

Appendix P

Mitigation Monitoring and Reporting Program

US 50/South Shore Community Revitalization Project Mitigation Monitoring and Reporting Program

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MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared pursuant to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines to provide for the monitoring and reporting of mitigation measures required of the US 50/South Shore Community Revitalization Project as set forth in the Final Environmental Impact Report/Environmental Impact Statement/Environmental Impact Statement (EIR/EIS/EIS) prepared for the project.

Section 21081.6 of the California Public Resources Code (PRC) and Section 15091(d) and 15097 of the State CEQA Guidelines require public agencies “to adopt a reporting or monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.” A MMRP is required for the proposed project because the EIR/EIS/EIS for the project identified potentially significant and significant adverse impacts related to construction and implementation activities, and mitigation measures have been identified to reduce the severity of those impacts.

This MMRP is being adopted by the Tahoe Transportation District (TTD) as part of CEQA compliance for the US 50/South Shore Community Revitalization Project.

This MMRP will be kept on file at the TTD offices at 128 Market Street, Suite 3F, Stateline, Nevada, 89449.

PURPOSE OF THE MMRP

This MMRP has been prepared to help TTD staff monitor the implementation of required mitigation measures during the construction and operation of the US 50/South Shore Community Revitalization Project. The MMRP may be modified by TTD during project implementation, as necessary, in response to changing conditions or other refinements. A summary table (attached) has been prepared to assist the responsible parties in implementing and monitoring compliance with the MMRP. The table identifies individual mitigation measures, monitoring/mitigation timing, responsible person/agency for implementing the measure, monitoring procedures, and a record of implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the EIR/EIS/EIS.

ROLES AND RESPONSIBILITIES

Some mitigation measures involve additional or modified design features, while others require specific construction practices, or pre- or post-construction activities. Mitigation measures will be implemented by TTD, the contractor selected to construct the project, the project design engineer, and other individuals or entities with required technical expertise. As the primary agency implementing the project and the lead agency under CEQA, TTD has overall responsibility for monitoring compliance with required mitigation measures. In cases where another agency has statutory authority over a specific element of a mitigation measure, that agency is also responsible for monitoring compliance with the mitigation measure. Additional details on the responsibilities for implementation and monitoring of each mitigation measure is provided in the MMRP summary table.

MMRP SUMMARY TABLE

The MMRP Summary Table that follows should guide TTD in its evaluation and records of the implementation of mitigation measures.

The column categories identified in the MMRP Summary Table are described below:

Impacts – describes the impacts requiring mitigation.

Mitigation Measures – provides the text of the mitigation measures identified in the EIR/EIS/EIS.

Monitoring Action – identifies the elements of the mitigation that will be monitored for compliance with the MMRP.

Responsibility – identifies the entity responsible for implementing the requirements of the mitigation measure, and the entity responsible for monitoring compliance with the mitigation measure.

Timing – lists the timeframe in which the mitigation will take place.

References cited in this MMRP are listed immediately after the table below.

US 50/South Shore Community Revitalization Project Mitigation Monitoring and Reporting Program				
Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
3.3 Parks and Recreational Facilities				
<p>Impact 3.3-1: Temporary disruption of public access to public lands and recreation areas</p> <p>During the construction period, Alternatives B, C, and D transportation improvements and mixed-use development including replacement housing would result in temporary disruption of public access to recreation areas and public lands (i.e., Van Sickle Bi-State Park, the Linear Park, and Edgewood Tahoe Golf Course) as a result of construction activities that could occur along US 50, Lake Parkway, and Montreal Road. Because the Linear Park is within the limits of mixed-use development Site 1 for Alternatives B and C, future redevelopment of this site could prolong the disruption in access to this recreation facility. Alternative E would result in temporary interference with pedestrian and vehicle access to Edgewood Tahoe Golf Course associated with the option to restripe Lake Parkway on the lake side of US 50. Alternative A would not result in disruption of public access.</p>	<p>Mitigation Measure 3.3-1: Provide detours and maintain access to recreation facilities and public lands during construction</p> <p>The following mitigation applies to transportation improvements and mixed-use development including replacement housing included in Alternatives B, C, and D, and Alternative E for the purposes of the National Environmental Policy Act (NEPA), CEQA, and the Tahoe Regional Planning Agency (TRPA).</p> <p>The project proponent shall ensure that the Transportation Management Plan (TMP) prepared for the project addresses all modes of transportation used to access recreation areas, including vehicle, pedestrian, and bicycle modes. To mitigate short-term decreases in access to recreation resources, the TMP shall include detour plans that meet, at a minimum, the following specifications:</p> <ol style="list-style-type: none"> 1. During construction of the relocated US 50/Pioneer Trail intersection, the pedestrian and bike trail within Linear Park may be required to be temporarily closed in the construction area. If this closure is required, all bicycle and pedestrian traffic shall be detoured to a temporary trail/path on the highway, separated from vehicle traffic by a physical barrier such as "K-Rail." Signage will be provided at the western end of Linear Park, at the intersection of Wildwood Avenue and US 50, and approaching the construction zone to alert trail users about the timing, duration, and nature of any construction-related closures and detours. 2. During construction of the new US 50/Heavenly Village Way intersection, roadway improvements eastward along the realigned US 50 alignment, and the pedestrian bridge over the new US 50 ROW, vehicle, pedestrian, and bicycle access to Van Sickle Bi-State Park shall be maintained through the use of detours and traffic control for all modes. Signage will be provided along roadways and sidewalks approaching the construction zone and in parking areas and trailheads within Van Sickle Bi-State Park to alert pedestrians, bicyclists, and motorists about the timing, duration, and nature of construction-related closures and detours. 3. During the restriping of Lake Parkway, vehicular access to Edgewood Tahoe Golf Course shall be maintained by the use of detours and traffic control. <p>Measures will be taken to keep the public informed of the project construction activities. When closures and/or detours are required, warning signs and signs regarding restricted access and detours will be posted to ensure adequate public safety. Detour routes will be clearly marked, and construction fencing or physical barriers will be installed to prevent access to the construction site and to clearly delineate the detour route. Full closure of trails or recreation facilities by the</p>	<p>1. Prepare a TMP, per Mitigation Measure 3.3-1, to address access to recreation sites during construction for all modes of transportation. The TMP shall include detour plans, and identify signage and public outreach practices.</p>	<p>1. Implementation: Construction contractor</p> <p>Monitoring: TTD, TRPA, and Caltrans</p>	<p>1. Prior to construction</p>
		<p>2. Monitor construction activities to ensure approved trail detour plans, signage, public information, and other elements of the TMP are implemented.</p>	<p>2. Implementation: Construction contractor</p> <p>Monitoring: TTD</p>	<p>2. During project construction</p>

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	contractor(s) will be prohibited from July 1 through Labor Day weekend unless an approved detour has been established. All bicycle and pedestrian detours will be identified in the TMP and will be reviewed and approved by the project proponent, the California Department of Transportation (Caltrans), and TRPA before the start of earth-moving activities.			
3.4 Community Impacts				
<p>Impact 3.4-1: Physically divide an established community causing changes to community character and cohesion</p> <p>With implementation of Alternatives B, C, and D transportation improvements, US 50 would be rerouted through an established neighborhood (generally known as Rocky Point), which is characterized as having moderate community cohesion due to the presence of a concentrated minority population and transit-dependent population. The highway realignment and physical division of the neighborhood would change the character and cohesiveness of the neighborhood by displacing residents and substantially changing the visual character and ambient noise environment (see Sections 3.7, “Visual Resources/Aesthetics” and 3.15, “Noise and Vibration”). The realigned US 50 would create a physical barrier restricting pedestrian access across the new highway alignment, although vehicular connectivity through the neighborhood would be maintained. Increased trip lengths for pedestrians and bicyclists in this neighborhood would in part be offset by the enhanced bicycle and pedestrian features (e.g., sidewalk and bicycle lane) along the new highway. These three alternatives would physically divide residences within</p>	<p>Mitigation Measure 3.4-1: Minimize effects on the character and cohesiveness of the Rocky Point Neighborhood</p> <p>The following mitigation measure applies to Alternatives B, C, and D transportation improvements for the purposes of NEPA, CEQA, and TRPA.</p> <p>With respect to changes in visual conditions and noise that affect the character and cohesiveness of the Rocky Point neighborhood, implement Mitigation Measure 3.7-1a (see Section 3.7, “Visual Resources/Aesthetics”) and Mitigation Measures 3.15-3a, 3.15-3b, and 3.15-3c (see Section 3.15, “Noise and Vibration”).</p>	See Mitigation Measures 3.7-1a, 3.15-3a, 3.15-3b, and 3.15-3c.		

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<p>the Rocky Point neighborhood from each other, and for those residents southwest of the realigned highway from the adjacent commercial and tourist core area. Residents and businesses would be displaced by right-of-way acquisition. (Note: displacement is discussed further in Impact 3.4-4.) Considering these impact influences together, the physical division of an established community caused by the Alternatives B, C, and D realignment of US 50 would result in adverse changes in the character and cohesiveness of a residential neighborhood.</p> <p>The mixed-use development sites associated with Alternatives B, C, and D mixed-use development, including replacement housing, are the preferred locations for construction of replacement housing for residents displaced by the project. Implementation of Alternatives B, C, and D mixed-use development, including replacement housing, would include new buildings that are consistent in character to other existing, newer development, would replace hotel units with housing units and commercial uses that would contribute to a stronger sense of community, and would not physically divide an established neighborhood. For these reasons, these alternatives with mixed-use development, including replacement housing, would not result in any adverse changes in the character and cohesiveness of a residential neighborhood beyond those associated with the Alternatives B, C, and D.</p>				

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Because Alternative A would include no changes and Alternative E would not include project components located within an established neighborhood community, these alternatives would not adversely affect community character or cohesion or disrupt or divide an established community.				
3.5 Public Services and Utilities				
<p>Impact 3.5-1: Conflicts with existing utility infrastructure</p> <p>Transportation improvements and construction of mixed-use development, including replacement housing, for Alternatives B, C, and D could result in conflicts with existing utility infrastructure and require relocation of utilities or access points to utility infrastructure (i.e., water, sewer, electrical, and natural gas services). Depending on the alternative, utility infrastructure that could be affected by the build alternatives is generally located at and around the existing US 50/Pioneer Trail and Pioneer Trail/Echo Road intersections and along existing US 50, Fern Road, Moss Road, Montreal Road, and the lake side of Lake Parkway. TTD would be required to coordinate with utility providers to address the project's conflicts with utility infrastructure. However, the extent to which existing utility infrastructure could be adversely affected, and plans for relocation, have not yet been determined.</p>	<p>Mitigation Measure 3.5-1: Prepare and implement a Utility Relocation Study</p> <p>This mitigation measure is required for Alternatives B, C, and D transportation improvements and mixed-use development, including replacement housing, and Alternative E, for the purposes of NEPA, CEQA, and TRPA.</p> <p>Before the start of construction-related activities, including demolition of displaced residential, hotel/motel, and commercial buildings, the TTD (and the project proponent for the mixed-use development) shall coordinate with the South Tahoe Public Utility District (STPUD), Douglas County Sewer Improvement District (DCSID), Edgewood Water Company (EWC), Lakeside Park Association, Liberty Utilities, NV Energy, and Southwest Gas Corporation to relocate utility infrastructure, which is dependent on the alternative and could include infrastructure at and near the existing US 50/Pioneer Trail and Pioneer Trail/Echo Road intersections and along US 50, Fern Road, Moss Road, Primrose Road, Montreal Road, and the lake side of Lake Parkway. The final design plans for the transportation improvements submitted to Caltrans and the Nevada Department of Transportation (NDOT) shall be prepared to avoid utility disruption or relocation, and identify all utility relocations affected by the transportation improvements. TTD (and the project proponent for the mixed-use development, as applicable) shall coordinate with the utility companies to minimize impacts to services throughout the project. Actions needed to comply with this mitigation measure include coordination with each affected utility company to prepare a utility relocation study that would, at a minimum, include the following:</p> <ul style="list-style-type: none"> ▲ plans that identify the utility infrastructure elements, including access for utility providers and easements, as applicable, that require relocation as a result of constructing the project transportation improvements and mixed-use development, including replacement housing; ▲ safety measures to avoid any human health hazards or environmental hazards associated with capping and abandoning some utility infrastructure, such as natural gas lines or sewer lines; 	1. Prepare and submit to Caltrans the final design plans for the project that include input from utility providers listed in Mitigation Measure 3.5-1 regarding relocation of utility infrastructure.	1. Implementation: TTD Monitoring: TTD, affected utility companies, Caltrans, and NDOT	1. Prior to the start of construction-related activities
		2. Preparation of a Utility Relocation Study by a licensed civil engineer in coordination with each affected utility company.	2. Implementation: TTD Monitoring: TTD and affected utility companies	2. Prior to the start of construction-related activities

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	<ul style="list-style-type: none"> ▲ timing for completion of the utility infrastructure relocation as part of construction of the transportation improvements and mixed-use development, including replacement housing, which shall be scheduled to minimize disruption to the utility companies and their customers; ▲ reparations, if required, and certification of necessary additional environmental evaluations and pertinent processes (e.g., CEQA, NEPA, and/or TRPA documents and requirements), all of which shall be completed, as necessary, before final plans for the mixed-use development, including replacement housing, are permitted; ▲ preparation and approval by a licensed civil engineer; and ▲ approval as adequate by the affected utility companies and Caltrans, NDOT, TTD, and TRPA, as necessary. 			
<p>Impact 3.5-3: Increased demand for wastewater collection, conveyance, and treatment</p> <p>Alternatives B, C, and D transportation improvements and Alternative E would not result in an increased demand on wastewater collection, conveyance, and treatment because construction workers would use portable toilets rather than public wastewater facilities.</p> <p>Construction of mixed-use development, including replacement housing, for Alternatives B, C, and D would require additional wastewater collection, conveyance, and treatment to serve the additional residential and commercial development. Adequate capacity is available in the wastewater treatment plant to serve the wastewater flows generated by the mixed-use development, including replacement housing. However, the addition of wastewater flows from the mixed-use development would exceed the capacity of one segment of pipe in the wastewater collection and conveyance</p>	<p>Mitigation Measure 3.5-3: Ensure sufficient capacity in the STPUD wastewater collection and conveyance system</p> <p>This mitigation measure is required for Alternatives B, C, and D mixed-use development, including replacement housing, for the purposes of NEPA, CEQA, and TRPA.</p> <p>Prior to completion of project-level environmental review for the mixed-use development, including replacement housing, the project applicant shall coordinate with STPUD to determine the wastewater conveyance demand for a detailed project design, including the number of housing units and square footage of commercial floor area. If STPUD finds that the project-generated peak wastewater flows cause the STPUD line between sanitary sewer manhole (SSMH) BJ182 and SSMH BJ181 to surcharge, then STPUD and the project applicant shall develop plans for and construct improvements that would allow for conveyance of buildout wastewater flows. The project applicant shall be responsible for covering the cost of improvements that would be needed to serve the mixed-use development. The improvements shall be constructed to meet peak wet weather flows in the sewer line between SSMH BJ182 and SSMH BJ181, located near McDonald's and Lake Tahoe Vacation Resort on Lake Tahoe Boulevard. The plans shall identify the timing of the improvements, and that the capacity of the line will be available when needed by the mixed-use development. Replacement of this sewer line shall be completed prior to occupancy of the mixed-use development.</p> <p>If STPUD finds that project-generated peak wastewater flows contribute to an existing surcharge condition at SSMH BJ25, then STPUD and the project applicant shall either develop plans for and construct improvements that would allow for the</p>	<p>1. Conduct project-level analysis of the STPUD wastewater collection system's capacity to serve wastewater flows generated at any of the mixed-use development sites.</p>	<p>1. Implementation: TTD and/or mixed-use development project applicant and STPUD</p> <p>Monitoring: TTD and STPUD</p>	<p>1. Prior to completion of project-level environmental review for the mixed-use development, as necessary</p>
		<p>2. Obtain a will-serve letter from STPUD that indicates their ability to serve the project, which may be based on the applicant constructing or paying their fair share toward constructing any necessary capacity improvements to serve the project.</p>	<p>2. Implementation: TTD and/or mixed-use development project applicant and STPUD</p> <p>Monitoring: TTD, STPUD, and City of South Lake Tahoe</p>	<p>2. Prior to issuance of occupancy permits by the City of South Lake Tahoe</p>

