

Appendix E Avoidance, Minimization and/or Mitigation Summary

Resource	Mitigation Measures to reduce an impact to Less than Significant pursuant to CEQA
Cultural Resources	<p>The following Mitigation Measures will be required to reduce significant impacts to Upper Meyers Grade to a level of less than significant, pursuant to CEQA.</p> <ul style="list-style-type: none"> • Caltrans proposes to install modified Type 736 barriers that simulate the appearance of the original rock parapets. • The construction contractor shall create a form liner taken from a cast mold of the intact portions of the existing rock wall parapets for use in replicating the existing parapet features onto the new parapets. • The concrete barrier will mimic the existing rock parapets in color as well as texture, by using concrete dyes and stains. • In keeping with the standard plan for Type 736 barriers, the inboard side will be battered to narrow slightly at the top. • The outboard side will be vertical and flush with the existing surface of the rock retaining wall. • In order to achieve safety standards, the relief of the textured concrete surface will be limited to 5/8-inch and the height of the wall will be approximately three feet. • As agreed upon in the MOA, signatory parties shall have the opportunity to review and approve the sample/prototype wall prior to final placement. • Should culvert replacement be deemed necessary, Caltrans will avoid additional impacts to the property by conducting the work in a manner consistent with the Secretary of Interior Standards. The culverts protrude through the rock retaining wall, which are character-defining features of Upper Meyers Grade.

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Cultural Resources	<p>Although no archaeological resources are anticipated during the construction of this project, language will be included in the project bid specification in the unlikely event that cultural materials are discovered.</p> <p>If cultural materials are discovered during construction, all earth-moving activity within a 60-foot perimeter around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.</p> <p>If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner would notify the</p>

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	<p>Native American Heritage Commission, who would then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact Caltrans District 3 Office of Environmental Management so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable</p>
<p>Traffic and Transportation</p>	<p>The following measures are proposed to minimize potential travel delays to the public.</p> <ul style="list-style-type: none"> • Implementation of General TMP guidelines as well as measures proposed specific to each lane closure option. • Implement an extensive Public Outreach effort to notify the public of upcoming lane closures and delays.
<p>Community Impact</p>	<p>Congestion and delays will likely cause inconvenience to the traveling public and Tahoe region business owners. In addition to the Traffic Management Strategies included in the Traffic section of this document, the following public outreach measures are recommended in order to minimize the inconvenience that may occur:</p> <ul style="list-style-type: none"> • Informational brochures included in utility bill mailings to homeowners, renters, and business operators with updates regarding construction related details that are located in the greater project area. • Use of public service announcements through local media outlets. Purchase and use of radio air time to publicize the projects and update information. • Use of Newspaper ads that use detailed mapping of Lake Tahoe Basin and I-80 construction projects that is produced annually by Caltrans' Transportation Management Unit in association with the TRPA, the Tahoe Basin counties, Nevada DOT and other agencies. • Updates should be provided prior to actual construction dates on local radio and in newspaper ads. The Caltrans District 3 Public Information Officer (PIO) is usually delegated responsibility by project management in this area. • Distribution of informational brochures at frequented local outlets such as busy local resorts and retail commercial locations along the impacted corridor, the South Lake Tahoe Chamber of Commerce, the local chapters of the American Automobile Association, and the California Highway Patrol office. • Extensive utilization of the Caltrans Tahoe Basin web site. The web site should be updated and expanded to include links to the PIO's project information hotline and/or roadway condition list. Informational mail outs and brochures should consistently refer readers to the web site for the most current project related info. • Focused mailers to representative organizations and stakeholders including, but not limited to; the California and Nevada Trucking Associations, the Owner Operated Independent Drivers Association, the Teamsters local chapters, the Lake Tahoe Visitors Authority, the

