

## Mitigation Monitoring and Reporting Program

Section 21081.6 of the California Environmental Quality Act (CEQA) Guidelines requires that a Mitigation Monitoring and Reporting Program (MMRP) be adopted upon certification of an Environmental Impact Report (EIR) to ensure that the mitigation measures are implemented. The MMRP specifies the mitigation measures that have been identified to address potential impacts that would result from adoption of the General Plan Updates and future project-level developments resulting from buildout of the project. The MMRP additionally identifies the entity responsible for implementing and/or monitoring the mitigation; and when in the process it should be accomplished.

The General Plan Update Program EIR (PEIR) focuses on issues determined to be potentially significant by the City of Irvine (City). The issues addressed in the PEIR include aesthetics, air quality, biological resources, cultural and tribal cultural resources, geology and soils, greenhouse gas (GHG) emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, public services and recreation, transportation, utilities and service systems, and wildfire.

Public Resources Code Section 21081.6 requires monitoring of only those impacts identified as significant or potentially significant. After analysis, potentially significant impacts were identified for air quality, cultural and tribal cultural resources, geology and soils (paleontological resources), GHG emissions, noise, and transportation.

For future project-level development implemented consistent with the project, the PEIR references the City's existing plans, programs, and policies (PPP). Compliance measures are regulations imposed uniformly by the approving agency based on the proposed action taken and are required of the project to reduce its potential environmental effects. Because these features are standard requirements, they do not constitute mitigation measures. Implementation of both the PPPs and the mitigation measures identified in this PEIR would reduce potentially significant impacts, but not to below a level of significance for all the environmental issue areas. Mitigation measures have been identified for significant impacts related to air quality (air quality plan consistency; criteria pollutants; sensitive receptors), biological resources (sensitive species, sensitive riparian habitats, jurisdictional wetlands and waters, habitat conservation plans), cultural and tribal cultural resources (historic resources; archaeological resources; tribal cultural resources), geology and soils (paleontological resources), GHG emissions (GHG emissions; policy consistency), land use and planning (policy consistency), noise (ambient noise [traffic noise/land use compatibility, railroad noise/stationary noise/construction noise]; groundborne noise and vibration), and transportation (vehicle miles traveled [VMT]). Impacts related to air quality (air quality plan consistency; criteria pollutants; sensitive receptors), cultural and tribal resources (historic resources), geology and soils (paleontological resources), greenhouse gas (emissions; policy consistency), noise (ambient noise: traffic noise/land use compatibility; groundborne noise and vibration: construction), and transportation (VMT) would remain significant and unavoidable at the program level.

The MMRP for the project is under the jurisdiction of the City. As specified in Table 1, the MMRP summarizes the potentially significant impacts and lists the associated mitigation measures and the monitoring efforts necessary to ensure that the measures are properly implemented.

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Potential Significant Impact	Mitigation Measure	Timeframe of Mitigation	Monitoring, Enforcement, and Reporting Responsibility
<b>Air Quality</b>			
Issue 1: Conflict with Air Quality Plan: Construction Emissions	<p>AQ-1: Applications for future development, wherein the Director of Community Development or their designee has determined a potential for air quality impacts associated with construction, shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City for review and approval. The Director of Community Development or their designee shall make this determination based on the size of the project, whether the project would require a transportation impact analysis, or other criteria. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (SCAQMD) methodology for assessing air quality impacts. The City shall require that applicants for new development projects with the potential to exceed the SCAQMD's adopted thresholds of significance to incorporate the measures listed below to reduce air pollutant emissions during construction activities. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City. Mitigation measures to reduce construction-related emissions could include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Require fugitive-dust control measures that exceed SCAQMD's Rule 403 requirements, such as:               <ul style="list-style-type: none"> <li>○ Use of nontoxic soil stabilizers to reduce wind erosion.</li> <li>○ Apply water every four hours to active soil-disturbing activities.</li> </ul> </li> </ul>	Prior to project approvals	Director of Community Development or their designee, Qualified Air Quality Technical Specialist, Applicant