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<p>system near the McDonald's on Lake Tahoe Boulevard and contribute flows to another segment of pipe on Lakeshore Boulevard south of Park Avenue that is already over capacity.</p> <p>Because no project activity would be implemented with Alternative A, there would be no change in demand for wastewater collection, conveyance, and treatment.</p>	<p>conveyance of buildout wastewater flows. Alternatively, the project applicant would be required to pay their fair share towards improvements at SSMH BJ25.</p> <p>The project applicant shall provide a will-serve letter from STPUD that indicates their wastewater treatment collection and conveyance infrastructure has adequate capacity to serve the mixed-use development, including replacement housing, and that any necessary improvements to the system have been completed prior to the issuance of occupancy permits by the City of South Lake Tahoe.</p>			
3.6 Traffic and Transportation				
<p>Impact 3.6-2 Impacts of transportation improvements on intersection operations – 2020 (Opening Day)</p> <p>The US 50/South Shore Community Revitalization Project would not generate additional 2020 (opening day) vehicle trips that could affect intersection operations; rather, it would implement improvements to existing transportation infrastructure and change circulation patterns within the study area. For Alternatives B, C, and D, US 50 would be realigned to connect to and approximately follow the existing Lake Parkway East alignment. Under Alternatives A and E, the existing US 50 roadway alignment would remain the same as existing conditions. Under Alternative E, Level of service (LOS) intersection operations would remain at acceptable levels in 2020 and LOS at the intersection of Old US 50/Stateline Avenue would improve substantially. Under Alternatives B and D, LOS would improve at several intersections compared to existing conditions. All intersections would operate at acceptable</p>	<p>Mitigation Measure 3.6-2: Change the eastbound and westbound directional traffic on US 50</p> <p>This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA.</p> <p>During subsequent design phases, the project proponent shall reverse the directions of traffic flow on US 50 such that eastbound US 50 would be realigned onto a new alignment along Lake Parkway southeast of existing US 50, and westbound US 50 would remain in place as under existing conditions.</p>	<p>1. The project design engineer shall revise the design plans for the Alternative C US 50 realignment to reflect reversal of the direction of traffic flow as described in Mitigation Measure 3.6-2.</p>	<p>1. Implementation: Project design engineer</p> <p>Monitoring: TTD, TRPA, Caltrans, and NDOT</p>	<p>1. During project design and prior to TRPA permit acknowledgement</p>

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<p>LOS under Alternative A. The implementation of Alternative C would result in unacceptable intersection LOS at the new US 50/Pioneer Trail/Old US 50, Old US 50/Park Avenue/Heavenly Village Way, and new US 50/Lake Parkway/Old US 50 (roundabout option) intersections during summer peak-hour conditions. Exhibits 3.6-10 through 3.6-18 show the lane geometry and study area volumes associated with each of the project alternatives. Because redevelopment of one or more of the mixed-use development sites would not generate new trips as it would provide replacement housing for displaced residents and the remaining site(s) would be constructed between 2020 and 2040, the Alternatives B, C, and D mixed-use development sites were not analyzed under this 2020 (opening day) scenario.</p>				
<p>Impact 3.6-3: Impacts on roadway segment operations – 2020 (Opening Day) Under the opening day conditions, Alternatives B, D, and E would result in acceptable roadway segment LOS during annual average and summer peak hours. Alternative E would actually improve roadway segment LOS for both roadway study segments during summer peak conditions. However, with Alternative C, three roadway segments within the study area (eastbound and westbound existing US 50 between Pioneer Trail and Park Avenue and one-way eastbound US 50 between Park Avenue and Lake Parkway) would be reduced to unacceptable roadway segment LOS. LOS segment operations</p>	<p>Mitigation Measure 3.6-3: Change the eastbound and westbound directional traffic on US 50 pursuant to Mitigation Measure 3.6-2 This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA. See Mitigation Measure 3.6-2 above. The same mitigation measure would apply.</p>	<p>See Mitigation Measure 3.6-2.</p>		

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would remain at acceptable levels for all study area arterial segments with Alternative A. Because redevelopment of one or more of the mixed-use redevelopment sites would not generate new trips as it would provide replacement housing for displaced residents and the remaining site(s) would be constructed between 2020 and 2040, the Alternatives B, C, and D mixed-use development sites were not analyzed under this 2020 (opening day) scenario.				
<p>Impact 3.6-9: Impacts on emergency access – 2020 (Opening Day)</p> <p>The build alternatives could affect police services, fire protection, and emergency medical services response times and delivery of emergency services. Alternatives B, D, and E would reduce congestion along existing US 50 and thereby improve long-term emergency access within the study area. There would be no changes under Alternative A. Alternative C would result in increased congestion and reduced emergency access to a segment of existing US 50 due to the new circulation patterns. Because mixed-use development would be constructed between 2020 and 2040, Alternatives B, C, and D mixed-use development were not analyzed under this 2020 (opening day) scenario. Replacement housing constructed at one of the three mixed-use development under the 2020 scenario would not interfere with existing emergency access and would be constructed to meet City requirements for emergency access.</p>	<p>Mitigation Measure 3.6-9: Change the eastbound and westbound directional traffic on US 50 pursuant to Mitigation Measure 3.6-2</p> <p>This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA.</p> <p>See Mitigation Measure 3.6-2 above. The same mitigation measure would apply.</p>	See Mitigation Measure 3.6-2.		

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<p>Impact 3.6-10: Construction-related parking impacts Construction staging areas for transportation improvements associated with Alternatives B, C, D, and E could be located on one or more parking lots at Harvey's Lake Tahoe, Hard Rock Hotel and Casino, and Montbleu Resort and Casino. These property owners have indicated there is sufficient parking in their parking garages. A construction staging area on the Harvey's parking lot would not interfere with the annual summer concert series. The use of any of these sites would be implemented through a willing agreement between the property owner and construction contractor. Construction impacts on parking associated with project construction would be temporary in nature and would only occur leading up to 2020 (opening day). Although construction details associated with the mixed-use component, including replacement housing, of each of the build alternatives where it is proposed (Alternatives B, C, and D) are not known at this time; it is anticipated that these alternatives with mixed-use development would meet their needs for a construction staging area on-site, on right-of-way acquired for the project, or through agreement with a private property owner for use of their land. The mixed-use development, including replacement housing, would be subject to all applicable regulations and permit requirements. Construction staging for Alternatives B, C, and D mixed-use development, including replacement housing, at Site 3 would result in the amount</p>	<p>Mitigation Measure 3.6-10: Prepare a detailed parking plan to meet Heavenly Village Center demand during construction, pursuant to Mitigation Measure 3.6-11 This mitigation would apply to Alternatives B, C, and D mixed-use development, including replacement housing, at Site 3 for the purposes of NEPA, CEQA, and TRPA. See Mitigation Measure 3.6-11. The same mitigation measure would apply.</p>	<p>See Mitigation Measure 3.6-11.</p>		

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<p>of parking at the Heavenly Village Center to be below city parking requirements. Construction staging for Alternatives B, C, and D mixed-use development, including replacement housing, at Sites 1 and 2 would not result in temporary loss of parking beyond the loss of parking located at the businesses that would be displaced, which would no longer be required.</p> <p>There would be no construction activities as part of Alternative A.</p>				
<p>Impact 3.6-11: Permanent parking impacts Alternatives B, C, and D transportation improvements would result in the loss of between approximately 40 and 80 parking stalls at multiple businesses and Alternatives B, C, and D mixed-use development, including replacement housing, would result in the loss of between approximately 250 and 310 parking stalls. The loss of parking from these alternatives with mixed-use development, including replacement housing, would not be in addition to the parking losses from the transportation improvements. The amount of parking at Montbleu Resort and Casino would continue to be sufficient to meet city and county standards and the project would provide replacement parking equal to that lost at other businesses. Implementation of Alternatives B, C, and D mixed-use development, including replacement housing, at Sites 1 and 2 would not result in permanent loss of parking at businesses that would be displaced, which would no longer be required. Alternatives B, C, and D mixed-use</p>	<p>Mitigation Measure 3.6-11: Prepare a detailed parking plan to inform revision of Heavenly Village Center's Use Permit This mitigation would apply to Alternatives B, C, and D mixed-use development, including replacement housing, at Site 3 for the purposes of NEPA, CEQA, and TRPA.</p> <p>At the time of preparation of the project-level environmental plan for the mixed-use development, including replacement housing, at Site 3, the project applicant shall prepare a parking plan in accordance with Section 6.10 of the City of South Lake Tahoe Code. The recommendations included in the parking plan to meet parking demand and achieve City of South Lake Tahoe parking standards would be implemented by the project applicant prior to ground-breaking of the mixed-use development, including replacement housing, at Site 3.</p> <p>The parking plan shall be submitted to the City of South Lake Tahoe, and referred to TRPA as necessary to obtain a use permit for modification of the parking demand ratios at the Heavenly Village Center. It would demonstrate the adequacy of the Heavenly Village Center parking that would remain after displacement of parking behind Raley's by construction of the mixed-use development, including replacement housing, at Site 3. The parking plan must demonstrate the following:</p> <ul style="list-style-type: none"> ▲ Adequate off-street parking would be provided for the proposed use as determined by a parking plan; ▲ The environmental impact of the use would be lessened by the reduction in parking spaces (City staff may condition the use permit); and ▲ Traffic safety for other vehicles and pedestrians would be enhanced by the lesser requirement. 	<p>1. Project applicant for mixed-use development and/or replacement housing at Site 3 shall prepare a parking plan to meet the requirements of Mitigation Measures 3.6-10 and 3.6-11.</p>	<p>1. Implementation: Project applicant Monitoring: TTD and City of South Lake Tahoe</p>	<p>1. During completion of project-level environmental review for the mixed-use development, including replacement housing, at Site 3</p>

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development, including replacement housing, at Site 3 would cause the amount of parking at the Heavenly Village Center to fall below city parking requirements. Alternatives A and E would not result in any permanent losses of parking.	<p>The parking plan may propose a reduction in parking demand ratio at this shopping center from those set forth in City Code Section 6.10 based on a plan that proposes, but would not be limited to, one or more of the following:</p> <ul style="list-style-type: none"> ▲ A transportation management plan, which would outline transit incentives, such as a shuttle system or free or reduced cost transit passes for tenants/employees. ▲ Additional parking, which could be constructed elsewhere in the project site for the US 50/South Shore Community Revitalization Project. ▲ Establishment of a shared parking facility, in which uses have different peak periods, parking demand would not overlap, and would meet peak demands. 			
<p>Impact 3.6-12: Impacts on intersection operations – 2040 (Design Year) Under 2040 horizon year conditions, improvements under Alternatives B and D transportation improvements and mixed-use development, including replacement housing, would operate intersections at annual average and summer peak-hour LOS C or better. Under Alternative A, operations at two intersections would be degraded to unacceptable levels. Alternative C transportation improvements and mixed-use development, including replacement housing, would degrade operations at three intersections to unacceptable levels or exacerbate already unacceptable operations. Improvements under Alternative E would operate intersections at annual average and summer peak-hour LOS D or better.</p>	<p>Mitigation Measure 3.6-12: Change the eastbound and westbound directional traffic on US 50 pursuant to Mitigation Measure 3.6-2 This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA. See Mitigation Measure 3.6-2 above. The same mitigation measure would apply.</p>	See Mitigation Measure 3.6-2		
<p>Impact 3.6-13: Impacts on roadway segment operations – 2040 (Design Year) Under 2040 horizon year conditions, Alternatives B and D transportation improvements and mixed-use development, including replacement housing, and</p>	<p>Mitigation Measure 3.6-13: Change the eastbound and westbound directional traffic on US 50 pursuant to Mitigation Measure 3.6-2 This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA. See Mitigation Measure 3.6-2 above. The same mitigation measure would apply.</p>	See Mitigation Measure 3.6-2		

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
Alternative E would result in acceptable roadway segment LOS during annual average and summer peak hours. Under Alternative A, one roadway study segment would operate at unacceptable LOS. Under Alternative C transportation improvements and mixed-use development, including replacement housing, three roadway segments would be reduced to unacceptable roadway segment LOS.				
<p>Impact 3.6-19: Impacts on emergency access – 2040 (Design Year)</p> <p>Alternatives B and D would reduce congestion along existing US 50 and thereby improve long-term emergency access within the study area. Alternative E would also reduce congestion along existing US 50 and additionally does not include any mixed-use development that would add trips to the roadway network and potentially affect emergency access during the construction phase. Alternative A would result in traffic conditions worsening during the summer peak along US 50 between Pioneer Trail and Lake Parkway resulting in impacts on emergency access.</p> <p>Alternative C would result in increased congestion and reduced operational emergency access to a segment of US 50 due to the new circulation patterns, impeding emergency access.</p>	<p>Mitigation Measure 3.6-19: Change the eastbound and westbound directional traffic on US 50 pursuant to Mitigation Measure 3.6-2</p> <p>This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA.</p> <p>See Mitigation Measure 3.6-2 above. The same mitigation measure would apply.</p>	See Mitigation Measure 3.6-2		

