

Appendix D Minimization and/or Mitigation Summary

The intent of this appendix is to clearly define, as a separate entity, all of the avoidance, minimization, and mitigation measures developed for this project. A brief reason for each measure, and the person, department, or party responsible for seeing the commitment through to fruition is included as well.

For the sake of consistency, all measures included in this appendix have been organized by resource.

Growth

Impact/reason for protective measure(s) – The following measure (1) is intended to minimize potential effects related to growth inducement.

Minimization and Mitigation Measure 1 –The City and Caltrans should coordinate with the County of Santa Barbara to encourage future roadway improvements and land development west of Blosser Road and east of the proposed Union Valley Parkway/State Route 101 interchange to avoid, minimize, and/or mitigate impacts on resources of concern, including agricultural lands, oil resources, sensitive species and habitat. In addition, regional habitat conservation planning of these areas should be encouraged.

Responsibility of – City of Santa Maria; Caltrans.

Relocations

Impact/reason for protective measure(s) – The following measure (1) is intended to minimize potential effects related to displacement for the Foster Road Alignment Alternative only.

Minimization and Mitigation Measure 1 – At the time of acquisition, when relocation would become necessary, the City and Caltrans would provide relocation assistance to displaced businesses, in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and Title 49 Code of Federal Regulations, Part 24.

Responsibility of – Project Design Engineer.

Utilities

Impact/reason for protective measure(s) – The following measure (1) is intended to minimize potential effects related to effects on oil and gas lines.

Minimization and Mitigation Measure 1 – Construction plans would be submitted to Greka Energy and/or Union Oil for review and comment for grading or excavation proposed within 25 feet of known oil or gas lines. In addition, to identify and avoid all known subsurface lines, Underground Service Alert would be consulted immediately prior to construction. A private utility locator service and/or individual private property owners would be consulted immediately prior to construction if excavation were scheduled to occur on private property.

Responsibility of – Project Hazardous Materials Specialist and Prime Contractor.

Visual/Aesthetics

Impact/reason for protective measure(s) – The following measures (1-2) are intended to minimize potential visual effects related to the alteration of public views.

Minimization and Mitigation Measure 1 – To minimize visual character and compatibility effects, long expanses of walls or fences would be interrupted with offsets and provided with accents to prevent visual monotony. Wall colors would be compatible with surrounding terrain. Whenever possible, a combination of elements would be used, including walls, and landscaped berms.

Responsibility of – Project Design Engineer and Prime Contractor.

Minimization and Mitigation Measure 2 – To minimize visual character and compatibility effects, where landforms are modified during construction, recontouring of landmasses would provide a smooth and gradual transition between modified landforms and existing grades.

Responsibility of – Project Geotechnical Engineer, Project Design Engineer and Prime Contractor.

Impact/reason for protective measure(s) – The following measure is intended to minimize potential visual effects related to the introduction of additional light and glare.

Minimization and Mitigation Measure 3 – Street lights would be hooded and directed to project area roadways to avoid light and glare impacts to residences, aviation, and nearby habitat areas. Roadway lighting would be minimized to the extent possible, and would not exceed the minimum height requirements of the local jurisdiction in which the lighting is located.

Responsibility of – Project Design Engineer and Prime Contractor.

Cultural Resources

Impact/reason for protective measure(s) – In the unlikely event that subsurface archaeological remains are encountered during construction, the following measures (1-2) are intended to minimize impacts on significant cultural resources.

Minimization and Mitigation Measure 1 – If artifacts are discovered during excavation, all earth-moving activity within and around the immediate discovery area shall be diverted until a qualified archaeologist can assess the nature and significance of the find.

Responsibility of – Project Cultural Specialist and Prime Contractor.

Minimization and Mitigation Measure 2 – If human remains are discovered, State Health and Safety Code Section 7050.5 states that disturbances and activities shall cease. The County Coroner shall be notified of the find immediately so that he/she may ascertain the origin. Pursuant to Public Resources Code Section 5097.98 if the remains are thought to be Native American, then the coroner shall notify the Native American Heritage Commission who shall then notify the Most Likely Descendent. At this time, the person who discovered the remains shall contact the Caltrans District 5 Central Coast Environmental Management Branch 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 5097.98 are to be followed as applicable.

Responsibility of – Project Cultural Specialist and Prime Contractor.

Water Quality and Storm Water Runoff

Impact/reason for protective measure(s) – The following Best Management Practices (1-2) and minimization and mitigation measures (1-3) are intended to minimize impacts related to water quality reductions in offsite drainage channels.

Best Management Practice Measure 1 – For both short-term and long-term water quality impacts, temporary as well as permanent Best Management Practices would be identified during final design when sufficient engineering details are available to warrant competent analysis.

Responsibility of – Prime Contractor with oversight by the Resident Engineer.

Best Management Practice Measure 2 – Because the Preferred Alignment would disturb more than one acre of surface area, it falls under a statewide permit issued to Caltrans under the National Pollutant Discharge Elimination System and regulated by the Regional Water Quality Control Board. To comply with the National Pollutant Discharge Elimination System permit, Caltrans must file a Notice of Construction with the Regional Water Quality Control Board. The National Pollutant Discharge Elimination System permit and the Standard Specifications require the development of a Storm Water Pollution Prevention Plan by the contractor before construction. The construction contractor must adhere strictly to the provisions of the Standard Specifications, the Special Provisions, and the Storm Water Pollution Prevention Plan. There are no natural drainages within the limits of the build alternatives, however man-made drainage facilities are included in the design of the roadway, and Best Management Practices to protect surface water quality would be applied. If needed, erosion control measures would also be implemented in compliance with the National Pollutant Discharge Elimination System permit requirements.

Responsibility of – Prime Contractor with oversight by the Resident Engineer; District Storm Water Coordinator.

Minimization and Mitigation Measure 1 – Final project design would include a storm water control and filtering system along the length of the roadway to capture and treat all first flush runoff from the roadway before discharge to drainage channels outside the project area.

Responsibility of – Project Design Engineer and Prime Contractor.

