

Appendix F Minimization and/or Mitigation
Summary/Environmental
Commitment Record

This page intentionally left blank

Table starts here Page 1 of XX

This page intentionally left blank

Task and Brief Description	Reference by Section #	Responsible Branch/ Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
						Initial	Date		Initial	Date
DESIGN KICK-OFF		Proj Eng _____	Design							
ENVIRONMENTAL PS&E REVIEW		Proj Eng _____	Design							
ENVIRONMENTAL COMPLIANCE REVIEW		Envi Plan _____	Design							
CONSTRUCTION KICK-OFF MEETING		Proj Quality Cont _____	Design							
Transfer Resident Engineer Book		Proj Quality Cont _____	Design							
PRECONSTRUCTION MEETING		Res Eng _____	Const							
Land Use										
Construction Area Trails Management Plan for the Aliso Creek Class I Bikeway. Prior to issuance of a grading permit, the California Department of Transportation (Caltrans) will approve a Construction Area Trails Management Plan. The Plan would be designed by a registered Traffic Engineer and would address potential bikeway closures, detours, or other disruptions to bikeway circulation on the Aliso Creek Class I Bikeway and will be coordinated with, and approved by, the affected local agencies. The Plan will identify types and locations of signage to direct bikeway users during construction and detour routes. Caltrans would verify that the Construction Contractor's Agreement requires the construction contractor to implement and comply with the Construction Area Trail Management Plan.	LU-1	Proj Eng _____ Res Eng _____	Design Construction	Yes						
Development of Temporary Trail Closures and Detours for the Aliso Creek Class I Bikeway. Prior to any temporary closures or detours of the Aliso Creek Class I Bikeway, California Department of Transportation (Caltrans) will require the project construction contractor to meet with the Director of Orange County (OC) Parks (or designee) and the affected local agencies to review the location and need for each closure and detour. Detours for the closures would be developed in consultation with OC Parks and the affected local agencies.	LU-2	Res Eng _____	Pre-Construction Construction	Yes						
Temporary Signage for Detours for the Aliso Creek Class I Bikeway. The California Department of Transportation (Caltrans) will require the project construction contractor to develop signs directing bikeway users to the detour routes in consultation with Orange County (OC) Parks and the affected local agencies. Appropriate directional and informational signage will be provided by the project construction contractor prior to each closure and far enough away from the closure so that bikeway users will not have to backtrack to get to the detour route.	LU-3	Res Eng _____	Pre-Construction Construction	Yes						
Contact Information during Closures and Detours of the Aliso Creek Class I Bikeway. The California Department of Transportation (Caltrans) will require the project construction contractor to provide a contact number for bikeway users to contact the project construction contractor regarding upcoming or active bikeway closures. The construction contractor would also be required to provide that information to Orange County (OC) Parks and the affected local agencies.	LU-4	Res Eng _____	Construction	Yes						
Restoration of Affected Areas on the Aliso Creek Class I Bikeway. The California Department of Transportation (Caltrans) will require the project construction contractor to return bikeway segments closed temporarily during construction to their original, or better, condition after completion of construction.	LU-5	Res Eng _____	Post-Construction	Yes						
The California Department of Transportation (Caltrans) will request the County of Orange and the cities along the alignment of Interstate 5 (I-5) to amend their respective General Plans to reflect Build Alternative 2 and the modification of land use designations for properties that will be acquired for the project that are not currently designated for transportation uses.	LU-6	OCTA _____	Post-Construction	Yes						
Community Impacts										
The Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970 (Uniform Act) (Public Law 910646, 84 Statutes 1894) mandates that certain relocation services and payments be made available to eligible residents, businesses, and nonprofit organizations displaced by its projects. The Uniform Act provides for uniform and equitable treatment by federal or federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform and equitable land acquisition policies.	CI-1	Proj Eng _____ Res Eng _____	Design Construction	No						
Where acquisition and relocation are unavoidable, the provisions of the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970 (Uniform Act) and the 1987 Amendments, as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by the United States Department of Transportation (March 2, 1989), would be followed. An independent appraisal of the affected property would be obtained, and an offer for the full appraisal would be made.	CI-2	Proj Eng _____ Res Eng _____	Design Construction	No						
Utilities and Emergency Services										
All public utility lines, pipes, and cables that are disturbed or removed to accommodate the proposed project will be replaced or relocated within the project limits to continue to meet the needs of residents and businesses in the community. During construction, arrangements will be made to avoid disruption in utility services. If interruption in service is unavoidable, notice will be given and proper arrangements will be made with residents and businesses.	U-1	Proj Eng _____ Res Eng _____	Design Construction	No						
In accordance with standard project requirements, a Transportation Management Plan (TMP) will be updated for the project prior to construction. The TMP will include plans and requirements for the project area that will be implemented during project construction to ensure traffic safety, minimize construction-related traffic congestion, and minimize driver and pedestrian inconveniences.	U-2	Res Eng _____	Construction	No						

Task and Brief Description	Reference by Section #	Responsible Branch/ Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
						Initial	Date		Initial	Date
