

**Mitigation Monitoring and Reporting Program
for
The Terraces of Lafayette Project
Addendum
City of Lafayette, Contra Costa County, California
State Clearinghouse Number 2011072055**

Prepared for:

City of Lafayette

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Report Date: December 18, 2018

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Table 1: The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
I. Aesthetics, Light, and Glare					
<p>MM AES-4: Proposed photovoltaic panels shall be designed to ensure the following:</p> <ul style="list-style-type: none"> • The angle at which panels are installed precludes, or minimizes to the maximum extent practicable, glare observed by viewers on the ground. • The reflectivity of materials used shall not be greater than the reflectivity of standard materials used in residential commercial developments. • Panels shall be sited to minimize their visibility from Mount Diablo Boulevard, Pleasant Hill Road, and Deer Hill Road. 	Review of site plans; on-site inspection	Prior to installation of photovoltaic panels	City of Lafayette Planning and Building Department		
III. Air Quality					
<p>MM AQ-1: The Project shall comply with the following BAAQMD Basic Control Measures for reducing construction emissions of PM₁₀:</p> <ul style="list-style-type: none"> • Water all active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible. • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 24 inches of freeboard (i.e. the minimum required space between the top of the load and the top of the trailer). • Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. • Sweep streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads. • Suspend ground-disturbing activities when wind speeds exceed 25 mile per hour. 	On-site inspection	During construction activities	City of Lafayette Planning and Building Department; construction contractor		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<ul style="list-style-type: none"> Install three-sided enclosures for storage piles on-site for more than five days. The enclosures shall be designed with a maximum 50 percent porosity. 					
<p>MM AQ-2a: The construction contractor shall implement the following measures to reduce off-road exhaust emissions during grading and construction activities. To assure compliance, the City of Lafayette shall verify that these measures have been implemented during normal construction site inspections:</p> <ul style="list-style-type: none"> Large off-road construction equipment with horsepower (hp) ratings of 50 hp or higher shall meet the United States Environmental Protection Agency-Certified emission standard for Tier IV Final off-road equipment. A list of construction equipment by type and model year shall be maintained by the construction contractor on-site. If engines that comply with Tier IV Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier IV Interim) available. For purposes of this mitigation measure, “commercially available” shall mean the availability of Tier IV Final engines taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity of equipment to the Project site. The contractor can maintain records for equipment that is not commercially available by providing letters from at least two rental companies for each piece of off-road equipment where the Tier IV Final engine is not available. All construction equipment shall be properly serviced and maintained to the manufacturer’s specifications to reduce operational emissions. Nonessential idling of construction equipment shall be limited to no more than five consecutive minutes. Construction activities shall be suspended on “Spare the Air” days. 	On-site inspection; submittal of logs	During grading and construction activities	City of Lafayette Planning and Building Department; construction contractor		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p>MM AQ-2b: The construction contractor shall implement one of the following measures to reduce on-road emissions from soil hauling. To assure compliance, the City of Lafayette shall verify that these measures have been implemented during normal construction site inspections.</p> <ul style="list-style-type: none"> • The construction contractor shall contract with haulers for soil export that use engines certified to 2007 or newer standards. Prior to construction, the Project engineer shall ensure that grading plans clearly show the requirement for 2007 engines for soil haul trucks; Or • Off-site disposal of soil shall be transported in trucks that can carry a minimum of 12 cubic yards (CY) of soil and shall be limited to no more than 252 truck trips per day (1,512 CY/day). 	On-site inspection; submittal of logs	During construction activities	City of Lafayette Planning and Building Department; construction contractor		
<p>MM AQ-3: The applicant shall install high efficiency Minimum Efficiency Reporting Value (MERV) filters with a rating of 13 in the intake of the residential ventilation systems. MERV 13 filters have a Particle Size Efficiency Rating that results in a 60 reduction of particulates in the 1.0 to 3.0-micron range, which includes PM_{2.5}. To ensure long-term maintenance and replacement of the MERV filters in the individual units, the owner/property manager shall maintain and replace the MERV 13 filters in accordance with the manufacturer’s recommendations, which typically is after two to three months. The developer, sales, and/or rental representative also shall provide notification to all affected tenants/residents of the potential health risk from SR-24 and shall inform renters of increased risk of exposure to PM_{2.5} from SR-24 when the windows are open.</p>	Review of site plans; periodic on-site inspection/monitoring	Prior to issuance of certificate of occupancy	City of Lafayette Planning and Building Department		
MM AQ-4: Implement Mitigation Measure AQ-2a.	See MM AQ-2a	See MM AQ-2a	See MM AQ-2a		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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MM AQ-5: Implement Mitigation Measure AQ-1, AQ-2a, AQ-2b, and AQ-3.	See MM AQ-1, AQ-2a, AQ-2b, and AQ-3	See MM AQ-1, AQ-2a, AQ-2b, and AQ-3	See MM AQ-1, AQ-2a, AQ-2b, and AQ-3		
IV. Biological Resources					
MM BIO-1: Should off-site mitigation be necessary to offset impacts to waters of the United States, waters of the State and/or the creek drainage, authorization for proposed modifications and jurisdictional impacts shall be obtained from the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW). ¹ All conditions required as part of the authorizations by the USACE, RWQCB, and CDFW shall be implemented as part of the Project through a mitigation program. The mitigation program shall include a minimum of 5 years of monitoring following installation of mitigation improvements. The mitigation plan and biological monitoring reports shall be subject to review and approval by the City, including peer review by a qualified biologist selected by the City.	Submittal of necessary permits and preparation of mitigation program in the event impacts to waters of the United States, waters of the State, and/or the creek drainage cannot be avoided	Prior to on-site development; prior to off-site mitigation	Qualified biologist; City of Lafayette Planning and Building Department		
MM BIO-2: Adequate measures shall be taken to avoid inadvertent take of raptor nests and other nesting birds protected under the Migratory Bird Treaty Act when in active use. This shall be accomplished by taking the following steps. <ul style="list-style-type: none"> • If vegetation removal and initial construction is proposed during the nesting season (March to August), a focused survey for nesting raptors and other migratory birds shall be conducted by a qualified biologist within 7 days prior to the onset of vegetation removal or construction, in order to identify any active nests on the proposed Project site and in the vicinity of proposed construction. The site shall be resurveyed to confirm that no new nests have been 	On-site preconstruction surveys; submittal of survey documents; periodic on-site inspection/monitoring	No more than 7 days prior to the onset of vegetation removal or construction activities	Qualified biologist; City of Lafayette Planning and Building Department		

