve vehicle delay conditions on SR 28 in Tahoe City. Establishing a funding mechanism to facilitate increased transit service during peak periods would provide opportunities to increase transit ridership and reduce traffic volumes, which would improve vehicle delay.

Mitigation Measure 10-1c requires that future projects in the Plan area pay Placer County traffic impact fees. These fees provide a funding source that facilitates capital improvements that reduce traffic volumes.

Other mitigation measures were considered but determined to be infeasible or inconsistent. These measures include:

- ▲ Additional expansion of public transit ridership could potentially reduce traffic volumes. To address the deficiency under the various project alternatives, approximately 36 to 63 vehicles per hour would need to be removed in the peak direction. Assuming an average vehicle occupancy rate of two persons per vehicle, 72 to 126 additional transit passengers per hour would need to be served. Comparing the existing two buses per hour to the additional three buses per hour that would be required to serve the

higher of these ridership figures indicates that this would require up to 150 percent increase in transit operating costs. In addition to the financial resources that would be required to operate additional transit vehicles throughout the peak season, generating the necessary increase in ridership even if the service could be provided would require substantial auto use restrictions (such as roadway tolls or substantial parking fees), which may not be possible due to the mix of private and public parking opportunities in the Plan area. Thus, this potential mitigation would be infeasible.

- ▲ Fairway Drive could be improved to effectively bypass downtown Tahoe City; however, this option would result in significant neighborhood traffic impacts, and it is not consistent with TRPA's plans and policies or Placer County standards on local residential streets.
- ▲ The capacity of SR 28 could potentially be improved by eliminating pedestrian/bicycle at-grade crossings, on-street parking, some driveway access, and/or bicycle travel along SR 28. The resulting increased travel speeds would substantially impact pedestrian and bicycle activity. However, these restrictions would contradict Regional Plan and Area Plan goals intended to enhance walkability in downtown Tahoe City.

Mitigation Measures 10-1a, 10-1b, and 10-1c would lessen the impact, but would not necessarily reduce the impact to a less-than-significant level. Because there are no other feasible mitigation measures that would reduce the impact to a less-than-significant level, this impact would be **significant and unavoidable** for all alternatives.

As this is a recognized problem, the Area Plan Alternatives 1 through 3 propose to modify the current LOS standards as described above. If this policy is adopted, the LOS impact at SR 28 in Tahoe City would be consistent with the adopted LOS standard for Alternatives 1, 2, and 3.

## Impact 10-2: Impact on local residential streets

Implementation of Area Plan Alternatives 1 through 4 would not generate an increase in traffic volumes to the extent that a substantial amount of traffic would divert to Fairway Drive causing the capacity of that roadway to be exceeded. Therefore, the Placer County guideline regarding traffic volumes on residential streets would not be exceeded under any Area Plan alternative and this impact would be **less than significant**.

The Tahoe City Lodge Alternatives 1, 3, and 4, would not alter travel patterns or increase volumes to the extent that a substantial amount of traffic would divert to local residential streets. This impact would be **less than significant** under Lodge Alternatives 1, 3, and 4. Alternative 2 would reduce traffic volumes in the area, which would reduce the potential for traffic to divert to Fairway Drive. This would be a **beneficial** impact under Lodge Alternative 2.

### Placer County Tahoe Basin Area Plan Program-Level Analysis

Traffic levels under Area Plan alternatives could affect diversions of traffic from major roadways onto local residential streets, specifically Fairway Drive. In peak summer traffic periods, the capacity of SR 28 in the Tahoe City Town Center is exceeded, resulting in long traffic queues, particularly in the westbound direction. As detailed in the *Tahoe City Mobility Plan: Existing Mobility Conditions Report* (Design Workshop 2015), this condition is a result of high traffic volumes and reductions in roadway capacity related to parking maneuvers, bicycle activity, and (particularly) pedestrian crossing activity. Pedestrian crossing activity is concentrated at the crosswalk on the west side of Grove Street, where up to 75 groups of pedestrians per hour have been recorded crossing the state highway.

Traffic counts conducted by Placer County on Fairway Drive at a location west of Grove Street and east of Bunker Drive in August 2014 indicated average daily traffic volumes of 600 vehicles per day, with close to an even directional split. While a portion of this existing traffic could be generated by drivers bypassing

SR 28, this volume is not inconsistent with expected volumes given the land uses served by the roadway (residential, institutional, church, ballfields).

The potential for diversion of SR 28 traffic onto Fairway Drive is impacted by several factors:

- ▲ In the westbound direction, drivers do not have an opportunity to divert away from SR 28 until they reach Jackpine Street. From this point, the diversion route to the point where a driver can regain the state highway system (SR 89/Fairway Drive intersection) is 5,720 feet, compared with a travel distance of 4,230 feet along the state highways. The fact that the alternate route is more than a 0.25 mile longer tends to reduce the attractiveness of Fairway Drive as a means to avoid SR 28 congestion, as does the relatively narrow roadway, on-street parking, and vertical curves. Assuming an average travel speed via the Fairway Drive diversion of 25 miles per hour (including delays for turning movements and stop signs), using this route in the westbound direction would save a driver time once the average speed on SR 28/89 between Jackpine Street and Fairway Drive falls below 19 miles per hour. Since there are many periods during peak summer when this occurs, it can be concluded that there is a potential for diversion.
- ▲ The westbound traffic on SR 28 is comprised of traffic bound for SR 89 North, SR 89 South, as well as to Tahoe City destinations. As the westbound diversion route is west of the SR 28/SR 89 intersection (and traveling to SR 89 South would require a difficult left-turn movement onto SR 89), the potential for westbound diversions is limited to drivers heading to SR 89 North (Squaw Valley/Alpine Meadows, Truckee, or beyond). Based on turning movement counts, approximately 37 percent of the westbound traffic on SR 28 approaching Jackpine Street is bound for SR 89 North (while the largest proportion is bound to SR 89 South). This trip pattern also tends to limit the potential for diversion traffic.
- ▲ In the eastbound direction, drivers traveling eastbound on SR 89 (in the “southbound” direction) have the opportunity to turn left onto Fairway Drive, exiting back onto SR 28 eastbound at either Grove Street or Jackpine Street. Drivers with enough awareness of the local roadway system, however, can also be expected to be aware of the long delays that would be faced waiting to regain access to the highway at peak times. The potential for diversion in the eastbound direction is very low.

As the potential for diversion only occurs when SR 28 is at capacity, and as the periods of forced traffic flow exist for more than an hour, the additional growth in traffic does not increase the peak-hour traffic volumes that could potentially divert to Jackpine Street. The traffic growth, however, does extend the hours per day that forced flow would occur, and thus the total daily diverted traffic volumes.

Beyond the relative travel times, the actual amount of traffic that would divert off of SR 28 in the future would depend on factors that are somewhat speculative: the proportion of drivers that are aware of the diversion route option, the advancement of real-time driver smartphone apps that identify diversion routes for areas of congestion as limited as Tahoe City, and potential strategies being considered in the Tahoe City Mobility Plan to improve traffic flow on SR 28. Given the Placer County guideline regarding traffic volumes on residential streets (2,500 vehicles per day) and the current traffic volume (600 vehicles per day), daily traffic volume on Fairway Drive would have to increase by 1,900 vehicles per day.

#### **Alternative 1: Proposed Area Plan**

Considering the growth in daily traffic on SR 28 forecast under Alternative 1 is less than 1,400 ADT as discussed in Impact 10-1 and because of the other factors discussed above, Area Plan Alternative 1 would not result in 1,400 or more additional vehicles diverting onto Fairway Drive. This impact would be **less than significant**.

#### **Alternative 2: Area Plan with No Substitute Standards**

Considering the growth in daily traffic on SR 28 forecast under Alternative 2 is less than 1,900 ADT as discussed in Impact 10-1 and because of the other factors discussed above, Area Plan Alternative 2 would not result in 1,900 or more additional vehicles diverting onto Fairway Drive. This impact would be **less than**

**significant.** In comparison with Alternative 1, Alternative 2 would result in slightly lower ADTs on SR 28, and this impact would be less than under Alternative 1.

#### **Alternative 3: Reduced Intensity Area Plan**

Considering the growth in daily traffic on SR 28 forecast under Alternative 3 is less than 1,900 ADT as discussed in Impact 10-1 and because of the other factors discussed above, Area Plan Alternative 3 would not result in 1,900 or more additional vehicles diverting onto Fairway Drive. This impact would be **less than significant.** In comparison with Alternative 1, Alternative 3 would result in slightly higher ADTs on SR 28 and the potential for this impact would be slightly higher than under Alternative 1.

#### **Alternative 4: No Area Plan**

Considering the growth in daily traffic on SR 28 east of Grove Street under Alternative 4 is less than 1,900 ADT as discussed in Impact 10-1 and because of the other factors discussed above, Alternative 4 would not result in 1,900 or more additional vehicles diverting onto Fairway Drive. This impact would be **less than significant.** In comparison with Alternative 1, Alternative 4 would result in slightly lower ADT on SR 28 east of Grove Street, and higher ADT west of Grove Street. The potential for this impact to occur is similar to Alternative 1.

### **Tahoe City Lodge Project-Level Analysis**

#### **Alternative 1: Proposed Lodge**

The potential for the Tahoe City Lodge to divert traffic to local residential streets is relatively low. The growth in daily traffic on SR 28 associated with the lodge project is substantially less than 1,900 ADT as discussed in Impact 10-1. The lodge project would increase the westbound traffic volumes on SR 28 approaching Grove Street during peak periods by 24 vehicles per hour or less, or 3.7 percent of cumulative traffic volumes. As such, the lodge project under Alternative 1, by itself, would result in a **less-than-significant** impact on additional vehicles diverting to local residential streets.

#### **Alternative 2: Reduced-Scale Lodge**

The Reduced-Scale Lodge would reduce daily and peak-hour traffic volumes relative to existing conditions. The westbound traffic volumes on SR 28 approaching Grove Street would be reduced by up to 11 vehicles per hour, which would result in a **beneficial** impact on additional traffic diverting to Fairway Drive related to Alternative 2.

#### **Alternative 3: Reduced Height Lodge**

The impacts under this lodge alternative on local residential streets are the same as with the proposed lodge (Alternative 1). For the reasons described above, this impact would be **less than significant** for Alternative 3.

#### **Alternative 4: No Project**

The potential for the fully-leased commercial property under Alternative 4 to divert traffic to local residential streets is relatively low. The growth in daily traffic on SR 28 associated with Alternative 4 is substantially less than 1,900 ADT as discussed in Impact 10-1. Alternative 4 would increase the westbound traffic volumes on SR 28 approaching Grove Street by up to 19 vehicles per hour, or 3 percent of cumulative traffic volumes. For these reasons, the fully-leased commercial property under Alternative 4, by itself, would result in a **less-than-significant** impact on additional vehicles diverting to local residential streets. In comparison to Alternative 1, this alternative would result in higher ADTs on SR 28 and a greater potential to divert traffic onto local residential streets.