Minimization and Mitigation Measure 2 – A maintenance program for the storm water control and filtering system would be developed in accordance with the California Department of Transportation Best Management Practices handbook to eliminate the potential for odor problems and provision of mosquito habitat, and to prevent clogging. Best Management Practices may include a combination of the following: biofiltration strips and swales; infiltration devices; detention devices;

traction sand traps; dry weather flow diversion; gross solids removal devices; media filters; multi-chamber treatment train; and wet basins.

Responsibility of – Project Design Engineer, Prime Contractor, District Storm Water Coordinator, Regional Water Quality Control Board.

Minimization and Mitigation Measure 3 – The City and Caltrans would limit the use of pesticides, herbicides, and inorganic fertilizers applied to roadway landscaping or weed abatement to those quantities necessary to treat specific problems.

Responsibility of – Prime Contractor and Project Environmental Monitor.

Geology/Soils/Seismic/Topography

Impact/reason for protective measure(s) – The following measure is intended to minimize impacts to project structures from seismic activity.

Minimization and Mitigation Measure 1 – Geotechnical studies would be performed to evaluate site-specific conditions and liquefaction potential along the project area. The City would design and implement measures needed to comply with the current Caltrans Standard Specifications reduce settlement associated with liquefaction. Suitable measures to avoid liquefaction impacts would include one or more of the following as recommended in the geotechnical study: removal or treatment of liquefiable soils to reduce the potential for liquefaction, drainage to lower the groundwater table to below the level of liquefiable soils, compacting or consolidating on-site soils, or other alterations to the ground characteristics.

Responsibility of – Office of Structures Design, Office of Geotechnical Engineering, Project Design Engineer, and Prime Contractor.

Hazardous Waste/Materials

Impact/reason for protective measure(s) – The following measures (1-3) are intended to minimize impacts related to exposure of persons to health hazards associated with identified oil wells, a sand-tar mixture, and improperly disposed agricultural piping along or in the immediate vicinity of the study area.

Minimization and Mitigation Measure 1 – If during construction/grading activities the contractor discovers unknown waste or debris believed to involve hazardous waste and/or materials, the contractor would immediately stop work in the vicinity of the suspected contaminant, remove workers and the public from the area, and contact the

City of Santa Maria Construction Engineer. If hazardous materials (including contaminated soil or groundwater) are uncovered during construction activities, all materials found would be removed, handled, and disposed of in accordance with state and federal regulations. All hazardous materials involvement would be coordinated with the appropriate federal, state, and local regulatory agencies.

Responsibility of – Project Hazardous Materials Specialist and Prime Contractor.

Minimization and Mitigation Measure 2 – Prior to the initiation of construction activities in the identified area of the sand-tar mixture, several soil samples would be taken from beneath the material by a qualified professional to discern if hydrocarbons have affected the soil beneath the tank bottoms and identify the extent of contamination. The contract would include a bid quantity of material to be removed. The initial quantity would be bid on a per-cubic-yard basis with a specified method of measurement and method of payment. The quantity of contamination would be identified with final construction plans. Final payment would be based on actual quantities encountered and removed. If concentrations of hydrocarbons above health hazard threshold levels are not detected in the underlying soil, the tank bottoms would be removed from the project area and disposed of in accordance with state and federal regulations. If hazardous concentrations of hydrocarbons above health hazard threshold levels are detected in the underlying soil, the tank bottoms would be removed and disposed of in accordance with state and federal regulations, and the area would be cleaned up in accordance with applicable local, state, and federal requirements. This requirement, including the need for soils testing and remediation if necessary prior to initiation of construction activities, would be noted in the construction contract for the potentially affected portion of the project.

Responsibility of – Project Hazardous Materials Specialist and Prime Contractor.

Air Quality

Impact/reason for protective measure(s) – The following measure is intended to minimize the amount of PM₁₀ produced during construction of the project.

Minimization and Mitigation Measure 1 –

- During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be

required whenever the wind speed exceeds 15 miles per hour. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.

- Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less.
- Gravel pads shall be installed at all access points to prevent tracking of mud onto public roads.
- If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the project area shall be tarped from the point of origin.
- After clearing, grading, earth moving, or excavation is completed, treat the disturbed area by watering, or revegetating, or spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur.
- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District before issuance of grading permits.

Responsibility of – Prime Contractor with oversight by the Resident Engineer.

Impact/reason for protective measure(s) – The following measure is intended to minimize the amount of diesel particulate matter and NO_x produced during construction of the project.

Minimization and Mitigation Measure 2 – The following control strategies provided by the APCD shall be implemented.

- All portable diesel-powered construction equipment shall be registered with the states portable equipment registration program OR shall obtain an APCD permit.
- Diesel powered equipment should be replaced.
- As of June 15, 2002, fleet owners are subject to sections 2449, 2449.1, 2449.2, and 2449.3 in Title 13, Article 4.8, Chapter 9, of the California Code of Regulations (CCR) to reduce diesel particulate matter (PM) and criteria pollutant emissions from in-use off-road diesel-fueled vehicles, See <http://www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf>.

- Diesel construction equipment meeting the California Air Resources Board (CARB) Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting CARB Tier 2 or higher emission standards shall be used.
- Other diesel construction equipment, which does not meet CARB standards, shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines. Diesels & catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed
- Catalytic converters shall be installed on gasoline-powered equipment.
- All construction equipment shall be maintained in tune per the manufacturer's specifications.
- The engine size of construction equipment shall be the minimum practical size.
- The amount of construction equipment operating simultaneously shall be minimized through efficient management practices so that the smallest practical number is operating at any one time,
- Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units should be used wherever possible. State law requires that drivers of diesel-fueled commercial vehicles weighing more than 10,000 pounds:
 - shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location
 - shall not idle a diesel-fueled auxiliary power system (APS) for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle equipped with a sleeper berth when that vehicle is operated within 100 feet of a restricted area (homes and schools).
 - Construction worker trips shall be minimized by requiring carpooling and by providing for lunch on site.

Responsibility of – Prime Contractor with oversight by the Resident Engineer.

Noise

Impact/reason for protective measure(s) – The following measure is intended to minimize the projected permanent increase in noise levels generated by the project.

