

**ATTACHMENT 3**

**MITIGATION MONITORING AND REPORTING PROGRAM**

**Old Mountain View-Alviso Road  
Bridge Replacement at Calabazas Creek**

**CITY OF SUNNYVALE**

**June 2016**

# P R E F A C E

Section 21081 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring and Reporting Program whenever it approves a project for which measures have been required to mitigate or avoid significant effects on the environment. The purpose of the monitoring and reporting program is to ensure compliance with the mitigation measures during project implementation.

The project proposes the replacement of the existing five-span at Old Mountain View-Alviso Road Bridge over Calabazas Creek in the City of Sunnyvale. The Initial Study (IS) concluded that implementation of the project could result in significant effects on the environment. Mitigation measures were incorporated into the proposed project or are required as a condition of project approval to reduce these effects to a less than significant level. This Mitigation Monitoring and Reporting Program addresses the mitigation measures in terms of how and when they will be implemented.

This document does *not* discuss those subjects for which the IS concluded that the impacts from implementation of the project would be less than significant.

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OLD MOUNTAIN VIEW-ALVISO ROAD BRIDGE REPLACEMENT PROJECT**

Impact	Mitigation	Timeframe for Implementation	Responsibility for Implementation	Oversight of Implementation
<b>BIOLOGICAL RESOURCES</b>				
Construction of the proposed bridge could cause significant impacts to fish and other special-status species that occupy aquatic and/or wetland habitats. <b>(Significant Impact)</b>	<b>MM BIO-1.1:</b> Dewatering or diversion and any other work requiring access within the low-flow channel shall occur during the dry season only (15 June to 15 October, with the potential for extensions beyond this period, in consultation with the California Department of Fish & Wildlife [CDFW] and the National Marine Fisheries Service [NMFS], if dry weather permits). During this time, creek flows are expected to be at annual lows and steelhead, salmon, sturgeon, and smelt are not expected to be present within the site.	Prior to project construction	Qualified biologist	Department of Public Works
	<b>MM BIO-1.2:</b> If activities in a flowing stream are unavoidable, the work area shall be dewatered (e.g., using coffer dams), and any stream flow shall be diverted around the work area by a barrier, temporary culvert, or a new channel capable of permitting upstream and downstream fish movement. Construction of the barrier or the new channel shall begin in the downstream area and continue in an upstream direction, and the flow shall be diverted only when construction of the diversion is completed. This will occur at low tide, when water depth and volume within the diversion area will be minimal and the number of fish that may occur within the area to be dewatered will be very low (if any).	Prior to and during all phases of construction	Project Applicant	Department of Public Works

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	<b>MM BIO-1.3:</b> A qualified biologist shall be present during construction of the creek diversion and dewatering of the channel to ensure that impacts to fish are minimized	During construction of creek diversion and dewatering	Project Applicant	Department of Public Works
	<b>MM BIO-1.4:</b> During demolition and construction activities, netting and other structures shall be installed under the bridge to prevent debris from entering the channel, as such debris could degrade water quality and potentially injure fish.	Prior to and during all phases of construction	Project Applicant and contractor	Department of Public Works
	<p><b>MM BIO-1.5:</b> To avoid and minimize impacts to fish resulting from pressure waves created during pile driving, the following measures will be implemented:</p> <ul style="list-style-type: none"> <li>• Pile driving work shall be limited to the period 15 June to 15 October as described above.</li> <li>• All pile driving within tidal aquatic or wetland habitat within the creek channel shall be done within a dewatered work area to reduce the acoustic impact area.</li> <li>• At the start of pile driving activity each day, the contractor shall perform a “soft start” where a pile is initially struck softly several times, then gradually struck with greater force, to allow any fish in close proximity to the pile driving location to move far enough away that they will not be injured by pressure waves.</li> </ul>	Prior to and during all phases of construction	Project Applicant	Department of Public Works