### **Mitigation Measure**

No mitigation required.

## Impact 10-3: Intersection level of service

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Under all Area Plan alternatives, future development and redevelopment would occur in the Plan area that would affect the LOS of intersection operations. All study intersections would operate at an acceptable LOS under build-out conditions with any of the alternatives, with the exception of the SR 28/Grove Street intersection. Implementation of any alternative would result in increased vehicular delays at this intersection, thereby exacerbating the existing LOS F condition. Implementation of Mitigation Measures 10-3a, 10-3b would lessen the effect on intersection LOS by providing a pedestrian hybrid beacon crossing at the SR 28 and Grove Street intersection, with the approval of Caltrans for work proposed within the State highway, which would reduce the influence of pedestrian crossings on LOS; by establishing a County Service Area Zone of Benefit to fund expansion of transit service, which would reduce traffic volumes; and by having development projects pay Tahoe area traffic mitigation fees to Placer County to fund identified regional Capital Improvement Projects. While Mitigation Measures 10-3a and 10-3b would lessen the effect on intersection operations, implementation of any alternative would still result in increased vehicular delays at the Grove Street/SR 28 intersection and no additional mitigation is feasible. In recognition of the LOS conditions in the Tahoe City Town Center, Area Plan Alternatives 1 through 3 would revise the LOS standards to allow LOS F during peak periods in town centers (Area Plan Policy T-P-6), and the future LOS conditions would not exceed the proposed LOS standard with Alternatives 1 through 3. However, because the alternatives would result in LOS that exceeds existing standards and no additional mitigation is feasible, this impact is considered **significant and unavoidable** for all Area Plan alternatives.

Tahoe City Lodge Alternatives 1, 3, and 4 would slightly increase the traffic volumes through the SR 28/Grove Street intersection during the peak hour. Although the increase would be minimal, the resulting increase in traffic delays would exacerbate the existing LOS F condition at this intersection. Implementation of Mitigation Measures 10-3a and 10-3b would require that the lodge project applicant be responsible for annual transit fees beginning with the first year of operation, which would provide new funding for increased transit operations partially offsetting this impact. After implementation of Mitigation Measures 10-3a and 10-3b some additional vehicle trips would still likely exacerbate the existing LOS F condition. Because no additional mitigation measures are feasible, this impact would remain **significant and unavoidable** for Lodge Alternatives 1, 3, and 4. Lodge Alternative 2 would reduce traffic volumes at the SR 28/Grove Street intersection by approximately 1.3 percent. This reduction in traffic volumes would create a **beneficial** impact to intersection LOS for Lodge Alternative 2.

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### Placer County Tahoe Basin Area Plan Program-Level Analysis

#### **Alternative 1: Proposed Area Plan**

The LOS at each study intersection was evaluated after build-out of Alternative 1. Appendix G contains the LOS output, and Table 10-11 presents existing and 2035 build-out intersection LOS with Alternative 1. The worst movement on the SR 28/Grove Street intersection would continue to operate at LOS F with the addition of traffic generated under Alternative 1, and the average delay per vehicle would increase. Although the LOS at some of the other study intersections would degrade by one level, they would not exceed the applicable standards. Because Alternative 1 would exacerbate existing LOS F conditions at the SR 28/Grove Street intersection, this would be a **significant** impact.

#### **Alternative 2: Area Plan with No Substitute Standards**

The LOS at each study intersection was evaluated after build-out of Alternative 2. Appendix G contains the LOS output, and the results are shown in Table 10-11. The worst movement on the SR 28/Grove Street intersection would continue to operate at LOS F with the addition of traffic generated by Alternative 2, and the average delay per vehicle would increase. Although the LOS at some of the other study intersections would degrade by one level, they would not exceed the applicable standards. However, as Alternative 2 would exacerbate existing LOS F conditions at the SR 28/Grove Street intersection, this impact would be **significant**. When compared with Alternative 1, Alternative 2 would result in the same LOS at all study intersections, with similar average delays.

**Table 10-11 Existing Plus Project Intersection Level of Service**

Intersection	Type of Control <sup>1</sup>		Existing		Alt 1		Alt 2		Alt 3		Alt 4	
			Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
SR 28 / SR 89 (TC "Wye")	Traffic Signal		21.1	C	-	-	-	-	-	-	-	-
With Fanny Bridge Project	Roundabout	Worst Approach	-	-	16.5	C	15.6	C	17.5	C	16.8	C
		Total Intersection	-	-	14.6	B	13.9	B	15.5	C	14.9	B
SR 28 / Mackinaw Rd	Stop-Control		15.2	C	14.4	B	14.3	B	14.8	B	19.5	C
SR 28 / Grove Street	Stop-Control		<b>227.3</b>	<b>F</b>	<b>OVF</b>	<b>F</b>	<b>OVF</b>	<b>F</b>	<b>OVF</b>	<b>F</b>	<b>OVF</b>	<b>F</b>
SR 28 / SR 267	Traffic Signal		31.8	C	40.8	D	43.8	D	43.6	D	41.9	D
SR 28 / Bear Street	Roundabout	Worst Approach	10.5	B	11.5	B	11.2	B	11.3	B	11.2	B
		Total Intersection	9.9	A	10.8	B	10.7	B	10.6	B	10.7	B
SR 28 / Coon Street	Roundabout	Worst Approach	15.8	C	20.2	C	20.4	C	17.3	C	20.8	C
		Total Intersection	12.7	B	15.1	C	15.3	C	13.4	B	15.4	C

**Bold** indicates that LOS threshold is exceeded.  
 OVF = Overflow; overflow indicates a delay greater than 300 seconds per vehicle, which cannot be accurately predicted by HCM methodology.  
<sup>1</sup> LOS for signalized intersections is reported as average total intersection delay. LOS for stop-controlled and roundabout intersections is reported as worst movement delay.  
 Source: LSC Transportation Consultants, Inc. 2016

**Alternative 3: Reduced Intensity Area Plan**

The LOS at each study intersection was evaluated after build-out of Alternative 3. Appendix G contains the LOS output, and the results are presented in Table 10-11. The worst movement on the SR 28/Grove Street intersection would continue to operate at LOS F with the addition of traffic generated by Alternative 3, and the average delay per vehicle would increase. Although the LOS at some of the other study intersections would degrade by one level, they would not exceed the applicable LOS standards. However, as Alternative 3 would exacerbate existing LOS F conditions at the SR 28/Grove Street intersection, this would be a **significant** impact. When compared with Alternative 1, Alternative 3 would result in the same LOS, with slightly higher delays in Tahoe City and slightly lower delays in Kings Beach.

**Alternative 4: No Project**

The LOS at each study intersection was evaluated after build-out of Alternative 4. Appendix G contains the LOS output, and the results are shown in Table 10-11. The worst movement on the SR 28/Grove Street intersection would continue to operate at LOS F with the addition of traffic generated by Alternative 4, and the average delay per vehicle would increase. Although the LOS at some of the remaining intersections would degrade by one level, they would not exceed the applicable LOS standards. However, as Alternative 4 would exacerbate existing LOS F conditions at the SR 28/Grove Street intersection, this would be a **significant** impact. When compared with Alternative 1, Alternative 4 would generally result in the same LOS and similar delays.

**Tahoe City Lodge Project-Level Analysis**

The LOS at the lodge access driveway and nearby intersections is evaluated for each alternative.

**Alternative 1: Proposed Lodge**

The proposed site access driveway (SR 28/Shared Access) would operate at an acceptable LOS C, and the adjacent SR 28/Mackinaw Road intersection would improve to LOS B (as the lodge project would eliminate the north leg of this intersection) under build-out of Area Plan Alternative 1, which includes the proposed Tahoe City Lodge. However, Alternative 1 would increase the traffic volumes through the SR 28/Grove Street intersection by approximately 24 westbound trips during the peak hour, resulting in an increase of 1.6 percent. Although this increase is minimal, the resulting increase in traffic delays would exacerbate the existing LOS F condition at this intersection, resulting in a **significant** impact.

**Alternative 2: Reduced Scale Lodge**

The site access driveway (SR 28/Shared Access) would operate at an acceptable LOS C under Alternative 2, and the adjacent SR 28/Mackinaw Road intersection would improve to LOS B (as the lodge project would eliminate the north leg of this intersection) under build-out of Alternative 2. At the SR 28/ Grove Street intersection, Alternative 2 would reduce traffic volumes by approximately 1.3 percent. These reductions in traffic volume would create a **beneficial** impact to intersection LOS.

**Alternative 3: Reduced Height Lodge**

The intersection LOS impacts under Alternative 3 are the same as Alternative 1. For the reasons described above, this would be a **significant** impact.

**Alternative 4: No Project**

The site access intersection (SR 28/Shared Access) and the adjacent SR 28/Mackinaw Road intersection would operate at an acceptable LOS C under build-out of Alternative 4, which includes the fully-leased existing commercial center on the project site. When compared with Alternative 1, the SR 28/Mackinaw Road/Eastern Site Access intersection would degrade by one level with Alternative 4, due to the additional through traffic under this alternative as well as the fact that the intersection would have a fourth leg (the site driveway) with higher traffic volumes than the opposite leg (Mackinaw Road). Similar to Alternatives 1 and 3, Alternative 4 would increase the traffic volumes through the SR 28/Grove Street intersection by 3.0 percent when compared to existing conditions. Because this increase would exacerbate an existing LOS F condition, Alternative 4 would result in a **significant** impact.

**Mitigation Measure 10-3a: Construct and maintain a pedestrian activated hybrid beacon crossing at the Grove Street/SR 28 intersection pursuant to Mitigation Measure 10-1a, create a transit service expansion funding source pursuant to Mitigation Measure 10-1b, and require payment of traffic mitigation fees to Placer County pursuant to Mitigation Measure 10-1c**

*This mitigation measure applies to Area Plan Alternatives 1, 2, and 3; and Tahoe City Lodge Alternatives 1 and 3.*

This impact would be minimized through the implementation of Mitigation Measures 10-1a, 10-1b, and 10-1c described under Impact 10-1, above. These same mitigation measures would be required to address this impact. In the case of Mitigation Measure 10-1b, the lodge project applicant shall be responsible for annual transit fees beginning with the first year of operation. If the county service area funding program is not implemented prior to the opening of the lodge, the lodge project shall pay all annual fees accrued retroactive to the opening date once the program comes into effect.

**Mitigation Measure 10-3b: Obtain a Caltrans Encroachment Permit for Work within the State Highway**

*This mitigation measure applies to Area Plan Alternatives 1, 2, and 3; and Tahoe City Lodge Alternatives 1 and 3.*

Prior to Improvement Plan approval, the applicant for any development project proposing work within the State Highway right-of-way shall obtain an Encroachment Permit from Caltrans. A copy of said Permit shall be provided to the Placer County Engineering and Surveying Division prior to the approval of the Improvement Plans. Right-of-way dedication to the State, as required, shall be provided to accommodate the existing and future highway improvements.