¹ Previously known as California Department of Fish and Game.

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

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<p>established if vegetation removal has not been completed or if construction has been delayed or curtailed for more than 7 days during the nesting season.</p> <ul style="list-style-type: none"> • If no active nests are identified during the construction survey period, or if development is initiated during the non-breeding season (September to February), vegetation removal and construction may proceed with no restrictions. • If bird nests are found, an adequate setback shall be established around the nest location and vegetation removal and construction activities restricted within this no-disturbance zone until the qualified biologist has confirmed that any young birds have fledged and are able to function outside the nest location. Required setback distances for the no-disturbance zone shall be based on input received from the CDFW, and may vary depending on species and sensitivity to disturbance. As necessary, the no-disturbance zone shall be fenced with temporary orange construction fencing if construction is to be initiated on the remainder of the development site. • A report of findings shall be prepared by the qualified biologist and submitted to the City for review and approval prior to initiation of construction within the no-disturbance zone during the nesting season (March to August). The report shall either confirm absence of any active nests or should confirm that any active young are located within a designated no-disturbance zone and construction can proceed. 					
<p>MM BIO-3: Measures shall be taken to avoid possible loss of bats during Project construction. This shall be accomplished using the following provisions:</p> <ul style="list-style-type: none"> • A tree roost habitat assessment shall be conducted by a qualified bat biologist for trees to be removed as part of the Project. The habitat assessment shall be conducted no more 	Completion of tree roost habitat assessment; submittal of assessment	No more than 2 weeks prior to tree removal and vegetation clearing	Qualified biologist; City of Lafayette Planning and Building Department		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p>than two weeks prior to tree removal and vegetation clearing. Additional detailed measures may be required based on the results of the habitat assessment if evidence of bat roosting is observed. This may include supervision of tree removal by the qualified bat biologist, and systematic removal of select trees and major limbs to encourage dispersal and avoid “take” of individual bats.</p> <ul style="list-style-type: none"> • A report of findings shall be prepared by the qualified biologist and submitted to the City for review and approval prior to initiation of demolition or tree removal. The report shall either confirm absence of any roosting bats or define required measures to be taken to avoid inadvertent take of roosting bats. 					
<p>MM BIO-5: A blue wildrye Native Grassland Replacement Program (Program) shall be developed by a qualified biologist to address the anticipated loss of native grasslands on the site. The Program shall be subject to review and approval by the City, including peer review by a qualified biologist selected by the City. The Program shall contain the following provisions and performance standards:</p> <ul style="list-style-type: none"> • A compensatory mitigation component shall be prepared and implemented to provide a minimum 1:1 replacement ratio for grasslands lost as a result of the Project. A higher replacement ratio would not be warranted because of the extent of apparent past disturbance to the remaining native grasslands on the Project site, and relative ease with which this particular species can be salvaged, replanted, and re-established at alternative locations. • Areas restored as native grassland shall be permanently protected as open space and managed as native grassland by deed restriction. The Program shall define short-term construction controls and long-term maintenance 	<p>City approval of Program; physical implementation of Program conditions through on-site inspection</p>	<p>Prior to issuance of grading permits; prior to construction activities</p>	<p>Qualified biologist selected by the City of Lafayette; City of Lafayette Planning and Building Department</p>		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p>requirements necessary to ensure that the native grasslands are successfully reestablished and restored native grasslands remain viable. The maintenance and management requirements shall include provisions for annual invasive species removal, and control on the establishment of both native and non-native trees and shrubs that could eventually shade out the grassland to be protected.</p> <ul style="list-style-type: none"> • Areas of native grassland within the limits of proposed grading and construction shall be salvaged and used in revegetation efforts implemented as part of the Program. Salvage material shall include both intact stem and root material, which shall be stored and maintained until ready for reinstallation in the late fall/early winter when conditions are optimal for successful reestablishment. • A monitoring program shall be implemented by the qualified biologist to oversee successful establishment of any native grasslands to be restored, and shall define both short-term and long-term requirements. Permanent monitoring transects shall be established as part of the program and vegetation data collected in the spring and summer months when plant identification is possible. Photo stations shall be established along each monitoring transect, and photographs taken every year during the required monitoring period. Performance standards, success criteria, and contingency measures shall be defined as part of the Program. Monitoring transects shall be established over each location to be vegetated as native grassland, and monitored on an annual basis. Within a five-year period, native grass shall be successfully established over all treatment areas and shall comprise a minimum 60 percent of the relative cover. Monitoring shall be extended where the success criteria are not met, and the minimum 1:1 replacement ratio is not 					