To ensure that emergency response times are not disrupted, the Orange County Sheriff and Fire Departments will be informed of the project construction schedule, lane closures (if any), and detour plans (if any) well in advance of any detour plan or lane closure being implemented throughout the construction period.	U-3	Res Eng _____	Construction	No						
Area residents and owners/managers of businesses and public facilities will be continually informed of the project development and construction plans prior to and during the construction period so that they are aware of the construction timing, traffic detour plans, lane/road closures, and transit detour plans.	U-4	Res Eng _____	Construction	No						
Traffic and Transportation										
<p>A Transportation Management Plan (TMP) will be completed in consultation with the California Department of Transportation (Caltrans) and included in the Plans, Specifications, and Estimates (PS&E) for implementation by the contractor prior to and during construction of any improvements.</p> <p>The TMP will consist of, but not be limited to, the following elements to avoid and minimize traffic inconvenience caused by construction activities:</p> <ul style="list-style-type: none"> • Traffic Control: Traffic control elements, such as lane/shoulder closures and temporary signing/stripping on the Interstate 5 (I-5) ramps and the I-5 mainline will be required. All traffic lanes will be kept open during construction, with the exception of overnight closures. Ramp closures will be limited to weekend closures and would not exceed a period of one week. Also, funds have been allocated as part of the Transportation Management Plan (TMP) so that compensation can be provided to the cities for possible increased police services during construction. • Construction Zone Enhanced Enforcement Program (COZEEP): Through coordination with Caltrans and the California Highway Patrol (CHP), this program was developed to provide a safer work zone for both construction workers and the motoring public. The program uses two CHP officers who enforce lane closures and also provide a visual deterrent to errant/speeding vehicles. • Public Awareness Campaign (PAC): Vehicles traveling through the construction zone would likely experience longer than normal delays. To reduce these delays and confusion to the motoring public during construction activities, the Orange County Transportation Authority (OCTA), in conjunction with Caltrans, will implement a PAC. The purpose of the PAC is to keep the surrounding community abreast of the project's progress and construction activities that could affect their travel plans. The use of mailers/flyers, local newspapers advertising, local radio information, and public meetings, as appropriate, will be effective tools for disseminating this information. • Signing: Information signage will be posted on I-5 and the local arterials prior to and during construction to inform motorists of delays, ramp closures, and alternate routes. Encroachment permits will be required from the cities for placement of signage on local arterials during construction. • Emergency Access: Adequate local emergency access will be provided at all times to adjacent uses. Proper detours and warning signs would be established to ensure public safety. The TMP will be devised so that construction will not interfere with any emergency response or evacuation plans. • Pedestrian Access: Provide a pedestrian and bicycle lane detour plan to accommodate sidewalk and bicycle lane closures. 										
	TRA-1	Res Eng _____	Construction	No						
Visual and Aesthetics										
<p>Landscaping. To maintain the context of the project area (color, form, and texture), landscaping will be installed that is compatible with the existing landscape along the portion of I-5 in the project vicinity and surrounding area. Landscaping will include specimen sized trees and/or shrub/groundcover mass planting, and landscape treatment along walls to soften the hardscape features and glare and radiant heat from the walls. The landscape concept, plan, and plant palette will be determined in consultation with, and approved by, the California Department of Transportation (Caltrans) District Landscape Architect during the Plans, Specifications, and Estimate (PS&E) phase. The planting plan will be reviewed and approved by the Caltrans Biologist to avoid the use of invasive plant species as outlined in Measure BIO-34.</p> <p>Replacement planting implementation will be under a separate contract within a three-year period following the completion of construction in accordance with Caltrans policies. Trees in the interchanges, in conflict with the roadway improvement design, will be transplanted in the project area in a location in conformance with the Caltrans planting policy requirements. Specimen trees will not be transplanted or replaced with a specimen box tree as approved by the Caltrans District Landscape Architect.</p> <p>Erosion control seed species will be determined by the Caltrans District Landscape Architect to ensure that the mix and application strategy is appropriate for the specific soil composition of the area.</p> <p>In areas where sound walls are visible from adjacent residential land uses, vines and landscape will be utilized to screen views to the wall. All vines and landscape proposed will conform with Caltrans planting policy requirements.</p>	VIS-1	Proj Eng _____ Landscape Architect _____	Design	No						

Task and Brief Description	Reference by Section #	Responsible Branch/ Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
						Initial	Date		Initial	Date
Architectural Treatments. To minimize visual quality loss and to minimize the visual disruption from the elements of the highway construction, architectural treatments will be provided to the walls in accordance with the <i>Master Plan of Freeway and Transit Corridor Enhancements: Creating a Quality Environment Along Orange County's Transportation Network</i> . All wall aesthetics will be approved by the California Department of Transportation (Caltrans) District Landscape Architect.	VIS-2	Proj Eng _____ Landscape Architect _____ Res Eng _____	Design Construction	No						