Caltrans will not issue an Encroachment Permit for work within their right-of-way for improvements (other than signals, road widening, striping and signing) without first entering into a Landscape Maintenance Agreement with the county. This agreement allows for private installation and maintenance of concrete curb/gutters, sidewalks, trails, landscaping and irrigation within Caltrans' right-of-way. A similar agreement between the county and the applicant is required prior to the county entering into the agreement with Caltrans. If applicable, both of these maintenance agreements shall be executed prior to approval of the Improvement Plans.

### **Significance after Mitigation**

Implementation of a pedestrian hybrid beacon, as required by Mitigation Measure 10-1a, would reduce pedestrian impacts to vehicle delay by consolidating the timing and location of pedestrian crossings, and reducing the number of times that vehicles stop for pedestrian crossings. Additionally, establishing a funding mechanism to facilitate increased transit service during peak periods, as required by Mitigation Measure 10-1b, would provide opportunities to increase transit ridership and reduce traffic volumes, which would reduce vehicle delay. Payment of mitigation fees as required by Mitigation Measure 10-1c would provide a mechanism to fund capital improvements necessary to reduce traffic volumes. However, LOS at the Grove Street/SR 28 intersection is also affected by other factors including turning movements and pedestrian crossing activity, which would not be reduced by the mitigation measures. The effectiveness of the mitigation would also depend on pedestrian patterns and utilization of the crossing and transit services. For these reasons, the mitigation measure would not reduce the impact to a less-than-significant level.

Other mitigation measures were considered but determined to be either infeasible or inappropriate for the site. These measures include:

- ▲ Provision of a traffic signal or a roundabout at the Grove Street/SR 28 intersection would improve the LOS. However, the peak-hour intersection volumes do not meet the peak-hour volume signal warrant criteria provided in the California Manual on Uniform Traffic Control Devices (MUTCD, Warrant Number 3) under Alternatives 1, 2, and 4.<sup>1</sup> In addition, a traffic signal has been considered at this location by Caltrans in the past, and was determined to conflict with the vision for Tahoe City and not be appropriate given community concerns. A roundabout is not physically feasible at this location without impacting adjacent private properties and increasing the already-street grade on the northbound Grove Street approach. Therefore, a new traffic signal (or roundabout) at this location was not considered.
- ▲ Provision of additional lanes on the Grove Street approaches were considered, but they would not improve the LOS to an acceptable level. They would also increase pedestrian crossing distances, which would conflict with Area Plan goals related to improving pedestrian mobility in Tahoe City. Mitigation Measure 10-3 would reduce the impact, but would not necessarily reduce the impact to a less-than-significant level.

Because there are no other feasible or effective mitigation measures that would reduce the impact to a less-than-significant level, this impact would be **significant and unavoidable**.

As this is a recognized problem, the Area Plan (with Alternatives 1, 2, and 3) proposes to modify the current LOS standards as follows (see Area Policy T-P-6):

Maintain consistency with Level of Service (LOS) and quality of service standards identified in the Regional Transportation Plan (RTP), with the exception of intersections and roadway segments within the town center boundaries where LOS F is acceptable during peak periods. The RTP allows for possible exceptions to the LOS standards outside the town center boundaries when provisions for multi-modal amenities and/or services (such as transit, bicycling and walking facilities) are incorporated and found to be consistent with Policy T-10.7 of the RTP.

If this policy is adopted, the LOS impact at the SR 28/Grove Street intersection for Area Plan Alternatives 1, 2, and 3; and Lodge Alternatives 1 and 3 would be consistent with the adopted LOS standard.

### **Impact 10-4: Vehicle miles traveled**

Each Area Plan alternative would include variations in policies and standards that would affect the location and characteristics of future land uses, which would affect travel patterns and vehicle miles travelled (VMT). Alternatives 1 and 3 would maintain summer daily VMT levels below the adopted TRPA VMT threshold, and would reduce those VMT levels below existing levels. This would be a **beneficial** impact for Area Plan

<sup>1</sup> Specifically, the combination of total traffic volumes on SR 28 and the greatest approach (southbound) on Grove Street does not meet the combination of values required under this warrant.

Alternatives 1 and 3. Area Plan Alternatives 2 and 4 would result in an increase in VMT over existing levels, but would maintain VMT levels below the adopted TRPA threshold standard. This would be a **less-than-significant** impact for Area Plan Alternatives 2 and 4.

Tahoe City Lodge Alternatives 1 and 3 would result in limited increases in VMT over VMT generated by existing uses at the site. Alternative 4 would result in greater increases in VMT than Alternatives 1 or 3, but under each of these alternatives, the lodge would not contribute to an exceedance of VMT standards and the impact would be **less than significant** for lodge Alternatives 1, 3, and 4. The Reduced Scale Lodge in Alternative 2 would result in a net reduction in VMT below existing conditions, which would be a **beneficial** impact.

### Placer County Tahoe Basin Area Plan Program-Level Analysis

The analysis of VMT generated in the Tahoe Basin over a busy summer day under each Area Plan alternative is based on the Basin-wide VMT figures generated by the TRPA TransCAD model for the four alternatives. The VMT estimates reflect VMT generated from build-out of Area Plan as well as the rest of the Tahoe Region by 2035, which allows for comparison of VMT estimates to TRPA's regional VMT threshold standard. The methodology for calculating VMT is described in more detail in Appendix G, and the cumulative effects on VMT, which also include assumptions about VMT generated by cumulative development outside of the Tahoe Basin, are addressed in Chapter 19, "Cumulative Impacts." Table 10-12 shows the regional VMT for each alternative.

**Table 10-12 Region-Wide Daily Summer VMT Under Build-Out by Alternative**

	Baseline (2015)	Alternative 1 (2035)	Alternative 2 (2035)	Alternative 3 (2035)	Alternative 4 (2035)
Region-wide VMT	1,937,070	1,931,634	1,937,880	1,936,573	1,941,306
TRPA Threshold Standard	2,030,938	2,030,938	2,030,938	2,030,938	2,030,938
Standard Met	Yes	Yes	Yes	Yes	Yes

Source: LSC Transportation Consultants, Inc. 2016

#### Alternative 1: Proposed Area Plan

Alternative 1 would result in a total of 1,931,634 region-wide daily summer VMT under build-out conditions. When compared to the existing summer daily VMT in the Tahoe Region of 1,937,070 (TRPA 2016), Alternative 1 is estimated to reduce region-wide VMT from existing conditions by 5,436, or approximately 0.3 percent. Because Alternative 1 would result in VMT levels that are below existing levels and the TRPA threshold standard, it would have a **beneficial** impact.

#### Alternative 2: Area Plan with No Substitute Standards

Alternative 2 would result in a total of approximately 1,937,880 region-wide summer daily VMT under build-out conditions. When compared to the existing summer daily VMT in the Tahoe Region of 1,937,070 (TRPA 2016), Alternative 2 is estimated to result in an increase of 810, or less than 0.1 percent of the region-wide VMT. The total VMT under Alternative 2 would be below the TRPA threshold standard of 2,030,938 (by 93,058, which would be a **less-than-significant** impact. Alternative 2 has a slightly worse impact on VMT than Alternative 1.

#### Alternative 3: Reduced Intensity Area Plan

Alternative 3 would result in a total of approximately 1,936,573 region-wide summer daily VMT under build-out conditions. When compared to the existing summer daily VMT in the Tahoe Region of 1,937,070 (TRPA 2016), Alternative 3 is estimated to result in a decrease of 497 VMT, or less than 0.1 percent. Because Alternative 3 would result in VMT levels that are below existing levels and the TRPA threshold standard, it would result in a **beneficial** impact. Compared to Alternative 1, Alternative 3 would result in a lower benefit, as it would result in a lower decrease in VMT than Alternative 1.

**Alternative 4: No Project**

Alternative 4 would result in a total of approximately 1,941,306 region-wide VMT at buildout. In comparison with TRPA’s most recent assessment of VMT in the Tahoe Basin (1,937,070), Alternative 4 is estimated to increase existing region-wide VMT by 4,236, or approximately 0.2 percent. The resulting VMT would be below the TRPA threshold standard of 2,030,938, by 89,632. This is a **less-than-significant** impact. This alternative has a slightly lesser impact on VMT than Alternative 1, as it would increase VMT to a lesser degree.

**Tahoe City Lodge Project-Level Analysis**

The effect of the Tahoe City Lodge on VMT is dependent on the origin and destination of persons traveling to and from the site. The change in VMT resulting from implementation of the lodge alternatives are estimated based upon the trip types and average trip lengths identified in the TRPA regional transportation model, and the net increase (or reduction) in regional vehicle trips generated by each of the lodge alternatives. The VMT calculations are presented in Table 10-13. The existing uses at the project site are estimated to generate approximately 5,787 VMT over the course of a peak day.

**Table 10-13 Analysis of Tahoe City Lodge VMT**

Origins/Destination within the Tahoe Basin			Existing Non Pass-by	Lodge Alternative Land Use			
Daily 1-Way Vehicle Trips	Distribution			Alt 1	Alt 2	Alt 3	Alt 4
	Lodge	Retail Non-Pass by					
South Lake Tahoe	3%	2%	19	34	12	34	44
Emerald Bay	4%	1%	9	45	16	45	22
Homewood/Tahoma	10%	10%	93	113	39	113	221
Sunnyside	8%	9%	84	91	31	91	199
Eastern Tahoe City	5%	9%	84	57	19	57	199
Dollar Hill/Lake Forest	0%	9%	84	0	0	0	199
Carnelian Bay	4%	9%	84	45	16	45	199
Tahoe Vista	9%	9%	84	102	35	102	199
Kings Beach/ Crystal Bay	16%	12%	112	181	62	181	265
Incline Village/East Shore	6%	5%	47	68	23	68	110
SR 89 North	35%	25%	233	397	136	397	552
Total	100%	100%	932	1,133	389	1,133	2,206
Daily Vehicle Miles Traveled	Trip Length (Miles)						
South Lake Tahoe	31.2		582	1,060	364	1,060	1,377
Emerald Bay	18.8		175	852	293	852	415
Homewood/Tahoma	8.6		802	974	335	974	1,897
Sunnyside	2.4		201	218	75	218	475
Eastern Tahoe City	0.4		34	23	8	23	79
Dollar Hill/Lake Forest	2.4		201	0	0	0	476
Carnelian Bay	5.7		478	258	89	258	1,132
Tahoe Vista	8.2		688	836	287	836	1,628
Kings Beach/ Crystal Bay	10.0		1,119	1,813	622	1,813	2,647
Incline Village/East Shore	16.3		760	1,108	380	1,108	1,798
SR 89 North	3.6		839	1,428	490	1,428	1,985
Total			5,879	8,570	2,943	8,570	13,910
Source: LSC Transportation Consultants, Inc. 2016							

As required by Subsection 65.2.5(C) of the TRPA Code of Ordinances, all changes in operation associated with the lodge alternatives that would generate at least 100 additional daily vehicle trips would be required to offset the potential negative traffic and air quality impacts of the project by either contributing to the Air Quality Mitigation Fund, providing regional and cumulative mitigation measures, or providing localized mitigation measures.