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Replacement of existing bridge would result in permanent and temporary impacts to coastal brackish marsh wetland and tidal aquatic habitat. Construction also has potential to impact water quality within Calabazas Creek. <b>(Significant Impact)</b>	<b>MM BIO-2.1:</b> Permanent impacts to aquatic and coastal brackish marsh wetland habitat shall be compensated at a 3:1 ratio by entering into a purchase agreement for mitigation bank credits at the San Francisco Bay Wetland Mitigation Bank. The project has already been approved for inclusion in the service area of the bank.	Prior to project approval	Project Applicant	Department of Public Works
	<b>MM BIO-2.2:</b> Construction equipment shall not be operated in the live stream channel.	During all phases of construction	Project Applicant and Contractor	Department of Public Works
	<b>MM BIO-2.3:</b> Standard erosion control and slope stabilization measures shall be required for work performed in any area where erosion could lead to sedimentation of a waterbody.	During all phases of construction	Project Applicant and Contractor	Department of Public Works
	<b>MM BIO-2.4:</b> Silt fencing shall be installed between any activities conducted within the banks of the creek, or just above the edge of top-of-bank, to prevent dirt or other materials from entering the channel.	During all phases of construction	Project Applicant and Contractor	Department of Public Works
	<b>MM BIO-2.5:</b> No debris, soil, silt, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products or other organic or earthen material shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into Waters of the U.S. and State.	During all phases of construction	Project Applicant and Contractor	Department of Public Works

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	<b>MM BIO-2.6:</b> Machinery shall be refueled at least 60 feet from any aquatic or wetland habitat, and a spill prevention and response plan shall be implemented.	During all phases of construction	Project Applicant and Contractor	Department of Public Works
	<b>MM BIO-2.7:</b> Water from dewatering of the work areas shall not be pumped or allowed to flow into the creek until the water is clear. The method shall be the responsibility of the contractor but shall be a standard practice such as using sediment basins outside of the channel or portable settling bins, and must successfully filter the water until clear.	During all phases of construction	Project Applicant and Contractor	Department of Public Works
	<b>MM BIO-2.8:</b> Post-construction Best Management Practices (BMPs) shall be implemented as necessary to prevent a long-term increase in runoff, as well as to prevent hydrological modification of Calabazas Creek as required by the regulatory permits obtained by the project applicant. All post-construction BMPs shall be implemented and functioning prior to completion of the proposed project. The type and design of all BMPs shall conform to Provision C.3 of the Municipal Regional Stormwater Permit (Order No. R2-2009-0074) for the San Francisco Bay Area.	During all phases of construction	Project Applicant and Contractor	Department of Public Works
Demolition of the existing bridge and construction of the new bridge could impact migratory and nesting birds, resulting in violations of the Migratory Bird Treaty Act	<b>MM BIO-3.1:</b> If feasible, proposed project activities shall be scheduled to avoid the avian nesting season. If such activities are scheduled to take place outside the nesting season, all impacts on nesting birds, including raptors, protected under the Migratory Bird Treaty Act	Prior to start of construction	Project Applicant	Department of Public Works

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and/or the California Fish and Game Code ( <b>Significant Impact</b> )	(MBTA) and California Fish and Game Code, would be avoided. The nesting season for most birds in Santa Clara County typically extends from 1 February through 31 August, although in most years a majority of birds have finished nesting by 1 August.			
	<b>MM BIO-3.2:</b> If proposed project activities will not be initiated until after the start of the nesting season, potential nesting substrate (e.g., bushes, trees, grasses, and other vegetation) that is scheduled to be removed by the proposed project, if any, may be removed prior to the start of the nesting season (e.g., prior to 1 February) to reduce the potential for initiation of nests. If it is not feasible to schedule vegetation removal during the nonbreeding season, or where vegetation cannot be removed (e.g., in areas immediately adjacent to the site), then pre-construction surveys for nesting birds shall be conducted as described below. It is not recommended to remove sensitive and/or regulated wetland vegetation prior to construction, because of the potential water quality impacts such activities could enact.	Prior to the start of nesting season	Project Applicant and Contractor	Department of Public Works
	<b>MM BIO-3.3:</b> If it is not possible to schedule proposed project activities between 1 September and 1 February, then pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no nests will be disturbed during proposed project implementation. These surveys shall be conducted no	48 hours prior to initiation of project activities	Project Applicant and qualified biologist	Department of Public Works

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	more than 48 hours prior to the initiation of proposed project activities. During this survey, a qualified biologist shall inspect all potential nesting habitats (e.g., trees, shrubs, grasslands, and structures) within 300 feet of impact areas for raptor nests and within 100 feet of impact areas for nests of non-raptors.			
	<b>MM BIO-3.4:</b> If an active nest (i.e., a nest with eggs or young, or any completed raptor nest attended by adults) is found sufficiently close to work areas to be disturbed by these activities, the biologist, in consultation with CDFW, shall determine the extent of a disturbance-free buffer zone to be established around the nest (typically 300 feet for raptors and 50-100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during proposed project implementation. Because the majority of the site is already subject to disturbance by vehicles and pedestrians, activities that will be prohibited from occurring within the buffer zone around a nest will be determined on a case-by-case basis. In general, activities prohibited within such a buffer while a nest is active will be limited to new construction-related activities (i.e., activities that were not ongoing when the nest was constructed) involving significantly greater noise, human presence, or vibrations than were present prior to nest initiation.	Prior to project construction	Qualified biologist, California Department of Fish & Wildlife	Department of Public Works