Minimization and Mitigation Measure 1 – Table 2-23 is a summary of proposed noise abatement by alternative. The location of noise abatement for each alternative is

depicted on Figures 22A through 22D in Appendix E. Soundwalls or earthen berms would be constructed on the top of slopes behind the rear property line of affected residences. Earthen berms are more effective than barriers at reducing traffic noise levels and are often more aesthetically pleasing. Soundwalls or earthen berms would be required in the following locations:

Homes within Foxenwood Subdivision, West of Foxenwood Lane (Receptor 9)

Receptor 9 represents four homes in the Foxenwood Subdivision on Clubhouse Drive nearest to Foxenwood Lane. Measurements taken at Receptor 9 indicate that the existing noise level at that location is 55 decibels. The future noise level at Receptor 9 with the Locally Preferred Alignment, Curved Alignment, or Foster Road Alignment is predicted to be 66 decibels. Because the predicted future noise level approaches the noise abatement criterion for residential uses (67 decibels), the four homes represented by Receptor 9 would be adversely affected by noise. To achieve a 5-decibel reduction, an 8-foot-tall, 365-foot-long sound wall would be needed. The total reasonable cost allowance, calculated in accordance with Caltrans' *Traffic Noise Analysis Protocol*, is \$208,000.

Homes North of the Existing County Portion of the Union Valley Parkway Corridor, West of Bradley Road (Receptor 13)

Receptor 13 represents 23 residences located on the north side of the existing County segment of Union Valley Parkway, nearest to Hummel Drive. Measurements taken at Receptor 13 indicate that the existing noise level at that location is 57 decibels. The future noise level at Receptor 13 with the Locally Preferred Alignment, Curved Alignment, or Reduced Extension Alternative is predicted to be 66 decibels. Because the predicted future noise level approaches the noise abatement criterion for residential uses (67 decibels), the 23 homes represented by Receptor 13 would be adversely affected by noise. To achieve a 5-decibel reduction, an 8-foot-tall, 2,000-foot-long berm (or berm wall combination) would be needed. The total reasonable cost allowance for this barrier, calculated in accordance with Caltrans' *Traffic Noise Analysis Protocol*, is \$1,242,000.

Responsibility of – Project Design Engineer and Prime Contractor.

Construction

The following mitigation measure is required to minimize the disruption of traffic flows during construction and maintain safe conditions under any of the alignment scenarios.

Minimization and Mitigation Measure 1 – The City of Santa Maria would implement a Traffic Control and Parking Plan during all construction phases. This plan would implement the performance measures set out below to ensure adequate traffic flow and parking in the area. The plan would include a detailed description of the measures, which would be required to be implemented during the construction phase and would be required to meet Caltrans standards. Construction personnel parking and staging areas would occur within the project area or other nearby developed properties. In no case would any construction activity (parking, staging, storage, grading, clearing, grubbing, etc.) be allowed to occur in previously undisturbed areas located outside the project area. The control measures would include detour signs and prescribed routes, construction personnel parking, staging areas, emergency access, as well as the following:

1. Maintain specified number of travel lanes at key intersections during peak periods.
2. Develop a construction schedule to avoid construction during peak travel periods.
3. Implement appropriate work zone signing and delineation plan.
4. Use appropriate flagging procedures.
5. Provide for adequate and safe pedestrian and bicycle passage.

The City of Santa Maria would review and approve the Traffic Control and Parking Plan (in consultation with Caltrans) for consistency with the identified control and avoidance, minimization, and/or mitigation measures prior to initiation of construction. The City of Santa Maria or its designated representatives would conduct field verification and documentation of the implementation of the Traffic Control and Parking Plan.

Responsibility of – Prime Contractor with oversight by the Resident Engineer.

Impact/reason for protective measure(s) – The following measure (1) is intended to minimize project construction noise impacts.

Minimization and Mitigation Measure 1 – A construction noise reduction plan shall be prepared that includes the following requirements:

1. Establish a procedure for noise complaints.
2. Equip all equipment used in construction with the manufacturer's recommended noise abatement measures, such as mufflers, engine covers, and engine vibration isolators.
3. Use electrical power if electrical service is available within 150 feet to run air compressors and similar small power tools.
4. Limit roadway extension construction activity to daytime hours of 7 a.m. to 5 p.m., Monday through Friday, and 8 a.m. to 5 p.m. on Saturdays, to minimize sleep disturbance and interference of speech, and reduce general annoyance. No roadway extension construction would occur on Sundays or federal holidays (such as Thanksgiving, Labor Day). Roadway extension construction equipment maintenance would be limited to the same hours. It should be noted that interchange construction would occur during evening and nighttime hours.
5. Provide notification to home occupants adjacent to the project area at least 24 hours prior to initiation of construction activities that could substantially affect outdoor or indoor living areas. This notification would include the anticipated hours and duration of construction and a description of noise reduction measures, including construction equipment noise abatement measures and use of electrical power, where applicable.
6. All stationary noise-generating construction equipment (such as air compressors and electric generators) would be required to be located as far as practical from nearby residences.

Responsibility of – Resident Engineer and Prime Contractor.

Impact/reason for protective measure(s) – The following measures (1-6) are intended to minimize construction vibration impacts near the interchange project area:

Minimization and Mitigation Measure 1 – Notify residents within 300 feet of areas where pile driving, pavement breaking, and vibratory rolling will take place at least 2 weeks in advance of the proposed activity. Residents may wish to secure fragile items that could be broken by shaking.

Responsibility of – District Public Information Officer and Prime Contractor with oversight by the Resident Engineer.

Minimization and Mitigation Measure 2 – Conduct photo surveys of structures within 100 feet of pile driving in advance of potentially damaging construction work (when expected vibrations are greater than 0.4 inches per second within 60 feet of a pile driving location).

Responsibility of – District Public Information Officer and Prime Contractor with oversight by the Resident Engineer.

Minimization and Mitigation Measure 3 – Use vibratory pile driving or Cast-in-Drill-Hole methods when soil and other conditions are favorable for employment of these methods.

Responsibility of – District Public Information Officer and Prime Contractor with oversight by the Resident Engineer.

Minimization and Mitigation Measure 4 – Pre-drill pile holes when feasible.

Responsibility of – District Public Information Officer and Prime Contractor with oversight by the Resident Engineer.

Minimization and Mitigation Measure 5 – Use rubber tires instead of tracked vehicles near vibration-sensitive areas.