#### **Alternative 1: Proposed Lodge**

Alternative 1 would generate a total of approximately 8,570 VMT. Subtracting the existing VMT from the proposed VMT yields a net increase of 2,691 VMT relative to existing conditions. When the VMT increase from this lodge alternative is added to the existing region-wide VMT, the resulting VMT amount is below the TRPA Threshold Standard of 2,030,938, by 91,117. The VMT associated with the lodge project with Alternative 1 is included in the Area Plan VMT analysis above, which indicates a reduction in overall VMT and maintenance of the TRPA VMT threshold standard. While the lodge would result in a slight increase in VMT, the lodge in combination with buildout of the Area Plan would reduce overall VMT and maintain the TRPA VMT threshold standard. Therefore, this impact would be **less than significant**.

#### **Alternative 2: Reduced Scale Lodge**

Alternative 2 would generate a total of approximately 2,943 VMT over the course of a peak day. In comparison with the existing VMT (5,879), Alternative 2 results in a net reduction of 2,936 VMT. This would be a **beneficial** impact.

#### **Alternative 3: Reduced Height Lodge**

The VMT impact of Alternative 3 is the same as that of Alternative 1. For the reasons described above, this impact would be **less than significant**.

#### **Alternative 4: No Project**

Under Alternative 4, the project site would generate a total of approximately 13,910 VMT. Subtracting the existing VMT at the project site (5,879) yields a net increase of approximately 8,031 VMT over the course of a peak day. When compared to existing region-wide VMT of 1,937,070 (TRPA 2016), the fully-leased commercial property under Alternative 4 is estimated to increase existing region-wide VMT by approximately 0.4 percent. When the VMT increase from this lodge alternative is added to the existing region-wide VMT, the resulting VMT amount is below the TRPA Threshold Standard of 2,030,938, by 85,837. The VMT associated with the lodge site is included in the Area Plan VMT analysis above, which indicates that Alternative 4 would maintain the TRPA VMT threshold standard. While the fully-leased commercial site in Alternative 4 would result in an increase in VMT, the fully-leased commercial building by itself, and in combination with buildout of the Area Plan under Alternative 4 would maintain the TRPA VMT threshold standard. Therefore, this impact would be **less than significant**.

### **Mitigation Measure**

No mitigation is required.

### **Impact 10-5: Transit service and operations**

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All Area Plan alternatives are expected to result in increased transit ridership during the peak-hour period. As some TART transit runs between Squaw Valley – Tahoe City, Tahoe City – North Stateline and Northstar – North Stateline in winter currently exceed the seating capacity, this increase in transit ridership would result in a **potentially significant** impact for all alternatives. Implementation of Mitigation Measure 10-5 would establish a funding mechanism that would facilitate increased transit service during peak periods. This increased transit service would accommodate typical peak-period transit loads that would occur with Area Plan Alternatives 1, 2, and 3, which would reduce the impact to a **less-than-significant** level for those alternatives. Because mitigation cannot be required for a no-project alternative, Area Plan Alternative 4 would remain **significant and unavoidable**.

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All Tahoe City Lodge alternatives would increase the key PM peak-hour transit ridership. Some of these trips could occur on a route and run already operating with passenger loads exceeding seating capacity during the winter. However, mitigation fees required by the TRPA Code would provide a funding source for transit improvements, which would offset the increase in ridership during peak periods. This impact would be **less than significant** for all lodge alternatives.

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#### Placer County Tahoe Basin Area Plan Program-Level Analysis

TART services in the Plan area currently carry passenger loads that are well within the seating capacity of the TART buses (up to 38 seats) during the spring, summer, and fall. However, in winter, peak-period runs on certain routes exceed seating capacity, requiring passengers to stand and sometimes resulting in passengers having to wait for the next bus. Table 10-14 presents ridership data, which indicates passenger loads exceeding capacity on the North Shore route, SR 89 route, and SR 267 route on runs traveling towards the major ski resorts in the a.m. peak period and back from the major ski resorts in the PM peak period. While TART operates additional bus service on some runs to address this issue, this still has operational and quality of service impacts on the transit service.

#### **Alternative 1: Proposed Area Plan**

Under Alternative 1, housing stock and employment in the region would be increased over current conditions. This would increase transit ridership, exacerbating the existing deficiency in transit seating capacity at peak winter times. This would be a **potentially significant** impact.

#### **Alternative 2: Area Plan with No Substitute Standards**

Under Alternative 2, housing stock and employment in the region would be increased over current conditions. This would increase transit ridership, exacerbating the existing deficiency in transit seating capacity at peak winter times. This would be a **potentially significant** impact, similar to that under Alternative 1.

#### **Alternative 3: Reduced Intensity Area Plan**

Under Alternative 3, housing stock and employment in the region would be increased over current conditions. This would increase transit ridership, exacerbating the existing deficiency in transit seating capacity at peak winter times. This would be a **potentially significant** impact, similar to that under Alternative 1.

#### **Alternative 4: No Project**

Under Alternative 4, housing stock and employment in the region would be increased over current conditions. This would increase transit ridership, exacerbating the existing deficiency in transit seating capacity at peak winter times. This would be a **potentially significant** impact, similar to that under Alternative 1.

#### Tahoe City Lodge Project-Level Analysis

The Tahoe City Lodge project alternatives would not impact existing transit facilities or operations. The site is well-served by the existing bus shelters adjacent to the site and across SR 28. The lodge project, however, would result in changes in transit ridership. Transit passenger trip generation was estimated based upon rates developed for the TART system, as presented in the Martis Valley Transit Plan (LSC Transportation Consultants, Inc. 2005). As shown in Table 10-15, rates were defined based upon observed transit ridership for lodging rooms, for employment and for commercial customers. Applying these rates to the development quantities yields the effects described below. The existing land uses are estimated to generate approximately 21 daily transit passenger-trips and eight PM peak-hour trips (seven inbound and one outbound).

**Table 10-14 Average Ridership and Vehicle Occupancy by Run of Winter TART Services**

Seating Capacity 38 persons															
West Shore				North Shore				Tahoe City -- Truckee				North Stateline -- Truckee			
Run Time	Dir	Passengers	% Capacity	Run Time	Dir	Passengers	% Capacity	Run Time	Dir	Passengers	% Capacity	Run Time	Dir	Passengers	% Capacity
6:32 AM	SB	1.4	4%	6:00 AM	WB	43.1	113%	6:31 AM	NB	10.0	26%	7:00 AM	SB	10.0	26%
7:08 AM	NB	18.7	49%	6:02 AM	EB	11.5	30%	7:30 AM	SB	13.9	37%	7:01 AM	NB	46.1	121%
7:32 AM	SB	6.0	16%	6:32 AM	EB	20.4	54%	7:31 AM	NB	23.1	61%	8:00 AM	SB	7.5	20%
8:08 AM	NB	10.3	27%	7:00 AM	WB	69.1	182%	8:30 AM	SB	5.4	14%	8:01 AM	NB	19.2	51%
8:32 AM	SB	3.4	9%	7:32 AM	EB	7.6	20%	8:31 AM	NB	19.9	52%	9:00 AM	SB	5.6	15%
9:08 AM	NB	11.1	29%	8:00 AM	WB	23.0	61%	9:30 AM	SB	4.6	12%	9:01 AM	NB	16.4	43%
9:32 AM	SB	2.8	7%	8:32 AM	EB	7.2	19%	9:31 AM	NB	14.4	38%	10:00 AM	SB	6.8	18%
10:08 AM	NB	7.5	20%	9:00 AM	WB	14.8	39%	10:30 AM	SB	8.2	22%	10:01 AM	NB	14.3	38%
10:32 AM	SB	3.1	8%	9:32 AM	EB	5.8	15%	10:31 AM	NB	13.3	35%	11:00 AM	SB	5.4	14%
11:08 AM	NB	5.6	15%	10:00 AM	WB	12.9	34%	11:30 AM	SB	8.7	23%	11:01 AM	NB	11.0	29%
11:32 AM	SB	1.8	5%	10:32 AM	EB	7.9	21%	11:31 AM	NB	8.6	23%	12:00 PM	SB	5.9	15%
12:08 PM	NB	4.1	11%	11:00 AM	WB	13.5	36%	12:30 PM	SB	10.9	29%	12:01 PM	NB	11.5	30%
12:32 PM	SB	1.9	5%	11:32 AM	EB	9.0	24%	12:31 PM	NB	10.0	26%	1:00 PM	SB	10.1	27%
1:08 PM	NB	5.8	15%	12:00 PM	WB	13.7	36%	1:30 PM	SB	13.0	34%	1:01 PM	NB	8.1	21%
1:32 PM	SB	1.6	4%	12:32 PM	EB	12.6	33%	1:31 PM	NB	8.5	22%	2:00 PM	SB	10.8	28%
2:08 PM	NB	7.0	18%	1:00 PM	WB	12.5	33%	2:30 PM	SB	24.9	66%	2:01 PM	NB	11.5	30%
2:32 PM	SB	2.8	7%	1:32 PM	EB	14.2	37%	2:31 PM	NB	18.4	48%	3:00 PM	SB	17.8	47%
3:08 PM	NB	7.9	21%	2:00 PM	WB	15.1	40%	3:30 PM	SB	38.4	101%	3:01 PM	NB	15.7	41%
3:32 PM	SB	4.9	13%	2:32 PM	EB	18.5	49%	3:51 PM	NB	12.4	33%	4:00 PM	SB	39.7	104%
4:08 PM	NB	11.9	31%	3:00 PM	WB	13.1	35%	4:30 PM	SB	49.9	131%	4:01 PM	NB	19.3	51%
4:32 PM	SB	9.9	26%	3:32 PM	EB	16.2	43%	4:51 PM	NB	12.7	33%	5:00 PM	SB	39.3	103%
5:08 PM	NB	12.9	34%	4:00 PM	WB	11.9	31%	5:30 PM	SB	17.3	46%	5:01 PM	NB	14.2	37%
5:32 PM	SB	9.6	25%	4:32 PM	EB	33.6	88%	No Service				No Service			
6:08 PM	NB	2.7	7%	5:00 PM	WB	20.9	55%								
No Service				5:32 PM	EB	42.2	111%								
				6:00 PM	WB	16.5	43%								
				6:26 PM	EB	7.0	18%								
				6:32 PM	WB	17.0	45%								

Source: TART ridership data for January 11, 2016 through January 24, 2016; data provided by LSC Transportation Consultants, Inc. 2016