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<p>reached. The Program and its requirements may be modified to require further measures if monitoring shows that performance standards are not being met.</p> <ul style="list-style-type: none"> Annual monitoring reports shall be prepared by the qualified biologist and submitted to the City’s Planning and Building Services Division by December 31 of each monitoring year, for a minimum of five years or until the defined success criteria are met. The annual report shall summarize the results of the monitoring effort, performance standards, and any required contingency measures, and shall include photographs of the monitoring transects and program success. Maps shall be included in the monitoring report to show the location of monitoring transects and photo stations. 					
<p>MM BIO-6a: Where jurisdictional waters of the United States and State are present and cannot be avoided, authorization for proposed modifications shall be obtained from the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW).² All conditions required as part of the authorizations by the USACE, RWQCB, and CDFW shall be implemented as part of the Project. Consultation or incidental take permitting may be required under the California and federal Endangered Species Acts, and all legally required permits or other authorizations for the potential “take” of species listed under the Endangered Species Acts shall be obtained. Copies of all authorizations shall be provided to the City’s Planning and Building Services Division prior to issuance of a grading or other permit for the Project to ensure that the applicant has adequately coordinated with jurisdictional agencies.</p>	<p>Provision of applicable USACE, RWQCB, and CDFW permits; physical implementation of permit conditions through on-site inspection</p>	<p>Prior to issuance of grading permits; prior to construction activities</p>	<p>USACE; RWQCB CDFW; City of Lafayette Planning and Building Department</p>		

² Previously known as California Department of Fish and Game.

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p>MM BIO-6b: A Wetland/Riparian Protection and Replacement Program (Program) shall be prepared by a qualified wetland specialist and implemented to offset any impacts by the Project to jurisdictional waters or the creek drainage. The Program shall include appropriate implementation measures to prevent inadvertent loss and degradation of jurisdictional waters to be protected, and replacement for those features eliminated or modified as a result of development. This shall be accomplished as part of revegetation of the channel segment(s) disturbed during construction. The Program shall contain the following components:</p> <ul style="list-style-type: none"> • Jurisdictional waters shall be avoided to the maximum extent feasible, and where avoidance is infeasible, shall be replaced at a minimum 2:1 ratio, preferably on-site. This could be achieved by reducing the extent of fills currently proposed and expanding a low elevation wetland terrace along the bottom of the channel bottom where possible without adversely affecting existing riparian and upland trees along the creek corridor. Out-of-kind mitigation may be necessary given the limited opportunities for recreating creek channel habitat on the site. • Cuttings from any willows removed as part of the Project shall be stored properly during construction, to be installed along the edge of the channel bottom and mid-bank to provide additional protective cover and replace willow removed as part of the Project. • Additional native tree, shrub, and groundcover species shall be installed and maintained in areas enhanced or restored as part of the Program, and a mix of native grassland species should be hydro-seeded throughout the area to provide temporary erosion control. Tree and shrub plantings shall be irrigated for a minimum of 2 years during the dry summer 	Preparation of Program and City approval of Program; physical implementation of Program conditions through on-site inspection	Prior to issuance of grading permits; prior to construction activities	Qualified wetland specialist; City of Lafayette Planning and Building Department		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p>months to ensure successful establishment.</p> <ul style="list-style-type: none"> • Temporary construction fencing shall be installed around the boundary of all wetlands, riparian, and trees to be preserved along the creek channel so that they are not disturbed during construction. Fencing shall remain in place until construction has been completed. • Success criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures in the Program shall be specified. Monitoring shall be conducted by the qualified wetland specialist for a minimum of 5 years and continue until the success criteria are met. Permanent monitoring transects shall be established as part of the program and vegetation data collected in the spring and summer months when plant identification is possible. Photo stations shall be established along each monitoring transect, and photographs taken every year during the required monitoring period. • Annual monitoring reports shall be prepared by the qualified wetland specialist and submitted to resource agency representatives and the City’s Planning and Building Services Division by December 31 of each monitoring year for a minimum of 5 years, or until the defined success criteria are met. The annual report shall summarize the results of the monitoring effort, performance standards, and any required contingency measures, and shall include photographs of the monitoring transects and program success. Maps shall be included in the monitoring report to show the location of monitoring transects and photo stations. 					
<p>MM BIO-6c: A SWPPP shall be prepared and implemented using BMPs to control both construction-related erosion and sedimentation and project-related non-point discharge into waters on the site.</p>	<p>Review of site plans; on-site inspection</p>	<p>Prior to issuance of building permits</p>	<p>City of Lafayette Planning and Building Department</p>		