Aesthetic Design Review. The California Department of Transportation District 12 Landscape Architecture Branch will administer and chair an Aesthetic Design Review Team (ADRT) that includes local agency representatives to ensure the project landscape and structural elements are in compliance with the aesthetic requirements of the <i>Master Plan of Freeway and Transit Corridor Enhancements: Creating a Quality Environment Along Orange County's Transportation Network</i> .	VIS-3	Proj Eng _____ Landscape Architect _____	Design	No						
Construction Lighting. Construction lighting types, plans, and placement will be shielded from sensitive areas in order to minimize light and glare effects on surrounding areas.	VIS-4	Proj Eng _____ Landscape Architect _____	Design	No						
Cultural Resources										
Within the vicinity of the previously documented historic adobes (Avila, Stein, and Serrano) and associated site location (P-30-00016), ground disturbing activities will be monitored by a qualified archaeologist. An Archaeological Monitoring Area (AMA) will be delineated on plans during the project's Plans, Specifications, and Estimates (PS&E) phase and incorporated into the final construction contract. A final Archaeological Monitoring Report will be required after construction is completed.	CR-1	Envi Plan _____ Proj Eng _____ Res Eng _____	Design Construction Post-Construction	No						
If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.	CR-2	Res Eng _____	Construction	No						
If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities will cease in any area or nearby area suspected to overlie remains, and the County of Orange (County) Coroner will be contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendant (MLD). At this time, the person who discovered the remains will also contact the California Department of Transportation (Caltrans) District 12 Environmental Branch Chief so that he/she may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.	CR-3	Envi Plan _____ Res Eng _____	Construction	No						
Hydrology and Floodplain										
During construction, the construction contractor will schedule work within Aliso Creek, La Paz Channel, and Oso Creek to occur during the dry season (May to September).	HY-1	Res Eng _____ Envi Plan _____	Construction	No						
Prior to construction within Aliso Creek, La Paz Channel, and Oso Creek, the California Department of Transportation (Caltrans) will obtain an encroachment permit from the Orange County Flood Control District. The construction contractor will comply with all requirements specified in the encroachment permit.	HY-2	Res Eng _____ Envi Plan _____	Prior to construction	No						
During final project design, the California Department of Transportation (Caltrans) will process a Conditional Letter of Map Revision (CLOMR) for the Aliso Creek, La Paz Channel, and Oso Creek 100-year floodplains through the Cities of Laguna Hills, Laguna Niguel, and Mission Viejo and the Federal Emergency Management Agency (FEMA). The project improvements within the Aliso Creek, La Paz Channel, and Oso Creek 100-year floodplain will not be constructed until the CLOMR is approved by the Cities of Laguna Hills, Laguna Niguel, Mission Viejo and FEMA.	HY-3	Proj Eng _____	Design	No						
Upon completion of construction, the California Department of Transportation (Caltrans) will process a Letter of Map Revision (LOMR) for the Aliso Creek, La Paz Channel, and Oso Creek 100-year floodplains through the Cities of Laguna Hills, Laguna Niguel, Mission Viejo and Federal Emergency Management Agency (FEMA).	HY-4	Envi Plan _____	Construction	No						
During the Project Specifications and Estimates (PS&E) phase, the California Department of Transportation (Caltrans) will ensure that the project engineer prepares a Hydraulic Study based on final design plans. The project engineer will design, implement, and confirm proper function of proposed design refinements at La Paz Channel and Aliso Creek to ensure that the increase in water surface elevation attributable to the project is less than the 1.0 foot, as required by the National Flood Insurance Program (NFIP).	HY-5	Proj Eng _____	Design	No						
Water Quality and Storm Water Runoff										
The proposed project will comply with the Provisions of the California Department of Transportation (Caltrans) Statewide National Pollutant Discharge Elimination System (NPDES) Permit (Order No. 99-06-DWQ, NPDES No. CAS000003) and the newly adopted Caltrans Statewide NPDES Permit (Order No. 2012-0011-DWQ, NPDES No. CAS000003), which becomes effective July 1, 2013 and the <i>NPDES General Permit, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activities</i> (Order Number 2009-0009-DWQ, NPDES Number CAS000002), or subsequent permit in effect at the time of design and construction.	WQ-1	Proj Eng _____ Envi Plan _____ Res Eng _____	Design Construction	No						
A Stormwater Pollution Prevention Plan (SWPPP) will be prepared and implemented to address all construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP will identify the sources of pollutants that may affect the quality of stormwater and include the construction site Best Management Practices (BMPs) to control pollutants such as sediment control, catch basin inlet protection, construction materials management and nonstormwater BMPs. In addition, it will be prepared according to the requirements stated in the <i>National Pollutant Discharge</i>	WQ-2	Proj Eng _____ Envi Plan _____ Res Eng _____	Design Construction	No						

Task and Brief Description	Reference by Section #	Responsible Branch/ Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
						Initial	Date		Initial	Date
<i>Elimination System (NPDES) General Permit, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activities</i> (Construction General Permit, Order Number 2009-0009-DWQ, NPDES Number CAS000002), or subsequent permit in effect at the time of construction. All construction site BMPs will follow the latest edition of the <i>Storm Water Quality Handbooks: Construction Site Best Management Practices (BMPs) Manual</i> (California Department of Transportation [Caltrans], March 2003) to control and minimize the impacts of construction related activities, material and pollutants on the watershed. These include, but are not limited to temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other nonstormwater BMPs.										