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
<p>Impact 3.6-20: Daily vehicle trip ends (DVTE) impacts – 2040 (Design Year) Alternatives B, C, and D transportation improvements would not generate any additional DVTEs. However, these three alternatives would all generate greater than 200 net new DVTEs with the implementation of the mixed-use development. Because the displaced housing would be replaced at a one for one basis with the replacement housing component of these alternatives, the replacement housing would not generate any net new DVTEs. Alternative A would include no modifications to the existing conditions. Alternative E would not generate any additional DVTEs.</p>	<p>Mitigation Measure 3.6-20: Mitigate DVTE impacts through Air Quality Mitigation Fund Contribution This mitigation would apply to Alternatives B, C, and D mixed-use development for the purposes of NEPA, CEQA, and TRPA. The project proponent shall contribute to the Air Quality Mitigation Fund in accordance with Chapter 65 – Traffic and Air Quality Mitigation Program of the TRPA Code. The air quality mitigation fee shall be assessed in accordance with the mitigation fee schedule in the TRPA Rules of Procedure. Fees generated by the air quality mitigation fee are used to support programs/improvements that reduce vehicle miles of travel (VMT), improve air quality, and encourage alternative modes of transportation.</p>	<p>1. TTD shall pay the TRPA air quality mitigation fee in accordance with TRPA Code.</p>	<p>1. Implementation: TTD Monitoring: TTD and TRPA</p>	<p>1. Prior to acknowledgement of a TRPA permit</p>
3.7 Visual Resources/Aesthetics				
<p>Impact 3.7-1: Degradation of scenic quality and visual character Build Alternatives B through E would involve physical changes within the project site that would be visually evident to the public. Depending on the nature and intensity of project-related changes, they could potentially degrade the existing visual quality or character of the site and its surroundings, including a potential decrease in the TRPA Travel Route rating of roadway travel units or inconsistency with the TRPA SQIP, TRPA Design Review Guidelines, or applicable height and design standards. Under Alternatives B, C, and D, the existing four-lane US 50 through the tourist core would be reconfigured as a two-lane roadway. Lake Parkway and Montreal Road would be developed as the realigned</p>	<p>Mitigation Measure 3.7-1a: Mitigate for Changes in Visual Character from Pioneer Trail to Montreal Road This mitigation measure would apply to the transportation improvements included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA. Realigning US 50 through the existing Rocky Point residential neighborhood between Pioneer Trail and Montreal Road would cause substantial changes in visual conditions. Realigned US 50 would be designed in accordance with all applicable design standards and guidelines and thus would exhibit a high level of visual quality; however, it would result in significant change in visual character on the neighborhood. The addition of noise barriers could also contribute to the adverse change in visual character. To mitigate for this impact, TTD, TRPA, and the Federal Highway Administration (FHWA) shall incorporate feasible design treatments (e.g. landscaped berm to reduce visible wall mass, landscaped screening, and wall texture and colors that blend with the surrounding environment) into the final project design.</p>	<p>1. The project design engineer shall prepare project specifications and plans to ensure that they comply with all applicable design standards and guidelines and incorporate feasible aesthetic design treatments.</p>	<p>1. Implementation: TTD and project design engineer Monitoring: TTD, TRPA, FHWA, Caltrans, and City of South Lake Tahoe</p>	<p>1. During project design and prior to TRPA permit acknowledgement</p>
	<p>Mitigation Measure 3.7-1b: Mitigate for Changes in Visual Character on Roadway Travel Unit #32 This mitigation measure would apply to Alternative E for purposes of NEPA, CEQA, and TRPA.</p>	<p>2. Project design engineer shall revise the design of Alternative E to convert it to more narrow overhead</p>	<p>2. Implementation: TTD and project engineer</p>	<p>2. . During project design and prior to TRPA permit acknowledgement</p>

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
<p>US 50, either as a four-lane or two-lane roadway, depending on the alternative. A new section of roadway would be built from Montreal Road at Fern Road connecting to existing US 50 near what is now the intersection of US 50 and Pioneer Trail through an existing neighborhood. Under Alternative E, no changes to existing roadways would occur, except the removal of the signalized at-grade pedestrian scramble between Montbleu Resort Casino and Spa and the Hard Rock Hotel and Casino. Instead, an elevated pedestrian skywalk structure would be constructed over US 50 through the Casino Core from Stateline Avenue to the north end of the Montbleu Resort Casino.</p> <p>Most effects on scenic quality from implementation of Alternatives B, C, and D would result in a mix of impacts either because no changes in visual conditions would occur, changes that would occur would be visually beneficial, or changes would be compatible with existing conditions. Proposals for the mixed-use development projects would have to undergo their own environmental review once they are defined and submitted for permitting, so it is unlikely that there would be a significant difference between the build alternatives with the transportation improvements alone or with the mixed-use development. Development of Alternative E would result in scenic quality impacts, because it would cause a decrease in the travel route rating for Roadway Travel Unit #32 due to a decline in scenic quality from the covering of the road with a pedestrian structure. Effects on visual</p>	<p>The elevated skywalk would be a massive, new, human-made feature within Roadway Travel Unit #32 and would be seen by motorists on US 50 traveling in either direction as they approach the skywalk and they travel beneath it. The visual dominance of the skywalk would cause a decrease in the travel route rating from 13.5 to 10 for Roadway Travel Unit #32, indicating an adverse effect on scenic quality. In views from the road, the skywalk would decrease the intactness and unity of views from the road, and the visual presence of the skywalk structure and its enclosure of the highway would substantially degrade the character of the roadway corridor as experienced by motorists.</p> <p>To mitigate for this impact, TTD, TRPA, and FHWA could modify the design the elevated skywalk feature to reduce its visual mass by converting it to more narrow overhead pedestrian walkway crossings only. This design modification would avoid impacts on the intactness and unity of views from the road, and would reduce or eliminate degradation of the character of the roadway corridor as experienced by motorists.</p>	<p>pedestrian walkway crossings only.</p>	<p>Monitoring: TTD, TRPA, FHWA, and NDOT</p>	

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
<p>character associated with Alternatives B, C, and D within the residential neighborhood between Montreal Road and Pioneer Trail and from Alternative E within the tourist core would result in the greatest impacts, because they would substantially degrade visual character in the immediate area and it would not be feasible to reduce the impact to a less-than-significant level for the purposes of CEQA and TRPA.</p>				
<p>Impact 3.7-2: Interference with or disruption of scenic vistas or scenic resources Vertical components of the project, such as supports for traffic signals and light standards, have insufficient mass to substantially disrupt scenic views. However, large objects, depending on their location and the location from which they are viewed, could interfere with scenic views. Alternatives B, C, and D include construction of a pedestrian bridge over realigned US 50 (on Lake Parkway) near the California/Nevada state line. Also, in the neighborhood east of Pioneer Trail, sound walls may be needed along the new section of US 50 to reduce traffic noise on residential properties. Alternative E would involve constructing an elevated pedestrian skywalk over US 50. Large, elevated structures have the potential to block or disrupt scenic vistas or views of individual scenic resources. Implementation of Alternatives B, C, and D would result in minimal impacts on scenic vistas and views of identified scenic resources because no such views would be affected by project features. Any new</p>	<p>Mitigation Measure 3.7-2: Mitigate for Decrease in Visual Quality Rating for Scenic Resources 32.1 and 32.3 This mitigation measure would apply to Alternative E for purposes of NEPA, CEQA, and TRPA. The proposed skywalk structure that would be constructed as part of Alternative E would have the potential to affect views of scenic vistas and scenic resources, by interfering with views of scenic resources 32.1 and 32.3. The skywalk would cause a decrease in the Scenic Quality rating of these TRPA-listed scenic resources. To mitigate for this impact, TTD, TRPA, and FHWA could modify the design of the elevated skywalk feature to reduce its visual mass, as described in the Mitigation Measure 3.7-1b. This design modification would reduce the walkway's interference with views 32.1 and 32.3 and avoid decreasing the Scenic Quality rating of these scenic resources.</p>	See Mitigation Measure 3.7-1b		

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
<p>mixed-use development that might occur with Alternatives B, C, and D would be required by the TRPA Code of Ordinances to avoid impacts to scenic vistas and scenic resources through building design and orientation. The skywalk structure that would be built with Alternative E would interfere with views of two TRPA-listed scenic resources. Alternative A would result in no changes.</p>				
<p>Impact 3.7-3: Increased light and glare New sources of light can result from exterior lighting or from the headlights of vehicles, while glare results from high-shine surfaces such as building windows (glass) and high-gloss painted surfaces. Alternatives B, C, and D would include new safety lighting (street lights) at intersections of local streets with realigned US 50. The introduction of a new source of light during nighttime hours in these urban settings would not substantially alter the amount of illumination, recognizing the existing night lighting of roadways, parking lots, and commercial areas. Alternatives B, C, and D would also route the western segment of realigned US 50 through an existing residential neighborhood east of Pioneer Trail. The headlights of traffic on the realigned highway could potentially affect residents whose homes border on the realigned US 50. Mixed-use development that could be part of Alternatives B, C, and D would consist of new buildings and new exterior lighting. Standard design practices and regulations in local ordinances and planning documents pertaining to fixed</p>	<p>Mitigation Measure 3.7-3: Mitigate for Headlights Shining onto Residential Properties. This mitigation measure would apply to the Alternatives B, C, and D transportation improvements for the purposes of NEPA, CEQA, and TRPA. Sound barriers (walls or other noise abatement measures) would be necessary to control traffic noise within the Rocky Point residential neighborhood that realigned US 50 would pass through (see Mitigation Measures 3.15-3a, 3.15-3b, and 3.15-3c in Section 3.15, "Noise and Vibration"). A secondary effect of the noise abatement measures would be to block vehicle headlights from intruding onto residential properties. The barriers should be placed along realigned US 50 where private residences border the realigned highway. Such barriers should be constructed of solid material (e.g., wood, brick, adobe, an earthen berm, boulders, or combination thereof). All barriers will be designed to blend into the restored landscape along the highway, to the extent feasible. Ensuring a character consistent with the surrounding area may involve the use of strategically placed boulders, native trees, or other vegetation; the addition of special materials (e.g., wood or stonework) on the façade of the sound wall; and/or a sound wall that is covered in vegetation. The location and design of sound barriers shall adhere to any space requirements for snow removal on the adjacent roadway.</p>	<p>1. The project design engineer shall finalize design for sound barriers as described in Mitigation Measure 3.7-3.</p>	<p>1. Implementation: TTD and project design engineer Monitoring: TTD and TRPA and/or City of South Lake Tahoe</p>	<p>1. Prior to approval of final design for the realigned US 50 and prior to TRPA permit acknowledgement</p>
		<p>2. Construction contractor shall construct sound barriers as part of completion of the transportation improvements in the California portion of the project area.</p>	<p>2. Implementation: Construction contractor Monitoring: TTD</p>	<p>2. Prior to completion of transportation improvements in California</p>

US 50/South Shore Community Revitalization Project Mitigation Monitoring and Reporting Program				
Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
sources of lighting would limit spillover illumination. Alternatives B, C, D, and E would have a less-than-significant impact from fixed sources of light and glare. Alternatives B, C, and D would have a potentially significant impact from headlights of vehicles shining onto residential properties bordering realigned US 50 in the Rocky Point neighborhood. Alternative A would have no new impacts.				
3.8 Cultural Resources				
<p>Impact 3.8-2: Disturb unique archaeological resources Construction and excavation activities associated with the build alternatives could result in sediment disturbance and removal, which can adversely affect archaeological resources. There are no known archaeological resources that would be damaged or destroyed by the build alternatives (Alternatives B, C, D, and E). Because Alternatives B, C, D, and E would include excavation and other ground-disturbing activities, these alternatives could result in adverse physical effects on unknown archaeological resources.</p>	<p>Mitigation Measure 3.8-2a: Install an Environmentally Sensitive Area fence The following mitigation would apply to transportation improvements and mixed-use development, including replacement housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA. An Environmentally Sensitive Area (ESA) fence shall be installed to protect the unevaluated portion of the Johnson’s Cut-Off/Pony Express Trail/Lincoln Highway alignment north of the project area. The fence shall be installed from the entrance to Friday’s Station on US 50 to a point 400 feet east of the Johnson’s Cut-Off/Pony Express Trail/Lincoln Highway segment. A sign shall be installed at the east end of the fence to exclude construction personnel access from the area behind the fence. The fence shall be installed in coordination with a qualified archaeologist prior to ground-disturbing activities and shall remain in place until after the project has been completed. The condition of the fence shall be monitored, and repaired if needed, periodically during the course of construction.</p>	<p>1. In coordination with a qualified archaeologist, the construction contractor shall install an ESA fence to protect the unevaluated portion of the Johnson’s Cut-Off/Pony Express Trail/Lincoln Highway alignment north of the project area during construction.</p>	<p>1. Implementation: Construction contractor Monitoring: TTD</p>	<p>1. Prior to and during ground-disturbing activities</p>
	<p>Mitigation Measure 3.8-2b: Conduct archaeological monitoring The following mitigation was included in the Lake Tahoe Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) EIR/EIS, which included the US 50/South Shore Community Revitalization Project as one of the TTD Capital Improvement Program projects in the RTP. This mitigation would apply to transportation improvements and mixed-use development, including replacement housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA. In accordance with existing regulations, for ground-disturbing activities that have the potential to impact archaeological remains and that will occur in an area that has been determined by a qualified archaeologist to be sensitive (locations where previous</p>	<p>1. A qualified archaeologist shall monitor ground-disturbing activities where buried archaeological remains are likely to occur, per Mitigation Measure 3.8-2b.</p>	<p>1. Implementation: Construction contractor Monitoring: TTD</p>	<p>1. During ground-disturbing construction activities</p>

US 50/South Shore Community Revitalization Project Mitigation Monitoring and Reporting Program				
Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<p>disturbance has not occurred) for the presence of buried archaeological remains, the project proponent (e.g., TTD, local county, Caltrans, NDOT) shall require the construction contractor to retain a qualified archaeologist to monitor those activities. Archaeological monitoring shall be conducted in areas where there is likelihood that archaeological remains may be discovered but where those remains are not visible on the surface. Monitoring will not be considered a substitute for efforts to identify and evaluate cultural resources prior to project initiation. Where necessary, the project proponent shall seek Native American input and consultation.</p>			
	<p>Mitigation Measure 3.8-2c: Stop work in the event of an archaeological discovery The following mitigation was included in the RTP/SCS EIR/EIS, which included the US 50/South Shore Community Revitalization Project as one of the TTD Capital Improvement Program projects in the RTP. This mitigation would apply to transportation improvements and mixed-use development, including replacement housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA.</p> <p>If potentially significant cultural resources are discovered during ground-disturbing activities associated with individual project preparation, construction, or completion, the project proponent shall require the construction contractor to stop work in that area until a qualified archaeologist can assess the significance of the find, and, if necessary, develop appropriate treatment measures in consultation with TRPA and other appropriate agencies and interested parties. A qualified archaeologist shall follow accepted professional standards in recording any find including submittal of the standard Department of Parks and Recreation (DPR) Primary Record forms (Form DPR 523) and location information to the California Historical Resources Information Center office (North Central Information Center) for California projects. The consulting archaeologist shall also evaluate such resources for significance per California Register of Historical Resources eligibility criteria (PRC Section 5024.1; Title 14 California Code of Regulations [CCR] Section 4852) for California projects. Consultation with the Nevada State Historic Preservation Officer shall be undertaken for Nevada projects.</p> <p>If the archaeologist determines that the find does not meet the TRPA standards of significance for cultural resources, construction may proceed. If the archaeologist determines that further information is needed to evaluate significance, the lead agency shall be notified and a data recovery plan shall be prepared.</p>	<p>1. Monitor to ensure construction activities in the vicinity of the find stop and that a qualified archaeologist evaluates the significance of the discovered resource.</p> <p>2. If a qualified archaeologist determines that potentially significant resources have been discovered, then monitor to ensure that appropriate treatment measures are implemented in coordination with TRPA and appropriate parties</p>	<p>1. Implementation: Construction contractor and qualified archaeologist Monitoring: TTD</p> <p>2. Implementation: Qualified archaeologist Monitoring: TTD and TRPA</p>	<p>1. During ground-disturbing construction activities</p> <p>2. Upon discovering potentially significant archaeological resources</p>