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Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p>MM BIO-6d: Prior to construction or grading activities, the Project shall be revised to avoid and minimize impacts to wetlands to the maximum extent feasible. In addition, the Project shall be revised to limit any crossing of the existing creek to a single bridge or arched culvert with as narrow a width as possible that allows for continued movement of wildlife under the structure.</p>	Review of site plans; on-site inspection	Prior to construction or grading activities	City of Lafayette Planning and Building Department		
<p>MM BIO 7: The Project shall comply with the City of Lafayette Tree Protection Ordinance, Chapter 6-17 of the Lafayette Municipal Code, and a Tree Protection and Replacement Program (Program) shall be developed by a certified arborist and implemented to provide adequate protection and replacement of native and planted trees larger than 6 inches dbh (diameter at breast height) that would be affected by proposed improvements. A category II permit shall be obtained for the removal of any “protected tree,” and replacement plantings shall be provided as approved by the City. If permitted, an appropriate in-lieu fee shall be paid to the City of Lafayette as compensation for “protected trees” removed by the Project, where sufficient land area is not available on-site for adequate replacement. The Program shall include the following provisions:</p> <ul style="list-style-type: none"> • Pursuant to the requirements of Section 6-1707.F of the Tree Protection and Preservation Ordinance, adequate measures shall be defined to protect all trees to be preserved. This shall include installation of temporary construction fencing at the perimeter of the protected area, restrictions on construction within the fenced areas unless approved as a condition of the application and performed under the supervision of the certified arborist, and prohibition on parking or storing of vehicles and other construction equipment within the protected area. • All grading, improvement plans, and construction plans 	Review of tree removal permit for any trees to be removed; approval of the Program; inspection of construction by a qualified arborist	Prior to issuance of grading permits and during construction	City of Lafayette Planning and Building Department		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p>prepared for building permits shall clearly indicate trees proposed to be removed, altered, or otherwise affected by development construction. The tree information on grading and development plans shall indicate the number, size, species, assigned tree number and location of the dripline of all trees that are to be retained/preserved.</p> <ul style="list-style-type: none"> • Details on relocation of any protected trees shall be defined as part of the Program. This shall include procedures for root system excavation, tree protection during relocation, planting bed preparation, short-term irrigation and monitoring, and compensatory mitigation if a protected tree is severely damaged during relocation or lost following planting. • The replacement trees shall emphasize the installation of native tree species indigenous to the site and vicinity, including the use of California buckeye and a greater number of valley oak trees, rather than the large number of plantings with non-native species. • The Landscape Plan for the Project shall consider the vehicle sight distance requirements for motorists at access points along Deer Hill Road and Pleasant Hill Road, and tree and shrub plantings that could impede the minimum requirements shall be prohibited in these areas. No native trees planted to meet the requirements of Section 6-1707.G of the Tree Protection and Preservation Ordinance shall be installed in locations that would require future pruning or topping to provide adequate sight distance for motorists. 					
<p>MM BIO-8: MM BIO-1 through MM BIO-7 (excluding MM BIO-4) would all serve to partially reduce the potential impacts of the Project on wildlife habitat and wildlife movement opportunities. The following additional measures shall be implemented to further reduce the impacts of the Project on movement opportunities and habitat values along the existing creek.</p> <ul style="list-style-type: none"> • The Project shall be revised to limit any crossing of the 	Review of construction specifications; on-site inspection/monitoring	Prior to issuance of building permits	City of Lafayette Planning and Building Department		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p>existing creek to a single bridge or arched culvert with as narrow a width as possible that allows for continued movement of wildlife under the structure.</p> <ul style="list-style-type: none"> • Uses on top of the new creek overcrossing shall be limited to the vehicle roadway and pedestrian sidewalk crossing to minimize the width of the structure. Parking, partial garage structures, and landscaping included in the creek crossing under the Project shall be eliminated. • A natural area within the 100-year flood plain along the creek shall be provided and enhanced as natural habitat as part of the Wetland/Riparian Protection and Replacement Program recommended in MM BIO-6. Detention basins and other improvements shall be restricted outside this minimum setback distance. Any detention basins located along the periphery of the creek corridor shall be enhanced as natural habitat for wildlife to the maximum extent feasible through plantings of native trees, shrubs, and ground cover species. Enhancement plantings shall also be located and designed to not interfere with minimum sight distance requirements for vehicle access along Deer Hill Road, to prevent the need for future clearing and topping. 					
V. Cultural and Tribal Cultural Resources					
<p>MM CULT-1: In the event that archaeological materials are discovered during Project construction activities, the applicant shall inform its contractor(s) of the archaeological sensitivity of the Project site by including the following italicized measures in contract documents. The City shall verify that the following language is included in the appropriate contract documents:</p> <p><i>If prehistoric or historical archaeological deposits are discovered during Project activities, all work within 25 feet of the discovery must stop and the City shall be notified. A qualified archaeologist shall inspect the findings within 24 hours of discovery, consult with agencies as appropriate,</i></p>	<p>On-site inspection; if resources are discovered, then demonstration of compliance with Section Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines through submittal of required documentation; copy of</p>	<p>During construction or in the event resources are found</p>	<p>Qualified archaeologist, City of Lafayette Planning and Building Department</p>		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

