

TIERRA VILLAS PROJECT

MITIGATION MONITORING REPORTING PROGRAM

MITIGATION MEASURE	IMPLEMENTATION – RESPONSIBLE AGENCY	MONITORING – RESPONSIBLE AGENCY	TIMING	INITIALS
<i>SECTION I. AESTHETICS</i>				
Mitigation Measure I-1: Prior to the issuance of building permits, the City’s Building Division shall verify as part of the plan check process that project plans call for reflective glazing treatments on the windows of the residential units to minimize daylight glare and that outdoor lighting is designed to minimize glare and spillover to surrounding properties.	Project applicant	City of Antioch Building Division	Prior to the issuance of building permits	
<i>SECTION II. AGRICULTURAL RESOURCES</i>				
The project would not result in any significant impacts to agricultural resources.				
<i>SECTION III. AIR QUALITY</i>				
Mitigation Measure III-1: Prior to the issuance of building or grading permits, the City shall ensure that project plans incorporate the following measures to reduce construction period air quality impacts: <ul style="list-style-type: none"> • On-road and off-road vehicle tire pressures shall be maintained to manufacturer specifications. Tires shall be checked and reinflated at regular intervals; • All contractors shall use equipment that meets California Air Resources Board’s most 	Project contractor	City Community Development Department	Prior to the issuance of building or grading permits	

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<p>recent certification standard for off-road heavy duty diesel engines;</p> <ul style="list-style-type: none"> • Lower-carbon fuels such as biodiesel blends shall be used where feasible; • Engine retrofits to remove emissions such as diesel particulate matter filters with diesel oxidation catalysts shall be used where feasible; • Construction equipment engines shall be maintained to manufacturer’s specifications; • Install sandbags or other erosion control measures to prevent silt runoff to public roadways; • On-site idling of construction equipment shall be minimized as much as feasible (no more than 5 minutes); • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard; • Limit traffic speeds on unpaved roads to 15 mph; • Water all active construction areas at least twice daily and more often during windy periods. Active areas adjacent to existing sensitive land uses shall be kept damp at all times, or shall be treated with non-toxic stabilizers to control dust; • 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; • Locally made materials for construction shall be used to the extent feasible; and 				

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<ul style="list-style-type: none"> Consistent with Antioch Municipal Code Section 6-3.203, construction debris shall be recycled to the extent the City deems feasible. 				
<p>Mitigation Measure III-2: Prior to the issuance of a grading permit, the project applicant shall provide the City a detailed grading schedule that demonstrates minimization of grading within 100 feet of the church/school property during the months when school is in session (September – June).</p>	Project applicant	City Community Development Department	Prior to the issuance of a grading permit	
<i>SECTION IV. BIOLOGICAL RESOURCES</i>				
<p>Mitigation Measure IV-1: Immediately preceding initial ground disturbance activities that occur in the wet season (November-April), the City shall require a preconstruction clearance survey conducted by a qualified biologist for California red-legged frogs. The survey shall be conducted to determine whether individual California red-legged frogs are present within the disturbance boundary. The City shall not issue a grading permit until results from the survey have been submitted, reviewed, and approved by the Community Development Director. Should a California red-legged frog be observed during the clearance survey, all construction activities shall be immediately halted and the United States Fish and Wildlife Service (USFWS) shall be immediately contacted. Under no circumstances shall a California red-legged frog be collected or relocated unless USFWS personnel or their agents implement the measure. Construction-related activities may resume once the frog has naturally left the project site or has been relocated by a permitted biologist (authorized by the USFWS).</p>	Project contractor	Qualified biologist, City Community Development Department and/or USFWS	Immediately preceding initial ground disturbance activities that occur in the wet season (November-April)	