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
<p>Impact 3.8-3: Accidental discovery of human remains</p> <p>Construction and excavation activities associated with development activities may result in sediment disturbance and removal, which can unearth human remains if they are present. Because the project would allow excavation and other ground-disturbing activities, adverse physical effects on undiscovered or unrecorded human remains could occur.</p>	<p>Mitigation Measure 3.8-3: Stop work if human remains are discovered</p> <p>The following mitigation was included in the RTP/SCS EIR/EIS, which included the U.S. 50/South Shore Community Revitalization Project as one of the TTD Capital Improvement Program projects in the RTP. This mitigation would apply to transportation improvements and mixed-use development, including replacement housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA.</p> <p>In accordance with existing regulations, if any human remains are discovered or recognized in any location on an individual project site, the project proponent will ensure that there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:</p> <ol style="list-style-type: none"> a) The applicable County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and b) If the remains are of Native American origin, <ol style="list-style-type: none"> 1. The descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for the means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98, or 2. The Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission. 3. The site shall be flagged and avoided during construction. c) If human remains, grave goods, or items of cultural patrimony (as defined in the Native American Graves Protection and Repatriation Act [NAGPRA]) are discovered during ground-disturbing activities on Federal Property, work will cease until the provisions of NAGPRA are met. 	<p>1. Monitor to ensure construction activities in the vicinity stop and steps outlined in Mitigation Measure 3.8-3 are followed, if human remains are discovered during construction.</p>	<p>1. Implementation: Construction contractor and TTD</p> <p>Monitoring: TTD</p>	<p>1. During ground-disturbing construction activities</p>
<p>Impact 3.8-4: Disturb tribal cultural resources</p> <p>Construction and excavation activities associated with the build alternatives could result in sediment disturbance and removal, which can adversely affect archaeological resources, including tribal cultural resources. There are no known</p>	<p>Mitigation Measure 3.8-4a: Conduct tribal cultural resources monitoring</p> <p>This mitigation would apply to transportation improvements and mixed-use development, including replacement housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA.</p> <p>In accordance with existing regulations, for ground-disturbing activities that have the potential to impact tribal cultural resources, such as archaeological remains, and that will occur in an area that has been determined by a qualified archaeologist to be sensitive (locations where previous disturbance has not occurred) for the presence of</p>	<p>1. A qualified archaeologist shall monitor ground-disturbing activities where buried tribal cultural resources are likely to occur, per Mitigation Measure 3.8-4a.</p>	<p>1. Implementation: Construction contractor and qualified archaeologist</p> <p>Monitoring: TTD</p>	<p>1. During ground-disturbing construction activities</p>

US 50/South Shore Community Revitalization Project Mitigation Monitoring and Reporting Program				
Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
<p>tribal cultural resources that would be damaged or destroyed by Alternatives B, C, D, and E.</p> <p>Because Alternatives B, C, D, and E would include excavation and other ground-disturbing activities, these alternatives could result in adverse physical effects on unknown tribal cultural resources.</p>	<p>buried tribal cultural resource remains, the project proponent (e.g., TTD, local county, Caltrans, NDOT) shall require the construction contractor to retain a qualified archaeologist to monitor those activities. Archaeological monitoring shall be conducted in areas where there is likelihood that tribal cultural resources, such as archaeological remains, may be discovered but where those remains are not visible on the surface. Monitoring will not be considered a substitute for efforts to identify and evaluate tribal cultural resources prior to project initiation. Where necessary, the project proponent shall seek Native American input and consultation.</p>			
	<p>Mitigation Measure 3.8-4b: Stop work in the event of a tribal cultural resource discovery</p> <p>This mitigation would apply to transportation improvements and mixed-use development, including replacement housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA.</p> <p>If potentially significant tribal cultural resources are discovered during ground-disturbing activities associated with individual project preparation, construction, or completion, the project proponent shall require the construction contractor to stop work in that area until a qualified archaeologist can assess the significance of the find, and, if necessary, develop appropriate treatment measures in consultation with TRPA and other appropriate agencies and interested parties. A qualified archaeologist shall follow accepted professional standards in recording any find including submittal of the standard DPR Primary Record forms (Form DPR 523) and location information to the California Historical Resources Information Center office (North Central Information Center) for California projects. The consulting archaeologist shall also evaluate such resources for significance per California Register of Historical Resources eligibility criteria (PRC Section 5024.1; Title 14 CCR Section 4852). Consultation with the Nevada State Historic Preservation Officer and the Washoe Tribe of Nevada and California shall be undertaken for the portions of the project within Nevada. Consultation with the California Native American Heritage Commission and the Washoe Tribe of Nevada and California shall be undertaken for the portions of the project in California.</p> <p>If the archaeologist, in consultation with the Nevada State Historic Preservation Officer, California Native American Heritage Commission, and Washoe Tribe of Nevada and California, determines that the find does not meet the PRC Section 21074 definition for tribal cultural resources, then construction may proceed. If the archaeologist determines that further information is needed to evaluate significance, the lead agency shall be notified and a data recovery plan shall be prepared.</p>	<p>1. Monitor to ensure construction activities in the vicinity of the find stop and appropriate steps outlined in Mitigation Measure 3.8-4b are followed, if tribal cultural resources are discovered during construction.</p>	<p>1. Implementation: Construction contractor and TTD</p> <p>Monitoring: TTD</p>	<p>1. During ground-disturbing construction activities</p>

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
3.10 Water Quality and Stormwater Runoff				
<p>Impact 3.10-3: Stormwater runoff Alternatives B, C, and D would create an increase in impervious surfaces: 5.47 to 7.62 acres for Alternative B; 1.06 acres for Alternative C; and 5.76 to 7.91 acres for Alternative D. The project would be required to comply with stringent SWRCB, Lahontan RWQCB, NDEP, and TRPA post-construction stormwater controls. Storage, infiltration, and treatment measures are required to minimize runoff flows and volumes and any stormwater discharge would be required to comply with Lahontan RWQCB, NDEP, and TRPA water quality standards and the Lake Tahoe TMDL. Because the implementation of these alternatives could require use of existing stormwater management infrastructure (Rocky Point stormwater easement parcels and Fern Road stormwater basins) for transportation improvements and/or mixed-use development, an impact on stormwater runoff management is recognized at this time, which would be mitigated by replacing affected facilities with equivalently or more effective stormwater infrastructure, as defined during detailed project design. Alternatives A and E would not result in changes to runoff volumes or stormwater infrastructure and would therefore have no impact relative to these resources.</p>	<p>Mitigation Measure 3.10-3: Protect functionality of Existing Stormwater Improvements This mitigation measure applies to Alternatives B, C, and D transportation improvements and mixed-use development, including replacement housing, for the purposes of NEPA, CEQA, and TRPA. The project proponent shall demonstrate that all stormwater improvements continue to meet the goals for which they were established. In the case of stormwater improvements purchased or constructed with CTC grant funds (such as the Rocky Point and Fern Road systems), this includes meeting or exceeding 6.4 pounds of sediment reduction per State of California dollar spent on site improvements. If the functionality of the improvements cannot be maintained, the project design would be modified to replace these facilities with land and infrastructure that is at least as effective as the current facilities, or more effective. In the event that any portion of the project encroaches on the existing City of South Lake Tahoe stormwater basins at Fern Road, these basins would be reconstructed in place or replaced in-kind within available right-of-way. The net result would be the maintenance of existing stormwater facilities or the replacement of affected facilities with equivalently or more effective stormwater management land and infrastructure. The specific location and design of the replacement infrastructure would be defined during detailed design development.</p>	<p>1. Project design engineer shall design the stormwater components of the transportation improvements to continue to meet the goals of the Rocky Point Stormwater Improvements.</p>	<p>1. Implementation: TTD and project design engineer Monitoring: TTD, TRPA, California Tahoe Conservancy, and City of South Lake Tahoe</p>	<p>1. Prior to completion of final design plans for transportation improvements and prior to TRPA permit acknowledgement</p>
		<p>2. Project design engineer shall design stormwater improvements to be constructed as part of the transportation improvements to maintain, or improve, the stormwater treatment goals of the Rocky Point Stormwater Improvements.</p>	<p>2. Implementation: TTD and project design engineer Monitoring: TTD, TRPA, California Tahoe Conservancy, and City of South Lake Tahoe</p>	<p>2. Required If project design engineer determines that project would encroach on City of South Lake Tahoe stormwater basins at Fern Road, and prior to TRPA permit acknowledgement</p>

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
3.12 Hazards, Hazardous Materials, and Risk of Upset				
<p>Impact 3.12-2: Exposure to recognized environmental conditions</p> <p>The transportation improvements could affect properties that are included on a list of hazardous materials sites. The project site is located in an area with a moderate to high potential for naturally-occurring radon gas, exposure to which has the potential to cause lung cancer. In addition, ADL could be present on and near roadway shoulders. Although the project incorporates best management practices, avoidance measures, and regulatory compliance, through construction of the project, it would be possible that previously unidentified contaminants, such as radon gas or ADL, could be disturbed or encountered by residents and workers. Although the project incorporates best management practices, avoidance measures, and regulatory compliance to reduce the potential for adverse effects, there is a risk of exposure of residents to radon gas and workers to ADL or other unknown contaminants.</p>	<p>Mitigation Measure 3.12-2a: Conduct surveys for asbestos-containing materials, aerially deposited lead, and lead-based paints and coatings</p> <p>This mitigation would apply to the transportation improvements and mixed-use development sites associated with Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA.</p> <p>1. Demolition of buildings and roadways containing asbestos and lead-based materials shall require specialized procedures and equipment, and appropriately certified personnel, as detailed in the applicable regulations. Buildings and roadways intended for demolition that were constructed before 1980 shall be surveyed for asbestos, while those constructed before 1971 shall be surveyed for lead.</p> <p>Prior to construction, all existing road right-of-ways in the project site shall be surveyed for lead contamination because of ADL and use of paint and coatings containing lead. All sampling shall be conducted consistent with applicable Caltrans and NDMV requirements.</p> <p>2. A demolition plan shall be prepared for any location with positive results for asbestos or lead. The plan will specify how to appropriately contain, remove, and dispose of the asbestos and lead-containing material while meeting all requirements and BMPs to protect human health and the environment. A lead compliance plan shall be prepared by a Certified Industrial Hygienist (consistent with the requirements of Caltrans' SSP 14-11.07).</p> <p>Prior to demolition, the project applicant shall submit the written plan to the El Dorado County Department of Environmental Management, Hazardous Waste Division, describing the methods to be used to, including, but not limited to, the following: (a) identify locations that could contain hazardous residues; (b) remove plumbing fixtures known to contain, or potentially containing, hazardous materials; (c) determine the waste classification of the debris; (d) package contaminated items and wastes; and (e) identify disposal site(s) permitted to accept such wastes.</p> <p>Demolition shall not occur until the plan has been accepted by the El Dorado County Department of Environmental Management, Hazardous Waste Division and all potentially hazardous components have been removed to the satisfaction of El Dorado County Environmental Health Department staff. The project applicant shall also provide written documentation to the County that lead-based paint and asbestos testing and abatement, as appropriate, have been completed in accordance with applicable state and local laws and regulations. Lead abatement</p>	<p>1. Monitor to ensure all buildings and roadways to be demolished that were constructed before 1980 are surveyed for asbestos, and all road right-of-ways and buildings to be demolished that were constructed prior to 1971 are surveyed for lead. Submit documentation to El Dorado County Environmental Health Department.</p>	<p>1. Implementation: Qualified hazardous materials contractor</p> <p>Monitoring: TTD and El Dorado County Environmental Health Department</p>	<p>1. Prior to construction</p>
		<p>2. If surveys identify lead or asbestos, monitor to ensure that a compliance plan is prepared and accepted by the El Dorado County Environmental Health Department, and that potentially hazardous components or contaminated soil has been removed consistent with the compliance plan.</p>	<p>2. Implementation: Qualified hazardous materials contractor, including a Certified Industrial Hygienist, if needed</p> <p>Monitoring: TTD and Placer County Environmental Health Department</p>	<p>2. Prior to demolition or ground-disturbing activities</p>
		<p>3. A qualified hazardous materials contractor shall collect soil samples from the construction footprint adjacent to Tahoe Tom's Gas Station. Samples shall be tested and remediation measures shall be developed, if necessary, in accordance with Mitigation</p>	<p>3. Implementation: Qualified hazardous materials contractor</p> <p>Monitoring: TTD and El Dorado County Environmental Health Department</p>	<p>3. Prior to construction adjacent to Tahoe Tom's Gas Station</p>

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	<p>shall include the removal of lead-contaminated soil (i.e., soil with lead concentrations greater than 400 parts per million).</p> <p>3. Prior to ground disturbance of any soils adjacent to the Tahoe Tom's Gas Station facility, soil samples shall be collected from within the proposed construction footprint along Lake Tahoe Boulevard and Park Avenue at this location to evaluate potential impacts from a petroleum hydrocarbon release that was discovered in 1998. Soil sampling would not be required if evidence can be provided to the El Dorado County Department of Environmental Management, Hazardous Waste Division that demonstrates there is no longer a risk of exposure to petroleum hydrocarbons during construction activities. If soil sampling is necessary, based on the results of the sampling, and consistent with standard industry practice, remediation measures shall be developed and implemented to the satisfaction of the El Dorado County Department of Environmental Management, Hazardous Waste Division.</p>	<p>Measure 3.12-2a. Documentation shall be submitted to El Dorado County Environmental Health Department.</p>		
	<p>Mitigation Measure 3.12-2b: Prepare a construction hazardous materials management plan This mitigation would apply to the transportation improvements and mixed-use development sites associated with Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA. A construction hazardous materials management plan shall be developed to address procedures for handling, storage, and disposal of previously unidentified contaminated soil, contaminated groundwater, lead-based paint, and asbestos-containing materials that may be encountered during project construction activities. The construction hazardous materials management plan shall include provisions for agency notification, managing contaminated materials, sampling and analytical requirements, and disposal procedures. The plan shall include identification of construction site BMPs to minimize the potential for water quality impacts. The construction hazardous materials management plan shall cover, at a minimum, the following:</p> <ul style="list-style-type: none"> ▲ petroleum hydrocarbon-contaminated soils and/or groundwater that may be encountered during project construction activities in areas where construction depths exceed 2 feet below ground surface (bgs) in the vicinity of the RECs described above; ▲ soils identified by the ADL surveys as being contaminated by lead within survey area ROWs; 	<p>1. A qualified hazardous materials contractor shall prepare a construction hazardous materials management plan, per Mitigation Measure 3.12-2b.</p> <p>2. Construction contractor shall implement the elements of the construction hazardous materials management plan.</p>	<p>1. Implementation: TTD and Qualified hazardous materials contractor Monitoring: TTD</p> <p>2. Implementation: Construction contractor Monitoring: TTD</p>	<p>1. Prior to construction</p> <p>2. During project construction</p>