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<p><i>and make recommendations regarding the treatment of the discovery. Project personnel should not collect or move any archaeological materials or human remains and associated materials. Archaeological resources can include flaked-stone tools (e.g. projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite toolmaking debris; bone tools; culturally darkened soil (i.e. midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone-milling equipment (e.g. mortars, pestles, handstones). Prehistoric archaeological sites often contain human remains. Historical materials can include wood, stone, concrete, or adobe footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal, and other refuse. Cultural resources shall be recorded on California Department of Parks and Recreation (DPR) Form 523 (Historic Resource Recordation form). If it is determined that the proposed Project could damage unique archaeological resources, mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines. Possible mitigation under Public Resources Code Section 21083.2 requires that reasonable efforts be made for resources to be preserved in place or left undisturbed. If preservation in place is not feasible, the Project applicant shall pay in lieu fees to mitigate significant effects. Excavation as mitigation shall be limited to those parts of resources that would be damaged or destroyed by the Project. Possible mitigation under CEQA emphasizes preservation in place measures, including planning construction avoid archaeological sites, incorporating sites into parks and other open spaces, covering sites with stable soil, and deeding the site into a permanent conservation easement.</i></p>	523 forms				

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

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<p>MM CULT-2: In the event that unique paleontological resources are discovered during project activities, the applicant shall inform its contractor(s) of the paleontological sensitivity of the Project site by including the following italicized language in contract documents. The City shall verify that the following language is included in the appropriate contract documents:</p> <p><i>The subsurface at the construction site may be sensitive for paleontological resources. If paleontological resources are encountered during project subsurface construction, all ground-disturbing activities within 25 feet must stop and the City shall be notified. A qualified paleontologist shall inspect the findings within 24 hours of discovery, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. Project personnel shall not collect or move any paleontological materials. Paleontological resources include fossil plants and animals, and such trace fossil evidence of past life as tracks. Ancient marine sediments may contain invertebrate fossils such as snails, clam and oyster shells, sponges, and protozoa; and vertebrate fossils such as fish, whale, and sea lion bones. Vertebrate land mammals may include bones of mammoth, camel, saber tooth cat, horse, and bison. Paleontological resources also include plant imprints, petrified wood, and animal tracks. If it is determined that the Project could damage unique paleontological resources, mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines. Possible mitigation under Public Resources Code Section 21083.2 requires that reasonable efforts be made for resources to be preserved in place or left undisturbed. If preservation in place is not feasible, the Project applicant shall pay in lieu fees to mitigate significant effects. Excavation as mitigation shall be limited to those parts of resources that</i></p>	<p>Review of construction specifications; on-site inspection/monitoring; provision of Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines</p>	<p>During construction or in the event resources are found</p>	<p>Qualified paleontologist; City of Lafayette Planning and Building Department</p>		

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<i>would be damaged or destroyed by the Project. Possible mitigation under CEQA emphasizes preservation in place measures, including planning construction avoid archaeological sites, incorporating sites into parks and other open spaces, covering sites with stable soil, and deeding the site into a permanent conservation easement.</i>					
MM CULT-3: Procedures of conduct following the discovery of human remains have been mandated by Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98 and the California Code of Regulations Section 15064.5(e) (CEQA). According to the provisions in CEQA, if human remains are encountered at the site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. The Contra Costa County Coroner shall be notified immediately. The Coroner shall then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner shall notify the NAHC within 24 hours, who will, in turn, notify the person the NAHC identifies as the most likely descendent (MLD) of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reintern the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD’s recommendations, the owner or the descendent may request mediation by the NAHC.	Review of NAHC correspondence; on-site inspection and monitoring; submittal of findings and documentation	During construction of in the event human remains are discovered during site disturbance	NAHC; Contra Costa County Coroner; City of Lafayette Planning and Building Department		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