Construction site dewatering must comply with the Santa Ana Regional Water Quality Control Board's (RWQCB's) Order R8-2004-0021, National Pollutant Discharge Elimination System (NPDES) Permit Number CAG998002, or San Diego RWQCB's Order R9-2008-0002, NPDES Permit Number CAG919002, for discharges to surface waters that pose an insignificant (de minimus) threat to water quality. If dewatering occurs during construction of the proposed project, it will comply with these permits, or subsequent permits, including but not limited to, the specific reporting and notification requirements. Applying for coverage includes submitting a completed Notice of Intent Form and a report with the specific additional information noted in the dewatering permit.	WQ-3	Proj Eng _____ Envi Plan _____ Res Eng _____	Design Construction	No						
The California Department of Transportation (Caltrans) approved treatment Best Management Practices (BMPs) will be implemented to the Maximum Extent Practicable (MEP) consistent with the requirements of the <i>National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Stormwater Permit, and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation (Caltrans) Properties, Facilities, and Activities</i> (Order Number 99-06-DWQ, NPDES Number CAS000003), the newly adopted Caltrans Statewide NPDES Permit (Order No. 2012-0011-DWQ, NPDES No. CAS000003), which becomes effective July 1, 2013 or subsequent permit. Treatment BMPs may include biofiltration swales, biofiltration strips, infiltration devices, and media filters.	WQ-4	Envi Plan _____ Res Eng _____	Construction	No						
Design Pollution Prevention Best Management Practices (BMPs) will be implemented such as preservation of existing vegetation, slope/surface protection systems (permanent soil stabilization), concentrated flow conveyance systems such as ditches, berms, dikes and swales, overside drains, flared end sections, and outlet protection/velocity dissipation devices.	WQ-5	Envi Plan _____ Res Eng _____	Construction	No						
Geology, Soils, Seismicity, and Topography Project design and construction of the Build Alternatives will be conducted in accordance with California Department of Transportation (Caltrans) guidelines, current regulations, and the California Building Code. Specifically, structures will be designed to resist the maximum credible earthquake associated with nearby faults.	GEO-1	Proj Eng _____ Res Eng _____	Design Construction	No						
During the Plans, Specifications, and Estimates (PS&E) phase, a detailed geotechnical investigation will be conducted by qualified geotechnical personnel to assess the geotechnical conditions at the project area. The geotechnical investigation will include exploratory borings to investigate site-specific soils and conditions and to collect samples of subsurface soils for laboratory testing. Those soil samples will be tested to determine liquefaction potential, collapsibility potential, stability, and corrosion potential. The project-specific findings and recommendations of the geotechnical investigation will be summarized in Structure Foundation Reports (SFRs) and a Geotechnical Design Report (GDR) to be submitted to the California Department of Transportation (Caltrans) for review and approval. Those findings and recommendations will be incorporated in the final design of the selected Build Alternative.	GEO-2	Proj Eng _____	During the PS&E phase	No						
Paleontology Prior to construction activities, the California Department of Transportation (Caltrans) would ensure that a Paleontological Mitigation Plan (PMP) is prepared and adhered to during construction of the project portions that are identified as having high paleontological sensitivity. The PMP would include, but not be limited to, the following: <ul style="list-style-type: none"> A preconstruction field survey in areas identified as having a high paleontological sensitivity after vegetation and any paving is removed, followed by salvage of any observed surface paleontological resources prior to the beginning of additional grading. Attendance at the pregrade meeting by a qualified paleontologist or representative. At this meeting, the paleontologist would explain the likelihood for encountering paleontological resources, what resources may be discovered, and the methods of recovery that would be employed. 	PAL-1	Proj Eng _____ Envi Plan _____ Res Eng _____	Design Pre-construction Construction Post-Construction	Yes						

Task and Brief Description	Reference by Section #	Responsible Branch/ Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
						Initial	Date		Initial	Date
<ul style="list-style-type: none"> During construction excavation, a qualified vertebrate paleontological monitor would initially be present on a full-time basis whenever excavation would occur within the sediments that have a high paleontological sensitivity rating and on a spot-check basis for sediments that have a low sensitivity rating. Monitoring may be reduced to a part-time basis if no resources are being discovered in sediments with a high sensitivity rating (monitoring reductions, when they occur, would be determined by the qualified Principal Paleontologist). The monitor would inspect fresh cuts and/or spoils piles to recover paleontological resources. The monitor would be empowered to temporarily divert construction equipment away from the immediate area of the discovery. The monitor would be equipped to rapidly stabilize and remove fossils to avoid prolonged delays to construction schedules. If large mammal fossils or large concentrations of fossils are encountered, the grading contractor would consider using heavy equipment on site to assist in the removal and collection of large materials. Localized concentrations of small (or micro-) vertebrates may be found in all native sediments. Therefore, it is recommended that these native sediments occasionally be spot-screened on site through one-eighth to one-twentieth-inch mesh screens to determine whether microfossils are present. If microfossils are encountered, sediment samples (up to 3 cubic yards, or 6,000 pounds) would be collected and processed through one-twentieth-inch mesh screens to recover additional fossils. Recovered specimens would be prepared to the point of identification and permanent preservation. This includes the sorting of any washed mass samples to recover small invertebrate and vertebrate fossils, the removal of surplus sediment from around larger specimens to reduce the volume and cost of storage for the repository, and the addition of approved chemical hardeners/stabilizers to fragile specimens. Specimens would be identified to the lowest taxonomic level possible and curated into an institutional repository with retrievable storage. The repository institutions usually charge a one-time fee based on volume, so removing surplus sediment is important. The repository institution may be a local museum or university that has a curator who can retrieve the specimens upon request. A draft curation agreement would be established with an approved curation facility prior to the initiation of any paleontological monitoring. Preparation and submittal of the Paleontological Mitigation Report (PMR) documenting completion of the PMP. 										