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	<ul style="list-style-type: none"> <li>○ Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.</li> <li>● Use construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower.</li> <li>● Ensure that construction equipment is properly serviced and maintained to the manufacturer's standards.</li> <li>● Limit nonessential idling of construction equipment to no more than five consecutive minutes.</li> <li>● Limit on-site vehicle travel speeds on unpaved roads to 15 miles per hour.</li> <li>● Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area.</li> <li>● Use Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the SCAQMD's website.</li> </ul>		
Issue 1: Conflict with Air Quality Plan: Operational Emissions.	AQ-2: For individual projects that may exceed the daily operational emissions thresholds established by the SCAQMD, the owner/permittee shall conduct an analysis of the project's operational air quality impacts using the latest available CalEEMod mode, or other analytical method determined in conjunction with the City. If such analyses identify potentially significant regional or local air quality impacts, project-level mitigation and/or project design features would be required to reduce operational impacts to less than significant to the extent feasible. Mitigation to reduce operational impacts	Prior to project approvals	Director of Community Development or their designee, Qualified Air Quality Technical Specialist, Applicant

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	<p>depends on the specific project, but may include measures such as, but not limited to:</p> <ul style="list-style-type: none"> <li>• Demonstrate net zero energy expenditure consistent with the goal of net zero expenditure.</li> <li>• Implementation of transportation demand management measures.</li> <li>• Prohibit the installation of woodstoves, hearths, and fireplaces in new construction facilitated by the General Plan Update.</li> <li>• Expand and facilitate completion of planned networks of active transportation infrastructure for projects that are required to provide public improvements related to that infrastructure.</li> <li>• Implement electric vehicle charging infrastructure beyond requirements set forth in the 2022 CALGreen mandatory measures, such as Tier 2 voluntary measures set forth in 2022 CALGreen (or future more stringent) standards.</li> <li>• Implement traffic demand measures, such as unbundling parking fees from rent/lease options, encouraging/developing a ride-share program for the community, and provide car/bike sharing services, that will reduce daily individual car usage and reduce project vehicle miles traveled (VMT).</li> </ul>		
Issue 2: Cumulative Net Increases in Criteria Pollutants: Construction Emissions	See AQ-1 above.	See above.	See above.
Issue 2: Cumulative Net Increases in Criteria Pollutants: Operational Emissions	See AQ-2 above.	See above.	See above.

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Issue 3: Expose Sensitive Receptors to Substantial Pollutant Concentrations	<p>AQ-3: For individual projects that may site new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles/day, the applicant shall prepare a Health Risk Assessment (HRA) evaluating the potential for sensitive receptors to be exposed to toxic air contaminants (TACs), which shall be required for such individual projects. The HRA shall be prepared in accordance with the policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the SCAQMD. If the HRA shows that the incremental cancer risk and/or noncancer hazard index exceed the respective thresholds, as established by the SQAQMD at the time a project is considered (i.e., 10 in one million cancer risk and 1 hazard index), the project applicant will be required to identify and demonstrate that best available control technologies to reduce substantial exposure of sensitive receptors to TACs. Examples may include, but are not limited to, air intakes located away from high-volume roadways and/or truck loading zones unless it can be demonstrated that these are operational limitations and/or heating, ventilation, and air conditioning (HVAC) systems provided with appropriately sized maximum efficiency rating value (MERV) filters. Mitigation measures identified in the HRA shall be incorporated into the site development plan as a component of the proposed project. Air intake and MERV filter requirements shall be noted on all building plans submitted to the City of Irvine Community Development Department.</p>	Prior to project approvals	Director of Community Development or their designee, Qualified Air Quality Technical Specialist, Applicant
<b>Biological Resources</b>			
Issue 1: Sensitive Species	<p>BIO-1: Prior to project approvals, applicants for future development projects with the potential to disturb sensitive biological resources shall include a biological resources survey. The</p>	Prior to project approvals	Director of Community Development or their