Responsibility of – District Public Information Officer and Prime Contractor with oversight by the Resident Engineer.

Minimization and Mitigation Measure 6 – Assure that night joints and bridge conforms are as smooth as possible, especially where there is heavy truck traffic near residences.

Responsibility of – District Public Information Officer and Prime Contractor with oversight by the Resident Engineer.

Minimization and Mitigation Measure 7 – Perform activities most likely to propagate objectionable noise or vibrations (nearest the residences) during the day, or at least before most residents retire for the night.

Responsibility of – District Public Information Officer and Prime Contractor with oversight by the Resident Engineer.

Natural Communities

Impact/reason for protective measure – The following measures (1-2) are intended to minimize project impacts on the habitat of common and special-status plant and wildlife species.

Minimization and Mitigation Measure 1 – Prior to approval of any grading plan for the project, a City-approved biologist or arborist would prepare a tree protection, replacement and monitoring program that ensures compliance with the City’s Municipal Code 12-44 as it pertains to tree replacement ratios, as follows: 1) 2:1 (number of trees planted:number of trees removed) for trees six to eight inches in diameter (as measured at 4 ½ feet above the ground); 2) 4:1 for trees nine to 12 inches in diameter; and 3) 6:1 for trees greater than 12 inches in diameter. In addition, the plan would include compensatory mitigation for eucalyptus and coast live oak woodland habitats at a 2:1 ratio (habitat area created:habitat area lost). Requirements for the tree protection plan would include, but not be limited to the protection of trees with construction setbacks from trees; construction fencing around trees; and grading limits around the base of trees as required. The tree replacement plan would include identification of restoration areas, strategies, an implementation schedule, irrigation design plan, long-term monitoring methods, success criteria, methods to assess whether success criteria have been met, and contingency plans for meeting success criteria. The program would be monitored for five years, and monitoring reports that evaluate tree survivability, health, and vigor would be submitted to the City annually. All trees planted as mitigation would have an 80 percent survival rate after five years. A conservation easement would be placed upon the mitigation area to protect it in perpetuity.

Responsibility of – Prime Contractor, City Biologist, City Landscape Architect, Project Environmental Monitor.

Minimization and Mitigation Measure 2 – The project proponent would compensate for the loss of central dune scrub and valley needlegrass grassland habitat through the creation or enhancement of these habitats at a location outside the project area at a mitigation ratio of 2:1.

Responsibility of – Prime Contractor, City Biologist, City Landscape Architect, Project Environmental Monitor.

Wetlands and Other Waters

Impact/reason for protective measure(s) – The following measure is intended to minimize permanent project impacts on wetland habitat.

Minimization and Mitigation Measure 1 – The project proponent would compensate for the habitat loss or disturbance of identified Cowardin classified wetlands and Corps jurisdictional areas at a ratio of 2:1 for wetland areas permanently and temporarily affected. The mitigation would consist of wetland creation and enhancement. For complete details of the wetland mitigation plan, see *Wetland Mitigation Plan; Union Valley Parkway Extension Project* in Attachment D of the Natural Environment Study. In addition, the project proponent would demonstrate compliance with Section 404 of the Clean Water Act from the U.S. Army Corps of Engineers and Section 401 of the Clean Water Act from the Regional Water Quality Control Board for any grading or fill activity within wetlands or other Waters of the U.S.

Responsibility of – Prime Contractor, City Biologist, Project Environmental Monitor.

Plant Species

Impact/reason for protective measure(s) – The following measure is intended to minimize project impacts on one rare plant species, curly-leaved monardella, identified on the Locally Preferred Alignment and other Alignment Alternatives, with the exception of the Reduced Extension Alternative, which does not contain sensitive plant species in the study area.

Minimization and Mitigation Measure 1 – Avoidance of curly-leaved monardella is the primary measure to protect them. If avoidance is not feasible, then a mitigation and monitoring program, including a salvage and relocation program, shall be prepared and implemented. The plan shall include the measures necessary for the establishment of self-sustaining populations in suitable open space areas designated by the City to ensure the long-term survivability of the species in the vicinity. Salvage and relocation activities shall include the following: seed and/or topsoil collection; germination of seed by a qualified horticulturist in a nursery setting; transplanting seedlings and hand broadcasting seed into the appropriate open space habitats; and annual monitoring for at least five years to ensure no net loss of acres of habitat for this species. The acreage ratio of lost special status plant species habitat to habitat replaced shall be no less than 1:1.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City Biologist, and Project Environmental Monitor.

Animal Species

Impact/reason for protective measure(s) – The following measures (1-8) are intended to minimize project impacts on non-special-status animal species that are known to use or potentially use habitats within the potential alignments.

Minimization and Mitigation Measure 1 – To avoid impacts to nesting special-status bird species, and other birds protected under the Migratory Bird Treaty Act and/or CDFG code, all initial ground disturbing activities and tree removal shall be limited to the period between September 1 and February 1. If initial project specific site disturbance, grading, and tree removal cannot be conducted during this time period, pre-construction surveys for active nests within the limits of the project shall be conducted by a qualified biologist approved by the City two weeks prior to any construction activities. If no active nests are located, ground disturbing/construction activities can proceed. If active nests are located, then all construction work must be conducted outside a non-disturbance buffer zone at a distance established by the City in consultation with the CDFG and depending upon the species. No direct disturbance to nests shall occur until the adults and young are no longer reliant on the nest site as determined by the City approved qualified biologist.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City Biologist, and Project Environmental Monitor.

Minimization and Mitigation Measure 2 – To avoid impacts to turkey vulture roosts (if present), preconstruction surveys for active roosts within the limits of the project would be conducted by a qualified biologist approved by the City prior to initiation of construction activities. If roost sites were located, they would be avoided wherever possible and no more than two pieces of construction equipment would be used simultaneously within 100 feet of active roost sites. The trees and habitat structure lost due to development would be adequately mitigated through replacement of the oaks and eucalyptus (please see mitigation measures under BIO-1 above). Prior to maturation of the replacement trees, adequate alternative roosting sites are available throughout the project vicinity.