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	<p><b>MM BIO-3.5:</b> If necessary to avoid impacts to active nests (i.e., nests containing eggs or young), nest starts may be removed on a regular basis (e.g., every second or third day), starting in late January or early February, or measures such as exclusion netting or slippery panels may be placed over nesting sites on the existing bridges to prevent active nests from becoming established. Any netting installed for nest deterrence shall be installed appropriately by an experienced deterrence technician, under the supervision of a qualified biologist, and shall be inspected and maintained regularly to avoid the entrapment or entanglement of birds.</p> <p><b>(Less Than Significant Impact With Mitigation)</b></p>	Prior to the start of nesting season	Qualified Biologist	Department of Public Works

**HAZARDS AND HAZARDOUS MATERIALS**

Construction of the proposed bridge could result in the accidental release of contaminants in soils surrounding the bridge, including lead, pesticides, herbicides, and arsenic. If present in high enough concentrations, these contaminants could pose significant health risks to	<p><b>MM HAZ-1.1:</b> Prior to construction, a soil investigation shall be conducted by a qualified professional to assess the potential presence and extent of agricultural pesticides in the site's shallow soils. Testing shall be completed to provide adequate vertical and lateral characterization, and shall conform to State and local guidelines and regulations. Results of the soil investigation shall be submitted to the Public Works Departments of the Cities of Sunnyvale and Santa Clara. If lead, pesticide, herbicide, and/or arsenic concentrations are below regulatory screening levels for</p>	Prior the start of construction activities	Contractor	Department of Public Works
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construction workers. <b>(Significant Impact)</b>	commercial/industrial development and for construction worker health, then no further action would be needed.			
	<p><b>MM HAZ-1.2:</b> If contaminant concentrations are identified above commercial/industrial and construction worker screening levels, then a soil management plan (SMP) shall be developed that identifies management practices for characterizing the impacted soil that may be encountered during site development activities. The SMP shall be reviewed and approved by the Cities of Sunnyvale and Santa Clara prior to construction, and included in the construction bid package to ensure implementation by the contractor. The SMP shall include the following elements:</p> <ul style="list-style-type: none"> <li>• Procedures for transporting and disposing the waste material generated during removal activities.</li> <li>• Procedures for stockpiling soil on-site.</li> <li>• Provisions for collecting additional soil samples in previously inaccessible areas to confirm the extent of soil contamination, following demolition activities.</li> <li>• Confirmation soil sampling to verify achievement of remediation goals.</li> <li>• Procedures to ensure that fill and cap materials are verified as clean.</li> <li>• Truck routes, and/or staging and loading procedures and record keeping requirements.</li> </ul>	Prior to the start of construction activities	Project Applicant and Contractor	Department of Public Works

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	<p><b>MM HAZ-1.3:</b> In addition, if contaminant concentrations are identified above commercial/industrial and construction worker screening levels, a health and safety plan (HSP) shall be prepared to provide general health and safety guidance such that construction activities can be conducted in a safe manner. The HSP shall be reviewed and approved by both Cities prior to construction, and included in the construction bid package to ensure implementation by the contractor. The construction contractor shall be responsible for the health and safety of their employees during construction activities, and this HSP shall be kept on-site during all construction activities. The contractors must verify that all on-site personnel are qualified, trained, and prepared to implement the HSP and safely perform the planned site work. Field personnel will be required to indicate in writing that they have read and understand the provisions of the HSP.</p> <p>A project-specific training program shall also be instituted prior to site work. Attendees at meetings shall be documented by signature. The project-specific training shall include a discussion of the following:</p> <ul style="list-style-type: none"> <li>• The health effects (acute and chronic) of the chemical and physical hazards that may be encountered at the</li> </ul>	Prior to the start of construction activities	Project Applicant and Contractor	Department of Public Works