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	<p>survey shall be conducted by a qualified biologist. The biological resources survey shall include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• A search of available literature and biological databases, such as California Natural Diversity Database, to determine sensitive biological resources that have been reported from the proposed project vicinity.</li> <li>• Mapping vegetation communities on the proposed project site.</li> <li>• A general assessment and mapping of all potential jurisdictional resources (wetlands and riparian habitats).</li> <li>• Evaluating wildlife movement corridors in the vicinity of the proposed project site.</li> </ul>		designee, Applicant, Qualified Biologist
Issue 1: Sensitive Species	<p>BIO-2: If the proposed development project site supports vegetation communities that may provide habitat for special status plant or animal species, a focused habitat assessment shall be conducted by a qualified biologist to determine the potential for special status plant and/or animal species to occur within or adjacent to the proposed development project area.</p>	Prior to project approvals	Director of Community Development or their designee, Applicant, Qualified Biologist
Issue 1: Sensitive Species	<p>BIO-3: If one or more special status species has the potential to occur within the proposed development project area, focused species surveys shall be conducted to determine the presence/absence of these species to adequately evaluate potential direct and/or indirect impacts to these species.</p>	Prior to project approvals	Director of Community Development or their designee, Owner/Permittee, Applicant, Qualified Biologist
Issue 1: Sensitive Species	<p>BIO-4: If construction activities are not initiated immediately after focused surveys have been completed, additional pre-construction special status species surveys may be required to assure impacts are avoided or minimized to the extent feasible. If pre-construction activities are required, a qualified biologist would perform these surveys as required for each</p>	Prior to project approvals	Director of Community Development or their designee, Applicant, Qualified Biologist

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	special status species that is known to occur or has a potential to occur within or adjacent to the proposed development project area.		
Issue 1: Sensitive Species	BIO-5: The results of the biological survey shall be presented in a biological survey letter report for proposed development projects with no significant impacts, or in a biological technical report for proposed development projects with significant impacts that require mitigation to reduce the impacts to below a level of significant.	Prior to project approvals	Director of Community Development or their designee, Applicant, Qualified Biologist
Issue 1: Sensitive Species	BIO-6: If sensitive biological resources are identified within or adjacent to the proposed development project area, the construction limits shall be clearly flagged to ensure impacts to sensitive biological resources are avoided or minimized to the extent feasible. Prior to implementing construction activities, a qualified biologist shall verify that the flagging clearly delineates the construction limits and that sensitive resources to be avoided.	Prior to construction	Director of Community Development or their designee, Applicant, Qualified Biologist
Issue 1: Sensitive Species	BIO-7: If sensitive biological resources are known to occur within or adjacent to the proposed development project area, a project-specific contractor training program shall be developed and implemented to educate project contractors on the sensitive biological resources within and adjacent to the proposed development project area and measures being implemented to avoid and/or minimize impacts to these species. A qualified biologist shall develop and implement the contractor training program.	Prior to construction	Director of Community Development or their designee, Applicant, Qualified Biologist
Issue 1: Sensitive Species	BIO-8: If sensitive biological resources are present within or adjacent to the proposed development project area and impacts may occur from implementation of construction activities, a qualified biological monitor may be required during a portion or all of the construction activities to ensure impacts to the	During construction	Director of Community Development or their designee, Director of Community Development or their designee,

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	sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be evaluated on a project-by-project basis. The qualified biological monitor shall be approved by the City on a project-by-project basis based on applicable experience with the sensitive biological resources that may be impacted by the proposed development project activities.		Applicant, Qualified Biological Monitor
Issue 2: Sensitive Vegetation Communities	BIO-9: Prior to project approval, if a proposed project has the potential to affect riparian and sensitive habitats and/or jurisdictional resources, a qualified biologist shall conduct a jurisdictional delineation following the methods outlined in the 1987 Corps Wetland Delineation Manual and the 2008 Regional Supplement to the Corps Wetland Delineation Manual: Arid West Region to map the extent of wetlands and non-wetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in a wetland delineation letter report and shall be incorporated into the California Environmental Quality Act document(s) required for approval and permitting of the proposed project	Prior to project approvals	Director of Community Development or their designee, Applicant, Qualified Biologist

