Los Angeles International Airport (LAX)
Terminals 2 and 3 Modernization Project

Mitigation Monitoring and Reporting Program

June 2017

This document constitutes the Mitigation Monitoring and Reporting Program (MMRP) for the LAX Terminals 2 and 3 (T2/T3) Modernization Project. This MMRP, prepared in compliance with State CEQA Guidelines Section 15097, specifies the monitoring and reporting requirements for the LAX T2/T3 Modernization Project described in the Final Environmental Impact Report (EIR) prepared for the project. In addition to project-specific mitigation measures identified in the Final EIR, Los Angeles World Airports (LAWA) has developed Standard Control Measures that implement existing regulations and/or LAWA plans and policies that would reduce or avoid the project's environmental impacts. Where the Final EIR identified significant impacts associated with the proposed project, in some cases, Standard Control Measures were identified as mitigation measures to avoid or substantially lessen these impacts. In addition, the Final EIR identified Standard Control Measures proposed for implementation that would further reduce certain less-than-significant impacts. All Standard Control Measures identified in the Final EIR are included in this MMRP, whether or not they were identified as mitigation measures to address a significant impact.

Table 1 provides, by environmental resource topic, the number and title of each project-specific mitigation measure identified in the Final EIR; the full text of the subject measure; the impact being addressed; and the timing of implementation, monitoring frequency, and actions indicating compliance (i.e., reporting). Table 2 provides, by environmental resource topic, the number and title of each LAX Standard Control Measure identified in the Final EIR that serve as mitigation measures and other LAX Standard Control Measures that apply to the project; the full text of the subject measure; the impact being addressed; and the timing of implementation, monitoring frequency, and actions indicating compliance (i.e., reporting). Monitoring and implementation of all of the measures are the responsibility of LAWA and/or the party carrying out the project. Some measures will be implemented by the construction contractor(s) in accordance with their contract specifications, which include environmental compliance requirements. LAWA will prepare an MMRP progress report annually that will identify actions taken with respect to the measures applicable in the reporting year.

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Table 1 Project-Specific Mitigation Measures

Mitigation Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
Air Quality					
MM-AQ (T2/T3)-1 **Monitoring Agency:** **LAWA**	**Preferential Use of Renewable Diesel Fuel.** LAWA will require the use of renewable diesel fuel in proposed project construction off-road equipment and on-site, on-road trucks for at least 90 percent of diesel fuel demand. Renewable diesel fuel is available locally for fleetwide use and has been shown to reduce criteria pollutant and greenhouse gas emissions from diesel engines.	Construction-related air pollutant emissions	Included as condition of design and construction of project elements	Once prior to commencement of construction and on-going during construction	Annual reports to document compliance rate

Table 2 Standard Control Measures that are Mitigation Measures or are Otherwise Applicable

Mitigation Measures/Standard Control Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
Air Quality					
LAX-AQ-1 **Monitoring Agency:** **LAWA**	**Construction-Related Air Quality Standard Control Measures.** This measure describes a variety of specific actions to reduce fugitive dust emissions and exhaust emissions from on-road and off-road mobile and stationary sources used in construction. Specific measures are outlined below:				
1a	Post a publicly visible sign(s) with the telephone number and person to contact regarding dust complaints; this person shall respond and take corrective action within 24 hours.	Construction-related air pollutant emissions (fugitive dust)	Prior to initiation of construction activities (e.g., prior to site preparation, grading, demolition, or building construction, whichever occurs first)	Once prior to commencement of construction (by the prime construction contractor)	Inclusion of measure in construction contract(s); status update in first annual MMRP progress report following completion of measure
1b	During construction, the contractor shall demonstrate that all ground surfaces are covered or treated sufficiently to minimize fugitive dust emissions.	Construction-related air pollutant emissions (fugitive dust)	Prior to final occupancy	Once prior to final occupancy	Status update in annual MMRP progress report following occupancy
1c	All areas to be paved should be completed as soon as practical; in addition, building pads should be laid as soon as practical after grading.	Construction-related air pollutant emissions (fugitive dust)	During project construction	Periodically during construction (i.e., as increments of surface-level improvements are completed, confirmation of	Status updates in annual MMRP progress reports