**Table 10-15 Tahoe City Lodge Winter Transit Passenger Trip Generation**

		Lodging (Per Room)	Employment (Per Employee)	Commercial Customers (per KSF)	TOTAL	Net Change
<b>Trip Generation Rate: 1-Way Transit Passenger Trips per Unit of Development</b>						
Peak Hour In		0.000	0.069	0.111		
Peak Hour Out		0.039	0.009	0.000		
Total Daily		0.069	0.148	0.711		
Existing	Development Value	0	31	15		
	Peak Hour In	0	2	2	4	
	Peak Hour Out	0	0	0	0	
	Total Daily	0	5	11	16	
Alt 1	Development Value	118	40	6		
	Peak Hour In	0	3	1	4	0
	Peak Hour Out	5	0	0	5	5
	Total Daily	8	6	4	18	2
Alt 2	Development Value	56	23	4		
	Peak Hour In	0	2	0	2	-2
	Peak Hour Out	2	0	0	2	2
	Total Daily	4	3	3	10	-6
Alt 3	Development Value	118	35	4		
	Peak Hour In	0	2	0	2	-2
	Peak Hour Out	5	0	0	5	5
	Total Daily	8	5	3	16	0
Alt 4	Development Value	0	51	26		
	Peak Hour In	0	4	3	7	3
	Peak Hour Out	0	0	0	1	0
	Total Daily	0	8	18	26	10

Source: LSC Transportation Consultants, Inc. 2016

However, as required by Subsection 65.2.5(C) of the TRPA Code, all changes in operation associated with the lodge alternatives would be required to offset the potential traffic and air quality impacts of the project by either contributing to the Air Quality Mitigation Fund, providing regional and cumulative mitigation measures, or providing localized mitigation measures. It is assumed the lodge project under Alternatives 1 through 3 would offset impacts through the payment of Air Quality Mitigation fees. These fees would be provided by TRPA to Placer County or regional transportation providers to support transit service, among other mobility improvements. In addition, the lodge would be located within a pedestrian oriented town center and many amenities and recreation opportunities would be accessible without the use of transit or private vehicles.

**Alternative 1: Proposed Lodge**

Compared to the transit ridership generated by the existing site, Alternative 1 would increase daily transit ridership by two passenger-trips, and would increase the key outbound PM peak-hour transit ridership by five passenger-trips. Some of these trips could occur on a route and run already operating with passenger loads exceeding seating capacity during the winter. However, mitigation fees required by TRPA Code would provide a

funding source for transit improvements, which would offset the increase in ridership during peak periods. This impact would be **less than significant**.

#### **Alternative 2: Reduced Scale Lodge**

Compared to transit ridership generated by the existing site, Alternative 2 would reduce daily transit ridership by 6 passenger-trips, but would increase the key outbound PM peak-hour transit ridership by 2 passenger-trips. Some of these trips could occur on a route and run already operating with passenger loads exceeding seating capacity during the winter. However, mitigation fees required by the TRPA Code would provide a funding source for transit improvements, which would offset the increase in ridership during peak periods. This impact would be **less than significant**.

#### **Alternative 3: Reduced Height Lodge**

Compared to transit ridership generated by the existing site, Alternative 3 would not change daily transit ridership, but would increase the key outbound PM peak-hour transit ridership by five passenger-trips. Some of these trips could occur on a route and run already operating with passenger loads exceeding seating capacity during the winter. However, mitigation fees required by the TRPA Code would provide a funding source for transit improvements, which would offset the increase in ridership during peak periods. This impact would be **less than significant**.

#### **Alternative 4: No Project**

Compared to transit ridership generated by the existing site, Alternative 4 would increase daily transit ridership by 10 passenger-trips, but would not increase the key outbound PM peak-hour transit ridership. This impact would be **less than significant**.

### **Mitigation Measure 10-5: Create a transit service expansion funding source pursuant to Mitigation Measure 10-1b**

*This mitigation measure applies to Area Plan Alternatives 1, 2, and 3.*

This impact would be minimized through the implementation of Mitigation Measure 10-1b described under Impact 10-1, above. These same mitigation measure would be required to address this impact.

#### **Significance after Mitigation**

Mitigation Measure 10-5 would establish a funding mechanism that would facilitate increased transit service during peak periods. This increased transit service would accommodate typical peak-period transit loads that would occur under each of the alternatives, which would reduce the impact to a **less-than-significant** level for Alternatives 1, 2 and 3. Because mitigation cannot be required for a no-project alternative, Alternative 4 would remain **significant and unavoidable**.

### **Impact 10-6: Bicycle and pedestrian impacts**

Adequate bicycle and pedestrian facilities are expected to be provided under all Area Plan alternatives, as well as for the Tahoe City Lodge project alternatives. Under Area Plan Alternatives 1, 2 and 3, new policies would be adopted that promote improvements to bicycle/pedestrian conditions and specific improvements would be identified. This would result in a **beneficial** impact under Area Plan Alternatives 1, 2, and 3. Area Plan Alternative 4 is not expected to increase traffic hazards to bicyclists and pedestrians, or substantially impact existing bicycle/pedestrian facilities. Under Alternative 4, no new transportation policies would be adopted, and no additional specific bicycle and pedestrian improvements would be identified in the applicable community plans and plan area statements. Bicycle and pedestrian improvements would continue to occur as they currently do, and Alternative 4 would have **no impact**.

None of the lodge alternatives would substantially increase traffic hazards to bicyclists and pedestrians, or substantially impact existing bicycle/pedestrian facilities. Bicycle and pedestrian amenities would be provided in the project area for all alternatives, which would be a **less-than-significant** impact for all lodge alternatives.

## Placer County Tahoe Basin Area Plan Program-Level Analysis

### **Alternative 1: Proposed Area Plan**

Implementation of the Area Plan under Alternative 1 is not expected to increase traffic hazards to bicyclists and pedestrians, or substantially impact existing bicycle/pedestrian facilities. The transportation policies in the Area Plan promote bicycle and pedestrian modes and call for improvements to bicycle and pedestrian facilities. These policy statements go beyond those of the existing plan area statements, community plans, or the Regional Plan to specify specific improvements and management strategies to enhance bicycle and pedestrian conditions (such as T-P-30 and T-P-31). In addition, Policy T-P-6 allowing lower LOS conditions in town centers would provide greater flexibility to enhance pedestrian and bicycle conditions as part of future transportation facility design processes. This impact would be **beneficial**.

### **Alternative 2: Area Plan with No Substitute Standards**

Alternative 2 would include the same policies and bicycle and pedestrian improvements as Alternative 1. For the same reasons as Alternative 1, Alternative 2 would have a **beneficial** impact.

### **Alternative 3: Reduced Intensity Area Plan**

Alternative 3 would include the same policies and bicycle and pedestrian improvements as Alternative 1. For the same reasons as Alternative 1, Alternative 3 would have a **beneficial** impact.

### **Alternative 4: No Project**

Alternative 4 is not expected to increase traffic hazards to bicyclists and pedestrians, or substantially impact existing bicycle/pedestrian facilities. Under Alternative 4, no new transportation policies would be adopted, and no additional specific bicycle and pedestrian improvements would be identified in the applicable community plans and plan area statements. Bicycle and pedestrian improvements would continue to occur as they currently do, and Alternative 4 would have **no impact**.

## Tahoe City Lodge Project-Level Analysis

The Tahoe City Lodge site is well served by sidewalks, Class II bike lanes, and existing crosswalks on SR 28 both west and east of the site.

### **Alternative 1: Proposed Lodge**

The lodge project in Alternative 1 would provide on-site bicycle and pedestrian amenities and it would eliminate an existing driveway along SR 28, thereby eliminating a potential conflict point for vehicles and pedestrians/bicyclists. As Alternative 1 would not substantially increase traffic hazards to bicyclists and pedestrians, or substantially impact existing bicycle/pedestrian facilities, this impact would be **less than significant**.

### **Alternative 2: Reduced Scale Lodge**

The lodge project in Alternative 2 would provide on-site bicycle and pedestrian amenities and it would eliminate an existing driveway along SR 28, thereby eliminating a potential conflict point for vehicles and pedestrians/bicyclists. As Alternative 2 would not substantially increase traffic hazards to bicyclists and pedestrians, or substantially impact existing bicycle/pedestrian facilities, this impact would be **less than significant**.

### **Alternative 3: Reduced Height Lodge**

The lodge project in Alternative 3 would provide on-site bicycle and pedestrian amenities and it would eliminate an existing driveway along SR 28, thereby eliminating a potential conflict point for vehicles and pedestrians/bicyclists. As Alternative 3 would not substantially increase traffic hazards to bicyclists and pedestrians, or substantially impact existing bicycle/pedestrian facilities, this impact would be **less than significant**.

#### Alternative 4: No Project

Adequate bicycle and pedestrian conditions are expected to continue to be provided under Alternative 4. As Alternative 4 would not substantially increase traffic hazards to bicyclists and pedestrians, or substantially impact existing bicycle/pedestrian facilities, this impact would be **less than significant**.

#### Mitigation Measure

No mitigation is required.

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### Impact 10-7: Potential to increase hazards due to a design feature or incompatible uses

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None of the Area Plan or lodge alternatives would substantially increase traffic hazards to motorists, bicyclists, or pedestrians; or substantially impact existing bicycle/pedestrian facilities. As such, this would be a **less-than-significant** impact under all alternatives.

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#### Placer Area Plan Program-Level Analysis

None of the Area Plan alternatives include specific transportation elements that inherently would increase the potential for hazard. Any individual projects would be subject to all applicable federal, state and local design standards. As such, this would be a **less-than-significant** impact under all alternatives.

#### Tahoe City Lodge Project-Level Analysis

##### Alternative 1: Proposed Lodge

Alternative 1 would eliminate an existing driveway along SR 28, which would improve traffic flow and decrease potential conflict points for vehicles and pedestrians/bicyclists. It would also eliminate the potential for conflicts in the center turn lane (i.e., conflicts between drivers turning left into the eastern site driveway and drivers turning left into Mackinaw Road). The offset distance between the proposed lodge access point on the north side of SR 28 and Mackinaw Road on the south side of SR 28 is about 95 feet (centerline-to-centerline distance). As these intersections are closely-spaced, there is the potential for a driver turning left from the lodge site to conflict with another driver simultaneously turning left from Mackinaw Road. However, as Alternative 1 is not expected to increase the left turns exiting the site driveway above current levels, the project would not substantially increase the potential for vehicular conflicts. Overall, the Alternative 1 lodge project is not expected to substantially increase hazards due to a design feature or incompatible uses. This impact would be **less than significant**.