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	<ul style="list-style-type: none"> ▲ materials identified by the lead-based paint and asbestos-containing materials surveys as contaminated by lead-based paint and asbestos-containing materials within bridge, pipe, and building materials; ▲ guidance for relocation, removal, or repair of hazardous materials storage facilities (USTs or ASTs) that are affected by project construction; and ▲ information on assessment and potential handing of contaminated soils found during relocation. <p>The plan shall include procedures to stop work if evidence of potential hazardous materials or contamination of soils or groundwater is encountered during construction, including the applicable requirements of the Comprehensive Environmental Response, Compensation, and Liability Act and CCR Title 22 regarding the disposal of wastes.</p>			
	<p>Mitigation Measure 3.12-2c: Conduct radon investigation and implement radon-resistant construction techniques</p> <p>This mitigation would apply to mixed-use development sites associated with Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA.</p> <p>Prior to the occupancy of housing units associated with the three future mixed-use development sites, the applicant or construction manager shall retain a licensed radon contractor to determine if radon is detected beyond the 4 pCi/L threshold, where necessary. If the amount of radon exceeds the established threshold, the applicant shall retain a licensed radon contractor to reduce the radon in the affected residences to below the established threshold. Methods may include, but are not limited to, the soil suction radon reduction system, which entails the installation of a vent pipe system and fan that pull radon from beneath the house and vent it to the outside. Additionally, passive ventilation can be considered to assure 4 pCi/L thresholds are not exceeded. The radon contractor shall develop clear instructions for proper maintenance of the radon monitoring systems that would be installed in each residence, as well as the radon monitoring and reduction system, if required. The property disclosure statements shall indicate that the site is within an area with a moderate potential for indoor radon levels.</p>	<p>1. Project applicant or construction contractor for a future project at any of the mixed-use development sites shall retain a licensed radon contractor to determine if radon is detected beyond the 4 pCi/L threshold.</p>	<p>1. Implementation: Project applicant or construction contractor and radon contractor</p> <p>Monitoring: TTD</p>	<p>1. Prior to construction</p>
		<p>2. Construction contractor shall install radon-resistant construction techniques, if applicable.</p>	<p>2. Implementation: Construction contractor</p> <p>Monitoring: TTD</p>	<p>2. During construction</p>
	<p>Mitigation Measure 3.12-2d: Conduct screening for vapor encroachment conditions (VECs) and, if necessary, conduct sampling and develop and implement remediation measures</p> <p>This mitigation would apply to the mixed-use development sites associated with Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA.</p>	<p>1. Project applicant or construction contractor for a future project at any of the mixed-use development sites shall retain an environmental professional</p>	<p>1. Implementation: Project applicant or construction contractor and environmental professional</p>	<p>1. Prior to ground-disturbing activities</p>

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	Prior to ground disturbance on any parcel intended for human occupancy, the applicant or construction manager shall retain an Environmental Professional as defined in 40 CFR Section 312.10 to perform a screening-level VEC evaluation based on the type of facility, information regarding the type of contaminant and groundwater flow, and the distance from the contaminant to the property to determine whether further study and sampling is warranted. If recommended by the screening, sampling shall be designed and conducted in coordination with DTSC and the CUPA, as appropriate. Based on the results of the sampling, and consistent with standard industry practice, remediation measures shall be developed and implemented to the satisfaction of the appropriate approval agency before building occupancy.	as defined in 40 CFR Section 312.10 to perform a screening-level VEC evaluation. 2. If necessary, sampling shall be conducted by the environmental professional at the mixed-use development site(s) and, based on the results, remediation measures shall be developed for implementation by the construction contractor.	Monitoring: TTD 2. Implementation: Construction contractor Monitoring: TTD	 2. Prior to issuance of occupancy permits by the City of South Lake Tahoe
3.13 Air Quality				
<p>Impact 3.13-1: Short-term, construction-generated emissions of criteria air pollutants and precursors</p> <p>Construction of Alternatives B, C, D, and E would not exceed the El Dorado County Air Quality Management District's (EDCAQMD) ROG threshold. Construction of Alternatives B, C, and D would exceed EDCAQMD's NO_x threshold, and therefore CO, exhaust PM₁₀, and PM_{2.5} emissions could be significant. Construction of Alternative E would not exceed EDCAQMD's NO_x or ROG threshold and therefore exhaust emissions would not be significant. All build alternatives (Alternatives B through E) could result in excessive fugitive dust emissions. In addition to construction associated with the transportation improvements, construction emissions related to the potential future mixed-use development sites for Alternatives B, C, and D would also occur. The mixed-use development would</p>	<p>Mitigation Measure 3.13-1a: Reduce short-term construction-related NO_x emissions</p> <p>This mitigation would apply to Alternatives B, C, and D transportation improvements and mixed-use development sites for purposes of NEPA, CEQA, and TRPA.</p> <p>Measures that Apply to the Transportation Improvements</p> <p>If the chosen alternative does not include development of the mixed-use sites, for all construction activities, the project proponent shall ensure that construction contractors comply with the following on-site construction measures to reduce emissions of NO_x:</p> <ul style="list-style-type: none"> ▲ The prime construction contractor shall submit to EDCAQMD a comprehensive inventory (e.g., make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that would be used for 40 or more hours, in aggregate, during a construction season. If any new equipment is added after submission of the inventory, the prime contractor shall contact EDCAQMD before the new equipment is used. At least three business days before the use of subject heavy-duty off-road equipment, the project representative shall provide EDCAQMD with the anticipated construction timeline including start date, name, and phone number of the property owner, project manager, and onsite foreman. ▲ Before approval of Grading Permits, the construction contractor shall submit for EDCAQMD approval, a written calculation demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a 	1. The construction contractor shall submit to EDCAQMD a list of heavy-duty off-road equipment and calculations demonstrating that this equipment would achieve emissions levels outlined in Mitigation Measure 3.13-1a.	1. Implementation: Construction contractor Monitoring: TTD, TRPA, and EDCAQMD	1. Before approval of grading permits and prior to TRPA permit acknowledgement

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<p>begin prior to the transportation improvements in California but may occur simultaneously with transportation improvements occurring in Nevada. Emissions from the mixed-use developments were evaluated separately and in combination with the construction activities for the transportation improvements. Construction associated with redeveloping one or more of the mixed-use development sites alone and in combination with the transportation improvements would exceed EDCAQMD's thresholds for NOX, and therefore CO, exhaust PM10, and PM2.5 could be significant. Excessive fugitive dust emissions could occur during construction of the mixed-use sites alone and in combination with the transportation improvements.</p>	<p>project wide fleet-average 20 percent reduction in NO_x emissions as compared to ARB statewide fleet average emissions. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The calculation shall be provided using EDCAQMD's Construction Mitigation Calculator.</p> <p>Measures that Apply to the Mixed-Use Development Sites</p> <p>If the chosen alternative would include development of the mixed-use sites and anticipated construction timing would not coincide with construction activities associated with US 50 transportation improvements, the project proponent shall ensure that construction contractors comply with the following on-site construction measures to reduce emissions of NO_x:</p> <ul style="list-style-type: none"> ▲ All measures as discussed above for the transportation improvements, but shall achieve a project wide fleet average 25 percent reduction in NO_x emissions as compared to ARB statewide fleet average emissions. <p>If the chosen alternative would include development of the mixed-use sites and anticipated construction timing could potentially coincide with construction activities associated with US 50 transportation improvements, the project proponent shall ensure that construction contractors comply with the following on-site construction measures to reduce emissions of NO_x:</p> <ul style="list-style-type: none"> ▲ All measures as discussed above for the scenario for the transportation improvements, but shall achieve a project wide fleet average 60 percent reduction in NO_x emissions as compared to ARB statewide fleet average emissions. ▲ To achieve a 60 percent reduction in NO_x emissions, the use of US EPA-approved Tier 3 and Tier 4 engines would be required. Any combination of said engines may be used so as the fleet average emissions are reduced by a minimum of 60 percent as compared to the ARB statewide fleet average. 			
	<p>Mitigation Measure 3.13-1b: Reduce short-term construction-related fugitive dust (PM₁₀ and PM_{2.5})</p> <p>This mitigation would apply to Alternatives B, C, and D transportation improvements and mixed-use development sites, and Alternative E for the purposes of NEPA, CEQA, and TRPA.</p> <p>To reduce fugitive dust emissions during all construction activities involving earth-moving activities, the prime construction contractor shall implement all available fugitive dust control measures as indicated in Table C.4 and C.5 (Table 3.13-8) in Appendix C-1 of the El Dorado County Air Pollution Control District CEQA Guide (2002) and included below <i>(See Attachment 1 to this MMRP)</i>.</p>	<p>1. The construction contractor shall implement all available fugitive dust control measures identified in Mitigation Measure 3.13-1b and included in Attachment 1 to this MMRP.</p>	<p>1. Implementation: Construction contractor</p> <p>Monitoring: TTD and TRPA</p>	<p>1. During construction</p>

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3.15 Noise and Vibration				
<p>Impact 3.15-1: Short-term construction noise levels</p> <p>Alternative A would not include any noise-generating construction or demolition activity. Construction and demolition activity that would occur with the Alternatives B, C, and D transportation improvements and replacement housing at one or more of the mixed-use development sites would take place during the less noise-sensitive time of day and comply with the requirements of TRPA's Best Construction Practices Policy for the Minimization of Exposure to Construction-Generated Noise and Ground Vibration. Alternative E would include construction activity during noise-sensitive evening nighttime hours that could result in exceedances of applicable TRPA land use-based noise thresholds at noise sensitive receptors, as well as exceedances of interior noise standards at nearby hotels and residences.</p>	<p>Mitigation Measure 3.15-1: Implement measures to reduce exposure of sensitive receptors to noise generated by nighttime construction activity</p> <p>The following noise abatement measures would apply for Alternative E only for the purposes of NEPA, CEQA, and TRPA.</p> <p>The project proponent shall implement the following measures to reduce the level of construction noise exposure during the evening and nighttime hours between 6:30 p.m. and 8:00 a.m. The measures are in addition to the measures already required by TRPA's Best Construction Practices Policy for the Minimization of Exposure to Construction-Generated Noise and Ground Vibration (TRPA [no date]a:6; TRPA [no date]b:4 to 5).</p> <ul style="list-style-type: none"> ▲ No noise-generating construction activity shall be performed at night unless necessary to minimize traffic conflicts. ▲ Designate a disturbance coordinator and post that person's telephone number conspicuously around all construction sites and provide to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem. ▲ Provide advanced notice to owners of all residential land uses, tourist accommodations, and commercial land uses located within 1,110 feet where nighttime construction activity would take place. This noticing shall inform the recipients of when and where nighttime construction would occur and the types of measures being implemented to lessen the impact at potentially affected receptors. This noticing shall also provide the contact information for the designated disturbance coordinator. ▲ Place temporary noise barriers or noise curtains as close to the noise source or receptor as possible such that it will break the line of sight between the source and receptor. ▲ Coordinating with owners of all tourist accommodation units within this distance to limit nighttime construction activity during those times of year and days of the week when tourist occupancy is the lowest, to the extent feasible. ▲ At equipment staging areas used to support nighttime construction activity, locate all equipment as far as possible from nearby noise-sensitive receptors. Temporary noise barriers shall be placed at these equipment staging areas to shield nearby noise-sensitive receptors from excessive noise generated at staging areas. ▲ Prohibit backup alarms on all trucks and equipment used during nighttime activity and provide an alternate warning system, such as a flagman or radar- 	1. Monitor construction activities to ensure compliance with limits on construction hours.	1. Implementation: Construction contractor Monitoring: TTD and TRPA	1. During project construction
		2. Establish construction contractor as disturbance coordinator who would respond to public complaints and provide advance notice in advance of nighttime construction activity.	2. Implementation: Construction contractor Monitoring: TTD and TRPA	2. Prior to and during project construction
		3. Monitor construction activities to ensure that best practices for construction-generated noise are followed.	3. Implementation: Construction contractor Monitoring: TTD and TRPA	3. During project construction

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	<p>based alarm, which is compliant with state regulations. Alternatively, use back up alarms that are programed to generate noise levels no more than 10 dB louder than background noise levels.</p> <ul style="list-style-type: none"> ▲ Arrival of trucks hauling construction materials and equipment to staging areas and construction sites shall occur only between the hours of between 8:00 a.m. and 6:30 p.m. Departure of trucks hauling away debris from staging areas and construction sites shall also occur only between the hours of between 8:00 a.m. and 6:30 p.m. This requirement shall be provided to all haulers at the time of the initial hauling request. ▲ Offer hotel accommodations to residents who would temporarily be exposed to interior noise levels that exceed the interior noise standard of 45 CNEL. Alternative overnight accommodations should be in a location that is not impacted by construction noise. 			
<p>Impact 3.15-2: Ground vibration during construction</p> <p>Alternative A would not include any construction or demolition activity that generates ground vibration. Pile driving activity performed during construction of the pedestrian bridge associated with the Alternative B, C, and D transportation improvements along with construction of one or more of the mixed-use development sites could expose nearby buildings to ground vibration levels that exceed the Federal Transit Administration’s (FTA) vibration 80-VdB standard for human response at residential land uses. Pile driving activity performed during construction of the Skywalk under Alternative E could expose nearby buildings and structures to ground vibration levels that exceed FTA’s vibration standard of 0.20 in/sec PPV for structural damage and FTA’s vibration standard of 80 VdB for human response at residential land uses.</p>	<p>Mitigation Measure 3.15-2a: Implement measures to reduce levels of ground vibration to limit the level of human annoyance</p> <p>The following noise abatement measures would apply to the Alternative B, C, and D transportation improvements for the purposes of NEPA, CEQA, and TRPA.</p> <p>The project proponent shall require the following measures be implemented for all pile driving activity, if required, related to construction of the pedestrian bridge:</p> <ul style="list-style-type: none"> ▲ All necessary piles shall be driven with sonic pile drivers instead of impact pile drivers; ▲ To further reduce pile-driving ground vibration impacts, holes shall be predrilled to the maximum feasible depth. This would reduce the number of blows and/or the amount of time required to seat the pile, and would concentrate the pile-driving activity closer to the ground where noise can be attenuated more effectively; ▲ Pile driving, earth moving, and ground-disturbance activities shall be phased so as not to occur simultaneously in areas close to off-site sensitive receptors. The total vibration level produced could be substantially less when each vibration source is operated separately; and ▲ Designate a disturbance coordinator and post that person’s telephone number conspicuously around the locations where pile driving would be performed. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem. The contact information of the disturbance coordinator shall also be provided to the owners of all properties for which a pre-inspection survey is performed. 	<p>1. Monitor pile driving and earth moving construction activities to ensure that best practices for ground vibration as outlined in Mitigation Measure 3.15-2a are implemented.</p>	<p>1. Implementation: Construction contractor</p> <p>Monitoring: TTD</p>	<p>1. During project construction</p>
		<p>2. Establish construction contractor as disturbance coordinator who would respond to public complaints.</p>	<p>2. Implementation: Construction contractor</p> <p>Monitoring: TTD</p>	<p>2. During project construction</p>

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	<p>Mitigation Measure 3.15-2b: Implement measures to reduce exposure of buildings and other structures to levels of ground vibration that could result in structural damage and to limit the level of human annoyance</p> <p>The following noise abatement measures would apply for Alternative E only for the purposes of NEPA, CEQA, and TRPA.</p> <p>The project proponent shall hire a qualified Nevada- and California-registered geotechnical engineer to perform site-specific study of the geotechnical conditions at the proposed skywalk site. The study shall determine the propagation rate of ground vibration in the area, taking into account local soil conditions, the age of the nearby buildings, and other factors. The study shall determine whether nearby structures and buildings could experience structural damage from pile driving activity at the skywalk site. The study shall also determine whether nearby residential dwellings, tourist accommodation units, and/or commercial land uses would experience levels of ground vibration that exceed FTA's vibration standard of 80 VdB for human response. The study shall also include a geotechnical inspection of all buildings and structures located within 100 feet of locations where impact pile driving would occur or within 60 feet where sonic pile driving would occur. The inspection shall document pre-existing conditions, including any pre-existing structural damage. The pre-inspection survey of the buildings shall be completed with the use of photographs, videotape, or visual inventory, and shall include inside and outside locations. All existing cracks in walls, floors, driveways shall be documented with sufficient detail for comparison during and upon completion of pile driving activities to determine whether new actual vibration damage has occurred. The results of both surveys shall be provided to the project proponent for review and acceptance of conclusions. Should damage occur during construction, construction operations shall be halted until the problem activity can be identified. Once identified, the problem activity shall be modified to eliminate the problem and protect the adjacent buildings. Any damage to nearby buildings shall be repaired back to the pre-existing condition at the expense of the project proponent. The study shall also identify site-specific measures to lessen the potential for structural damage and to reduce the potential for human response from ground vibration associated with construction of the skywalk and the project proponent shall require construction contractor(s) to implement the measures identified in the study. Such measures shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> ▲ All necessary piles shall be driven with sonic pile drivers instead of impact pile drivers, unless sonic pile driving is determined to be infeasible by a qualified geotechnical engineer; 	<p>1. Hire a qualified Nevada- and California-registered geotechnical engineer to perform site-specific study of the geotechnical conditions at the proposed skywalk site, whether nearby buildings could experience structural damage from pile driving, and identify site-specific measures, including those included in Mitigation Measure 3.15-2b, to lessen the potential for structural damage.</p>	<p>1. Implementation and monitoring: TTD</p>	<p>1. Prior to project construction</p>