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Mitigation Measures/Standard Control Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
				paving can occur)	
1d	Prohibit idling or queuing of diesel-fueled vehicles and equipment in excess of five minutes. This requirement will be included in specifications for any LAX projects requiring on-site construction. Exemptions may be granted for safety-related and operational reasons, as defined by CARB or as approved by LAWA.	Construction-related air pollutant emissions (on- and off-road mobile sources)	During project construction	Periodically during construction	Inclusion of measure in construction contract(s); status updates in annual MMRP progress reports
1e	All diesel-fueled equipment used for construction will be outfitted with the best available emission control devices, where technologically feasible, primarily to reduce emissions of diesel particulate matter (PM), including fine PM (PM2.5), and secondarily, to reduce emissions of NOx. This requirement shall apply to diesel-fueled off-road equipment (such as construction machinery), diesel-fueled on-road vehicles (such as trucks), and stationary diesel-fueled engines (such as electric generators). The emission control devices utilized in construction equipment shall be verified or certified by California Air Resources Board or US Environmental Protection Agency for use in on-road or off-road vehicles or engines.	Construction-related air pollutant emissions (on- and off-road mobile sources and stationary sources)	During project construction	Periodically during construction	Inclusion of measure in construction contract(s); status updates in annual MMRP progress reports
1g	To the extent feasible, have construction employees commute during off-peak hours.	Construction-related air pollutant emissions (on-road mobile sources)	During project construction	Periodically during construction	Inclusion of measure in construction contract(s); status updates in annual MMRP progress reports
1h	Make access available for on-site lunch trucks during construction, as feasible and consistent with requirements pertaining to airport security, to minimize off-site worker vehicle trips. (for the proposed project, lunch trucks would not access the CTA)	Construction-related air pollutant emissions (on-	During project construction	Periodically during construction	Status updates in annual MMRP progress reports

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Mitigation Measures/Standard Control Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
		road mobile sources)			
1i	Utilize on-site rock crushing facility during construction, when feasible, to reuse rock/concrete and minimize off-site truck haul trips.	Construction-related air pollutant emissions (on-road mobile sources)	During project construction (e.g., site preparation, grading, demolition)	Periodically during construction	Status updates in annual MMRP progress reports
1j	Every effort shall be made to utilize grid-based electric power at any construction site, where feasible. Grid-based power can be from a direct hookup or a tie in to electricity from power poles. If diesel- or gasoline-fueled generators are necessary, generators using "clean burning diesel" (i.e., ultra-low sulfur diesel – ULSD) fuel and exhaust emission controls shall be utilized.	Construction-related air pollutant emissions (stationary point sources)	During project construction	Periodically during construction	Inclusion of measure in construction contract(s); status updates in annual MMRP progress reports
1m	The contractor or builder shall designate a person or persons to ensure the implementation of all components of the construction-related air quality measures through direct inspections, record reviews, and investigations of complaints.	Construction-related air pollutant emissions	Prior to commencement of project construction (e.g., site preparation, grading, demolition, or building construction, whichever occurs first)	Once prior to commencement of construction (by prime construction contractor)	Inclusion of measure in construction contract(s); status update in first annual MMRP progress report following completion of measure
1n	Locate rock-crushing operations and construction material stockpiles for all LAX-related construction in areas away from LAX-adjacent residents, to the extent possible, to reduce impacts from emissions of fugitive dust.	Construction-related air pollutant	Prior to construction when identifying proposed locations for	Once prior to use of on-airport rock-crushing operation; periodically	Status updates in first annual progress report following use of on-airport rock-