Minimization and Mitigation Measure 3 – Minimization and mitigation measures for the western spadefoot are the same as those specified for the California tiger salamander, and would be implemented concurrently:

1. At least one month prior to the start of western spadefoot surveys/trapping, the name(s) and qualifications(s) of the biologist(s) who would conduct surveys would be submitted to the City for approval.
2. For the period October 15 through June 15 of the year prior to the start of construction, all work areas within 2,200 feet of California tiger salamander breeding ponds would be fenced with drift fence and pitfall traps (Figure 30). The western spadefoot occupies many of the same aquatic breeding sites as the California tiger salamander, and the local distribution of the California tiger salamander is better understood. This would allow for the exclusion of the western spadefoot and other animals from the work area (including southern Pacific pond turtles and California tiger salamanders, and California red-legged frogs) and the relocation of any animals that may emerge from burrows inside the work area. Installation of the fence and traps would follow materials, design, and implementation specifications detailed in the California tiger salamander protocol (U.S Fish and Wildlife Service 2003a), with the exception that there would be no gaps between sections of fence. A qualified biologist must oversee the installation of the fence and be present during all trapping. For the two weeks following installation, a biologist would survey the area inside the fence daily and relocate any animal species encountered to areas outside the fence. Pitfall traps would be opened during all rain events or humid overnight conditions as specified in the protocol throughout the period from October 15 through June 15. All frogs and toads would be released at the nearest suitable aquatic habitat.
3. Captured western spadefoots would immediately be placed into containers containing moist soil and plant material from the location of capture, and released in designated relocation areas no more than three hours after capture.
4. During all initial ground disturbing activities, a qualified biologist would be present in the study area to recover any western spadefoot that may be excavated from underground an underground refuge. If the animals were in good health, they would be relocated immediately to the designated release area. If they are injured or killed, the animals would be deposited at a suitable vertebrate museum, such as the Santa Barbara Museum of Natural History or the University of California Santa Barbara Museum of Systematics and Ecology.
5. Before any construction activities begin on the project, a qualified biologist would conduct a training session for all construction personnel. At a minimum, the

training would include a description of the western spadefoot and its habitat, the importance of the western spadefoot and its habitat, the general measures that are being implemented to conserve the western spadefoot as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.

6. A qualified biologist would be present at the work site until such time as all removal of western spadefoot, instruction of workers, and initial ground disturbance have been completed. After this time, the City would designate a person to monitor compliance with all mitigation measures. The qualified biologist would ensure that this individual receives the training outlined above.
7. The number of access routes, number and size of staging areas, and the total area of the activity would be limited to the minimum necessary to achieve the project goal. Routes and boundaries would be clearly marked, and would be outside wetland areas. Fueling and maintenance of vehicles and other equipment and staging areas would occur at least 100 feet from any riparian or wetland habitat. The City would ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, the City would prepare and comply with an emergency response plan to allow a prompt and effective response to any accidental spills. All workers would be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
8. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all western spadefoots observed during the project.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City Biologist and Project Environmental Monitor.

Minimization and Mitigation Measure 4 – The following measures to minimize impacts on two-striped garter snake shall be implemented:

1. Before any construction activities begin on the project, a qualified biologist would conduct a training session for all construction personnel. At a minimum, the training would include a description of the two-striped garter snake and its habitat, the importance of the two-striped garter snake and its habitat, the general measures that are being implemented to conserve the two-striped garter snake as they relate to the project, and the boundaries within which the project may be

accomplished. Brochures, books, and briefings may be used in the training session. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.

2. During all initial ground disturbing activities, a qualified biologist would be present in the study area to recover any two-striped garter snakes that may be excavated from underground an underground refuge. If the animals are in good health, they would be relocated immediately to a designated release area. If they are injured or killed, the animals would be deposited at a suitable vertebrate museum, such as the Santa Barbara Museum of Natural History or the University of California Santa Barbara Museum of Systematics and Ecology.
3. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all two-striped garter snakes observed during the project.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City Biologist, and Project Environmental Monitor.

Minimization and Mitigation Measure 5 – Avoidance and minimization efforts would require the City to retain a qualified biologist to conduct pre-construction surveys and monitor construction activities as follows:

1. Raking surveys would be conducted on a weekly basis from February 1 through May 31 prior to the start of construction. These surveys would entail raking of leaf litter and sand under shrubs within suitable habitat in the area to be disturbed, to a minimum depth of eight inches.
2. In addition to raking, “coverboards” would be used to capture California legless lizards. Coverboards should consist of untreated plywood at least 4 feet long by 4 feet wide. Coverboards would be placed flat on the ground at least six months prior to construction or from February 1 through May 31 and checked once a week. Captured lizards would be placed immediately into containers containing sand and kept at a constant cool temperature. Lizards would be released in designated relocation areas no more than one hour after capture.
3. During all initial grading activities, a qualified biologist would be present in the study area to recover any California legless lizards that may be excavated/unearthed with native material. If the animals were in good health, they would be immediately relocated to the designated relocation area. If they are injured, the animals would be turned over to a specialist approved by the California Department of

Fish and Game until they were in a condition to be released into the designated release area or deposited at an approved vertebrate museum.

4. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all California legless lizards observed during the project.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City Biologist, and Project Environmental Monitor.

Minimization and Mitigation Measure 6 – Avoidance and minimization efforts would require the City to retain a qualified biologist, to monitor construction activities in habitat suitable for the southern Pacific pond turtle to ensure that impacts to this species are avoided or minimized:

1. An exclusion fence constructed out of three-foot tall silt fence would be installed around the perimeter of the work site and keyed into the ground to exclude southwestern pond turtles from the construction activities. This fence would be installed during the month of April, prior to the start of construction, for areas within 1,500 feet of the Foxenwood Basin and the sediment basin near the intersection of Union Valley Parkway and Hummel Drive. The timing of installation should allow for hatchlings to have emigrated to aquatic sites, and should prevent adult females from entering the area to establish new nests. The area within the exclusion fence should then be surveyed for southern Pacific pond turtles on a daily basis for the first two weeks, and weekly thereafter until the start of construction. If any southern Pacific pond turtles are found, they would be moved out of the exclusion area by a qualified biologist and relocated to the nearest aquatic site with suitable habitat.
2. A biologist would survey all areas of the work site within 1640 feet of the Foxenwood Basin two weeks before the start of site grading or other ground disturbing activities. The survey should include raking of leaf litter and sand under shrubs within suitable habitat in the area to be disturbed to a minimum depth of five inches. The approved biologist would be allowed sufficient time to relocate southern Pacific pond turtle before work activities begin.
3. Before any construction activities begin, a biologist would conduct a training session for all construction personnel. At a minimum, the training should include a description of the southern Pacific pond turtle, its habitat, and status; the general measures that are being implemented to conserve the species as they relate to the project; and, the boundaries within which the project may be accomplished. A

worker education handout containing this information would be distributed to participants, and a sign-in sheet completed. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.