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				Date	Initial
VI. Geology, Seismicity, and Soils					
MM GEO-1: Prior to issuance of the grading permits, development of the final grading plans shall be coordinated with a City approved Geotechnical Engineer and Engineering Geologist in order to tailor the plans to accommodate known soil and geologic hazards and to improve the overall stability of the site. The final 40-scale grading plans for the Project shall be reviewed by the City-approved Geotechnical Engineer. Grading operations shall meet the requirements of the Guide Contract Specifications included in Appendix D of the Geotechnical Exploration: The Terraces of Lafayette, prepared by ENGEO Incorporated on August 18, 2011, and revised on September 2, 2011, and April 3, 2014, and shall be observed and tested by the City-approved Geotechnical Engineer.	Review of site plans; on-site inspection	Prior to the issuance of grading permits	City approved Geotechnical Engineer and Engineering Geologist; City of Lafayette Engineering Department		
VII. Greenhouse Gas Emissions					
MM GHG-1a: Residential units shall be prohibited from having wood-burning or gas-burning fireplaces. The City shall verify that residential units/buildings comply with one of the following: <ol style="list-style-type: none"> 1. Ensure that 157 residential units are constructed without fireplaces (fireplaces are acceptable in the other 158 residential units). 2. Build the residential units to achieve a 25 percent reduction in building energy efficiency compared to the 2008 Building and Energy Efficiency Standards, which is equivalent to the new 2013 Building and Energy Efficiency Standards. 3. Build the residential units to achieve a 15 percent reduction in building energy efficiency compared to the 2008 Building and Energy Efficiency Standards AND ensure that 78 residential units are constructed without fireplaces (fireplaces are acceptable in the other 237 residential units). 	Review of site-plans	Prior to issuance of building permits	City of Lafayette Planning and Building Department		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p>MM GHG-1b: Implement MM TRAF-14. The Project applicant shall provide subsidized, frequent shuttle service between the Project site and the Lafayette BART station during the AM and PM peak commute periods, until such time that a bus route on Pleasant Hill Road serving the BART station is implemented (as called for in the Lamorinda Action Plan), at which point the Project applicant may provide transit vouchers in lieu of a shuttle.</p>	Review of shuttle program plans	Prior to issuance of certificate of occupancy	City of Lafayette Planning and Building Department		
<p>IX. Hydrology and Water Quality</p>					
<p>MM HYDRO-1a: Prior to the issuance of grading permits, additional hydrologic analyses and detailed drainage design drawings for the bioretention basins shall be submitted in a Final Stormwater Control Plan to the City for review and approval. The analyses shall include:</p> <ul style="list-style-type: none"> • 10-year peak flows • Comparison of post-development peak flow rates to pre-development conditions • Final calculation providing size, capacity, location, and infiltration rates for the 18 proposed bioretention basins • On-site storm drain system piping layout and pipe size calculations 	Preparation of Final Stormwater Control Plan and City approval of Final Stormwater Control Plan; physical implementation of Final Stormwater Control Plan through on-site inspection	Prior to issuance of grading permits; prior to construction activities	City of Lafayette Engineering Department		
<p>MM HYDRO-1b: An Operation and Maintenance (O&M) Plan and Schedule shall be prepared as part of the Final Stormwater Control Plan and submitted to the City of Lafayette. The property owner (or Homeowners Association) shall enter into a standard stormwater O&M agreement with the City, codifying their responsibility for O&M performance and reporting. An O&M Manual shall be prepared and submitted to the City prior to the issuance of grading permits. The O&M Manual shall specify that the design storage capacity of the basins will be maintained and that accumulated residual sediment and other material will be cleaned out. The detention basins shall be inspected at least once per year prior to the start of the rainy season and debris removal shall occur on an as needed basis.</p>	Preparation of O&M Plan and Schedule and City approval of O&M Plan and Schedule; physical implementation of O&M Plan and Schedule conditions through on-site inspection	Prior to issuance of grading permits; prior to construction activities	City of Lafayette Engineering Department		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p>MM HYDRO-2: As part of the Final Stormwater Control Plan, the Project applicant shall provide to the City an analysis that shows the peak discharge from the Project site for the 10-year and 100-year storm event and demonstrate that this discharge can be safely conveyed through the existing off-site storm drain system.</p>	<p>Submittal of analysis of peak discharge from the Project site for 10-year and 100-year storm event to City</p>	<p>Prior to issuance of grading permits; prior to construction activities</p>	<p>City of Lafayette Planning and Building Department</p>		
XII. Noise					
<p>MM NOISE-1: The exterior glazing, entry doors, exterior wall, and supplemental ventilation design features shall be designed to achieve a 45 dBA L_{dn} interior noise standard. These features are summarized below and additional details are provided in the Wilson Ihrig & Associates (WIA) report prepared for the 2013 FEIR.</p> <ul style="list-style-type: none"> • Two classes of exterior glazing are indicated for windows, sliding glass doors, and entry doors: <ul style="list-style-type: none"> - Class I elements shall have a minimum OITC 24/STC 28 rating - Class II elements shall have a minimum OITC 21/STC 25 rating (Note: The different classes are based on the location of proposed buildings on the Project site, per Figures 12 and 13 of the WIA report. Also note that the recommended OITC/STC ratings are for full window assemblies (glass and frame), rather than just for the glass itself.) • If hard floor surfaces (such as hardwood or ceramic tile) are used, then the minimum recommended glazing rating (above) shall be increased by two OITC/STC points for windows serving those rooms. • Entrance doors, together with their perimeter seals, shall have STC ratings not less than 26. Such tested doors shall operate normally with commercially available seals. Solid-core wood-slab doors 1-3/8 inches (35 mm) thick minimum or 18 gage 	<p>Review of site plans to ensure all measures are reflected</p>	<p>Prior to issuance of building permits</p>	<p>City of Lafayette Planning and Building Department</p>		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p>insulated steel-slab doors with compression seals all around, including the threshold, may be considered adequate without other substantiating information.</p> <ul style="list-style-type: none"> • Acceptable acoustical caulking, applied per the manufacturer’s directions, shall be used to properly seal windows, doorways, electrical outlets (in exterior walls), and the indicated intersections of interior gypsum wall board (GWB) installations throughout the affected buildings. • Potential architectural element suppliers shall verify the acoustical performance ratings by providing laboratory test data for the specific assembly type submitted for the Project. • Exterior wall assemblies shall have a minimum OITC 38 (comparable to STC 50) rating. This can be achieved with ‘typical’ assembly designs for this type of multi-family development, which were assumed to consist of 7/8-inch stucco over plywood shear sheathing, 4- to 6-inch deep studs, fiberglass batt insulation in the stud cavity, and at least one layer of 5/8-inch gypsum board on the interior face of the wall. • Supplemental ventilation shall be provided in the architectural design so as to allow for closed windows as well as the adequate supply of fresh air per applicable building codes. 					