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		emissions (fugitive dust)	crushing and stockpiling and during project construction in the event such activities need to be relocated	during construction for material stockpiles	crushing operation; status updates in annual MMRP progress reports for material stockpiles
1o	On-road medium-duty and larger diesel-powered trucks used on LAX construction projects with a gross vehicle weight rating of at least 14,001 pounds shall, at a minimum, comply with USEPA 2010 on-road emissions standards for PM10 and NOx. Contractor requirements to utilize such on-road haul trucks or the next cleanest vehicle available will be subject to the provisions of LAWA Air Quality Control Measure 1q below.	Construction-related air pollutant emissions (on-road mobile sources)	Prior to use of such trucks associated with construction activity	Whenever such trucks are added to the project construction program	Inclusion of measure in construction contract(s); status updates in annual MMRP progress reports
1p	All off-road diesel-powered construction equipment greater than 50 horsepower shall meet, at a minimum, USEPA Tier 4 (final) off-road emissions standards. Contractor requirements to utilize Tier 4 (final) equipment or next cleanest equipment available will be subject to the provisions of LAWA Air Quality Control Measure 1q below.	Construction-related air pollutant emissions (off-road mobile sources)	Prior to use of such off-road diesel-powered equipment associated with construction activity	Whenever such equipment is added to the project construction program	Inclusion of measure in construction contract(s); status updates in annual MMRP progress reports
1q	The on-road haul truck and off-road construction equipment requirements set forth in Air Quality Standard Control Measures 1o and 1p above shall apply unless any of the following circumstances exist and the Contractor provides a written finding consistent with project contract requirements that: o The Contractor does not have the required types of on-road haul trucks or off-road construction equipment within its current available inventory and intends to meet the requirements of the Measures 1o and 1p as to a particular vehicle or piece of equipment by leasing or short-term rental, and the Contractor has attempted in good faith and due diligence to lease the vehicle or equipment	Construction-related air pollutant emissions (on- and off-road mobile sources)	Prior to use of such on-road trucks or off-road construction equipment associated with construction activity	Whenever such trucks or equipment are added to the project construction program	Inclusion of measure in construction contract(s); status updates in annual MMRP progress reports. Documentation of good faith efforts and due diligence regarding the

Table 2 Standard Control Measures that are Mitigation Measures or are Otherwise Applicable

<table>
<tr><th colspan="2">Mitigation Measures/Standard Control Measures</th><th>Impact Being Addressed</th><th>Timing of Implementation</th><th>Monitoring Frequency</th><th>Actions Indicating Compliance</th></tr>
<tr><td></td><td>
that would comply with these measures, but that vehicle or equipment is not available.
o The Contractor has been awarded funding by SCAQMD or another agency that would provide some or all of the cost to retrofit, repower, or purchase a piece of equipment or vehicle, but the funding has not yet been provided due to circumstances beyond the Contractor's control, and the Contractor has attempted in good faith and due diligence to lease or short-term rent the equipment or vehicle that would comply with Measures 1o and 1p, but that equipment or vehicle is not available.
o Contractor has ordered a piece of equipment or vehicle to be used on the construction project in compliance with Measures 1o and 1p at least 60 days before that equipment or vehicle is needed at the project site, but that equipment or vehicle has not yet arrived due to circumstances beyond the Contractor's control, and the Contractor has attempted in good faith and due diligence to lease or short-term rent a piece of equipment or vehicle to meet the requirements of Measures 1o and 1p, but that equipment or vehicle is not available.
o Construction-related diesel equipment or vehicle will be used on the project site for fewer than 20 calendar days per calendar year.
In any of the situations described above, the Contractor/ Subcontractor shall provide the next cleanest piece of equipment or vehicle as provided by the step down schedules in Table A for Off-Road Equipment and Table B for On-Road Equipment.
Nothing in the above shall require an emissions control device (i.e., VDECS) that does not meet Occupational Safety and Health Act (OSHA) standards.
Table A
Off-Road Compliance Step Down Schedule
<table>
<tr><th>Compliance Alternative</th><th>Engine Standard</th><th>CARB-verified DECS (VDECS)</th></tr>
<tr><td>1</td><td>Tier 4 interim</td><td>N/A*</td></tr>
<tr><td>2</td><td>Tier 3</td><td>Level 3</td></tr>
<tr><td>3</td><td>Tier 2</td><td>Level 3</td></tr>
</table>
</td><td></td><td></td><td></td><td>exceptions related to unavailability of equipment/vehicles shall include written record(s) of inquiries (i.e., phone log[s]) to at least three (3) leasing/rental companies that provide construction-related on-road trucks of the type specified in Measure 1o above (i.e., medium-duty and larger diesel-powered trucks with a gross vehicle weight rating of at least 14,001 pounds) or diesel-powered off-road construction equipment such as the types to be used by the Contractor, documenting the availability/ unavailability of the required types of trucks/equipment. LAWA will, from</td></tr>
</table>