4. During all initial grading activities, a qualified biologist would walk alongside the excavating equipment to recover any southern Pacific pond turtles that may be uncovered. If the animals were in good health, they would be immediately relocated to the designated release area. If they were injured, the animals would be turned over to a specialist approved by the California Department of Fish and Game until they were in a condition to be released into the designated release area. Dead southern Pacific pond turtles would be deposited at a vertebrate museum such as the Santa Barbara Natural History Museum or the University of California Santa Barbara Museum of Systematics and Ecology.
5. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all southern Pacific pond turtles observed during the project.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City Biologist, and Project Environmental Monitor.

Minimization and Mitigation Measure 7 – Avoidance and minimization efforts would require the City to retain a qualified biologist, to monitor construction activities in habitat suitable for the coast horned lizard to ensure that impacts to this species are avoided or minimized:

1. Prior to the initiation of construction, a survey would be conducted for the coast horned lizard. If construction activities are to take place within the activity period of the coast horned lizard (April to October), pre-construction visual surveys would be conducted weekly beginning two months prior to initial ground disturbing activities. All lizards found within the project footprint would be captured and released into designated relocation areas approved by the City and a qualified biologist.
2. “Coverboards” would be used to capture coast horned lizards. Coverboards should consist of untreated plywood at least 4 feet long by 4 feet wide. Coverboards would be placed flat on the ground at least six months prior to construction or from 1 through May 31 and checked once a week. Captured lizards would be placed immediately into containers containing sand and kept at a

constant cool temperature. Lizards would be released in designated relocation areas no more than one hour after capture.

3. During all initial grading activities, a qualified biologist would be present in the study area to recover any coast horned lizard that may be excavated/unearthed with native material. If the animals are in good health, they would be immediately relocated to the designated relocation area. If they were injured, the animals would be turned over to a specialist approved by the California Department of Fish and Game until they were in a condition to be released into the designated release area or deposited at an approved vertebrate museum.
4. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all coast horned lizards observed during the project.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City Biologist, and Project Environmental Monitor.

Minimization and Mitigation Measure 8 – To avoid the potential mortality of American badgers, no grading would occur within 50 feet of an active American badger den between March 1 and June 30 as determined by a qualified biologist approved by the City. Construction activities between July 1 and March 1 would comply with the following measures to avoid mortality of adult and/or young badgers:

1. A qualified biologist approved by the City would conduct a survey for active American badger dens within the entire project area between 2 weeks and 4 weeks prior to the start of ground clearing or grading activity. The survey would cover the entire study area, but would focus on the areas where suitable American badger habitat occurs. A fiber optic scope or other non-invasive means would be used to assess the presence of badgers within dens that are too long to see to the end. Inactive dens would be collapsed by hand with a shovel to prevent badgers from re-using them during construction.
2. Prior to grading, badgers would be discouraged from using currently active dens by partially blocking the entrance of the den with sticks, debris and soil for 3 to 5 days. Access to the den would be incrementally blocked to a greater degree over this period. This would cause the badger to abandon the den site and move elsewhere. After badgers have stopped using active dens within the project study area, the dens would be hand-excavated with a shovel and collapsed to prevent re-use. A qualified biologist would be present during the initial ground-disturbing

activity. If badger dens are found, all work would cease until the biologist can safely close the badger den. Once the badger dens have been closed, work in the project area may resume.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City Biologist, and Project Environmental Monitor.

Threatened and Endangered Species

Impact/reason for protective measure(s) – The following measures (1-3) are intended to minimize project impacts on special status animal species that are known to use or potentially use habitats within the potential alignments and special status animal species that could occur within the potential alignments.

Minimization and Mitigation Measure 1 – Based on approval of take authorization for the California tiger salamander from the U.S. Fish and Wildlife Service the following mitigation measures are required:

1. At least one month prior to the onset of activities, the City, in consultation with Caltrans, would submit the name(s) and credentials of biologists who would conduct any California tiger salamander activities to the U.S. Fish and Wildlife Service for approval. No project activities would begin until proponents have received written approval from the U.S. Fish and Wildlife Service that the biologist(s) is qualified to conduct the work. Only biologists approved by the U.S. Fish and Wildlife Service would participate in activities associated with the capture, handling, and monitoring of California tiger salamander.
2. The City would contact the U.S. Fish and Wildlife Service to determine an appropriate site in which to relocate California tiger salamander if found in the work area.
3. For the period between October 15 through June 15 of the year prior to the start of construction, all work areas within 2,200 feet of California tiger salamander breeding ponds (Figure 30) would be fenced with drift fence and pitfall traps. This would allow for the exclusion of California tiger salamander and other animals from the work area (including southern Pacific pond turtles, California red-legged frogs and western spadefoots) and the relocation of any animals that may emerge from burrows inside the work area. Installation of the fence and traps would follow materials, design, and implementation specifications detailed in the California tiger salamander protocol, with the exception that there would be no gaps between sections of fence. An approved qualified biologist must oversee the