<p>MM NOISE-2: The construction contractor shall adhere to the following measures during construction activities:</p> <ul style="list-style-type: none"> • Use of construction equipment shall be restricted to the hours of 8:00 a.m. to 6:00 p.m. Monday through Friday. • Material deliveries and haul-off truck trips shall be restricted to the hours of 7:00 a.m. to 10:00 p.m. Monday through Friday. Further, all such construction trips shall avoid, to the extent reasonably feasible, peak traffic periods along Pleasant Hill Road and Deer Hill Road (i.e. morning rush hour, mid-afternoon school pick-up time, and afternoon rush hour). • Prior to the start of and for the duration of construction, the 	Record in contract specifications; periodic on-site inspection and monitoring	Prior to and during construction	City of Lafayette Planning and Building Department		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p>contractor shall properly maintain and tune all construction equipment in accordance with the manufacturer’s recommendations to minimize noise emissions.</p> <ul style="list-style-type: none"> • Prior to use of any construction equipment, the contractor shall fit all equipment with properly operating mufflers, air intake silencers, and engine shrouds no less effective than as originally equipped by the manufacturer. • During construction, the construction contractor shall place stationary construction equipment and material delivery (loading/unloading) areas so as to maintain the greatest distance from the nearest residences. • The construction contractor shall post a sign at the work site that is clearly visible to the public, providing a contact name and telephone number for lodging a noise complaint. 					
XIV. Public Services					
<p>MM PS-1a: The Project’s outdoor lighting plan shall be reviewed and approved by the Lafayette Police Services Department prior to the issuance of building permits by Contra Costa County.</p>	<p>Submittal of outdoor lighting plan and approval by the Lafayette Police Services Department</p>	<p>Prior to issuance of building permits</p>	<p>Lafayette Police Services Department</p>		
<p>MM PS-1b: The Project shall include a video surveillance system. The location and position of the video surveillance system shall be reviewed and approved by the by the Lafayette Police Services Department prior to the issuance of building permits by Contra Costa County.</p>	<p>Submittal of video surveillance and approval by the Lafayette Police Services Department</p>	<p>Prior to issuance of building permits</p>	<p>Lafayette Police Services Department</p>		
<p>MM PS-1c: The Project shall include the services of a private security company to routinely patrol the premises upon construction of the proposed Project. A draft contract between a private security company and the apartment management company shall be reviewed and approved by the Lafayette Police Services Department prior to the issuance of building permits by Contra Costa County.</p>	<p>Submittal of the contract between private security company and apartment management company and approval by the Lafayette Police Services Department</p>	<p>Prior to the issuance of building permits</p>	<p>Lafayette Police Services Department</p>		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p>MM PS-1d: The Project shall pay a police impact fee to the City prior to the issuance of building permits by Contra Costa County. The City would prepare a nexus study to determine the appropriate fee that could support the LPSD’s additional personnel and associated equipment. If the impact fee assessment by the City is not in place at the time of building permit issuance for the Project, the Project applicant would be required to pay the fees after the building permit issuance when the City finishes the nexus study.</p>	Proof of payment of fees	Prior to the issuance of building permits	City of Lafayette Planning and Building Department		
XVI. Transportation					
<p>MM TRAF-2: Signalization: The Project applicant shall coordinate with the City to contribute a fair share of the cost, including an in-lieu payment, to install a traffic signal at the Brown Avenue/Deer Hill Road intersection, which will be added to the City’s Capital Improvement Projects (CIP) program. The traffic signal equipment shall include an emergency vehicle preemption system (Opticom), which would allow emergency response vehicles approaching the signalized intersection to activate a green signal for their travel direction. SR-24 freeway overpass structures on Brown Avenue could obstruct the Opticom activation device on responding emergency vehicles headed northbound on Brown Avenue from Mount Diablo Boulevard toward Deer Hill Road, which could substantially reduce the effectiveness of the traffic signal preemption. To avoid this problem, the traffic signal equipment shall include advance detection devices for the Opticom system as needed to ensure effective traffic signal preemption for responding emergency vehicles on northbound Brown Avenue.</p>	<p>Signalization: Proof of payment of fees</p>	<p>Signalization: Prior to the issuance of building permits</p>	<p>Signalization: City of Lafayette Public Works Department</p>		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p>Roundabout: An alternative mitigation option to installing a traffic signal would be the redesign of this intersection as a roundabout, which would improve the approach LOS for the minor approach volumes at this intersection relative to Existing Conditions, although it improves LOS to a smaller degree than signalization</p>	<p>Roundabout: Identification in on-site circulation plans; site visit</p>	<p>Roundabout: Prior to the issuance of building permits</p>	<p>Roundabout: City of Lafayette Public Works Department</p>		
<p>MM TRAF-5: The Project applicant shall contribute a fair share to the cost of installing advance detection equipment for the existing Opticom system as needed to assure effective traffic signal preemption for responding emergency vehicles on northbound Pleasant Hill Road approaching the Deer Hill Road intersection and the other four signalized study intersections to the north. The advance detection system shall be designed to activate a green signal for northbound Pleasant Hill Road at Deer Hill Road with enough time before the emergency vehicle arrives to allow traffic congestion between SR-24 and the intersection to clear sufficiently to facilitate passage of the emergency vehicle. At a minimum, the advance detection system shall allow emergency vehicles responding from CCCFPD Station 15 (located at 3338 Mount Diablo Boulevard) to activate traffic signal preemption for northbound Pleasant Hill Road at Deer Hill Road as soon as they turn north from eastbound Mount Diablo Boulevard.</p>	<p>Proof of payment of fees</p>	<p>Prior to the issuance of building permits</p>	<p>City of Lafayette Public Works Department</p>		
<p>MM TRAF-7: The Project applicant shall prepare and submit a Construction Staging Plan for review and approval by the City Engineer. The Construction Staging Plan shall include elements such as flaggers for trucks entering and exiting the site, and a designated liaison to coordinate with the City, schools, and the public as needed, and shall implement the following required measures:</p> <ul style="list-style-type: none"> • Large trucks involved in the grading phase of construction shall be prohibited from arriving at or departing from the 	<p>Preparation of Construction Staging Plan and approval of Construction Staging Plan by City Engineer; confirmation of implementation of Construction Staging Plan conditions through on-</p>	<p>Prior to and during construction activities</p>	<p>City of Lafayette Public Works Department</p>		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p>Project site during the hours of 7:00 to 9:00 a.m. and 3:00 to 7:00 p.m. on any school day, and 7:00 to 9:00 a.m. and 4:00 to 7:00 p.m. on any non-school weekday.</p> <ul style="list-style-type: none"> • Large trucks shall be prohibited from making U-turn movements from northbound to southbound Pleasant Hill Road at the Deer Hill Road intersection during construction. The Construction Staging Plan shall specify for each construction phase whether access to the Project site from northbound Pleasant Hill Road will be allowed by providing a median opening for left turns directly into the site south of Deer Hill Road, or will require a left-turn onto Deer Hill Road and a subsequent left-turn into the site. • If the Construction Staging Plan allows large trucks to turn left from northbound Pleasant Hill Road to Deer Hill Road, accommodation of their turning radius may require the following temporary measures: modifications to the south median within up to 15 feet from the nose; relocation of the limit line for eastbound Deer Hill Road traffic lanes by up to 15 feet behind the existing crosswalk marking; adjustments to vehicle detectors, any other affected traffic signal equipment, and traffic signal timing as required to maintain safe and effective operations; and, measures as otherwise specified by the City Engineer. • The proposed locations and configuration of access points on Pleasant Hill Road and Deer Hill Road where large trucks would turn into or out of the Project site during construction shall be subject to approval by the City Engineer, to ensure consideration of sight-distance constraints and implementation of appropriate safety precautions. • During any construction phase when access to the existing passenger loading zone on the west curb of Pleasant Hill Road along the Project frontage would be unavailable on school days, one of the following measures shall be taken: 	site inspection				