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<p>Mitigation Measure IV-2a: Prior to the commencement of construction on the project site, the City shall require that a qualified biologist conduct protocol surveys for vernal pool fairy shrimp and tadpole shrimp. These surveys shall be conducted according to the accepted USFWS survey protocol, which includes either two wet season surveys (with eight individual surveys per wet season), or one wet season survey followed by a dry season survey. If no vernal pool fairy shrimp or tadpole shrimp are observed during the surveys, then no further action would be required. Also, if it is determined that the pools on the project site do not provide suitable habitat (as they do not hold water for sufficient duration), and USFWS concurs with this finding, then no additional actions would be required. If federally-listed fairy shrimp are detected during the surveys, then the compensation outlined below in Mitigation Measure IV-2b shall be implemented.</p>	<p>Project contractor</p>	<p>Qualified biologist, City Community Development Department and/or USFWS</p>	<p>Prior to the commencement of construction on the project site</p>	
<p>Mitigation Measure IV-2b: If the survey in Mitigation Measure IV-2a above concludes that fairy shrimp and or tadpole shrimp are present on the project site, prior to the issuance of grading permits, the City shall require that loss of vernal pool fairy and tadpole shrimp habitat shall be compensated for by the project applicant by purchasing credits at a 3:1 ratio at an USFWS-approved mitigation bank. The amount of project-related habitat loss may be determined as follows:</p> <ul style="list-style-type: none"> • The ¼-acre of seasonal pool habitat mapped on the site may be assumed to be occupied habitat; 	<p>Project applicant</p>	<p>City Community Development Department and USFWS</p>	<p>Prior to the issuance of grading permits</p>	

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<ul style="list-style-type: none"> • The area of habitat found to be occupied during the implementation of Mitigation Measure IV-2a (see above) shall be compensated for; or • The seasonal pools may be monitored during the winter to determine the acreage that provides suitable fairy/tadpole shrimp habitat. <p>The availability of credits at an USFWS-approved mitigation bank shall be demonstrated prior to the issuance of a grading permit, or other equivalent compensation must be approved by the USFWS. Consultation with the USFWS for the take of federally-listed shrimp species would also be expected to be required.</p>				
<p>Mitigation Measure IV-3a: If construction would commence anytime during the nesting/breeding season of native bird species potentially nesting on or near the site (typically February through August in the project region), the City shall require that a pre-construction survey of the project vicinity for nesting birds shall be conducted. This survey shall be conducted by a qualified biologist (experienced with the nesting behavior of bird species of the region), contracted by the project applicant, within 14 days of the commencement of construction activities that would occur during the nesting/breeding season. The intent of the survey shall be to determine if active nests of special status bird species or other species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present within the construction zone or within 500 feet of the construction zone. The pre-</p>	Project applicant	Qualified biologist and/or City Community Development Department	Within 14 days prior to the commencement of construction activities that would occur during the nesting/breeding season	

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<p>construction survey shall be conducted according to the most current Burrowing Owl Survey Protocol and Mitigation Guidelines established the California Burrowing Owl Consortium.</p> <p>The survey area shall include all trees and shrubs, as well as fallow fields (which could be utilized by burrowing owls) in the construction zone and a surrounding 500 feet area (where access is possible). The surveys shall be timed such that the last survey is concluded no more than two weeks prior to initiation of construction or tree removal. If the initiation of ground disturbance activities is delayed following a survey, then an additional pre-construction survey shall be conducted such that no more than two weeks will have elapsed between the final survey and the commencement of ground disturbance activities.</p> <p>If the survey finds that active nests are located in construction areas or are within 500 feet of construction and would be subject to prolonged construction-related noise, a no-disturbance buffer zone shall be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. If a buffer zone is needed, the biologist shall size the buffer zone(s) in consultation with the California Department of Fish and Game (CDFG), taking into account the following factors :</p> <ul style="list-style-type: none"> Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity; 				

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<ul style="list-style-type: none"> • Distance and amount of vegetation or other screening between the construction site and the nest; and • Sensitivity of individual nesting species and behaviors of the nesting birds. <p>Limits of construction to avoid an active nest shall be established in the field with flagging, fencing, or another appropriate barrier, and construction personnel shall be instructed on the sensitivity of nest areas. The biologist shall serve as a construction monitor during those periods when construction activities would occur near active nest areas of special status bird species to ensure that no impacts on these nests occur.</p>				
<p>Mitigation Measure IV-3b: If the survey conducted as part of Mitigation Measure IV-3a determines that Swainson’s hawk are present in proximity to the project site such that a significant effect could occur, the City shall require that the applicant mitigate for the loss of suitable Swainson’s hawk foraging habitat by implementing one of the below measures. The first and second bullet points are generally recommended by the CDFG (CDFG 1994), while the third could benefit the species given the effort to acquire land in the project region as part of the East Contra Costa County Habitat Conservation Plan (ECCCHCP):</p> <ul style="list-style-type: none"> • One acre of suitable foraging habitat shall be protected for each acre of suitable foraging habitat developed. At least 10% of the land requirements shall be met by fee title acquisition or a conservation easement allowing the active management of the 	Project applicant	Qualified biologist, City Community Development Department and/or CDFG and ECCHCP	Within 14 days prior to the commencement of construction activities that would occur during the nesting/breeding season	