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	<p>South Lake Tahoe Lodging Association, the South Shore Transit Management Association, Tahoe-Douglas Visitors Authority, the Nevada Hotel and Lodging Association, Greyhound, and the major charter bus operators in the San Francisco Bay area and Sacramento area.</p> <ul style="list-style-type: none"> • Implementation of an 800 number for the traveling public and other impacted parties to call to voice concerns and point out trouble spots during construction.
Visual Aesthetics	<p>Although the replacement of the rock wall parapets will not cause a negative impact on the visual quality/aesthetics of the project area, the following measures, many of which are project design features, will be implemented to ensure the rock wall replacement will be consistent with the visual setting.</p> <ul style="list-style-type: none"> • Rock wall shall be replaced in such a way that it will visually replicate the existing wall (as seen in the photo simulations in Appendix H). • Form–liner shall be used to reproduce the natural rock for the replacement barrier. The form liner shall be of a design pattern that depicts the original design of the historical cut rock wall that is to be replaced and the staining of the wall shall reflect the texture and color of the historical wall as well. • The maximum relief on the face of the wall shall be 5/8-inch. Color and design of wall shall be in keeping with the original wall. • All culvert work shall be completed in a manner that minimizes disturbance to the surrounding area. Rock slope protection will utilize indigenous rock when possible. Headwalls shall implement the look of cut stone when possible (same form-liner used for barrier should be used on headwalls with the same type of staining) • Minimize the disturbance of soil, and established vegetation and trees. • During construction, any trees that need to be removed shall be identified and approved by the Resident Engineer, prior to removal. • At the completion of construction, all areas used for staging, access or other construction activities will be evaluated for compaction, and if necessary re-establish by ripping and/or incorporating mulch to minimum depth of 12 inches. • All disturbed soil areas will receive organic fertilizer, native grass/forb seed, and mulch (pine needles or a mixture of needles and wood chips) to a depth of 1½ inch to provide passive erosion control.
Water Quality / Storm Water Runoff	<p>Adherence to the following is recommended to prevent receiving water pollution as a result of construction activities and/or operation of the Echo Summit Rockwall project.</p> <ul style="list-style-type: none"> • The project shall adhere to the conditions of the Caltrans Statewide NPDES Permit CAS # 000003, (Order # 99-06-DWQ), issued by the State Water Resources Control Board. Adherence to the compliance requirements of the WDR General Permit WDID NO. 6A0999999999,

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	<p>Order # 6-91-31, for small Construction Activities in Lake Tahoe is also required.</p> <ul style="list-style-type: none"> • The project has an estimated DSA of 0.5 acres and it is anticipated that a Water Pollution Control Plan (WPCP) level of temporary pollution controls will be specified for the project; Standard Special Provision 07-340 therefore shall be included in the PS&E to address these temporary construction water pollution control measures. These measures must address soil stabilization practices, sediment control practices, tracking control practices, and wind erosion control practices. In addition, the project plan must include non-storm water controls, waste management, and material pollution controls. • As directed by Caltrans Storm Water Management Plan (SWMP) and the Project Planning and Design Guide (PPDG) an evaluation of the project using the most recent approved evaluation guide is essential in determining if the incorporation of permanent storm water runoff treatment measures shall be considered for this project. • If the project has SWPPP, a Notification of Construction (NOC) shall be submitted to the Lahontan Regional Water Quality Control Board during PS&E through the Caltrans NPDES Coordinator. • Special care is required when handling and storing contaminated soil, including soil contaminated with aerially deposited lead. The quantity of the contaminated soil, its level of contamination, where it will be stored, and when this activity will take place (winter/summer season) are all storm water pollution concerns and should be described in detail in the appropriate section of Special Provisions. These issues should also be addressed in the WPCP. Section H.9 of the Caltrans Statewide NPDES Permit requires notification of the appropriate Regional Water Quality Control Board (RWQCB) if the project involves reuse of ADL contaminated soil, 30 days prior to advertisement for bids. This is to allow the RWQCB to determine any need for the development of Waste Discharge Requirements.
Hazardous Materials	<p>Although no asbestos has been identified in the rock wall parapets to be removed as a result of this proposed project, NESHAP rules pursuant to 40 CFR 61 and California Health and Safety Code Section 39658(b)(1) require the contractor to notify the US EPA and El Dorado County at least ten working days prior to demolition of the seven rock wall parapets.</p> <p>Contract specifications have been prepared and shall be included in the bid package to address the specific notification and construction method requirements.</p>
Wetlands and other waters	<p>Although direct impacts to wetlands are not expected to occur as a result of this project, the following avoidance measures shall be implemented to prevent potential indirect impacts.</p> <p>Establish Environmentally Sensitive Areas: Indirect impacts to wetland resources, within the Echo Summit Maintenance station will be avoided by designating these features outside of the construction impact area as “environmentally sensitive areas” (ESAs) on project plans and in project specifications. ESA information will be shown on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not</p>