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<ul style="list-style-type: none"> - Provide a safe, temporary alternative loading zone in the immediate area, subject to approval by the City Engineer. Potential alternatives may include temporary use of the property on the northwest corner of Pleasant Hill Road and Deer Hill Road, which would require surface improvements to facilitate safe vehicle and pedestrian access. - Stage construction on the subject portion of the site such that during the school break for summer, the existing passenger loading zone would be demolished and replaced by construction of the recommended roadway configuration and passenger loading zone on the Pleasant Hill Road Project frontage. • The Construction Staging Plan shall require restriping of bike lanes and other pavement markings at the discretion of the City Engineer to address wear from construction traffic. • Special school events, such as swim meets, shall be addressed by the designated liaison required in the Construction Staging Plan, or any additional measures that the City Engineer may require in that Plan. • The Construction Staging Plan shall include an engineering analysis to estimate the percentage of the pavement service life that will be used by Project construction truck trips on Pleasant Hill Road and Deer Hill Road. Based on this analysis, appropriate mitigation of the resulting damage shall be required from the Project sponsor, which may include construction of pavement improvements to restore the lost service life, or an in-lieu contribution of equivalent value, at the discretion of the City Engineer. 					
MM TRAF-9: Implement MM TRAF-2.	See MM TRAF-2	See MM TRAF-2	See MM TRAF-2		

Table 1 (cont.): The Terraces of Lafayette Project Mitigation Monitoring and Reporting Program

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
MM TRAF-10: Widen Deer Hill Road at the west Project driveway as needed to add a striped westbound median refuge lane to receive left turns from the driveway, provide appropriate taper lengths west of the refuge lane, and maintain appropriate widths for bike lanes, traffic lanes, and proposed sidewalks.	Record in conditions of approval; verification that improvements are reflected in Project plans; field inspection to confirm implementation	Prior to issuance of building permits; and prior to issuance of occupancy permit	City of Lafayette Public Works Department		
MM TRAF-14: The Project applicant shall provide subsidized, frequent shuttle service between the Project site and the Lafayette BART station during the AM and PM peak commute periods, until such time that a bus route on Pleasant Hill Road serving the BART station is implemented (as called for in the Lamorinda Action Plan), at which point the Project applicant may provide transit vouchers in lieu of a shuttle.	See MM GHG-1b	See MM GHG-1b	See MM GHG-1b		