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<p>habitat, with the remaining 90% of the protected land protected by a conservation easement (subject to CDFG approval); or</p> <ul style="list-style-type: none"> • One-half acre of suitable foraging habitat shall be protected for each acre of suitable foraging habitat developed. All of the land requirements shall be met by fee title acquisition or a conservation easement (subject to CDFG approval); or • A financial contribution shall be made to a CDFG-approved entity (such as the ECCCHCP) to be used towards the protection of Swainson’s hawk foraging habitat. The amount of the contribution will be determined by the CDFG based on the acreage and condition of foraging habitat to be developed by the proposed project. 				
<p>Mitigation Measure IV-4: Should the project applicant propose to commence grading or earthmoving activities on the project site during the non-nesting season of the burrowing owl (typically September through January), the City shall require that the project applicant retain a qualified biologist to conduct winter burrowing owl surveys on the project site. The survey shall be conducted no more than 14 days prior to commencement of construction activities.</p> <p>If burrowing owls are observed using burrows during the non-nesting season (typically September through January, or after young have fledged following the conclusion of the breeding season), owls shall be excluded from all active burrows through the use of exclusion devices placed in occupied burrows in accordance with CDFG protocols (CDFG 1995). Specifically, exclusion devices, utilizing</p>	<p>Project applicant in coordination with qualified biologist</p>	<p>Qualified biologist and/or City Community Development Department</p>	<p>Within 14 days prior to commencement of construction activities</p>	

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<p>one-way doors, shall be installed in the entrance of all active burrows. The devices shall be left in the burrows for at least 48 hours to ensure that all owls have been excluded from the burrows. Each of the burrows shall then be excavated by hand and refilled to prevent reoccupation. Exclusion shall continue until the owls have been successfully excluded from the site, as determined by a qualified biologist. The implementation of Mitigation Measure IV-3a, above, would ensure that any owls potentially occurring on the project site during future nesting seasons would not be harmed.</p>				
<p>Mitigation Measure IV-5: Prior to the issuance of grading permits, the City shall require the preparation of a jurisdictional delineation by a qualified specialist contracted by the project applicant. The City shall require that the jurisdictional delineation be conducted during the wet season (November to March) and that the results shall be submitted to the ACOE. If the ACOE determines that the seasonal pools and drainage ditch are not jurisdictional, no future actions would be required. If the ACOE determines that the seasonal pools and/or drainage ditch are jurisdictional, the loss of the jurisdictional resources shall be mitigated at a minimum 3:1 ratio. This may be accomplished through purchasing credits at an ACOE-approved mitigation bank or through the creation and management of wetland habitat (subject to ACOE approval). Should the project applicant opt for creating wetland habitat (rather than purchasing mitigation credits), a wetland mitigation plan shall be prepared and implemented. The primary goal of the plan would include the replacement (at a 3:1 ratio) of</p>	<p>Project applicant</p>	<p>Qualified specialist, City Community Development Department and /or ACOE</p>	<p>Prior to the issuance of grading permits</p>	

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<p>the seasonal wetlands affected by the project. The plan shall specify, at a minimum, the following:</p> <ul style="list-style-type: none"> • The location of creation/enhancement sites; • The quantity and species of plants to be planted; • Planting procedures, including the use of soil preparation and irrigation (when needed); • Methods for the removal of non-native plants; • A schedule and action plan to maintain and monitor the creation/enhancement areas; • A list of criteria (e.g., growth, plant cover, plant diversity) and performance standards by which to measure success of the creation/enhancement project; and • Contingency measures in the event that creation/enhancement/restoration efforts are not successful. <p>Approval of the plan by ACOE shall be required prior to the fill of any identified jurisdictional wetlands.</p>				
SECTION V. CULTURAL RESOURCES				
<p>Mitigation Measure V-1: In the event that buried archeological resources are encountered during project grading, site preparation, and construction, the City shall require that construction and/or grading activities within 100 feet of any find is temporarily halted until a qualified archaeologist meeting federal criteria under 36 CFR 61 can assess the significance of the find and provide proper management recommendations. Prehistoric cultural material</p>	Project contractor	Qualified archaeologist and/or City Community Development Department	On-going throughout project grading, site preparation, and construction	