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	<ul style="list-style-type: none"> ▲ To the extent feasible, project structures shall be designed so that impact-driven piles are placed a sufficient distance from nearby buildings and structures to minimize the potential to cause structural damage (e.g., 100 feet, assuming normal propagation conditions), and sonic-driven piles are placed at least 60 feet from nearby buildings and structures to minimize the potential to cause structural damage (e.g., 60 feet, assuming normal propagation conditions); ▲ To the extent feasible, project structures shall be designed so that impact-driven piles are placed a sufficient distance from residences and tourist accommodation units to minimize human response (e.g., 300 feet, assuming normal propagation conditions), and sonic-driven piles are placed a sufficient distance from nearby buildings and structures to minimize human response (e.g., 175 feet, assuming normal propagation conditions); ▲ To further reduce pile-driving ground vibration impacts, holes shall be predrilled to the maximum feasible depth. This would reduce the number of blows and/or the amount of time required to seat the pile, and would concentrate the pile-driving activity closer to the ground where noise can be attenuated more effectively; ▲ Pile driving, earth moving, and ground-disturbance activities shall be phased so as not to occur simultaneously in areas close to off-site sensitive receptors. The total vibration level produced could be substantially less when each vibration source is operated separately; ▲ Designate a disturbance coordinator and post that person's telephone number conspicuously around the skywalk construction site and provide to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem. The contact information of the disturbance coordinator shall also be provided to the owners of all properties for which a pre-inspection survey is performed; and ▲ Provide advanced notice to owners of all residential land uses, tourist accommodations, and commercial land uses located within 300 feet of where impact pile driving would take place or within 175 feet of where sonic pile driving would take place. This noticing shall inform the recipients of when and where pile driving would occur and the types of measures being implemented to lessen the impact at potentially affected receptors. This noticing shall also provide the contact information for the designated disturbance coordinator. 			

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<p>Impact 3.15-3: Traffic noise exposure at existing receptors</p> <p>Alternative A would not result in changes to traffic noise levels along US 50 or local roadways.</p> <p>With Alternatives B, C, and D the 65 CNEL contours along the realigned segments of US 50 would not extend more than 300 feet from the roadway edge for any of the alternatives. Therefore, the Environmental Threshold Carrying Capacity established by TRPA for the transportation corridor would not be exceeded with Alternatives B, C, and D.</p> <p>With Alternatives B, C, and D one or more noise-sensitive receptors would be exposed to noise levels greater than the applicable FHWA noise abatement criteria by the design year (i.e., 2040).</p> <p>With Alternatives B, C, and D multiple existing noise-sensitive receptors in California would experience increases in traffic noise that are considered substantial by 23 CFR 772 criteria (i.e., increase of 12 dB or more).</p> <p>With Alternatives B, C, D, and E one or more existing noise-sensitive receptors located outside of a TRPA transportation corridor would be exposed to noise levels that exceed TRPA's applicable land use-based CNEL threshold.</p> <p>With Alternatives B, C, D, and E multiple noise-sensitive receptors would be exposed to traffic noise levels that exceed the applicable traffic noise standard</p>	<p>Mitigation Measure 3.15-3a: Implement traffic noise reduction measures to reduce traffic noise exposure at affected receptors</p> <p>The following noise abatement measures would apply to the Alternative B transportation improvements and mixed-use redevelopment sites for the purposes of NEPA, CEQA, and TRPA.</p> <p>Performance Requirements</p> <p>Traffic noise reduction measures shall be implemented to achieve the following:</p> <ol style="list-style-type: none"> 1. Ensure that Receptors 80, 88, 89, 90, and 91 are not exposed to an average daily traffic noise level that exceeds the land use-based 55 CNEL threshold established in TRPA's Pioneer/Ski Run Plan Area Statement 092 (TRPA 2002c:3) and that Receptor 136 is not exposed to an average daily traffic noise level that exceeds the land use-based 65 CNEL threshold established in TRPA's Tourist Core Area Plan (City of South Lake Tahoe and TRPA 2013:5-3 to 5-4) under cumulative conditions. These land use-based CNEL thresholds apply at all portions of these receptor parcels that are more than 300 feet from the edge of US 50. This performance requirement shall take priority over Performance Requirements 3 and 4; 2. TTD shall offer to retrofit the South Shore Inn (Receptor 55) sufficiently to ensure that its ambient interior noise levels do not exceed 45 CNEL with windows and doors closed. However, the owners of the motel may choose to refuse this offer; 3. To the extent feasible, reduce traffic noise levels at those receptors identified in Table 3.15-11 that would experience traffic noise levels that exceed or approach the applicable Noise Abatement Criterion (NAC) and/or experience a traffic noise level increase greater than Caltrans's incremental increase criterion of 12 dB. For NEPA purposes, the feasibility of achieving this performance requirement can be based on the Noise Abatement Decision Report prepared for the project (Caltrans 2016), which was prepared pursuant to guidance in Caltrans's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (Caltrans 2011) and 23 CFR 772; and 4. To the extent feasible, reduce traffic noise levels at those receptors identified in Table 3.15-11 that would experience a traffic noise level that exceeds the applicable local noise standard (established by the City of South Lake Tahoe), and/or would experience a traffic noise level increase of 3 dB or greater. <p>Noise Reduction Features</p> <p>Noise-reduction features may include, but are not limited to, any combination of the following:</p>	<p>1. TTD, or its consultant, shall prepare a supplemental study to the Noise Abatement Decision Report to identify all necessary measures to ensure attainment of all applicable TRPA land use-based CNEL thresholds and local noise standards that would benefit the most receptors and prioritize the attainment of applicable NAC ahead of the applicable local noise standard.</p>	<p>1. Implementation: TTD or consultant</p> <p>Monitoring: TTD and TRPA</p>	<p>1. Prior to TRPA permit acknowledgement</p>
		<p>2. Construction contractor shall install all noise-reducing features identified in the supplemental noise study are constructed as designed.</p>	<p>2. Implementation: Construction contractor</p> <p>Monitoring: TTD, TRPA, and City of South Lake Tahoe</p>	<p>2. During project construction</p>

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
<p>established by the City of South Lake Tahoe.</p> <p>With Alternatives B, C, and D multiple noise-sensitive receptors would experience a CNEL increase equal to or greater than 3 dB, which is a TRPA significance criterion and a CEQA significance criterion for receptors located in California.</p> <p>With Alternatives B, C, D, and E one or more existing hotels would be exposed to interior noise levels that exceed the interior noise standard of 45 CNEL.</p> <p>These exceedances would occur under existing-plus-project conditions (2020) and/or under cumulative-plus-project conditions (2040) with a considerable contribution of the exceedance directly resulting from the implementation of the selected alternative. The intensity of these impacts would not be substantially different with development of the replacement housing at the mixed-use redevelopment sites with Alternatives B, C, and D.</p>	<ul style="list-style-type: none"> ▲ Paving the nearby segment of roadway with rubberized hot-mix asphalt (RHMA) or equivalent surface treatment with known noise-reducing properties on top of the roadway surface. The RHMA overlay shall be designed with appropriate thickness and rubber component quantity (typically 15 percent by weight of the total blend), such that traffic noise levels are reduced by an average of 4 to 6 dB (noise levels vary depending on travel speeds, meteorological conditions, and pavement quality) as compared to noise levels generated by vehicle traffic traveling on standard asphalt. RHMA has been found to achieve this level of noise reduction in other parts of California (Sacramento County 1999). Pavement will require more frequent than normal maintenance and repair to maintain its noise attenuation effectiveness. ▲ Installation of outdoor sound barriers between affected receptors and the roadway segments that are the predominant noise source at the receptors. The sound barriers must be constructed of solid material (e.g., wood, brick, adobe, an earthen berm, boulders, or combination thereof). The reflectivity of each sound barrier will be minimized to ensure that traffic noise reflected off the barrier does not contribute to an exceedance of applicable TRPA CNEL standards at other receptors. The level of sound reflection from a barrier can be minimized with a textured or absorptive surface or with vegetation on or next to the barrier. Scenic quality factors will be taken into account during design, such as using more natural materials (e.g., berms and boulders) to reduce the visible mass of a wall. Mitigation Measure 3.7-3 also proposes the use of a sound barrier to attenuate impacts from headlights shining onto residential properties and describes details to ensure the barriers would not cause negative visual impacts (see Section 3.7, Visual Resources/Aesthetics). All barriers will be designed to blend into the restored landscape along the highway, to the extent feasible. Ensuring a character consistent with the surrounding area may involve the use of strategically placed boulders, native trees, or other vegetation; the addition of special materials (e.g., wood or stonework) on the façade of the sound wall; and/or a sound wall that is covered in vegetation. The location and design of sound barriers shall adhere to any space requirements for snow removal on the adjacent roadway. If desired a sound barrier can be divided into two overlapping segments with a gap in the overlapped portion to provide pedestrian access from one side to the other. <p>The specific location, length, height, and design of noise barriers for Alternative B must be defined during engineering design development. It is not feasible to provide engineering details of noise barriers prior to the initiation of preliminary engineering for the transportation improvements. For conceptual planning purposes, however, based on the environmental planning-level noise analysis in this document, the approximate location and height of noise barriers for Alternative B are as follows:</p>			

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<ul style="list-style-type: none"> ➤ Barriers would need to be built on both the north and south sides of the realigned US 50 alignment to protect affected residences behind them. The approximate length is estimated to be in the range of 1,000 to 1,200 feet on each side of the highway. The height needed for an approximately 5 dB attenuation would be between 6 to 8 feet above the road surface. Noise barriers would be entirely within the public right-of-way. ➤ The conceptual extent of the south barrier would be from the intersection of realigned US 50 and Pioneer Trail (near the existing 90-degree bend in Primrose Road close to Pioneer Trail) east to the curve of the highway onto the Montreal Road alignment (near the existing intersection of Echo Road and Montreal Road). ➤ The conceptual extent of the north barrier would be from the intersection of realigned US 50 and Pioneer Trail (near the existing intersection of Moss Road and Pioneer Trail) east to beyond Fern Road (near the existing corner of the back parking area of Heavenly Village Center). ▲ Reduced vehicle speeds through posted speed limits, advisory signs, and/or design features that serve as traffic calming elements (e.g., median barrier, center islands, and raised crosswalks). The design of any special traffic-calming features shall not prevent the ability to provide adequate snow removal of any surfaces used for driving, walking, or biking. ▲ Offer to the property owners of residences, motels/hotels, or other tourist accommodation units where the interior noise levels would exceed 45 CNEL, increased noise insulation of exterior walls to improve the Sound Transmission Class (STC) of those walls, including but not limited to added insulation, upgrades to drywall, acoustical sound absorption panels, new windows, and new exterior siding. For residences or tourist accommodation units that do not currently have air conditioning, install an air conditioning system if necessary to ensure that residents can close all windows and doors during nighttime hours and maintain adequate interior comfort. ▲ Acquire properties where the noise level would exceed TRPA thresholds, applicable Caltrans noise abatement criteria, and/or applicable local noise standards; or where traffic noise levels would increase by 3 dB CNEL or greater. Acquisition of additional properties shall only occur if other feasible noise reduction measures are not available to achieve the applicable standards or minimize traffic noise increases to less than 3 dB CNEL. <p>Selection and Design Process The selection and design of specific traffic noise reduction measures shall be supported by a site-specific noise abatement assessment conducted by a qualified</p>			

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<p>acoustical engineer or consultant selected by the project proponent. This study shall be fully funded by the project proponent and approved by the project proponent, TRPA, and Caltrans prior to project construction. If necessary to support the effectiveness of selected noise reduction measures, the site-specific noise abatement assessment may involve additional sound level measurements and/or the use of detailed site-specific modeling with software such as FHWA's Traffic Noise Model (FHWA 2006), SoundPLAN (SoundPLAN 2015) or CadnaA (DataKustik 2015).</p> <p>For those receptors predicted to experience an exceedance of NEPA significance criteria for traffic noise, as identified in Table 3.15-11, the feasibility of constructing a sound barrier, for NEPA purposes, shall be based on the results of the Noise Abatement Decision Report (Caltrans 2016), which was prepared pursuant to guidance in Caltrans's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (Caltrans 2011) and 23 CFR 772.</p> <p>TTD shall prepare a study supplemental to the Noise Abatement Decision Report to identify all necessary measures to ensure attainment of all applicable TRPA land use-based CNEL thresholds. The supplemental study shall also identify all feasible measures to reduce traffic noise increases to less than 3 dB and/or reduce traffic noise levels to less than the applicable local noise standards, with specific attention to the application of the City's noise standard at the outdoor activity areas of residential and tourist accommodation land uses. In addition, the supplemental study shall identify, and TTD shall select, the set of feasible noise reduction measures that would benefit the most receptors and prioritize the attainment of applicable NAC ahead of the applicable local noise standard.</p>			
	<p>Mitigation Measure 3.15-3b: Implement traffic noise reduction measures to reduce traffic noise exposure at affected receptors</p> <p>The following noise abatement measures would apply to the Alternative C transportation improvements and mixed-use development sites for the purposes of NEPA, CEQA, and TRPA.</p> <p>Performance Requirements</p> <p>Traffic noise reduction measures shall be implemented to achieve the following:</p> <ol style="list-style-type: none"> 1. Ensure that Receptor 136 is not exposed to an average daily traffic noise level that exceeds the land use-based 65 CNEL threshold established in TRPA's Tourist Core Area Plan (City of South Lake Tahoe and TRPA 2013:5-3 to 5-4) under cumulative conditions. This performance requirement shall take priority over Performance Requirements 2, 3 and 4; 	See Mitigation Measure 3.15-3a.		