<p>Hazardous Wastes and Materials</p> <p>Prior to initiation of Project Specifications and Estimates (PS&E), a qualified consultant will conduct a Phase II Site Investigation (SI) for the properties with potential contamination that would be either partially or fully acquired by the proposed project. These properties include:</p> <ul style="list-style-type: none"> Arco gasoline station (28662 Camino Capistrano) Chevron gasoline station (28692 Camino Capistrano) Shell gasoline station (28681 Marguerite Parkway) 76 gasoline station/Laguna Hills Auto Spa (25172 Cabot Road) Arco gasoline station (26001 La Paz Road) USA gasoline station (23852 El Toro Road) Orange County Transportation Authority (OCTA)/Southern California Regional Rail Authority (address not available). <p>The SI would identify any Recognized Environmental Concerns (RECs) associated with on- or off-site releases and provide appropriate minimization, avoidance, and mitigation measures to prevent unnecessary exposure to contaminants during construction activities. Depending on the results of the SIs, subsequent sampling to determine the presence and/or absence of contaminated soil and/or groundwater or to characterize the extent of contamination on site may be required. The results of these studies will be used as part of the evaluation of any property to be acquired.</p>	HAZ-1	OCTA _____ Envi Plan _____	Prior to the completion of the PA&ED	No						
<p>Nine facilities adjacent to or in close proximity to the Study Area have reported releases that may have impacted soil and groundwater underneath the Avery Parkway undercrossing (UC) (Bridge No. 55-0232), La Paz Road UC (Bridge No. 55-0234), and El Toro Road UC (Bridge No. 55-2035). Since groundwater is anticipated to be encountered and dewatering is anticipated to be necessary during construction at these three bridge locations, prior to initiation of Project Specifications and Estimates (PS&E), the Orange County Transportation Authority (OCTA) would ensure that a qualified consultant conducts</p>	HAZ-2	OCTA _____ Envi Plan _____	Construction	No						

Task and Brief Description	Reference by Section #	Responsible Branch/ Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
						Initial	Date		Initial	Date
During construction the contractor will comply with Section 14-9 Air Quality requirements of the California Department of Transportation Standard Specifications. This Section requires the contractor to comply with air control rules, regulations, ordinances, and statutes that apply to work performed under the Contract, including air control rules, regulations, and statutes provided in Govt Code 11017 (Pub Cont Code 10231). In addition to implementing all applicable Best Available Control Measures (BACMs) from the South Coast Air Quality Management District (SCAQMD) Rule 403 (section [d2] and Table 1) and Rule 403.1, the following avoidance and minimization measures will also be considered to reduce and otherwise address particulate emissions:		Res Eng _____	Construction	No						
During clearing, grading, earth moving, or excavation operations, excessive fugitive dust emissions will be controlled by regular watering or other dust preventative measures using the following procedures, as specified in the South Coast Air Quality Management District (SCAQMD) Rule 403. <ul style="list-style-type: none"> All material excavated or graded will be sufficiently watered to prevent excessive amounts of dust; All material transported on-site or off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust; The area disturbed by clearing, grading, earth moving, or excavation operations will be minimized so as to prevent excessive amounts of dust; and These control techniques will be indicated in project specifications. 	AQ-1	Res Eng _____	Construction	No						
Project grading plans will show the duration of construction. Ozone precursor emissions from construction equipment vehicles shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturer's specifications.	AQ-2	Res Eng _____	Construction	No						
All trucks that are to haul excavated or graded material on-site will comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2) and (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads.	AQ-3	Res Eng _____	Construction	No						
Noise The control of noise from construction activities will conform to the California Department of Transportation (Caltrans) Standard Specifications, Section 14-8.02, "Noise Control." The nighttime noise level from the contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., will not exceed 86 A-weighted decibels (dBA) one-hour A-weighted equivalent continuous sound level (Leq(h)) at a distance of 50 feet. In addition, the contractor would equip all internal combustion engines with a manufacturer-recommended muffler and will not operate any internal combustion engine on the job site without the appropriate muffler.	N-1	Res Eng _____	Construction	No						
Noise barriers 13, 19a, 63, 115, and 117 were determined to be feasible and reasonable and was preferred by affected homeowners and residents. Noise Barriers 13, 19a, 63, 115, and 117 will, therefore, be considered for construction. The final decision on construction of the noise barriers will be made during final design. Additionally, it is the California Department of Transportation's (Caltrans) current standard practice (based on Caltrans Traffic Noise Analysis Protocol, May 2011) to provide walls with an acoustically absorptive material for the walls when receptors on the opposite side have a direct line of sight to the wall.	N-2	Proj Eng _____	Completion of PA/ED	No						