- installation of the fence and be present during all trapping. For the two weeks following installation, a biologist would survey the area inside the fence daily and relocate any animal species encountered to areas outside the fence. Pitfall traps would be opened during all rain events or humid overnight conditions as specified in the protocol throughout the period from October 15 through June 15. All California tiger salamanders would be relocated to a suitable release site that has been determined in consultation with the U.S. Fish and Wildlife Service.
4. A biologist approved by the U.S. Fish and Wildlife Service would survey the work site two weeks before the commencement of work activities. A fiber optic scope or similar device would be used to determine if California tiger salamanders are present in small mammal burrows. The biologist would be allowed sufficient time to hand excavate small mammal burrows and move California tiger salamander from the work site to the approved relocation site before work activities begin.
 5. Captured California tiger salamanders would immediately be placed into containers containing moist soil and plant material from the location of capture, and released in designated relocation areas no more than three hours after capture.
 6. During all initial ground-disturbing activities, a biologist approved by the U.S. Fish and Wildlife Service would be present in the study area to recover any California tiger salamander that may be excavated from underground an underground refuge. If the animals are in good health, they would be relocated immediately to the designated release area. If they were injured, a biologist approved by the U.S. Fish and Wildlife Service would retain the animals until they were in a condition to be released into the designated release area.
 7. Before any construction activities begin on the project, A biologist approved by the U.S. Fish and Wildlife Service would conduct a training session for all construction personnel. At a minimum, the training would include a description of the California tiger salamander and its habitat, the importance of the California tiger salamander and its habitat, the general measures that are being implemented to conserve the California tiger salamander as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session. The City and appropriate resource agency personnel would be notified of the date and time the training is scheduled so they may attend.
 8. A biologist approved by the U.S. Fish and Wildlife Service would be present at the work site until such time as all removal of California tiger salamanders, instruction of workers, and initial ground disturbance have been completed. After

this time, the City would designate a person to monitor compliance with all mitigation measures. The approved biologist would ensure that this individual receives the training outlined above. The monitor and the approved biologist would have the authority to halt any action that might result in effects to the California tiger salamander that exceed the levels authorized by the U.S. Fish and Wildlife Service. If work were stopped, the City would be notified immediately to determine the appropriate course of action.

9. During construction, all trash that may attract predators would be properly contained, removed from the work site and disposed of regularly. Following construction, all trash and construction debris would be removed from the work areas.
10. The number of access routes, number and size of staging areas, and the total area of the activity would be limited to the minimum necessary to achieve the project goal. Routes and boundaries would be clearly marked, and would be outside wetland areas. Fueling and maintenance of vehicles and other equipment and staging areas would occur at least 100 feet from any riparian or wetland habitat. The City would ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, the City would prepare and comply with an emergency response plan to allow a prompt and effective response to any accidental spills. All workers would be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
11. A curb or similar permanent exclusion structure would be erected along the southern edge of the path proposed to be located to the south of the alignment and on the north side of the sidewalk proposed to be located to the north of the alignment, for the area from Blosser Road to the Foxenwood Basin on the south and from Blosser Road to State Route 135 on the north. This exclusion structure should be designed to prevent California tiger salamanders from moving into the developed areas. Soft-bottomed culverts or similar passageways would be constructed to permit animals to pass under the alignment in the area from Blosser Road to the Foxenwood Basin. Passageways would be installed at 200-foot intervals. A permanent exclusion structure would be erected to prevent California tiger salamanders from moving east of California Boulevard on the south side of the alignment. The exclusion structures must extend below ground at least three feet, and extend above ground at least two feet. The considerable underground depth is needed to prevent small mammals from creating passageways under the exclusion structure that could be used by California tiger salamanders. An

exclusion structure of this height would also benefit California red-legged frogs by excluding this species from developed areas.

12. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all California tiger salamanders observed during the project.
13. Compensatory mitigation to off-set losses of California tiger salamander upland and dispersal habitat would be designated at a 2.5:1 ratio (habitat preserved:habitat permanently lost). The City would identify suitable habitat in the Santa Maria area within the dispersal distance from at least one known breeding pond that would be restored (if applicable) and preserved in perpetuity through a conservation easement. Restoration efforts would use native grass and forb seed mixes developed by a qualified biologist. Restoration activities would be detailed in a plan prepared by a qualified biologist. The plan would focus on adaptive management principles, and would identify enhancement areas, strategies, an implementation schedule, long-term monitoring methods, success criteria, methods to assess whether success criteria have been met, and contingency plans for meeting success criteria. The program would be monitored for five years, and monitoring reports that evaluate the success of the program would be submitted to the City annually.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City/District Biologist, and Project Environmental Monitor.

Minimization and Mitigation Measure 2 – Based on approval of take authorization for the California red-legged frog from the U.S. Fish and Wildlife Service the following mitigation measures are required:

1. At least one month prior to the onset of activities, the City, in consultation with Caltrans, would submit for approval to the U.S. Fish and Wildlife Service the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities would begin until proponents have received written approval from the U.S. Fish and Wildlife Service that the biologist(s) is qualified to conduct the work. The City would also contact the U.S. Fish and Wildlife Service to determine an appropriate site in which to relocate California red-legged frog if found in the work area.
2. The work area west of State Route 135 would be surrounded by a temporary exclusion fence (such as silt fence) buried into the ground and extended at least 3 feet above the ground to exclude California red-legged frogs from the work area. The fence would be installed in June of the year prior to the start of construction.

During construction conducted between July 2 and April 30, the fence would be inspected daily to ensure that it is functioning properly to exclude California red-legged frogs from the work area.

3. To minimize the potential for direct impacts to dispersing individuals, initial ground disturbing activities should be completed during the period May 1 through July 1. The initiation of any subsequent ground disturbing activity or construction during July 2 through April 30, the period when California red-legged frog are potentially dispersing or using upland areas, would be preceded by two night surveys of the work area. The survey area would include all areas inside the exclusion fence, in the event that California red-legged frogs find a way through the fence. In addition, this survey may benefit California tiger salamanders or other animals that similarly could find a way through the fence. Surveys would be conducted on two separate nights within 48 hours prior to the start of work activities. If California red-legged frogs were present, they would be moved out of the work area by a biologist approved by the U.S. Fish and Wildlife Service following the methods described below. The approved biologist would maintain detailed records of any individuals that are relocated (such as size, coloration, any distinguishing features, and photographs) to assist in determining whether translocated individuals return to the work site.
4. Captured California red-legged frog would be placed immediately into plastic zip lock bags dampened with untreated water and released in designated relocation areas no more than one hour after capture.
5. During all initial ground-disturbing activities, a biologist approved by the U.S. Fish and Wildlife Service would be present in the study area to recover any California red-legged frog that may be found at that time. If the animals were in good health, they would be immediately relocated to the designated release area. If they were injured, a biologist approved by the U.S. Fish and Wildlife Service would retain the animals until they were in a condition to be released into the designated release area. Any dead California red-legged frogs must be reported immediately to the U.S. Fish and Wildlife Service and deposited in an approved museum, such as the Santa Barbara Museum of Natural History or the University of California Santa Barbara Museum of Systematics and Ecology.
6. Before any construction activities begin on the project, a biologist approved by the U.S. Fish and Wildlife Service would conduct a training session for all construction personnel. At a minimum, the training would include a description of the California red-legged frog and its habitat, the importance of the California red-legged frog and its habitat, the specific measures that are being implemented

to conserve the California red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished.