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	<p>project.</p> <ul style="list-style-type: none"> <li>• Proper control measures for the chemical and physical hazards that may be encountered.</li> <li>• The importance of dust control at the site.</li> <li>• Proper personal hygiene procedures.</li> <li>• Dust removal on equipment and personnel.</li> <li>• Emergency procedures.</li> <li>• Proper management of impacted soil.</li> </ul>			
The bridge building pads may contain asbestos which, if disturbed, could pose a health risk to construction workers. <b>(Significant Impact)</b>	<b>MM HAZ-2.1:</b> To determine the presence of asbestos-containing materials, a visual inspection/pre-demolition survey and, if needed, sampling, shall be conducted by a State Certified Asbestos Contractor prior to the demolition of the existing bridge.	Prior to demolition activities	State Certified Asbestos Contractor	Department of Public Works
	<p><b>MM HAZ-2.2:</b> If asbestos is detected, then the following measures shall be implemented:</p> <ul style="list-style-type: none"> <li>• All potentially friable asbestos-containing materials shall be removed in accordance with local, state, and federal guidelines prior to building demolition or renovation that may disturb the materials. All demolition activities shall be undertaken in accordance with Cal/OSHA standards contained in Title 8 of the CCR, Section 1529, to protect workers from exposure to asbestos.</li> <li>• A registered asbestos abatement contractor shall be</li> </ul>	Prior to bridge demolition or renovation	Project Applicant and Contractor	Department of Public Works

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	<p>retained to remove and dispose of asbestos-containing materials identified in the asbestos survey performed for the site in accordance with the standards stated above.</p> <p>Materials containing more than one (1) percent asbestos are also subject to Bay Area Air Quality Management District (BAAQMD) regulations.</p> <p>Removal of materials containing more than one (1) percent asbestos shall be completed in accordance with BAAQMD requirements.</p>			
<b>HYDROLOGY AND WATER QUALITY</b>				
<p>Erosion and runoff during construction could impact the water quality of Calabazas Creek. <b>(Significant Impact)</b></p>	<p><b>MM HYDRO-1.1:</b> Implementation of the following measures shall be required of the contractor and incorporated into the construction bid package:</p> <ul style="list-style-type: none"> <li>• Construction equipment shall not be operated in the live stream channel;</li> <li>• Standard erosion control and slope stabilization measures shall be required for work performed in any area where erosion could lead to sedimentation of a waterbody;</li> <li>• Silt fencing shall be installed between any activities conducted within the banks of the creek, or just above the edge of top-of-bank, to prevent dirt or other materials from entering the channel;</li> <li>• Debris, soil, silt, sand, bark, slash, sawdust, cement,</li> </ul>	<p>During all phases of construction</p>	<p>Contractor</p>	<p>Department of Public Works</p>

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	<p>concrete, washings, petroleum products or other organic or earthen material shall not be allowed to enter into or be placed where it may be washed by rainfall or runoff into Waters of the U.S. and State;</p> <ul style="list-style-type: none"> <li>• Machinery shall be refueled at least 60 feet from any aquatic or wetland habitat, and a spill prevention and response plan shall be implemented;</li> <li>• Water from dewatering of the work areas shall not be pumped or allowed to flow into the creek until the water is clear. The method would be the responsibility of the contractor but would be a standard practice such as using sediment basins outside of the channel or portable settling bins. The method must successfully filter the water until clear; and,</li> <li>• Post-construction Best Management Practices (BMPs) shall be implemented as necessary to prevent a long term increase in runoff, as well as to prevent hydrological modification of Calabazas Creek as required by the regulatory permits obtained by the project applicant. All post-construction BMPs shall be implemented and functioning prior to completion of the proposed project. The type and design of all BMPs shall conform to Provision C.3 of the Municipal Regional Stormwater Permit (Order No. R2-2009-0074) for the San Francisco Bay Area.</li> </ul>			
<b>NOISE</b>				

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Construction of the proposed project could result in significant levels of temporary noise, such that it would disturb nearby commercial office uses. <b>(Significant Impact)</b>	<b>MM NOI-1.1:</b> Limit construction activities to 7:00 AM to 6:00 PM Monday through Friday, and 8:00 AM to 5:00 PM on Saturdays. Construction shall not be allowed on Sundays or federal holidays.	During all phases of construction	Project Applicant and Contractor	Department of Public Works
	<b>MM NOI-1.2:</b> Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.	During all phases of construction	Project Applicant and Contractor	Department of Public Works
	<b>MM NOI-1.3:</b> Prepare a construction schedule identifying the major noise-generating construction activities. The project specifications shall include a procedure for contractors to notify adjacent affected properties prior to the major noise-generating construction activities.	During all phases of construction	Project Applicant and Contractor	Department of Public Works
	<b>MM NOI-1.4:</b> Designate a "disturbance coordinator" working for the contractor who will be responsible for responding to any complaints about construction noise or vibration. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem.	During all phases of construction	Project Applicant and Contractor	None

**SOURCE:** City of Sunnyvale. *Old Mountain View-Alviso Road Bridge Initial Study*. March 2016.