Biology Prior to clearing or construction, highly visible barriers (such as orange construction fencing) will be installed around riparian/riverine communities and coastal sage scrub (CSS) adjacent to the project disturbance limits to designate Environmentally Sensitive Areas (ESAs) to be avoided and preserved. No grading or fill activity of any type will be permitted within ESAs. In addition, heavy equipment, including motor vehicles, will not be allowed to operate within the ESAs. All construction equipment will be operated in such a manner as to prevent accidental damage to nearby ESAs. No structure of any kind, or incidental storage of equipment or supplies, will be allowed in ESAs. Silt fence barriers will be installed at the ESA boundaries to prevent accidental deposition of fill material into areas where vegetation is immediately adjacent to planned grading activities.	BIO-1	Proj Eng _____ Envi Plan _____ Res Eng _____	Pre-construction Construction	No						
In order to avoid impacts to nesting birds, any native or exotic vegetation removal, tree trimming activities, or bridge demolition will occur outside of the bird nesting season. The nesting season is from February 15 to September 15. In the event that vegetation clearing is necessary during the nesting season, a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by construction personnel under the guidance of the biologist, and construction or clearing will not be conducted in this zone until the biologist determines that the young have fledged or the nest is no longer active.	BIO-2	Envi Plan _____ Res Eng _____	Construction	No						
A biologist will monitor all vegetation clearing and any other construction activities (at the discretion of a qualified biologist) for the duration of the project in areas adjacent to Environmentally Sensitive Areas (ESAs) to flush any wildlife species present prior to construction to avoid direct mortality to wildlife and to ensure compliance with and proper implementation of vegetation removal, Best Management Practices (BMPs), and ESAs, and to ensure that all biological resource-related avoidance and minimization measures are properly adhered to.	BIO-3	Res Eng _____	Construction	No						
Shielded lighting will be used for any nighttime construction adjacent to native vegetated	BIO-4	Res Eng _____	Construction	No						

Task and Brief Description	Reference by Section #	Responsible Branch/ Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
						Initial	Date		Initial	Date
areas to avoid and minimize artificial night-lighting effects.										
To mitigate for areas temporarily affected by the proposed project, areas that are adjacent to native habitat will be replaced with native vegetation in-kind to the existing adjacent native habitat, including coastal sage scrub (CSS). The habitat subject to this replacement will be determined at the discretion of the California Department of Transportation (Caltrans) biologist.	BIO-5	Proj Eng _____ Res Eng _____	Design Construction	No						
Should it later be determined that Oso Creek was historically used by anadromous fish, a Detailed Fish Passage Assessment will be conducted on the Oso Creek Bridge Crossing and submitted to the California Department of Fish and Wildlife (CDFW) and interagency coordination among the California Department of Transportation (Caltrans), National Marine Fisheries Service (NMFS), and CDFW will be conducted to determine whether a barrier to anadromous fish passage is present. If it is determined that there are structures blocking fish passage, structures blocking anadromous fish passage will be designed by the project engineer to mitigate for fish passage.	BIO-6	Proj Eng _____ Res Eng _____	Design Construction	No						
To minimize indirect impacts, all equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated nonsensitive upland habitat areas. The designated upland areas will be located so as to prevent runoff from any spills from entering waters of the United States.	BIO-7	Res Eng _____	Construction	No						
Weed control will be implemented to minimize the importation of nonnative plant material during and after construction. Eradication strategies will be implemented should an invasion of nonnative plant species occur.	BIO-8	Res Eng _____	During and after construction	No						
During the Plans, Specifications, and Estimate (PS&E) phase, the design engineer will coordinate closely with the Orange County Transportation Authority (OCTA) to ensure consistency with OCTA's commitments and the permitting agencies' expectations pursuant to the M2 NCCP/HCP, including the Streambed Program, which is designed to facilitate the permitting process. It is anticipated that a Biological Resources Avoidance and Minimization Plan (BRAMP), for agency review and approval, will be required. The BRAMP should include avoidance and minimization measures similar to BIO-1 through BIO-8. In addition, specific design and construction measures may be required for the following elements: <ul style="list-style-type: none"> • Aquatic Species: to include pre-construction surveys and avoidance measures for southwestern pond turtle. • Covered Plant Species: to include pre-construction rare plant surveys and avoidance measures • Wildlife Crossings: to include consultation with biologist regarding design and construction of the Oso Creek Bridge modifications, in order to minimize impacts on wildlife movement under the bridge. 	BIO-9	Proj Eng _____ Envi Plan _____ Res Eng _____	Design Prior to construction Construction	No						
Prior to clearing or construction (including any ground-disturbing activities), the California Department of Fish and Wildlife (CDFW) and United States Army Corps of Engineers (USACE) will be consulted and, if required, a Lake or Streambed Alteration Agreement with the CDFW, a Section 404 permit and/or Letter of Permission (LOP) from the USACE, and a Section 401 certification from the Regional Water Quality Control Board (RWQCB) will be obtained.	BIO-10	Proj Eng _____ Res Eng _____	Prior to clearing or construction (including any ground-disturbing activities)	No						
If required, compensatory mitigation will be provided through the Measure M2 Freeway Transportation Mitigation Program, which allocates funds to acquire land and fund habitat restoration by acquiring properties and permanently preserving them as open space. Restoration projects restore open space lands to their native habitat and include the removal of invasive plant species. Use of the program will be consistent with the United States Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) policies for no net loss of riparian/riverine habitat (e.g., wetlands) standards.	BIO-11	Proj Eng _____ Envi Plan _____ Res Eng _____	Construction	No						