	4	Tier 1	Level 3			time-to-time, conduct independent research and verification of the availability of such vehicles and equipment for lease/rent within a 120-mile radius of LAX, which may be used in reviewing the acceptability of the Contractor's good faith efforts and due diligence. Regarding the exception for equipment/vehicles to be used for fewer than 20 calendar days, the Contractor shall not consecutively use different equipment or vehicles that perform the same or a substantially similar function in an attempt to use this exception (Measure 1q) to circumvent the intent of Measures 1o and 1p.
	5	Tier 2	Level 2			
	6	Tier 2	Level 1			
	7	Tier 3	Uncontrolled			
	8	Tier 2	Uncontrolled			
	9	Tier 1	Level 2			
	* Tier 4 (interim or final) or 2007 model year equipment not already supplied with a factory-equipped diesel particulate filter shall be outfitted with Level 3 VDECS.					
	Equipment less than Tier 1, Level 2 shall not be permitted.					
	Table B **On-Road Compliance Step Down Schedule**					
	Compliance Alternative	Engine Model Year	CARB-verified DECS (VDECS)			
	1	2007	N/A*			
	2	2004	Level 3			
	3	1998	Level 3			
	4	2004	Uncontrolled			
	5	1998	Uncontrolled			
	* 2007 Model Year equipment not already supplied with a factory-equipped diesel particulate filter shall be outfitted with Level 3 VDECS.					
	Equipment with a model year earlier than Model Year 1998 shall not be permitted.					
	Nothing in the above shall require an emissions control device (i.e., VDECS) that does not meet OSHA standards.					

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Cultural Resources					
LAX-AR-1 **Monitoring Agency:** **LAWA**	**Conformance with LAWA's Archaeological Treatment Plan.** Prior to initiation of any project-related grading or excavation activities, LAWA shall retain an on-site Cultural Resource Monitor (CRM), as defined in LAWA's Archaeological Treatment Plan (ATP),[1] who will determine if the proposed project is subject to archaeological monitoring. Monitoring, if required, will be subject to the provisions identified below. **Monitoring Requirements** In accordance with the ATP, the CRM will compare the known depth of redeposited fill or disturbance to the depth of planned grading activities, based on a review of construction plans that provide details about the extent and depth of project-related grading and other development-related data, such as geotechnical investigations that include soils borings and delineation of subsurface strata types. If the CRM determines that all or specific portions of the proposed project area warrant archaeological monitoring during grading activities, a qualified archaeologist shall be retained by LAWA to inspect excavation and grading activities that occur within native material. **Identification, Evaluation, and Recovery** Should archaeological resources be discovered, preservation in place is the preferred manner for mitigating impacts to archaeological sites. When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken.	Loss or destruction of archaeological resources	Prior to commencement of, and during, site grading or excavation, and following the discovery of archaeological resources (if any), as identified in ATP	On-going during site excavation, as identified in ATP	Inclusion of relevant measures in construction contract(s)