##### Alternative 2: Reduced Scale Lodge

Alternative 2 would eliminate an existing driveway along SR 28, which would improve traffic flow and decrease potential conflict points for vehicles and pedestrians/bicyclists. It would also eliminate the potential for conflicts in the center turn lane (i.e., conflicts between drivers turning left into the eastern site driveway and drivers turning left into Mackinaw Road). Alternative 2 would result in a net reduction in the left turns exiting the site driveway, and therefore, the project would not increase the potential for vehicular conflicts. Overall, the Alternative 2 lodge project is not expected to substantially increase hazards due to a design feature or incompatible uses. This impact would be **less than significant**, similar to Alternative 1.

##### Alternative 3: Reduced Height Lodge

Alternative 3 would eliminate an existing driveway along SR 28, which would improve traffic flow and decrease potential conflict points for vehicles and pedestrians/bicyclists. It would also eliminate the potential for conflicts in the center turn lane (i.e., conflicts between drivers turning left into the eastern site driveway and drivers turning left into Mackinaw Road). As Alternative 3 is not expected to increase the left turns exiting the site driveway, the project would not substantially increase the potential for vehicular conflicts. Overall, the Alternative 3 lodge project is not expected to substantially increase hazards due to a design feature or incompatible uses. This impact would be **less than significant**, similar to Alternative 1.

**Alternative 4: No Project**

The fully-leased commercial property in Alternative 4 would increase the eastbound left-turn movements into the eastern site driveway by approximately five turns per hour. This would result in approximately one additional eastbound left-turn movement using the center turn lane every 12 minutes, on average. This would not substantially increase the potential for vehicular conflicts. At the western driveway, the number of left turns exiting the driveway would increase by approximately six turns per hour. This equates to one additional exiting left turn using the center turn lane every 10 minutes, on average. Considering the low travel speeds along SR 28 at this location, this would not substantially increase the potential for vehicular conflicts. Overall, Alternative 4 is not expected to substantially increase hazards due to a design feature or incompatible uses. This impact would be **less than significant**. Although this impact is similar to that under Alternative 1, this alternative does not provide the benefit of eliminating an existing access point along SR 28.

**Mitigation Measure**

No mitigation is required.

**Impact 10-8: Parking conditions**

Area Plan Alternatives 1, 2, and 3 would include new parking provisions that would result in more efficient use of parking areas. These alternatives would result in lower total parking supply in town centers, while still providing adequate parking. Alternative 4 would make no changes to parking standards and future projects would continue to provide parking consistent with existing requirements. As a result, all Area Plan alternatives would result in a **less-than-significant** impact.

Under Lodge Alternatives 1, 3, and 4, the parking supply would meet or exceed the parking demand, and the parking impacts would be **less-than-significant**. Under Lodge Alternative 2, on-site parking would not be sufficient to meet peak parking demand, which would be a **significant** impact. Implementation of Mitigation Measure 10-6 would expand on-site parking by three spaces to provide adequate capacity to meet peak parking demand. After implementation of Mitigation Measure 10-6, Lodge Alternative 2 would result in a **less-than-significant** impact.

**Placer Area Plan Program-Level Analysis****Alternative 1: Proposed Lodge**

Alternative 1 would include the following new parking provisions that would result in more efficient use of parking areas:

- ▲ Updated parking demand standards that are consistent with current parking needs for various land use types as well as reflect non-auto travel;
- ▲ new policies that provide greater flexibility for shared parking strategies that reduce community-wide required parking spaces while meeting the peak demands of individual land uses;
- ▲ modifications to policies to allow parking design more consistent with established community centers; and
- ▲ establishment of in-lieu parking policies to generate funding for more-efficient public parking and to expand design opportunities on smaller lots.

Implementation of revised parking standards would result in a decrease in the required parking rates for most land use categories, including offices, food and beverage retail stores, larger multiple-family dwelling units, health care services and theaters/auditoriums, based upon a detailed evaluation of parking needs, along with an increase in required parking rates for recreation centers and auto repair shops. These provisions would also reduce parking rates in town centers to reflect existing non-auto travel and to

encourage additional non-auto travel; and provide greater flexibility in use of offsite parking and use of winter snow storage area for peak summer parking needs. In addition, these new parking provisions would encourage re-organization of existing parking areas in the Tahoe City Town Center to make more efficient use of pavement and reduce impacts of parking maneuvers on pedestrians, bicyclists and through traffic movements. Taken together, the new parking provisions would result in more efficient use of parking areas. This would result in lower total parking supply in town centers while still providing adequate parking, which would result in a **less-than-significant** impact.

#### **Alternative 2: Reduced Scale Lodge**

Alternative 2 would include the same parking standards as Alternative 1. For the same reasons as Alternative 1, this would result in a **less-than-significant** impact.

#### **Alternative 3: Reduced Height Lodge**

Alternative 3 would include the same parking standards as Alternative 1. For the same reasons as Alternative 1, this would result in a **less-than-significant** impact.

#### **Alternative 4: No Project**

Alternative 4 would yield no change in parking standards or policies that would substantially affect parking conditions. While land uses that would occur under Alternative 4 would require parking, existing requirements would continue to be implemented as they are today, which would result in a **less-than-significant** impact.

### **Tahoe City Lodge Project-Level Analysis**

#### **Alternative 1: Proposed Lodge**

The lodge project included in Alternative 1 would share parking with the golf course/clubhouse uses. To analyze the parking needs of the entire site, the parking demand of each proposed land use is estimated. Next, reductions for internal capture, non-auto travel, and the effect of shared parking are considered. Finally, the peak parking demand is compared to the proposed parking supply, to determine the overall parking balance.

#### **Parking Demand Analysis**

Parking demand for the project area was determined first by considering the peak parking demand of the individual land use elements, and then evaluating the shared parking demand over the course of the day. Table 10-16 presents the evaluation of peak parking demand by land use category. For the land uses other than the golf course, this applies the rates defined in the proposed Area Plan Implementing Regulations. As discussed in Chapter 3, the meeting space would be managed to avoid the need for any additional onsite parking during periods of peak overall parking demand.

These regulations indicate that “Until a fee in-lieu of constructing all required parking spaces or other parking management program is in effect, the Placer County Design Review Committee may approve a 20-percent reduction in the amount of required parking for mixed-use, retail, transient lodging and restaurant projects/uses within a town center.” (Section 3.07.A.5.f). Assuming that this is approved, the 20 percent reduction for town center parking is applied.

A portion of the patrons to the on-site restaurant and bar would also be guests of the lodge, thereby not generating additional parking demand. Based on the number of lodging units and the proposed size of the bar and restaurant, 35 percent of restaurant patrons and 50 percent of bar patrons are estimated to consist of lodging guests, allowing equivalent reductions in parking demand for these uses.

**Table 10-16 Tahoe City Lodge Alternative 1 – Parking Demand Analysis**

Land Use Description	Quantity	Unit	Parking Land Use	Parking Rate <sup>1</sup>		Town Center Parking Reduction <sup>2</sup>	Captive Market Parking Reduction <sup>3</sup>	Total Required Parking for Individual Land Use (Spaces)
<b>Proposed Lodge</b>								
Lodge Rooms	40	Rooms	Hotel, Motel, and Other Guest Facility	1.00	per Room	20%	0%	32
1-Bedroom Suites	31	Units		1.00	per Unit	20%	0%	25
2-Bedroom Suites	47	Units		1.25	per Unit	20%	0%	47
<b>Subtotal Lodge</b>	<b>118</b>	<b>Units</b>						<b>104</b>
Restaurant	3.8	KSF	Eating and Drinking Places	10	per KSF	20%	35%	20
Roof Top Bar	2.0	KSF		10	per KSF	20%	50%	8
<b>Subtotal Lodge Parking Demand</b>								<b>132</b>
Golf Course	9	Holes	See Table 10-17 <sup>2</sup>					226
New Meeting Space	3.1	KSF	Accessory Use <sup>4</sup>					0
<b>Subtotal Golf Course Parking Demand</b>								<b>26</b>
<b>Total Project Base Parking Demand (Without Shared Parking)</b>								<b>158</b>

<sup>1</sup> Parking rates obtained from Area Plan Implementing Regulations.  
<sup>2</sup> Per Section 3.07.A.5.f of the Area Plan Implementing Regulations. As this reflects non-auto use, it is not appropriate to apply a separate reduction factor reflecting travel mode.  
<sup>3</sup> To avoid duplicating the reduction applied to other uses, no reduction is applied to the lodging use. Local meetings/events are assumed to occur in the new meeting space over the course of a typical busy day. Therefore, the meeting attendees are not assumed to also stay at the hotel.  
<sup>4</sup> As presented in the Chapter 3, "Proposed Project and Alternatives," use of this space would be managed to avoid creating a net increase in total peak parking demand. Source: LSC Transportation Consultants, Inc. 2016

**Golf Course Parking Demand**

As an existing use, it is appropriate to base parking demand for the golf course on existing parking demand. This was conducted through an analysis of existing numbers and use patterns of golfers, non-golfer patrons of the on-site grill, and employees, as follows:

- ▲ Daily records for total golfers each day for the entire 2015 summer season were obtained. The peak day of play was found to be July 3, when a total of 144 individual rounds of golf were played.
- ▲ For three peak days (June 28, July 3, and September 6), the tee time records were obtained and evaluated, to determine the proportion of daily golfers teeing off in each hour of the day.
- ▲ The golf course concessionaire indicates that the average length of play is 2.5 hours. This was used to factor the starting time data to estimate the number of individual golfers on the course in each hour.
- ▲ The concessionaire also estimates that 50 percent of golfers also patronize the grill, and stay for about 1 hour. This information along with the estimate of how many golfers are coming off the course in each hour yielded the number of grill patrons that were also golfers in each hour.
- ▲ The concessionaire also estimates that golfers constitute three-quarters of all grill patrons and the remaining one-quarter are non-golfers. These non-golfing grill patrons are assumed to be on-site in the same pattern over the course of the day as the golfing grill patrons.
- ▲ There are a total of six employees that operate the golf course and grill over the course of the day, from the 6:00 a.m. hour through the 8:00 p.m. hour. The concessionaire indicates that the maximum number onsite occurs between 9:00 a.m. and 3:00 p.m., when four employees are onsite.

As shown in Table 10-17, this yields hourly estimates of the number of persons on-site over the course of a peak summer day. Average auto travel mode proportions and average vehicle occupancy data are then applied, based upon TRPA/TMPO surveys and regional travel model data, to identify parking demand by hour. Golf course parking demand was found to reach a maximum of 26 vehicles, in the 11 a.m. and 12 Noon hours.

#### **Clubhouse Parking Demand**

As part of Alternative 1, the existing golf course clubhouse would be reconstructed with a new 2-story clubhouse. The new ground floor would contain similar uses and square footage as the existing golf course clubhouse. However, an additional 3,000 square feet of meeting and event space would comprise the new second floor. That space is being constructed as an accessory use of the lodge and the golf course.