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Issue 2: Sensitive Vegetation Communities	BIO-10: If the results of mitigation measure BIO-9 above determine that a proposed project would impact riparian and sensitive habitats and/or jurisdictional features, permits and authorizations shall be obtained from the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and/or Regional Water Quality Control Board prior to project approval. The regulatory agency authorization(s) would include specific avoidance, minimization, and mitigation measures for impacts to riparian and sensitive habitats and/or jurisdictional resources, which may include monetary contributions to a mitigation bank or habitat creation, restoration, and/or enhancement.	Prior to construction	Director of Community Development or their designee, Applicant, Qualified Biologist
Issue 3: Wetlands	See mitigation measures BIO-9 and BIO-10 above.	See above	See above.
Issue 6: Adopted HCP/NCCP	See mitigation measures BIO-1 through BIO-10 above.	See above	See above.
<b>Cultural Resources</b>			
Issue 1: Historic Resources	CUL-1: The City of Irvine Director of Community Development, or designee, shall require applicants for future proposed projects proposing to renovate, alter, or demolish intact extant building(s) more than 45 years old or otherwise qualifying as a historical resource under CEQA Guidelines Section 15064.5 to provide a historic resource technical study evaluating the significance and data potential of the resource. If significance criteria are met, detailed mitigation recommendations are required as part of the technical study, which must be implemented to reduce impacts on the historical resource(s) to a less than significant level. All work shall be performed by a qualified architectural historian meeting Secretary of the Interior Standards.	Prior to project approvals	Director of Community Development or their designee, Applicant, Qualified Architectural Historian

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Issue 2: Archaeological Resources	<p>CUL-2: Prior to project approval or the issuance of grading permits (whichever is applicable and comes first), the City of Irvine Director of Community Development, or designee, acting in a similar capacity shall require applicants for future proposed ground disturbing projects to either (1) provide a technical cultural resources assessment consisting of a record search, survey, background context and project specific recommendations performed by a qualified archaeologist meeting Secretary of the Interior Standards and certified by the County of Orange or (2) agree to full-time monitoring by an archaeologist and a designated representative from the tribe/ group(s) who is culturally linked to the site. If resources are known or reasonably anticipated, the applicant shall be required to provide and follow a detailed mitigation plan which shall require monitoring during grading and other earthmoving activities in undisturbed sediments. The plan will provide a treatment plan for potential resources that includes data to be collected, requires professional identification, other special studies as appropriate, and requires curation at a repository for artifacts meeting significance criteria. A comprehensive final mitigation compliance report including a catalog of specimens with museum numbers and an appendix containing a letter from the museum stating that they are in possession of the materials shall be required and shall be submitted to the City.</p>	Prior to project approvals or issuance of grading permits	Director of Community Development or their designee, Applicant, Qualified Archaeologist
Issue 4: Tribal Cultural Resources	See mitigation measure CUL-2 above.	See above.	See above.
<b>Geology and Soils</b>			
Issue 6: Paleontological Resources and Unique Geology	<p>GEO-1: Prior to issuance of grading permits, applicants for future proposed ground disturbing projects in undisturbed sediments ranked moderate or above shall be required to either (1) provide a technical paleontological assessment</p>	Prior to issuance of grading permits	Director of Community Development or their designee, Applicant, Qualified Paleontologist

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	<p>consisting of a record search, survey, background context and project specific recommendations performed by a qualified paleontologist (with a graduate degree and a specialization in vertebrate paleontology) to the City of Irvine Department of Community Development or (2) agree to monitoring all excavations below five feet. If resources are known or reasonably anticipated the recommendations shall provide a detailed mitigation plan requiring monitoring during grading and other earthmoving activities in undisturbed sediments. The plan will establish a fossil recovery protocol that includes data to be collected, requires professional identification, radiocarbon dates and other special studies as appropriate, requires curation at local curation facility such as such as the John D. Cooper Center operated by the County of Orange for fossils meeting significance criteria. A comprehensive final mitigation compliance report including a catalog of fossil specimens with museum numbers and an appendix containing a letter from the museum stating that they are in possession of the fossils shall be required.</p>		
<b>Greenhouses Gas Emissions</b>			
Issue 1: GHG Emissions	<p>GHG-1: Applications for future development, wherein the Director of Community Development or their designee has determined a potential for GHG impacts the City shall evaluate the project to identify the potential for GHG emissions to exceed the SCAQMD thresholds detailed below. If a project may exceed the thresholds, the City shall require a technical assessment evaluating potential project GHG impacts to the City for review and approval. The significance of project-level GHG impacts shall be evaluated using one of the following criteria:</p>	Prior to project approvals	Director of Community Development or their designee, Applicant, Air Quality Technical Specialist