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<p>2. TTD shall offer to retrofit the South Shore Inn (Receptor 55) sufficiently to ensure that its ambient interior noise level does not exceed 45 CNEL with windows and doors closed. However, the owner of the motel may choose to refuse this offer;</p> <p>3. To the extent feasible, reduce traffic noise levels at those receptors identified in Table 3.15-12 that would experience a traffic noise level that exceeds or approaches the applicable NAC and/or experience a traffic noise level increase greater than Caltrans's incremental increase criterion of 12 dB. For NEPA purposes, the feasibility of achieving this performance requirement can be based on the Noise Abatement Decision Report prepared for the project (Caltrans 2016), which was prepared pursuant to guidance in Caltrans's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (Caltrans 2011) and 23 CFR 772; and</p> <p>4. To the extent feasible reduce traffic noise levels at those receptors identified in Table 3.15-12 that would experience a traffic noise level that exceeds the applicable local noise standard (established by the City of South Lake Tahoe), and/or would experience a traffic noise level increase of 3 dB or greater.</p> <p>Noise Reduction Features Noise reduction features may include, but are not limited to, the same features identified for Alternative B in Mitigation Measure 3.15-3a.</p> <p>The specific location, length, height, and design of noise barriers for Alternative C must be defined during engineering design development and, as described for Alternative B, adhere to Mitigation Measure 3.7-3 to avoid negative visual impacts (see Section 3.7, Visual Resources/Aesthetics). It is not feasible to provide engineering details of noise barriers prior to the initiation of preliminary engineering for the transportation improvements. For conceptual planning purposes, however, based on the environmental planning-level noise analysis in this document, the approximate location and height of noise barriers for Alternative C are as follows (similar to Alternative B):</p> <ul style="list-style-type: none"> ▲ Barriers would need to be built on both the north and south sides of the realigned US 50 alignment to protect affected residences behind them. The approximate length is estimated to be in the range of 1,000 to 1,200 feet on each side of the highway. The height needed for an approximately 5 dB attenuation would be between 6 to 8 feet above the road surface. Noise barriers would be entirely within the public right-of-way. ▲ The conceptual extent of the south barrier would be from the intersection of realigned US 50 and Pioneer Trail (near the existing 90-degree bend in Primrose Road close to Pioneer Trail) east to the curve of the highway onto the 			

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<p>Montreal Road alignment (near the existing intersection of Echo Road and Montreal Road).</p> <p>▲ The conceptual extent of the north barrier would be from the intersection of realigned US 50 and Pioneer Trail (near the existing intersection of Moss Road and Pioneer Trail) east to beyond Fern Road (near the existing corner of the back parking area of Heavenly Village Center).</p> <p>Selection and Design Process The selection and design of specific traffic noise reduction measures to reduce traffic noise impacts under Alternative C shall adhere to the same requirements identified for Alternative B in Mitigation Measure 3.15-5a.</p>			
	<p>Mitigation Measure 3.15-3c: Implement traffic noise reduction measures to reduce traffic noise exposure at affected receptors The following noise abatement measures would apply to the Alternative D transportation improvements and mixed-use development sites for the purposes of NEPA, CEQA, and TRPA.</p> <p>Performance Requirements Traffic noise reduction measures shall be implemented to achieve the following:</p> <ol style="list-style-type: none"> 1. Ensure that Receptors 30, 97, and 98 are not exposed to an average daily traffic noise level that exceeds the land use-based 55 CNEL threshold established in TRPA's Pioneer/Ski Run Plan Area Statement 092 (TRPA 2002c:3) and that Receptor 136 is not exposed to an average daily traffic noise level that exceeds the land use-based 65 CNEL threshold established in TRPA's Tourist Core Area Plan (City of South Lake Tahoe and TRPA 2013:5-3 to 5-4). These land use-based CNEL thresholds apply to all portions of these receptor parcels that are more than 300 feet from the edge of US 50. Also ensure that Receptor 29 is not exposed to more than its existing noise level of 65 CNEL under cumulative-plus-Alternative D conditions, which currently exceeds the TRPA land use-based noise threshold of 55 CNEL established in PAS 092 Pioneer/Ski Run (TRPA 2002c:3) and is expected to be exposed to 65 CNEL under cumulative-no-project conditions. This performance requirement shall take priority over Performance Requirements 2, 3, and 4; 2. TTD shall offer to retrofit the Trailhead Motel (Receptor 20) with sufficient noise insulation to ensure that its ambient interior noise levels do not exceed 45 CNEL with windows and doors closed. However, the owners of the motel may choose to refuse this offer; 3. To the extent feasible reduce traffic noise levels at Receptors 42, 68, 71, 83, and 84 so they would not experience a traffic noise level that exceeds or approaches 	See Mitigation Measure 3.15-3a.		

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<p>the applicable NAC and/or experience a traffic noise level increase greater than Caltrans's incremental increase criterion of 12 dB. For NEPA purposes, the feasibility of achieving this performance requirement can be based on the Noise Abatement Decision Report prepared for the project (Caltrans 2016), which was prepared pursuant to guidance in Caltrans's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (Caltrans 2011) and 23 CFR 772 and is included in Appendix E to the RTP/SCS EIR/EIS; and</p> <p>4. To the extent feasible reduce traffic noise levels at those receptors identified in Table 3.15-13 that would experience a traffic noise level that exceeds the applicable local noise standard established by the City of South Lake Tahoe, and/or would experience a traffic noise level increase greater than 3 dB.</p> <p>Noise Reduction Features Noise reduction features may include, but are not limited to, the same features identified for Alternative B in Mitigation Measure 3.15-3a.</p> <p>Noise analysis indicates the need for a barrier on the south side of the relocated highway for Alternative D. The specific location, length, height, and design of noise barrier for Alternative D must be defined during engineering design development and, as described for Alternative B, adhere to Mitigation Measure 3.7-3 to avoid negative visual impacts (see Section 3.7, Visual Resources/Aesthetics). It is not feasible to provide engineering details of a noise barrier prior to the initiation of preliminary engineering for the transportation improvements. For conceptual planning purposes, however, based on the environmental planning-level noise analysis in this document, the approximate location and height of the noise barrier for Alternative D are as follows:</p> <ul style="list-style-type: none"> ▲ A barrier would need to be built on the south side of the realigned US 50 alignment to protect affected residences behind it. The approximate length is estimated to be in the range of 800 to 1,000 feet. The height needed for an approximately 5 dB attenuation would be between 6 to 8 feet above the road surface. The noise barrier would be entirely within the public right-of-way. The conceptual extent of the south barrier would be from the intersection of realigned US 50 and Pioneer Trail (near the existing intersection of Echo Road and Pioneer Trail) east to the curve of the highway onto the Montreal Road alignment (near the existing corner of the Heavenly Village Center parking lot). ▲ If the existing residential land uses along Fern Road (represented by Receptors 96, 97, and 98) are not replaced with mixed-use redevelopment prior to completion of the realigned US 50 alignment, then a barrier would also need to be built on the north side of the realigned US 50 alignment to protect these 			

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<p>affected residences. The approximate length of the barrier on the north side of the realigned US 50 alignment is estimated to be approximately 600 to 800 feet.</p> <p>Selection and Design Process The selection and design of specific traffic noise reduction measures to reduce traffic noise impacts under Alternative D shall adhere to the same requirements identified for Alternative B in Mitigation Measure 3.15-5a.</p>			
	<p>Mitigation Measure 3.15-3d: Implement traffic noise reduction measures to reduce traffic noise exposure at affected receptors The following noise abatement measures would apply for Alternative E for the purposes of CEQA and TRPA.</p> <p>Performance Requirements Traffic noise reduction measures shall be implemented to achieve the following:</p> <ol style="list-style-type: none"> 1. Ensure that implementation of Alternative E does not contribute to an exceedance of the land use-based 65 CNEL threshold established in TRPA's Tourist Core Area Plan (City of South Lake Tahoe and TRPA 2013:5-3 to 5-4) at Receptor 136 under cumulative conditions. This means that noise reduction measures shall be implemented to reduce the traffic noise level by a minimum of 1 dB under the cumulative-plus-Alternative E condition. (This performance requirement would also ensure that Alternative E does not contribute to an exceedance of the 65 CNEL transportation noise standard established by the City of South Lake Tahoe.) This performance requirement shall take priority over Performance Requirements 2 and 3; 2. Reduce exterior traffic noise levels at Receptors 20, 99, 102, 107, 135, and 136 by a minimum of 1 dB to offset the contribution by Alternative E under cumulative conditions to an exceedance of the 65 CNEL standard established by the City of South Lake Tahoe for these land uses; and 3. TTD shall offer to retrofit the Trailhead Motel (Receptor 20) and the Park Tahoe Aspen Court (Receptor 107) sufficiently to ensure that its ambient interior noise levels do not exceed 45 CNEL with windows and doors closed. However, the owners of these motels may choose to refuse this offer. <p>Noise Reduction Features Noise reduction features may include, but are not limited to, the same features identified for Alternative B in Mitigation Measure 3.15-3a.</p> <p>Selection and Design Process The selection and design of specific traffic noise reduction measures to reduce traffic noise impacts under Alternative E shall adhere to the same requirements identified for Alternative B in Mitigation Measure 3.15-5a.</p>	See Mitigation Measure 3.15-3a.		

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
<p>Impact 3.15-4: Noise/land use compatibility of mixed-use redevelopment sites</p> <p>Alternatives A and E would not include the redevelopment of any areas within the project site that would expose new land uses to excessive noise levels. With Alternatives B, C, and D, the mixed-use redevelopment sites would not be located where they would be exposed to noise levels that exceed TRPA transportation corridor contour-based noise thresholds or TRPA land-use based noise thresholds. Therefore, this impact would be less than significant for purposes of TRPA threshold compliance.</p> <p>Common outdoor activity areas could be included on the mixed-use redevelopment sites that would potentially be developed under Alternatives B, C, and D. These common outdoor activity areas could be exposed to traffic noise levels that exceed the City of South Lake Tahoe's 60 CNEL standard.</p>	<p>Mitigation Measure 3.15-4: Implement noise protection measures to ensure that outdoor activity areas on the mixed-use redevelopment sites are not exposed to noise levels greater than 60 CNEL</p> <p>The following noise abatement measures would apply to the Alternative B, C, and D mixed-use development sites for the purposes of NEPA, CEQA, and TRPA.</p> <p>Performance Requirement</p> <p>Developers of each mixed-use redevelopment site shall be required to ensure that ambient traffic noise levels do not exceed 60 CNEL at all common outdoor activity areas (not including parking lots or walkways between parking lots and building entrances). This performance standard shall be achieved at each site prior to occupancy of any of the housing units and under the cumulative-plus-project condition for Alternatives B, C, and D.</p> <p>Noise Reduction Features</p> <p>Measures to reduce noise exposure levels may include, but are not limited to, any combination of the following:</p> <ul style="list-style-type: none"> ▲ Setting back common outdoor activity areas as far as possible from the nearest segment(s) of US 50; ▲ Strategically locating buildings to shield common outdoor activity areas from noise generated by traffic on the nearby segment(s) of US 50. An example of this type of design layout exists at the existing Forest Suites Resort on the corner of Lake Parkway and Heavenly Village Way; ▲ Installing outdoor sound barriers on the redevelopment property between the outdoor activity areas and the nearby segment(s) of US 50. The sound barriers must be constructed of solid material (e.g., wood, brick, adobe, an earthen berm, boulders, or combination thereof). The reflectivity of each sound barrier shall be minimized to ensure that traffic noise reflected off the barrier does not contribute to an exceedance of applicable noise standards at other off-site receptors. The level of sound reflection from a barrier can be minimized with a textured or absorptive surface or with vegetation on or next to the barrier. All barriers shall blend into the overall landscape and have an aesthetically pleasing appearance that agrees with the character of the surrounding area, and not become the dominant visual element of the area. Ensuring a character consistent with the surrounding area may involve the use of strategically placed boulders, native trees, or other vegetation; the addition of special materials (e.g., wood or stonework) on the façade of a sound wall; and/or a sound wall that is covered in vegetation. Special icon panels depicting works of art or emblems meaningful to the area may be included on sound barriers so long as they comply with any applicable local guidelines for public art. The 	<p>1. The project applicant or construction contractor shall hire a qualified acoustical engineer or consultant to select and design measures, as identified in Mitigation Measure 3.15-4, to reduce noise exposure at outdoor activity areas at each mixed-use redevelopment site.</p>	<p>1. Implementation: Project applicant or construction contractor and qualified acoustical engineer or consultant</p> <p>Monitoring: TTD and City of South Lake Tahoe</p>	<p>1. Prior to issuance of building permits for development at any of the mixed-use development sites</p>
		<p>2. Construction contractor shall install all noise-reducing measures are constructed as designed.</p>	<p>2. Implementation: Construction contractor</p> <p>Monitoring: TTD, TRPA, and City of South Lake Tahoe</p>	<p>2. During project construction</p>

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<p>location and design of sound barriers shall adhere to any space requirements for snow removal on US 50. Where desired a sound barrier can be divided into two overlapping segments with a gap to provide pedestrian access from one side to the other; and/or</p> <p>▲ Locating outdoor activity areas, such as swimming pools or patios, on building rooftops.</p> <p>Selection and Design Process The selection and design of specific measures to reduce noise exposure at outdoor activity areas at each mixed-use redevelopment site shall be conducted by a qualified acoustical engineer or consultant pursuant to Policy HS-8.6 of the City of South Lake Tahoe General Plan. The study for each site shall be fully funded by the applicant seeking to develop the site and approved by City staff prior to project construction. If necessary to support the effectiveness of selected noise reduction measures, the site-specific noise abatement assessment may involve additional sound level measurements and/or the use of detailed site-specific modeling with software such as FHWA's Traffic Noise Model (FHWA 2006), SoundPLAN (SoundPLAN 2015) or CadnaA (DataKustik 2015).</p>			
3.16 Biological Environment				
<p>Impact 3.16-2: Disturbance or loss of sensitive habitats (jurisdictional wetlands, riparian vegetation, SEZ, aquatic habitat) Implementing Alternatives B, C, and D would result in direct removal and disturbance of sensitive habitats, including waters of the United States, waters of the state, riparian habitat, and SEZs. With the no-build alternative (Alternative A) or Alternative E, no project-related disturbance of sensitive habitats would occur.</p>	<p>Mitigation Measure 3.16-2a: Implement vegetation protection measures and revegetate disturbed areas This mitigation would apply to the transportation improvements and mixed-use development sites included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA. Vegetation will not be disturbed, injured or removed, except in accordance with the TRPA Code and other conditions of project approval. All trees, major roots, and other vegetation, not specifically designated and approved for removal in connection with a project will be protected according to methods approved by TRPA. All vegetation outside the construction site boundary, as well as other vegetation designated on the approved plans, will be protected by installing temporary fencing pursuant to Subsections 33.6.9 and 33.6.10 of the TRPA Code. Areas outside the construction site boundary that sustain vegetation damage during construction will be revegetated according to a revegetation plan in accordance with Section 61.4.</p>	<p>1. Include measures to avoid removal of or damage to vegetation and revegetate disturbed area, per Mitigation Measure 3.16-2a, for inclusion in construction contracts.</p>	<p>1. Implementation: TTD Monitoring: TTD and TRPA</p>	<p>1. Prior to construction</p>
		<p>2. Monitor installation and maintenance of vegetation protection features, such as temporary fencing, and adherence to other vegetation protection measures.</p>	<p>2. Implementation: Construction contractor Monitoring: TTD and TRPA</p>	<p>2. During project construction</p>
		<p>3. Monitor revegetation activities, including outside of the construction site boundary if necessary, to ensure they are consistent with the revegetation plan.</p>	<p>3. Implementation: Construction contractor Monitoring: TTD</p>	<p>3. During or immediately following construction activities</p>