The lodge would have priority use of the conference space for functions associated with the lodge; TCPUD could use this space for activities accessory to the golf course or for public service/governmental functions. Pursuant to an agreement between the lodge applicant and TCPUD, the lodge shall have priority over all others for use of the space. Additionally, TCPUD would not hold events in the space during peak times for parking demand. As a result, there would be no increase in the peak parking requirements for events not related to the lodge. The approvals for the lodge project would be conditioned accordingly.

If an event takes place utilizing the conference room space

1. Where more than 50 percent of the attendees are not guests of the lodge **AND**
2. The event takes place on weekend days in June and on any day from July 1 through Labor Day **AND**
3. The lodge occupancy on the following evening is forecast to be more than 80 percent

Then the lodge or the organizer of the event shall be required to make arrangements to mitigate the parking demand by

- a. Providing adequate off-site parking within a 400-foot walk distance **OR**
- b. Providing valet parking arrangement, **OR**
- c. Providing a transit shuttle service.

Based on the above conditions, the meeting space has little potential to add to the total parking demand at peak times on peak days. As the chance that an event with high non-lodge guest usage coincides with a peak golf day is very remote, no additional parking demand is added to address this condition. This analysis therefore assumes use of the new meeting/event space would be managed to avoid creating a net increase in total peak parking demand.

#### **Shared Parking Analysis**

The overall demand for parking spaces in each hour of a peak summer day was identified by applying a series of hourly demand factors for the non-golf course uses, as identified in the Urban Land Institute's Shared Parking (2nd Edition). Including the hourly estimate of golf course parking demand results in the total hourly parking demand for all uses, as shown in Table 10-18 and Exhibit 10-4. As indicated, the overall demand peaks at 131 spaces in the 11:00 a.m. hour. A second slightly lower peak of 125 occurs in the 6:00 p.m. hour. Comparing the total peak parking demand of the individual uses with the peak shared parking demand, the ability to fully share parking among all uses reduces the overall parking need by 27 spaces, or approximately 17 percent.

**Table 10-17 Analysis of Existing Golf Course Parking Demand**

	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM
Average % Golfers Starting by Hour	0.3%	5.0%	10.1%	11.4%	14.9%	10.6%	11.9%	9.3%	7.7%	7.2%	9.0%	1.3%	1.3%	0.0%	0.0%	0.0%
Golfers Starting Course	1	8	15	17	21	15	17	13	11	10	13	2	2	0	0	0
Golfers on Course	1	9	24	36	46	45	44	39	34	29	29	21	11	3	1	0
Golfers in Grill	0	0	0	2	6	8	9	9	8	8	6	5	6	8	2	0
Other Grill Patrons	0	0	0	1	2	3	3	3	3	3	2	2	2	3	1	0
Employees	2	3	4	4	4	4	4	4	4	3	3	3	3	2	2	1

	Auto Mode	Auto Occupancy
Golfers	100%	2.58
Other Grill Patrons	85%	1.68
Employees	95%	1.26

**Vehicles Parked On Site**

Golfers on Course	1	4	10	14	18	18	18	16	14	12	12	9	5	2	1	0
Golfers in Grill	0	0	0	1	2	3	3	3	3	3	2	2	2	3	1	0
Other Grill Patrons	0	0	0	1	1	2	2	2	2	2	1	1	1	2	1	0
Employees	2	2	3	3	3	3	3	3	3	2	2	2	2	2	2	1
<b>Total</b>	<b>3</b>	<b>6</b>	<b>13</b>	<b>19</b>	<b>24</b>	<b>26</b>	<b>26</b>	<b>24</b>	<b>22</b>	<b>19</b>	<b>17</b>	<b>14</b>	<b>10</b>	<b>9</b>	<b>5</b>	<b>1</b>

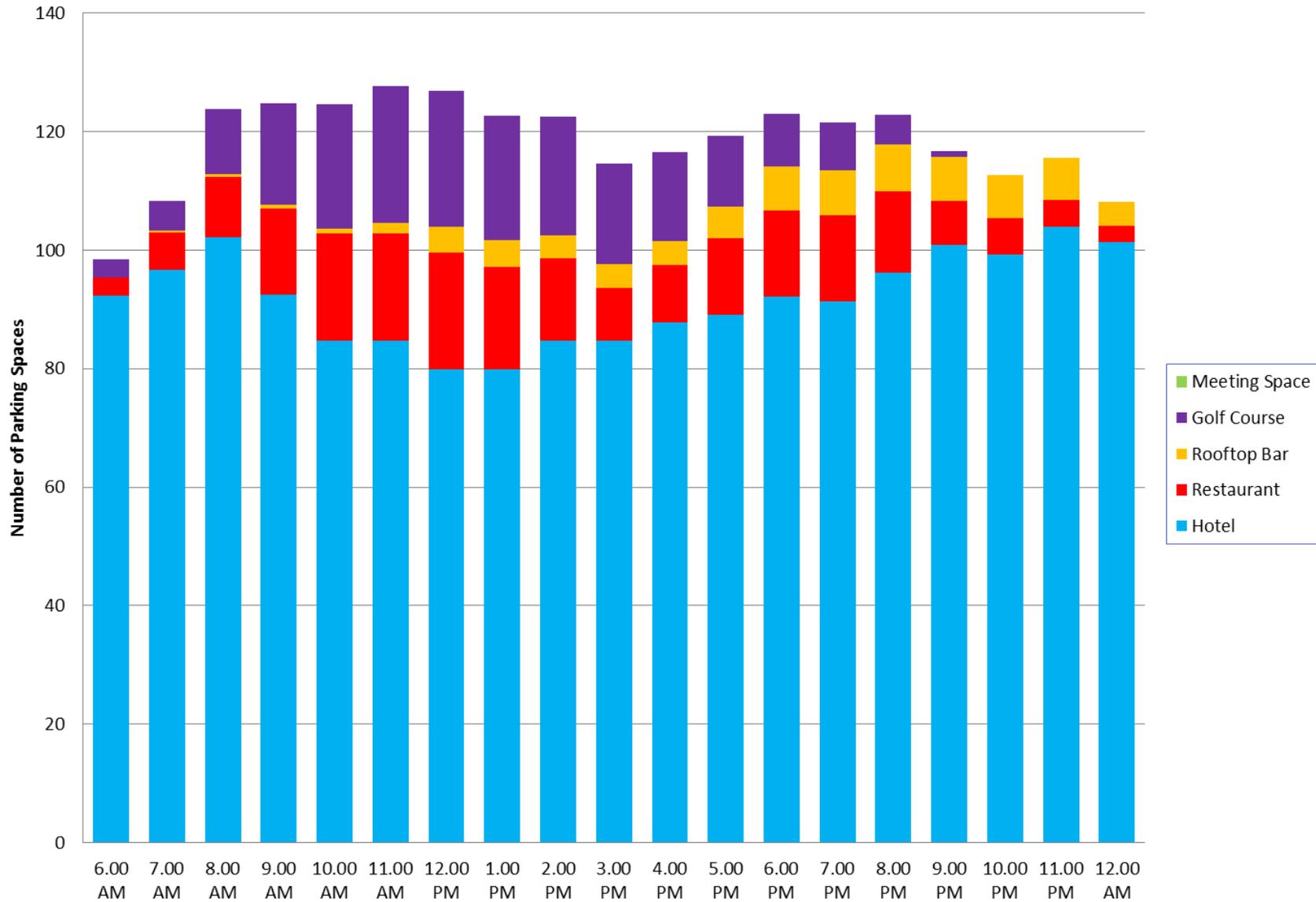
Source: LSC Transportation Consultants, Inc. 2016. Auto occupancy data source - 2014 Travel Summer Mode Share Survey (TMPO, 2014), and TRPA regional model.

**Table 10-18 Tahoe City Lodge Alternative 1 – Hourly Shared Parking Analysis**

Land Use	Unadjusted Parking Demand	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM
<b>Percent of Total Parking Demand by Hour</b>																				
Lodge	-	89%	93%	98%	89%	81%	81%	77%	77%	81%	81%	84%	86%	89%	88%	92%	97%	95%	100%	98%
Restaurant	-	16%	33%	52%	73%	92%	92%	100%	87%	70%	45%	50%	65%	74%	74%	70%	38%	31%	23%	14%
Bar	-	0%	3%	5%	9%	11%	24%	54%	58%	50%	50%	50%	66%	92%	96%	100%	92%	92%	89%	50%
<b>Parking Demand by Hour</b>																				
Lodge	104	92	97	102	93	85	85	80	80	85	85	88	89	92	91	96	101	99	104	101
Restaurant	20	3	6	10	14	18	18	20	17	14	9	10	13	15	15	14	7	6	4	3
Rooftop Bar	8	0	0	0	1	1	2	4	5	4	4	4	5	7	8	8	7	7	7	4
Golf Course	26	3	6	13	19	24	26	26	24	22	19	17	14	10	9	5	1	0	0	0
<b>Total</b>	<b>158</b>	<b>99</b>	<b>110</b>	<b>126</b>	<b>125</b>	<b>128</b>	<b>131</b>	<b>130</b>	<b>126</b>	<b>125</b>	<b>117</b>	<b>119</b>	<b>122</b>	<b>125</b>	<b>123</b>	<b>123</b>	<b>117</b>	<b>113</b>	<b>116</b>	<b>109</b>

**Max Demand**

Source: LSC Transportation Consultants, Inc. 2016. As presented in the Chapter 3, "Proposed Project and Alternatives," use of meeting space would be managed to avoid creating a net increase in total peak parking demand.



Source: LSC Transportation Consultants 2016

**Exhibit 10-4**

**Tahoe City Lodge Alternative 1 – Hourly Parking Demand**

**Parking Balance**

On-site parking is proposed to be provided at the lodge and at the golf course via a shared parking agreement, with a total of 131 parking spaces. The proposed parking plan is included in Appendix D. The existing parking lot accessed via the eastern driveway would be removed as a part of the proposed project.

Comparing the proposed parking supply (131 spaces) with the peak parking demand (131 spaces) assuming shared parking among the proposed mix of land uses, the proposed lodge with Alternative 1 would result in an overall parking balance during peak periods. As described above, use of the new meeting/event space would be managed to avoid creating any additional increase in total peak parking demand. Because adequate parking conditions are expected to be provided, this impact would be **less than significant**.

**Alternative 2: Reduced Scale Lodge**

**Parking Demand Analysis**

Parking demand for the Reduced Scale Lodge is estimated based on the same methodology as the proposed lodge. Table 10-19 presents the evaluation of peak parking demand by land use category. Similar to the Alternative 1, a portion of the patrons to the on-site restaurant and bar would also be guests of the lodge, thereby not generating additional parking demand. Based on the number of lodging units and the proposed size of the restaurant and bar, 25 percent of restaurant patrons and 25 percent of bar patrons are estimated to consist of lodging guests, resulting in equivalent reductions in parking demand for these uses. Finally, the 20 percent reduction for town center parking is applied, consistent with the Area Plan proposed in Alternative 2.