[1] City of Los Angeles, Los Angeles World Airports, Final LAX Master Plan Mitigation Monitoring & Reporting Program: Archaeological Treatment Plan, prepared by Brian F. Smith and Associates. June 2005. [http://www.lawa.org/ourlax/AnnualReports.aspx?id=8067]

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Mitigation Measures/Standard Control Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
	Reporting and Curation Reporting shall be completed in conformance with the guidelines set forth by the Office of Historic Preservation for Archaeological Research Management Reports and requirements established in the ATP. Proper curation and archiving of artifacts shall be conducted in accordance with industry and federal standards and as outlined in the ATP.				
LAX-AR-2 **Monitoring Agency:** **LAWA**	**Archaeological Resources Construction Personnel Briefing.** Prior to initiation of grading activities, LAWA shall require the consulting archaeologist to provide construction personnel with a briefing in the identification of archaeological resources and in the correct procedures for notifying the relevant individuals should such a discovery occur.	Loss or destruction of archaeological resources	Prior to commencement of site grading as identified in ATP	Once prior to commencement of site grading	Inclusion of measure in construction contract(s)
LAX-PR-1 **Monitoring Agency:** **LAWA**	**Conformance with LAWA's Paleontological Management Treatment Plan.**[2] Prior to initiation of grading activities, LAWA shall retain a professional paleontologist. If the project site is determined to exhibit a high potential for paleontological resources, paleontological monitoring shall be conducted by a professional paleontologist. If the project site is determined to exhibit a low potential for subsurface deposits, excavation need not be monitored as per the PMTP. **Monitoring Requirements** In accordance with the PMTP, LAWA shall supply the paleontological monitor (PM) with a construction schedule and any construction, grading, excavation and/or shoring plans, along with access to relevant geotechnical studies prior to the initiation of ground-disturbing activities. If excavation activities are scheduled to go below the documented level of fill materials, paleontological monitoring shall be initiated when formational sediments are expected to be reached by earthmoving activities. **Identification, Evaluation, and Recovery** The PM or PM designee shall identify, evaluate, and recover paleontological resources in accordance with the relevant provisions of the PMTP.	Loss or destruction of paleontological resources	Prior to commencement of, and during, site grading/ground-disturbing activities, and following the discovery of paleontological resources (if any), as identified in PMTP	On-going during site grading as identified in PMTP	Inclusion of relevant measures in construction contract(s)

[2] City of Los Angeles, Los Angeles World Airports, Final LAX Master Plan Mitigation Monitoring & Reporting Program: Paleontological Management Treatment Plan, prepared by Brian F. Smith and Associates, December 2005. [http://www.lawa.org/ourlax/AnnualReports.aspx?id=8067]

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Mitigation Measures/Standard Control Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
LAX-PR-2 Monitoring Agency: LAWA	**Paleontological Resources Construction Personnel Briefing.** Prior to initiation of grading/ground-disturbing activities, LAWA shall require the PM or PM designee to brief project engineers, project inspectors, construction foreman, drillers and heavy equipment operators in the identification of fossils or fossiliferous deposits and in the correct procedures for notifying the relevant individuals should such a discovery occur.	Loss or destruction of paleontological resources	Prior to commencement of site grading/ground-disturbing activities, as identified in PMTP	Once prior to commencement of site grading/ground-disturbing activities	Inclusion of measure in construction contract(s)
Transportation/Traffic					
LAX-ST-1 Monitoring Agency: LAWA	**Construction Traffic Management Plan** Prior to initiation of construction, LAWA shall require contractors to complete a construction traffic management plan (CTMP). The CTMP shall include a description and illustrations of how the contractor will manage all construction related traffic during both peak and off-peak traffic periods. The CTMP shall detail the haul routes, locations for variable message and other signs, construction deliveries, construction employee shift hours and parking locations, any lane striping changes and traffic signal modifications, and shuttle system operations, if any. The CTMP shall require approval of the LAWA Construction and Logistics Management (CALM) Team prior to implementation. LAWA shall require contractors to implement and comply with the following CTMP measures to reduce construction-related traffic impacts associated with projects at LAX, including: **a. Construction Deliveries** Construction deliveries requiring lane closures shall receive prior approval from the CALM Team. Construction notification of deliveries requiring lane closures shall be made in writing (a minimum of seventy-two (72) hours in advance, unless otherwise coordinated with the CALM Team prior to the required closure(s) when a 72-hour advance written notification is not feasible) in order to allow for any modifications to approved traffic detour plans. Delivery permits from all applicable local agencies shall be obtained thirty (30) days prior to any delivery requiring a lane closure, as feasible. To the extent possible, construction deliveries within the CTA requiring lane closures shall be	Traffic congestion and delay related to construction activities	Prior to commencement of construction for completion of CTMP; during construction for implementation	Once for completion of CTMP; on-going during construction	Inclusion of relevant measures in construction contract(s); approval of CTMP by LAWA's CALM Team; ongoing monitoring of contractor compliance.