A qualified bat biologist will survey the project disturbance limits between June and August to assess the potential for the use of structures within the Biological Study Area's (BSA) use for maternity roosting, since maternity roosts are generally formed in the late spring. Surveys should be conducted no later than the summer at least one year prior to construction to allow adequate time for coordination and planning between biologists and engineers should a maternity colony be discovered, and to implement any appropriate mitigation that may be needed to minimize impacts to roosting bats. The qualified bat biologist will also perform preconstruction surveys because bat roosts can change seasonally. The surveys will occur at night and include a combination of structure inspection, sampling, exit counts, and acoustic surveys.	BIO-12	Envi Plan _____ Res Eng _____	Prior to construction	No						
To avoid direct mortality to bats roosting in areas subject to effects from construction activities, any structure with potential bat habitat will have temporary and humane bat exclusion devices installed under the supervision of a qualified bat biologist prior to the initiation of construction activities. Exclusion will be conducted during the fall (September or October) to avoid trapping flightless young inside during the summer months or hibernating individuals during the winter. Such exclusion efforts are dependent on weather conditions, take a minimum of two weeks, and will be continued to keep the structures free of bats until the completion of construction. These exclusion devices will be removed upon completion of construction. If the period in which bats are excluded includes the maternity season (May through August), alternate roosting habitat may need to be installed at these locations at the discretion of the qualified bat biologist. Alternate roosting habitat will be installed at least six months in advance of the humane exclusion. All bat exclusion	BIO-13	Res Eng _____	Construction	No						

Task and Brief Description	Reference by Section #	Responsible Branch/ Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
						Initial	Date		Initial	Date
techniques will be coordinated between the California Department of Transportation (Caltrans) District Biologist and the resource agencies early in the construction planning process. Any existing structures or structural features used by bats for roosting would not be removed or altered. If major modifications such as removal or expansion of structures containing roosts are anticipated, impacts to bats would be mitigated by ensuring that the new or altered structures contain structural features suitable for roosting so that there is no loss of roosting habitat.										
All work conducted on bridges will take place during the day to the extent feasible. If this is not feasible, effects will be minimized by directing lighting and noise away from night roosting areas as much as possible. At structures where maternity colonies of bats are observed, construction activities should be performed outside of the maternity season (May – August), if feasible. If this is not feasible, effects will be minimized by conducting a humane exclusion and installing alternate bat roosting habitat at those locations.	BIO-14	Res Eng _____	Construction	No						
Should the United States Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) require additional avoidance and minimization effects, those measures will be implemented as part of the Build Alternatives.	BIO-15	Res Eng _____	Construction	No						
After construction, affected areas adjacent to native vegetation will be revegetated with plant species approved by the California Department of Transportation District Biologist.	BIO-34	Res Eng _____	After construction	No						
After construction, species listed as having a high or moderate rating on the California Invasive Plant Council's (Cal-IPC) "Invasive Plant Inventory" will not be planted in any revegetated areas. A copy of the complete list can be obtained from Cal-IPC's web site at http://www.cal-ipc.org .	BIO-35	Res Eng _____	After construction	No						
A plant establishment period will be developed for revegetated areas during final design. A plant establishment period is a duration of time that allows newly installed plant material to reach a state of maturity, requiring minimal ongoing maintenance for survival. A plant establishment period typically includes the removal of litter and trash, weeding, water application, irrigation repair, replacement of plant material that dies, and other activities required to ensure the long-term survival of plant material.	BIO-36	Proj Eng _____	Design	No						
Inspection and cleaning of construction equipment will be performed to minimize the importation of nonnative plant material. Eradication strategies (i.e., weed control) will be implemented should an invasion of nonnative plant species occur.	BIO-37	Res Eng _____	Construction	No						
In compliance with Executive Order (EO) 13112, weed control will be performed to minimize the importation of nonnative plant material during and after construction.	BIO-38	Res Eng _____	During and after construction	No						
United States Fish and Wildlife Service measures as a result of informal consultation										
A biologist (Project Biologist) approved by the Carlsbad Fish and Wildlife Office (CFWO) will be on site during: a) initial clearing and grubbing; and b) weekly during project construction within 61 meters (200 ft) of offsite gnatcatcher and vireo habitat to ensure compliance with all conservation measures. The Project Biologist will be familiar with gnatcatchers, vireos, and their habitat and will have experience monitoring these species. Caltrans will submit the biologist's name, address, telephone number, and work schedule on the project to the CFWO prior to initiating project impacts. The biologist will be provided with a copy of this consultation.	BIO-16	Proj Biologist _____	During construction	No						