**Shared Parking Analysis**

The overall demand for parking spaces in each hour of a peak summer day was identified by applying a series of hourly demand factors for the non-golf course uses, as identified in the Urban Land Institute’s Shared Parking (2nd Edition). Including the golf course parking demand, the overall hourly parking demand for all uses is shown in Table 10-20. As indicated, the overall demand peaks at 85 spaces in the noon hour. A second slightly lower peak of 75 occurs in the 6:00 p.m. hour. Comparing the total peak parking demand of the individual uses with the peak shared parking demand, the ability to fully share parking among all uses reduces the overall parking need by 13 spaces, or approximately 13 percent.

**Table 10-19 Lodge Alternative 2 – Parking Demand Analysis**

Land Use Description	Quantity	Unit	Parking Land Use	Parking Rate <sup>1</sup>		Town Center Parking Reduction <sup>2</sup>	Captive Market Parking Reduction <sup>3</sup>	Total Required Parking for Individual Land Use (Spaces)
Reduced Scale Lodge								
Lodge Rooms	20	Rooms	Hotel, Motel, and Other Guest Facility	1.00	per Room	20%	0%	16
1-Bedroom Suites	16	Units		1.00	per Unit	20%	0%	13
2-Bedroom Suites	20	Units		1.25	per Unit	20%	0%	20
<b>Subtotal Lodge</b>	<b>56</b>	<b>Units</b>						<b>49</b>
Restaurant	2.6	KSF	Eating and Drinking Places	10	per KSF	20%	25%	16
Roof Top Bar	1.7	KSF		10	per KSF	20%	25%	10
<b>Subtotal Lodge Parking Demand</b>								<b>75</b>
Golf Course	9	Holes	See Table 10-20					26
<b>Subtotal Golf Course Parking Demand</b>								<b>26</b>
<b>Total Project Base Parking Demand</b>								<b>101</b>

<sup>1</sup> Parking rates obtained from the Area Plan Implementing Regulations.

<sup>2</sup> Per Section 3.06.A.5.a of the Area Plan Implementing Regulations. As this reflects non-auto use, it is not appropriate to apply a separate reduction factor reflecting travel mode.

<sup>3</sup> To avoid duplicating the reduction applied to other uses, no reduction is applied to the lodging use.

Source: LSC Transportation Consultants, Inc. 2016

**Table 10-20 Lodge Alternative 2 – Hourly Shared Parking Analysis**

Land Use	Unadjusted Parking Demand	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM
<b>Percent of Total Parking Demand by Hour</b>																				
Lodge	-	89%	93%	98%	89%	81%	81%	77%	77%	81%	81%	84%	86%	89%	88%	92%	97%	95%	100%	98%
Restaurant	-	16%	33%	52%	73%	92%	92%	100%	87%	70%	45%	50%	65%	74%	74%	70%	38%	31%	23%	14%
Bar	-	0%	3%	5%	9%	11%	24%	54%	58%	50%	50%	50%	66%	92%	96%	100%	92%	92%	89%	50%
<b>Parking Demand by Hour</b>																				
Lodge	49	43	45	48	43	40	40	37	37	40	40	41	42	43	43	45	47	47	49	48
Restaurant	16	2	5	8	11	14	14	16	14	11	7	8	10	12	12	11	6	5	4	2
Rooftop Bar	10	0	0	0	1	1	2	5	6	5	5	5	7	9	10	10	9	9	9	5
Golf Course	26	3	6	13	19	24	26	26	24	22	19	17	14	10	9	5	1	0	0	0
<b>Total</b>	<b>101</b>	<b>49</b>	<b>57</b>	<b>70</b>	<b>75</b>	<b>80</b>	<b>83</b>	<b>85</b>	<b>81</b>	<b>78</b>	<b>71</b>	<b>71</b>	<b>73</b>	<b>75</b>	<b>74</b>	<b>72</b>	<b>64</b>	<b>61</b>	<b>62</b>	<b>55</b>
<b>Max Demand</b>																				

Source: LSC Transportation Consultants, Inc. 2016

**Parking Balance**

On-site parking is proposed to be provided at the lodge and at the golf course, with a total of 82 parking spaces. The Alternative 2 parking plan is contained in Appendix D. The existing parking lot accessed via the eastern driveway would be removed as part of the project.

Comparing the proposed parking supply (82 spaces) with the peak parking demand (85 spaces) assuming shared parking among the proposed mix of land uses, Alternative 2 would result in an overall shortfall in parking spaces during peak periods. As adequate parking conditions are not expected to be provided, this impact would be **significant**.

**Alternative 3: Reduced Height Lodge**

**Parking Demand Analysis**

Parking demand for the Reduced Height Lodge is estimated based on the same methodology as the proposed lodge in Alternative 1. Table 10-21 presents the evaluation of peak parking demand by land use category. Similar to Alternative 1, a portion of the patrons to the on-site restaurant and bar would also be guests of the lodge, thereby not generating additional parking demand. Based on the number of lodging units and the proposed size of the bar and restaurant, 55 percent of restaurant patrons and 90 percent of bar patrons are estimated to consist of lodging guests, resulting in equivalent reductions in parking demand for these uses. The percent of bar patrons that are lodging guests is substantially higher under this alternative than Alternative 1 because the floor area of the bar in Alternative 3 is substantially lower. Finally, the 20 percent reduction for Town Center parking is applied, consistent with the Area Plan proposed in Alternative 3.

**Table 10-21 Lodge Alternative 3 – Parking Demand Analysis**

Land Use Description	Quantity	Unit	Parking Land Use	Parking Rate <sup>1</sup>		Town Center Parking Reduction <sup>2</sup>	Captive Market Parking Reduction <sup>3</sup>	Total Required Parking for Individual Land Use (Spaces)
<b>Reduced Height Lodge</b>								
Lodge Rooms	40	Rooms	Hotel, Motel, and Other Guest Facility	1.00	per Room	20%	0%	32
1-Bedroom Suites	37	Units		1.00	per Unit	20%	0%	30
2-Bedroom Suites	41	Units		1.25	per Unit	20%	0%	41
Subtotal Lodge	118	Units						102.4
Restaurant	2.6	KSF	Eating and Drinking Places	10	per KSF	20%	55%	9.4
Roof Top Bar	1.0	KSF		10	per KSF	20%	90%	1
<b>Subtotal Lodge Parking Demand</b>								112
Golf Course	9	Holes	See Table 10-18					23
New Meeting Space	3.1	KSF	Accessory Use <sup>4</sup>					0
<b>Subtotal Golf Course Parking Demand</b>								26
<b>Total Project Base Parking Demand (Without Shared Parking)</b>								138

<sup>1</sup> Parking rates obtained from Area Plan Implementing Regulations.

<sup>2</sup> Per Section 3.06.A.5.a of the Area Plan Implementing Regulations. As this reflects non-auto use, it is not appropriate to apply a separate reduction factor reflecting travel mode.

<sup>3</sup> To avoid duplicating the reduction applied to other uses, no reduction is applied to the lodging use. Local meetings/events are assumed to occur in the new meeting space over the course of a typical busy day. Therefore, the meeting attendees are not assumed to also stay at the lodge.

<sup>4</sup> As described in Chapter 3, “Proposed Project and Alternatives,” use of this space would be managed to avoid creating a net increase in total peak parking demand.

Source: LSC Transportation Consultants, Inc. 2016

As part of the Reduced Height Lodge Project, the existing golf course clubhouse is proposed to be replaced with a new 2-story clubhouse, similar to Alternative 1. As described under Alternative 1, the new meeting/event space would be managed to avoid creating a net increase in total peak parking demand.

#### **Shared Parking Analysis**

Including the golf course parking demand, the overall hourly parking demand for all uses is shown in Table 10-22. As indicated, the overall demand peaks at 119 spaces in the 8:00 a.m. hour. Comparing the total peak parking demand of the individual uses with the peak shared parking demand, the ability to fully share parking among all uses reduces the overall parking need by 19 spaces, or approximately 14 percent.

#### **Parking Balance**

On-site parking is proposed to be provided at the lodge and at the golf course, with a total of 125 parking spaces. The proposed parking plan is contained in Appendix D. The existing parking lot accessed via the eastern driveway would be removed as a part of the project.

Comparing the proposed parking supply (125 spaces) with the peak parking demand (119 spaces) assuming shared parking among the proposed mix of land uses, the Reduced Height Lodge Project would result in an overall parking surplus of up to six spaces during peak periods. Because adequate parking conditions are expected to be provided, this impact would be **less than significant**.

#### **Alternative 4: No Project**

Under Alternative 4, the existing parking capacity and configuration would remain. The existing site has been designed to meet current parking standards and would be expected to continue to provide adequate parking of tenants and customers. Therefore, this impacts would be **less than significant**.

#### **Mitigation Measure 10-6: Expand on-site parking**

*This mitigation measure applies to Lodge Alternative 2.*

During the final design of the reduced-scale lodge, revise the parking configuration and design to expand the onsite parking from 82 to 85 spaces.

#### **Significance after Mitigation**

Mitigation Measure 10-6 would provide adequate onsite parking, which would reduce the impact to a **less-than-significant** level for Lodge Alternative 2.

**Table 10-22 Lodge Alternative 3 – Hourly Shared Parking Analysis**

Land Use	Unadjusted Parking Demand	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM
<b>Percent of Total Parking Demand by Hour</b>																				
Lodge	-	89%	93%	98%	89%	81%	81%	77%	77%	81%	81%	84%	86%	89%	88%	92%	97%	95%	100%	98%
Restaurant	-	16%	33%	52%	73%	92%	92%	100%	87%	70%	45%	50%	65%	74%	74%	70%	38%	31%	23%	14%
Bar	-	0%	3%	5%	9%	11%	24%	54%	58%	50%	50%	50%	66%	92%	96%	100%	92%	92%	89%	50%
<b>Parking Demand by Hour</b>																				
Lodge	102	91	95	<b>101</b>	91	83	83	79	79	83	83	86	88	91	90	95	99	98	102	100
Restaurant	9	1	3	<b>5</b>	7	9	9	9	8	7	4	5	6	7	7	7	4	3	2	1
Rooftop Bar	1	0	0	<b>0</b>	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0
Golf Course	26	3	6	<b>13</b>	19	24	26	26	24	22	19	17	14	10	9	5	1	0	0	0
Meeting Space	0	0	0	<b>0</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>139</b>	<b>96</b>	<b>105</b>	<b>119</b>	<b>118</b>	<b>117</b>	<b>119</b>	<b>115</b>	<b>112</b>	<b>113</b>	<b>107</b>	<b>109</b>	<b>109</b>	<b>109</b>	<b>107</b>	<b>107</b>	<b>105</b>	<b>102</b>	<b>106</b>	<b>102</b>

**Max  
Demand**

Source: LSC Transportation Consultants, Inc. 2016

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