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	<p>1. In the absence of a City plan to reduce GHG emissions, the evaluation shall be prepared in conformance with SCAQMD methodology for assessing GHG impacts, which consists of the following tiered approach:</p> <ul style="list-style-type: none"> <li>a. Tier 1 – The project is exempt from the California Environmental Quality Act.</li> <li>b. Tier 2 – The project is consistent with an applicable regional GHG emissions reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.</li> <li>c. Tier 3 – Project GHG emissions represent an incremental increase below or mitigated to less than a 3,000 metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>E) screening level.</li> <li>d. Tier 4 – The project achieves performance standards, where performance standards may include a percent emission reduction target or an efficiency target per service population.</li> <li>e. Tier 5 – Offsets along or in combination with the above target Significance Screening Level. Offsets must be provided for a 30-year project life, unless the project life is limited by permit, lease, or other legally binding condition.</li> </ul> <p>If GHG emissions are determined to have the potential to exceed the SCAQMD’s recommended thresholds, the City shall require that applicants for new development projects incorporate features to reduce GHG emissions. These identified measures shall be incorporated into all appropriate documents submitted to the City and shall be verified by the City. Measures can include, but are not limited to, the following:</p>		

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	<ul style="list-style-type: none"> <li>• <b>Affordable Housing.</b> Provide below market rate housing.</li> <li>• <b>Electric Vehicle Parking.</b> Implement electric vehicle charging infrastructure beyond requirements set forth in the 2022 CALGreen mandatory measures, such as Tier 2 voluntary measures set forth in 2022 CALGreen (or future more stringent) standards.</li> <li>• <b>Transportation Demand Management.</b> Implementation of transportation demand management measures</li> <li>• <b>Unbundling Parking.</b> Require residential developers to separate the cost to rent or purchase a parking space from the cost of the unit.</li> <li>• <b>Transit Subsidies.</b> Require implementation of a transit subsidy program that covers a portion of the cost of transit passes on a per unit basis to residential tenants for a period of five years after issuance of the first occupancy permit. Owner/Permittee shall provide an annual report to the City Engineer in each of the first five years demonstrating how the offer was publicized to residents and documenting the results of the program each year, including number of participants and driveway traffic counts.</li> <li>• <b>Commute Trip Reduction Program.</b> Develop and implement a commute trip reduction program that requires each homeowner and tenant to be provided with a one-page flyer every year that provides information regarding available transit, designated bicycle routes, local bicycle groups and programs, local walking routes and programs, and rideshare programs.</li> </ul>		

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	<ul style="list-style-type: none"> <li>• <b>Active Transportation Network.</b> Expand and facilitate completion of planned networks of active transportation infrastructure for projects that are required to provide public improvements related to that infrastructure.</li> <li>• <b>Bicycle Micro-mobility Fleet.</b> Provide bicycles to the first buyer of each unit.</li> <li>• <b>All Electric Development.</b> Require all-electric development with no sources of natural gas.</li> <li>• <b>Energy Efficiency.</b> Demonstrate building energy efficiency beyond applicable code requirements.</li> <li>• <b>Energy Star Appliances.</b> Provide Energy Star rated appliances (clothes washers, dishwashers, refrigerators, and ceiling fans).</li> <li>• <b>Alternative Water Heating.</b> Incorporate non-gas water heaters (e.g., electric or solar water heating).</li> <li>• <b>Water Efficient Landscaping.</b> Provide low-water use/drought tolerant plant species with low water use irrigation (e.g., spray head or drip), where required.</li> <li>• <b>Outdoor Electrical Outlets to Allow for Electric Landscape Equipment.</b> Provide exterior electrical outlets necessary for sufficient powering of electric lawnmowers and other landscaping equipment.</li> </ul>		
Issue 2: Policies, Plans, and Regulations Intended to Reduce GHG Emissions	Refer to GHG-1.	See above.	See above.
<b>Land Use and Planning</b>			
Issue 2: Conflict with a Program or Plan	Refer to mitigation measures BIO-1 through BIO-10 in Section 4.3, Biological Resources regarding consistency with the NCCP/HCP.	See above.	See above.