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Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<p>Mitigation Measure 3.16-2b: Obtain authorization for fill and required permits for impacts to jurisdictional wetlands or other regulated waters</p> <p>The following mitigation applies to the transportation improvements and mixed-use development sites included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA.</p> <p>Authorization for fill or disturbance of waters of the United States will be secured from the U.S. Army Corps of Engineers (USACE) through the Section 404 permitting process. The acreage of riparian habitat (deciduous riparian vegetation) and wetlands that would be removed or disturbed during project implementation will be quantified and replaced or restored/enhanced in accordance with USACE and TRPA regulations, which include meeting the no-net-loss standard in accordance with USACE requirements. Habitat restoration, enhancement, and/or replacement will be at a location and by methods agreeable to USACE as determined during the permitting processes for CWA Section 404 and by TRPA during the permitting process for SEZ.</p> <p>In addition, on the California side of the study area, if any project activities would affect aquatic resources and associated riparian habitats subject to regulation by the California Department of Fish and Wildlife (CDFW) under Sections 1600 et seq. of the California Fish and Game Code (i.e., the bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources), the project proponent shall consult with CDFW to determine whether a lake and streambed alteration agreement (LSAA) is required. If required under Section 1602, any compensatory mitigation shall be conducted in accordance with the terms of the LSAA, and in coordination with the other requirements of this mitigation measure (Mitigation Measure 3.16-2b) and Mitigation Measure 3.16-2c.</p>	1. TTD shall obtain authorization for fill or disturbance of waters of the U.S. through Section 404 permitting.	1. Implementation and monitoring: TTD and TRPA	1. Prior to TRPA permit acknowledgement
		2. Monitor construction activities to ensure that habitat restoration, enhancement, and/or replacement is consistent with USACE and TRPA permit conditions.	2. Implementation: TTD Monitoring: TTD and TRPA	2. During construction
		3. If applicable, notify CDFW prior to conducting activity within the bed, bank, or riparian corridor of any waterway. Prepare Streambed Alteration Agreement, per Mitigation Measure 3.16-2b.	3. Implementation and monitoring: TTD	3. Prior to construction
		4. Prepare a Compensatory Stream and Riparian Mitigation and Monitoring Plan, per Mitigation Measure 3.16-2b.	4. Implementation and monitoring: TTD	4. Prior to construction
		5. Monitor implementation of construction activities and compensatory mitigation in accordance with the lake and streambed alteration agreement.	5. Implementation: Construction contractor Monitoring: TTD	5. During project construction
			1. Monitor project final design to determine if the final design would potentially affect any SEZs.	1. Implementation and monitoring: TTD and TRPA

US 50/South Shore Community Revitalization Project Mitigation Monitoring and Reporting Program				
Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<p>Mitigation Measure 3.16-2c: Compensate for Unavoidable Loss of SEZ</p> <p>The following mitigation applies to the transportation improvements and mixed-use development sites included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA.</p> <p>The following measures will be implemented to ensure consistency with Section 61.3 of the TRPA Code and further reduce potential adverse effects on SEZs, streams, and riparian habitat:</p> <ul style="list-style-type: none"> ▲ All reasonable alternatives shall be implemented to avoid or reduce the extent of encroachment into SEZs. ▲ In instances where there is no feasible alternative to avoid an SEZ, the project proponent shall mitigate all impacts within the boundaries of SEZs by restoring SEZ habitat (land capability district 1b) in the surrounding area, or other appropriate area as determined by TRPA, at a minimum ratio of 1.5:1, consistent with TRPA Code. ▲ The project proponent shall retain a qualified restoration ecologist to prepare a restoration plan that will address final clean-up, stabilization, and revegetation procedures for areas disturbed by the project. This restoration plan shall be completed and reviewed by TRPA prior to acknowledgement of the project’s permit. The restoration plan for SEZs shall include the following: <ul style="list-style-type: none"> ▼ identification of compensatory mitigation sites and criteria for selecting these mitigation sites; ▼ complete assessment of the existing biological resources in the restoration areas; ▼ in kind reference habitats for comparison with compensatory SEZs (using performance and success criteria) to document success; ▼ monitoring protocol, including schedule and annual report requirements (Compensatory habitat shall be monitored for a minimum of five years from completion of mitigation, or human intervention [including recontouring and grading], or until the success criteria identified in the approved mitigation plan have been met, whichever is longer); ▼ ecological performance standards, based on the best available science and including specifications for native plant densities, species composition, amount of dead woody vegetation gaps and bare ground, and survivorship; at a minimum, compensatory mitigation planting sites must achieve 80 percent survival of planted vegetation by the end of the five-year maintenance and monitoring period or dead and dying plants shall be replaced and monitoring continued until 80 percent survivorship is achieved; 	<p>2. Hire a qualified restoration ecologist to prepare a restoration plan, per Mitigation Measure 3.16-2c.</p>	<p>2. Implementation: TTD</p> <p>Monitoring: TTD and TRPA</p>	<p>2. Prior to project construction and TRPA permit acknowledgement</p>

US 50/South Shore Community Revitalization Project Mitigation Monitoring and Reporting Program				
Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<ul style="list-style-type: none"> ▀ corrective measures if performance standards are not met; ▀ responsible parties for monitoring and preparing reports; and ▀ responsible parties for receiving and reviewing reports and for verifying success or prescribing implementation or corrective actions. 			
<p>Impact 3.16-3: Tree removal Regardless of the magnitude of biological effects of tree removal, native trees are protected in the Tahoe Basin, because of their natural qualities and functions. Because Alternatives B, C, and D would result in removal of more than 100 trees 14 inches or greater dbh, they would result in substantial tree removal. With Alternative E, native tree removal would not be substantial. While all build alternatives would require removal of trees greater than 24 inches dbh in eastside forest and/or 30 inches dbh in westside forest, which is generally prohibited by TRPA, the US 50/South Shore Community Revitalization Project meets the exception in TRPA Code Section 61.1.4.A.7 that allows for the removal of these trees for Environmental Improvement Program (EIP) projects, provided that findings demonstrate that the tree removal is necessary. In Alternative A no trees would be removed.</p>	<p>Mitigation Measure 3.16-3: Prepare tree removal, protection, and replanting plan The following mitigation applies to the transportation improvements and mixed-use development sites included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA. A Tree Removal, Protection, and Replanting Plan shall be prepared by the project proponent to provide tree protection measures to comply with the performance criteria and other requirements of Chapter 61 of the TRPA Code, prevent damage to trees that are proposed to remain, and determine appropriate tree replanting locations and approaches to occur in the project site. The Plan will include marking and inventorying the specific trees to be removed, after detailed design is completed. A qualified forester will make a determination regarding the project's consistency with Chapter 61 of the TRPA Code. The plan shall set forth prescriptions for tree removal, water quality protection, root zone and vegetation protection, residual stocking levels, replanting, slash disposal, fire protection, and other appropriate considerations.</p>	1. Prepare a Tree Removal, Protection, and Replanting Plan and hire a qualified forester to review the Plan to determine consistency with Chapter 61 of the TRPA Code.	1.Implementation: TTD Monitoring: TTD and TRPA	1. Prior to construction and TRPA permit acknowledgement
		2. Monitor implementation of the Tree Removal, Protection, and Replanting Plan.	2. Implementation: Construction contractor Monitoring: TTD and TRPA	2. During project construction
<p>Impact 3.16-4: Introduction and spread of invasive plants With three of the build alternatives (Alternatives B, C, and D), project implementation has the potential to introduce and spread terrestrial and aquatic invasive plants during construction and revegetation periods. Noxious weeds</p>	<p>Mitigation Measure 3.16-4: Implement invasive plant management practices during project construction This following mitigation applies to the transportation improvements and mixed-use development sites included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA.</p>	1. Qualified biologist conducts a pre-construction survey for noxious weeds and other invasive plants and identifies appropriate treatment methods. In areas where treatment is not feasible, qualified biologist	1. Implementation: Qualified biologist Monitoring: TTD	1. Prior to construction

US 50/South Shore Community Revitalization Project Mitigation Monitoring and Reporting Program

Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
<p>and other invasive plants could inadvertently be introduced or spread in the project site during grading and construction activities, if nearby source populations passively colonize disturbed ground, or if construction and personnel equipment is transported to the site from an infested area. Soil, vegetation, and other materials transported to the project site from off-site sources for BMPs, revegetation, or fill for project construction could contain invasive plant seeds or plant material that could become established in the project site. Additionally, invasive species currently present in or near the project site have the potential to be spread by construction disturbances. The introduction and spread of terrestrial or aquatic invasive species would degrade terrestrial plant, wildlife, and aquatic habitats, including habitats of special significance (riparian) within the project site opening up the potential introduction and spread of invasive species with Alternatives B, C, and D. With the no-build alternative (Alternative A) or Alternative E, no project-related ground disturbances in any common or sensitive vegetation community would occur; therefore, there would be no related spread or introduction of invasive plants into common or sensitive vegetation communities and habitats from these alternatives.</p>	<p>In consultation with TRPA, the project proponent shall implement appropriate invasive plant management practices during project construction. Recommended practices generally include the following:</p> <ul style="list-style-type: none"> ▲ Before construction activities begin, invasive plant infestations will be identified and appropriately treated where feasible. A qualified biologist will conduct a pre-construction survey for noxious weeds and other invasive plants in project construction areas, and determine the feasibility and appropriate method of removal/treatment. Treatments will be selected based on their effectiveness for each species ecology and phenology. All treatment methods—including the potential use of herbicides outside of potential wetland and SEZ areas—will be conducted in accordance with the law, regulations, and policies governing the land owner. Herbicides will not be used in sensitive habitats, including potential wetlands and SEZs. Land owners will be notified before the use of herbicides for invasive treatment. In areas where treatment is not feasible, noxious weed areas will be clearly flagged or fenced to clearly delineate work exclusion. ▲ To ensure that fill material and seeds imported to the project site are free of invasive plants/noxious weeds, the project will use on-site sources of fill and seeds whenever available. Fill and seed materials that need to be imported to the project site will be certified weed-free by the Resident Engineer. In addition, only certified weed-free imported materials (or rice straw in upland areas) will be used for erosion control. ▲ Vehicles and equipment will arrive at the project site clean and weed-free. All equipment entering the project site from weed-infested areas or areas of unknown weed status will be cleaned of all attached soil or plant parts before being allowed into the project site. Vehicles and equipment will be cleaned using high-pressure water or air at designated weed-cleaning stations after exiting a weed-infested area. Cleaning stations will be designated by a botanist or noxious weed specialist and located away from aquatic resources. Equipment will be inspected by the on-site environmental monitor for mud or other signs that weed seeds or propagules could be present before use in the project site. If the equipment is not clean, the monitor will deny entry into work areas. ▲ If designated weed-infested areas are unavoidable, the plants will be cut, if feasible, and disposed of in a landfill in sealed bags or disposed of or destroyed in another manner acceptable to TRPA or other agencies as appropriate. If cutting weeds is not feasible, layers of mulch, degradable geotextiles, or similar materials will be placed over the infestation area to minimize the spread of seeds and plant materials by equipment and vehicles 	<p>will flag or fence areas containing noxious weeds.</p> <p>2. Monitor the identification of on-site or weed-free fill sources; and weed-free, local seed and vegetation sources.</p> <p>3. Monitor construction practices to ensure vehicles and equipment entering the site are weed-free; and that any infested areas that cannot be avoided are managed to avoid the spread of weeds during construction.</p>	<p>2. Implementation: Construction contractor</p> <p>Monitoring: TTD</p> <p>3. Implementation: Construction contractor</p> <p>Monitoring: TTD</p>	<p>2. Prior to construction</p> <p>3. During project construction</p>

US 50/South Shore Community Revitalization Project Mitigation Monitoring and Reporting Program				
Impacts	Mitigation Measures	Monitoring Action	Responsibility	Timing
	<p>during construction. These materials will be secured so they are not blown or washed away.</p> <p>▲ Locally collected native seed sources for revegetation shall be used when possible. Plant and seed material will be collected from or near the project site, from within the same watershed, and at a similar elevation when possible and with approval of the appropriate authority. Persistent nonnatives such as cultivated timothy (<i>Phleum pretense</i>), orchard grass (<i>Dactylis glomerata</i>), or ryegrass (<i>Lolium</i> spp.) shall not be used.</p>			

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TRPA. See Tahoe Regional Planning Agency.

ATTACHMENT 1

Mitigation Measure 3.13-1b: Reduce short-term construction-related fugitive dust (PM₁₀ and PM_{2.5})

Best Available Control Measures

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	<ul style="list-style-type: none"> ▲ Mix backfill soil with water prior to moving. ▲ Dedicate water truck or high capacity hose to backfilling equipment. ▲ Empty loader bucket slowly so that no dust plumes are generated. ▲ Minimize drop height from loader bucket.
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	<ul style="list-style-type: none"> ▲ Maintain live perennial vegetation where possible. ▲ Apply water in sufficient quantity to prevent generation of dust plumes.
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	<ul style="list-style-type: none"> ▲ Use of high pressure air to clear forms may cause exceedance of Rule requirements.
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	<ul style="list-style-type: none"> ▲ Follow permit conditions for crushing equipment. ▲ Pre-water material prior to loading into crusher. ▲ Monitor crusher emissions opacity. ▲ Apply water to crushed material to prevent dust plumes.
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	<ul style="list-style-type: none"> ▲ For large sites, pre-water with sprinklers or water trucks and allow time for penetration. ▲ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts.
Demolition-mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris.	<ul style="list-style-type: none"> ▲ Apply water in sufficient quantities to prevent the generation of visible dust plumes
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	<ul style="list-style-type: none"> ▲ Limit vehicular traffic and disturbances on soils where possible. ▲ If interior block walls are planned, install as early as possible. ▲ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	<ul style="list-style-type: none"> ▲ Grade each project phase separately, timed to coincide with construction phase. ▲ Upwind fencing can prevent material movement on site. ▲ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least 6 inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	<ul style="list-style-type: none"> ▲ Use tarps or other suitable enclosures on haul trucks. ▲ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage. ▲ Comply with track-out prevention/mitigation requirements. ▲ Provide water while loading and unloading to reduce visible dust plumes.
Landscaping	10-1 Stabilize soils, materials, slopes.	<ul style="list-style-type: none"> ▲ Apply water to materials to stabilize ▲ Maintain materials in a crusted condition

Best Available Control Measures

Source Category	Control Measure	Guidance
		<ul style="list-style-type: none"> ▲ Maintain effective cover over materials ▲ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ▲ Hydroseed prior to rainy season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	<ul style="list-style-type: none"> ▲ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs. ▲ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs.
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	<ul style="list-style-type: none"> ▲ Dedicate water truck or high-capacity hose to screening operation. ▲ Drop material through the screen slowly and minimize drop height. ▲ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point.
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	<ul style="list-style-type: none"> ▲ Limit size of staging area. ▲ Limit vehicle speeds to 15 mph. ▲ Limit number and size of staging area entrances/exits
Stockpiles/bulk material handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than 8 feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	<ul style="list-style-type: none"> ▲ Add or remove material from the downwind portion of the storage pile. ▲ Maintain storage piles to avoid steep sides or faces.
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	<ul style="list-style-type: none"> ▲ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ▲ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes.
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	<ul style="list-style-type: none"> ▲ Pre-watering of soils prior to trenching is an effective preventive measure; for deep trenching activities, pre-trench to 18 inches, soak soils via the pre-trench, and resume trenching. ▲ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment.
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds 6 inches (CVC 23114)	<ul style="list-style-type: none"> ▲ Empty loader bucket such that no visible dust plumes are created ▲ Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	<ul style="list-style-type: none"> ▲ Haul waste material off site immediately.
Unpaved roads/parking lots	19-1 Stabilize soils to meet the applicable performance standards; and 19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	<ul style="list-style-type: none"> ▲ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements.
Vacant land	20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

CVC = California Vehicle Code; mph = miles per hour
 Source: South Coast Air Quality Management District, Rule 403, June 2005