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	<p>limited to, the use of temporary orange fencing to delineate the proposed limit of work in areas adjacent sensitive resources, or to delineate and exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs will be restricted (including the staging/operation of heavy equipment or casting of excavation materials). ESA provisions shall be implemented as a first order of work, and remain in place until all construction activities are complete.</p> <p>Containment Measures/Construction Site Best Management Practices: Measures will be employed to prevent any construction material or debris from entering surface waters or their channels. BMPs for erosion control will be implemented and in place prior to during, and after construction in order to ensure that no silt or sediment enters surface waters. Caltrans' Standard Specifications require the contractor to submit a Water Pollution Control Plan. This plan must meet the standards and objectives to minimize water pollution impacts set forth in section 7-1.01G of Caltrans' Standard Specifications. The Water Pollution Control Plan must also be in compliance with the goals and restrictions identified in the Lahontan Water Quality Control Board's Basin Plan. Any additional measures included in the TRPA permit will be complied with. These standards/objectives are referred to as "Best Management Practices" (BMPs), include but are not limited to:</p> <p>Where working areas encroach on live or dry streams, lakes, or wetlands, TRPA and Lahontan RWQCB-approved physical barriers adequate to prevent the flow or discharge of sediment into these systems shall be constructed and maintained between working areas and streams, lakes and wetlands. During construction of the barriers, discharge of sediment into streams shall be held to a minimum. Discharge will be contained through the use TRPA and Lahontan RWQCB-approved measures that will keep sediment from entering protected waters.</p> <p>Oily or greasy substances originating from the contractor's operations shall not be allowed to enter or be placed where they will later enter a live or dry stream, pond, or wetland.</p> <p>Asphalt concrete shall not be allowed to enter a live or dry stream, pond, or wetland.</p>
Invasive Species	<p>Although there is currently no identified population or infestation of noxious weeds within the project area, the following measures shall be implemented to prevent the spread of invasive plants.</p> <p>In compliance with the Executive Order on Invasive Species, Executive Order 13112, and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions would be taken if invasive species were found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.</p>
Construction Related Air Quality	<p>Most of the construction impacts to air quality are short-term in duration and, therefore, will not result in adverse or long-term conditions. Implementation of the following measures will reduce any air quality impacts resulting from</p>

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	<p>construction activities:</p> <ul style="list-style-type: none"> • The construction contractor shall comply with Caltrans' Standard Specifications Section 7-1.01F and Section 10 of Caltrans' Standard Specifications (1999). • Section 7, "Legal Relations and Responsibility," addresses the contractor's responsibility on many items of concern, such as: air pollution; protection of lakes, streams, reservoirs, and other water bodies; use of pesticides; safety; sanitation; and convenience of the public; and damage or injury to any person or property as a result of any construction operation. Section 7-1.01F specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances. • Section 10 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18. • Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions. • Soil binder will be spread on any unpaved roads used for construction purposes, and all project construction parking areas. • Trucks will be washed off as they leave the right of way as necessary to control fugitive dust emissions. • Construction equipment and vehicles shall be properly tuned and maintained. Low-sulfur fuel shall be used in all construction equipment as provided in California Code of Regulations Title 17, Section 93114. • Develop a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited revegetation of disturbed slopes as needed to minimize construction impacts to existing communities. • Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly. • Cover all transported loads of soils and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to reduce PM10 and deposition of particulate during transportation. • Remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter. • To the extent feasible, route and schedule construction traffic to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times. • Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulate in the area.
Construction Noise	The following measures shall be implemented to ensure that that construction

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	<p>noise impacts remain minimal.</p> <ul style="list-style-type: none"> • All internal combustion engine–driven equipment would be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment. • Unnecessary idling of internal combustion engines would be strictly prohibited. This includes idling of unattended vehicles and idling of more than 2 minutes for waiting trucks. • Property owners would be notified if the staging of construction equipment would need to occur within 200 feet of residences. Additionally, all stationary noise-generating construction equipment, such as air compressors and portable power generators, would be located as far as practical from existing noise-sensitive receptors. • Temporary barriers would be constructed to screen stationary noise-generating equipment when located immediately adjacent to noise-sensitive land uses. The barriers would be sufficient to reduce the noise level by a minimum 5 dBA. • “Quiet” air compressors and other stationary noise sources would be used where such technology exists and is feasible. Quiet technology may include the use of rotary screw air compressors (as opposed to noisier air-cooled reciprocating compressors) and equipment provided with factory-installed sound-attenuating enclosures. • Before construction begins, residences adjacent to construction areas would be notified of the construction schedule in writing. A noise disturbance coordinator, who would be responsible for responding to any local complaints about construction noise, would be designated by Caltrans or its contractor. The coordinator would determine the cause of any noise complaint and ensure that reasonable measures to correct the problem were implemented. A telephone number for the coordinator would be posted conspicuously at the construction site and included in the notice sent to neighbors about the construction schedule.
Emergency Services	<p>The following measures will be implemented to ensure public safety during construction.</p> <p>These measures include the following:</p> <ul style="list-style-type: none"> • The contract SSPs will require the contractor to coordinate with local emergency agencies/workers prior to construction and through construction. As part of this coordination, a plan for emergencies, to include any agreed upon detour plan, will be developed. • The Caltrans Construction Resident Engineer (RE) shall ensure the required emergency plan includes a plan to cease operations to allow the roadway to be used as an escape route in case of an emergency event such as forest fire. • When an emergency occurs, the RE and California Highway Patrol (CHP) have the authority and responsibility to suspend and modify work for the safety of the public. This is provided by the Public Safety Specifications in the Caltrans standard plans.