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<b>Noise</b>			
Issue 1: Noise Standards	NOI-1: Prior to the issuance of building permits, site-specific exterior noise analyses that demonstrate that the project would not place residential receptors in locations where the exterior existing or future noise levels would exceed the City's noise compatibility standards shall be required as part of the review of future residential development proposals. Noise reduction measures, including but not limited to building noise barriers, increased building setbacks, speed reductions on surrounding roadways, alternative pavement surfaces, or other relevant noise attenuation measures, may be used to achieve the noise compatibility standards. Exact noise mitigation measures and their effectiveness shall be determined by the site-specific exterior noise analyses.	Prior to project approvals and prior to the issuance of building permits	Director of Community Development or their designee, Applicant, Qualified Noise Specialist/Acoustical Engineer
Issue 1: Noise Standards	NOI-2: Prior to the issuance of building permits, site specific interior noise analyses demonstrating compliance with the City's interior noise compatibility standards and other applicable regulations shall be prepared for noise sensitive land uses located in areas where the exterior noise levels exceed the City's noise compatibility standards. Noise control measures, including but not limited to increasing roof, wall, window, and door sound attenuation ratings, placing HVAC in noise reducing enclosures, or designing buildings so that no windows face freeways or major roadways may be used to achieve the noise compatibility standards. Exact noise mitigation measures and their effectiveness shall be determined by the site specific exterior noise analyses.	Prior to project approvals and prior to the issuance of building permits	Director of Community Development or their designee, Applicant, Qualified Noise Specialist/Acoustical Engineer
Issue 1: Noise Standards	NOI-3: Prior to the issuance of building permits, a site-specific acoustical/noise analysis of any on-site generated noise sources, including generators, mechanical equipment, and trucks, shall be prepared which identifies all noise-generating	Prior to project approvals and prior to the issuance of building permits	Director of Community Development or their designee, Applicant, Qualified Noise

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	<p>equipment, predicts noise levels at property lines from all identified equipment, and recommends mitigation to be implemented (e.g., enclosures, barriers, site orientation), to ensure compliance with the City's noise standards. Noise reduction measures shall include building noise-attenuating walls, limiting the hours of operation, or other attenuation measures. Additionally, future projects shall be required to buffer sensitive receptors from noise sources through the use of open space and other separation techniques as recommended after thorough analysis by a qualified acoustical engineer. Exact noise mitigation measures and their effectiveness shall be determined by the site specific noise analyses.</p>		Specialist/Acoustical Engineer
Issue 1: Noise Standards	<p>NOI 4: Construction contractors shall implement the following measures for construction activities conducted in the City of Irvine. Construction plans submitted to the City shall identify these measures on demolition, grading, and construction plans submitted to the City:</p> <ul style="list-style-type: none"> <li>• The City of Irvine Community Development Department shall verify that grading, demolition, and/or construction plans submitted to the City include these notations prior to issuance of demolition, grading, and/or building permits.</li> <li>• Construction activity is limited to the hours: Between 7:00 a.m. to 7:00 p.m. Monday through Friday and 9:00 a.m. and 6:00 p.m. on Saturdays as prescribed in Municipal Code Section 66-8-205(A). No construction activities shall be permitted outside of these hours or on Sundays and federal holidays, except Columbus Day, unless a temporary waiver is granted by the Chief Building Official or their authorized representative.</li> </ul>	Prior to project approvals, at least 10 days prior to the start of construction activities, during construction	Director of Community Development or their designee, Applicant, Construction Contractors