7. A biologist approved by the U.S. Fish and Wildlife Service would be present at the work site until such time as all removal of California red-legged frogs, instruction of workers, and initial ground disturbance have been completed. After this time, the City would designate a person to monitor compliance with all mitigation measures. The approved biologist would ensure that this individual receives the training outlined above and is qualified in the identification of California red-legged frog. The monitor and the approved biologist would have the authority to halt any action that might result in impacts that exceed the levels anticipated by U.S. Fish and Wildlife Service during review of the proposed action. If work were stopped, the City would be notified immediately to determine the appropriate course of action.
8. During construction, all trash that may attract predators would be properly contained, removed from the work site and disposed of regularly. Following construction, all trash and construction debris would be removed from the work areas.
9. The number of access routes, number and size of staging areas, and the total area of the activity would be limited to the minimum necessary to achieve the project goal. Routes and boundaries would be clearly marked, and would be outside wetland areas.
10. All refueling, maintenance, and staging of equipment and vehicles would occur at least 60 feet from riparian or aquatic habitats, and not in a location where a spill would drain directly toward an aquatic habitat. The biologist approved by the U.S. Fish and Wildlife Service or a designated monitor would check the staging area periodically to ensure that contamination of aquatic habitats does not occur. Prior to the onset of work, a spill response plan must be designated, and all workers must be briefed on the provisions of this plan.
11. Temporarily impacted areas would be recontoured to their original configurations and revegetated with native plant species suitable for the area. Locally collected plant material would be used to the extent practicable. Invasive exotic plant species would be controlled.
12. Best management practices would be implemented during and after project implementation to control sedimentation.
13. Water would not be impounded in a manner that may attract California red-legged frogs.

14. A curb or similar permanent exclusion structure would be erected along the southern edge of the path proposed to be located to the south of the alignment and on the north side of the sidewalk proposed to be located to the north of the alignment, from the area contained within Blosser Road to the Foxenwood Basin on the south and from Blosser Road to SR 135 on the north. This exclusion structure should be designed to prevent California red-legged frogs from moving into the developed areas. Soft-bottomed culverts or similar passageways would be constructed to permit animals to pass under the alignment in the area from Blosser Road to the Foxenwood Basin. Passageways would be installed at 200-foot intervals. A permanent exclusion structure would be erected to prevent California red-legged frogs from moving east of California Boulevard on the south side of the alignment. The exclusion structures must extend below ground at least three feet (this depth is required for the California tiger salamander), and extend above ground at least two feet.
15. California Natural Diversity Database forms would be completed and sent to the California Department of Fish and Game for all California red-legged frogs observed during the project.
16. Compensatory mitigation to off-set losses of California red-legged frog upland and dispersal habitat would be designated at a 2.5:1 ratio (habitat preserved:habitat permanently lost). The City would identify suitable habitat in the Santa Maria area within the dispersal distance from at least one known breeding pond that would be restored (if applicable) and preserved in perpetuity through a conservation easement. Restoration efforts would use native grass and forb seed mixes developed by a qualified biologist. Restoration activities would be detailed in a plan prepared by a qualified biologist. The plan would focus on adaptive management principles, and would identify enhancement areas, strategies, an implementation schedule, long-term monitoring methods, success criteria, methods to assess whether success criteria have been met, and contingency plans for meeting success criteria.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City/District Biologist, and Project Environmental Monitor.

Minimization and Mitigation Measure 3 – Based on approval of take authorization for the vernal pool fairy shrimp from the U.S. Fish and Wildlife Service the following mitigation measures are required for the Foster Road Alignment:

1. Grading and road alignments would be designed to ensure that drainage from the work area and the final project does not enter known vernal pool fairy shrimp

- habitats. A bioswale would be constructed along the north side of the alignment that would be planted with native wetland and upland grass species, and would act to improve water quality of surface water runoff.
2. Best Management Practices for sedimentation and erosion control would be implemented throughout all project areas to protect potential vernal pool fairy shrimp habitats.
 3. All vehicles operated with the project area must be inspected daily, and maintained to avoid leaks of fuel, hydraulic fluids, oil, or coolant.
 4. For the Foster Road Alternative, water quality monitoring would occur prior to, during, and after project activities to ensure that storm water runoff that leaves the project area does not contain pollutants or sediment as a result of construction activities. Water quality monitoring would be continued for at least one year following the completion of construction to ensure the bioswale is effectively removing pollutants.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City/District Biologist, and Project Environmental Monitor.

Invasive Species

Impact/reason for protective measure(s) – The following measure (1) is intended to minimize project impacts by invasive species on the build alternatives.

Minimization and Mitigation Measure 1 – Exotic and invasive weeds would be removed during clearing and grubbing and disposed of in an appropriate manner for the species. In areas where exotic and invasive weeds are the dominant plants, the topsoil from those areas would not be reused onsite in areas with sensitive plant communities or special-status plants. The project Biologist and the Resident Engineer would identify those areas in the field prior to construction. Erosion control included in the project would not use species on the California list of noxious weeds. Landscape plans would be reviewed by a qualified biologist to ensure the use of native plants or non-native plants that do not occur on the California Exotic Pest Plant Council and the California Invasive Plant Council Lists 1, 2, and 4. Plants considered to be invasive by the California Exotic Pest Plant Council and the California Invasive Plant Council would not be used onsite. After revegetation in areas with native vegetation, sites would be monitored for weeds during the contract period set up for the plant establishment period.

Responsibility of – Prime Contractor with oversight by the Resident Engineer, City/District Biologist, and Project Environmental Monitor.