Under the supervision of the Project Biologist, the limits of project impacts (including construction staging areas and access routes) will be clearly delineated with bright orange plastic fencing, stakes, flags, or markers that will be installed in a manner that does not impact habitats to be avoided and such that they are clearly visible to personnel on foot and operating heavy equipment. If work occurs beyond the fenced or demarcated limits of impact, all work will cease until the problem has been remedied to the satisfaction of the CFWO. Temporary construction fencing and markers will be removed upon project completion.	BIO-17 To be implemented with BIO-1	Envi Plan _____ Res Eng _____	Pre-construction Construction	No						
The clearing and grubbing of native habitats for the project will be conducted between September 1 and February 14 to avoid the gnatcatcher and vireo breeding season (or sooner than September 1 if the Project Biologist demonstrates to the satisfaction of the CFWO that all nesting is complete). If vegetation clearing must be conducted during the breeding season, Caltrans will reinstate consultation with the CFWO to address unanticipated effects to these species.	BIO-18 To be implemented with BIO-2	Envi Plan _____ Res Eng _____	Construction	No						
The Project Biologist will submit a final report to the CFWO within 120 days of project completion including photographs of impact areas and adjacent habitat, documentation that authorized impacts were not exceeded, and documentation that general compliance with all conservation measures was achieved. The report will specify numbers, locations, and sex of gnatcatchers and vireos (if observed), observed gnatcatcher and vireo behavior (especially in relation to project activities), and remedial measures employed to avoid and minimize impacts to gnatcatchers and vireos. Raw field notes should be available upon request by the CFWO.	BIO-19	Envi Plan _____	After construction	No						
Protocol surveys will be conducted for the vireo within 1 year prior to the commencement of vegetation clearing and construction activities for the project. If vireos are observed within or adjacent to the project impact area, consultation will be initiated with the CFWO to address potential direct and/or indirect effects to this species.	BIO-20	Envi Plan _____	Prior to construction	No						
An employee education program will be developed. Each employee (including temporary, contractors, and subcontractors) will receive a training/awareness program prior to working on the proposed project. They will be advised of the potential impact to the listed	BIO-21	Envi Plan _____ Res Eng _____	Prior to Construction	No						

Task and Brief Description	Reference by Section #	Responsible Branch/ Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
						Initial	Date		Initial	Date
			Additionally, an Annual Update (AU) must be provided until construction completion.							
United States Fish and Wildlife Service										
Section 7 consultation for CAGN. Formal Section 7 Consultation is not expected at this time, but informal consultation is mandatory due to the temporary impact to CAGN. Concurrence of a "not likely to adversely affect" finding was received on March 26, 2014.		Proj Eng _____ Envi Plan _____	Design	No						
Federal Emergency Management Agency, Cities of Laguna Hills, Laguna Niguel, Mission Viejo										
Condition Letter of Map Revision		Proj Eng _____ Envi Plan _____	Design	No						
National Marine Fisheries Service										
Informal consultation has been conducted and concurrence of the "no effect" determination was received on January 31, 2014.		Proj Eng _____ Envi Plan _____	Design	No						
United States Army Corps of Engineers										
Section 404 Authorization – The California Department of Transportation is to obtain a Letter of Permission		Proj Eng _____ Envi Plan _____	Design	No						
California Department of Fish and Wildlife										
1602 Lake or Streambed Alteration Agreement - The California Department of Transportation is to obtain permit after certification of environmental document.		Proj Eng _____ Envi Plan _____	Design	No						
Regional Water Quality Control Board										
Section 401 Water Quality Certification - The California Department of Transportation is to obtain certification after certification of environmental document.		Proj Eng _____ Envi Plan _____	Design	No						
		Res Eng _____	Construction							
State Water Resources Control Board										
Section 402 NPDES (Construction Activity)/Caltrans NPDES Permit CAS000003 and CAS000002 (General Permit) - The Construction General Permit has been adopted and was effective as of July 1, 2010. The Caltrans NPDES Permit was effective as of July 1, 2013.		Proj Eng _____ Envi Plan _____	Design	No						
		Res Eng _____	Construction							
Southern California Regional Rail Authority										
Construction and Maintenance (C&M) Agreement		Proj Eng _____	Prior to Construction	No						
Coordination with staff regarding design of El Toro Overhead structure.		Proj Eng _____	Design	No						
Right of Entry agreement, SCRRA Form 6		Proj Eng _____	Design	No						
Orange County Flood Control District										
Encroachment Permit - The California Department of Transportation is to obtain letter or permit.		Proj Eng _____ Envi Plan _____	Design	No						
		Res Eng _____	Construction							
Utilities (SCG, MNWD, AT&T, SDG&E, Level 3, Kinder Morgan, Cox Communications, Verizon, Qwest, ETWD, and SCE)										
Utility Agreements		Proj Eng _____ Envi Plan _____	Design	No						
Cities of Mission Viejo, Lake Forest, Laguna Niguel, and Laguna Hills										
Maintenance agreement or other necessary agreements for traffic signals, street lighting, pavement rehabilitation, and landscaping.		Proj Eng _____	Prior to Construction	No						
Orange County Health Care Agency										
Well permit for wells and test borings - The California Department of Transportation is to obtain letter or permit.		Proj Eng _____ Envi Plan _____	Design	No						

This page intentionally left blank