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	<ul style="list-style-type: none"> <li>• During the entire active construction period, equipment and trucks used for project construction shall use the best-available noise control techniques (e.g., improved mufflers, equipment re-design, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible.</li> <li>• Impact tools (e.g., jack hammers and hoe rams) shall be hydraulically or electrically powered wherever possible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools.</li> <li>• Stationary equipment, such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses.</li> <li>• Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors.</li> <li>• Construction traffic shall be limited, to the extent feasible, to approved haul routes established by the City of Irvine Community Development Department.</li> <li>• At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City.</li> <li>• Signs shall be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes</li> </ul>		

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	<p>(if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than 5 minutes.</p> <ul style="list-style-type: none"> <li>• During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The construction manager shall use smart back-up alarms, which automatically adjust the alarm level based on the background noise level or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.</li> <li>• Erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dB(A) <math>L_{eq}</math>. Barriers shall be constructed with a solid material that has a density of at least 4 pounds per square foot with no gaps from the ground to the top of the barrier. Barriers should be erected to the width and height necessary to maintain construction noise levels at or below the performance standard of 80 dB(A) <math>L_{eq}</math>, and may use blankets and other materials to reduce noise as necessary.</li> </ul>		
Issue 2: Groundborne Noise and Vibration	NOI-5: Prior to issuance of a building permit for a project requiring pile driving during construction within 135 feet of fragile structures, such as historical resources, 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); or a vibratory roller within	Prior to project approvals and prior to issuance of a building permit	Director of Community Development or their designee, Applicant, Qualified Noise Specialist/Acoustical Engineer

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Potential Significant Impact	Mitigation Measure	Timeframe of Mitigation	Monitoring, Enforcement, and Reporting Responsibility
	<p>25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds (e.g., 0.12 inches per second [in/sec] peak particle velocity [PPV] for fragile or historical resources, 0.2 in/sec PPV for non-engineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed this threshold, alternative uses such as drilling piles as opposed to pile driving and static rollers as opposed to vibratory rollers shall be used. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not exceeded.</p>		
Issue 2: Groundborne Noise and Vibration	<p>NOI-6: New residential projects (or other noise-sensitive uses) located within 200 feet of existing railroad lines shall be required to conduct a groundborne vibration and noise evaluation consistent with FTA approved methodologies.</p>	<p>Prior to project approvals and prior to issuance of a building permit</p>	<p>Director of Community Development or their designee, Applicant, Qualified Noise Specialist/Acoustical Engineer</p>

**Table 1  
Mitigation Monitoring and Reporting Program**

Potential Significant Impact	Mitigation Measure	Timeframe of Mitigation	Monitoring, Enforcement, and Reporting Responsibility
<b>Transportation/Traffic</b>			
Issue 2: Vehicle Miles Traveled	<p>TRA-1: On-Site Infrastructure The City of Irvine Director of Community Development, or designee, shall require applicants for future proposed projects that exceed VMT thresholds to incorporate on-site connectivity into site design in order to achieve a reduction of 2.5 percent VMT rate. Site design measures to achieve this VMT reduction would include promotion of bicycle activity (i.e., bike facilities) and pedestrian walkability (i.e., connected sidewalks from building entrances to public streets).</p>	Prior to project approvals	Director of Community Development or their designee, Applicant, Project Engineer
Issue 2: Vehicle Miles Traveled	<p>TRA-2: On-Site Transportation Demand Management The City of Irvine Director of Community Development, or designee, shall require applicants for future proposed projects that exceed VMT thresholds to incorporate a Transportation Demand Management (TDM) program to achieve a reduction of up to 5 percent VMT rate. While TDM programs in the past have typically focused on employer sites, they can also be implemented to new residential developments with measures such as bike share or car share programs.</p>	Prior to project approvals	Director of Community Development or their designee, Applicant, Project Engineer