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	scheduled during overnight hours (1:00 a.m. to 7:00 a.m.) to minimize impacts to Airport operations. **b. Designated Truck Delivery Hours** To the extent possible, truck deliveries of bulk materials such as aggregate, bulk cement, dirt, etc. to the project site, and hauling of material from the project site, shall be scheduled during off-peak hours to avoid the peak commuter traffic periods on designated haul routes. Peak commuter traffic periods are between 7:00 a.m. to 9:00 a.m. and 4:30 p.m. to 6:30 p.m. Monday through Friday. All deviations to these requirements shall be approved in writing by the CALM Team prior to actual site deliveries. **c. Construction Employee Shift Hours** To the extent possible, the beginning and ending times of work shifts that avoid peak commuter traffic periods (7:00 a.m. to 9:00 a.m. and 4:30 p.m. to 6:30 p.m. Monday through Friday) shall be established. (This measure may not apply to swing shifts.) To avoid peak commuter traffic, work periods may be extended to include weekend and multiple work shifts, when necessary. **d. Designated Truck Routes** For dirt, aggregate, bulk cement, and all other materials and equipment, truck deliveries to the LAX area shall be on designated routes only (freeways and non-residential streets). Designated truck routes shall be limited to: – Aviation Boulevard (Imperial Highway to Manchester Boulevard); – Manchester Boulevard (Aviation Boulevard to I-405); – Florence Avenue (Aviation Boulevard to I-405); – La Cienega Boulevard (north of Imperial Highway); – Pershing Drive (Westchester Parkway to Imperial Highway); – Westchester Parkway (Pershing Drive to Sepulveda Boulevard);				

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Mitigation Measures/Standard Control Measures		Impact Being Addressed	Timing of Implementation	Monitoring Frequency	Actions Indicating Compliance
	– Century Boulevard (Sepulveda Boulevard to Aviation Boulevard); – Sepulveda Boulevard (Westchester Parkway to Imperial Highway); – Imperial Highway (Pershing Drive to I-405); – I-405; and – I-105 **f. Stockpile Locations** All stockpile locations shall be pre-approved by LAWA and its CALM Team. Stockpile locations/laydown/staging areas shall be accessed by construction vehicles with minimal disruption to adjacent public streets. **g. Construction Employee Parking Locations** If parking for construction employees is not located on, or in proximity to, the work site, shuttle buses shall be used to transport employees to and from the construction areas. Shuttle buses shall comply with all applicable California Air Resources Board (CARB) and South Coast Air Quality Management District (SCAQMD) rules and regulations, and LAWA's Alternative Fuel Policy. All employees, including those of subcontractors and suppliers at all tiers, shall park in the designated parking locations and not on city streets, or in nearby neighborhoods. All construction personnel shall be required to attend an airport project-specific orientation meeting that will cover where to park, where staging areas are located, construction policies, etc.				