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<p>includes, but is not limited to, shell ridden deposits, hearth remains, stone and/or shell artifacts, and/or burials. Historic material, including but not limited to whole or fragmentary ceramic, glass or metal objects, wood, nails, brick, or other materials may occur within the project area in deposits such as old privies, dumps, or even as part of the fill.</p> <p>While deposits of prehistoric or historic archeological materials should be avoided by project activities, if the deposits cannot be avoided, the City shall require that a qualified archeologist evaluate the resources for their potential historic significance. If the deposits are determined to be non-significant by a qualified archeologist, avoidance is not necessary. If the deposits are determined to be potentially significant by the qualified archeologist, the resources shall be avoided. If avoidance is not feasible, project impacts shall be mitigated in accordance with the recommendations of the qualified archaeologist, in coordination with the City and CEQA Guidelines Section 15126.4 (b)(3)(C), which requires implementation of a data recovery plan. Upon completion of the qualified archaeologist’s assessment, the qualified archaeologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the discovered archaeological materials. The report shall be submitted to the project applicant, the City, and the Northwest Information Center. Once the report is reviewed and approved by the City and any appropriate resource recovery and/or</p>				

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mitigation measures are completed, project construction activity within the area of the find may resume.				
Mitigation Measure V-2: Prior to the issuance of grading permits, the City shall require that the project applicant and project contractor provide documentation that all construction crews that will work on the project have undergone a training session to inform them of the potential for previously undiscovered archaeological resources within the project area, of the laws protecting these resources and associated penalties, and of the procedures to follow should they discover cultural resources during project-related work.	Project applicant and project contractor	City Community Development Department	Prior to the issuance of grading permits	
Mitigation Measure V-3: In the event that buried paleontological resources are encountered during project grading, site preparation, and/or construction, construction and/or grading activities within 100 feet of the find shall be temporarily halted until a qualified paleontologist can assess the significance of the find and provide proper management recommendations. Paleontological resources include, but are not limited to, fossils and material remains.	Project contractor	Qualified paleontologist and/or City Community Development Department	On-going throughout project grading, site preparation, and construction	
Mitigation Measure V-4: If human remains are encountered during ground-disturbing activities within the project area, the City shall require that work within 25 feet of the discovery shall be stopped and the project contractor shall immediately notify the Contra Costa County Coroner. At the same time, a qualified archaeologist meeting federal criteria under 36 CFR 61 shall be contacted by the project applicants and project contractor to	Project contractor	Qualified archaeologist and/or City Community Development Department	On-going through project grading, site preparation, and construction	

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<p>assess the situation and consult with the appropriate agencies. If the human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods.</p> <p>Upon completion of the assessment, the qualified archaeologist shall prepare a report documenting the background to the finds, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the project applicant, the City, and the Northwest Information Center. Once the report is reviewed and approved by the City, and any appropriate treatment completed, project construction activity within the area of the find may resume.</p>				
<p>Mitigation Measure V-5: Prior to the issuance of grading permits, the City shall require that the project applicant and project contractor provide documentation that all construction crews that will work on the project have undergone a training session to inform them of the presence and nature of federal or state-eligible cultural resources and the potential for previously undiscovered archaeological resources and human remains within the project area, of the laws protecting these resources and</p>	<p>Project applicant and project contractor</p>	<p>City Community Development Department</p>	<p>Prior to the issuance of grading permits</p>	

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associated penalties, and of the procedures to follow should they discover cultural resources during project-related work.				
SECTION VI. GEOLOGY AND SOILS				
Mitigation Measure VI-1: Prior to the issuance of building permits, the project applicant and project contractor shall ensure that all buildings and structures on the project site are constructed in conformance with the provisions of the most recent version of the California Uniform Building Code (UBC) adopted by the City. The Geotechnical Study prepared by The PRA Group, Inc., January 31, 2007 includes seismic shaking criteria for consideration by the project structural engineer in the design of the building foundation. The final choice of design parameters remains the purview of the project structural engineer, subject to the review and approval of the City Engineer. The PRA Group, Inc., January 31, 2007. Table 2 lists the suggested seismic design parameters.	Project applicant and project contractor in coordination with project structural engineer	City Community Development Department	Prior to the issuance of building permits	
Mitigation Measure VI-2: Prior to foundation placement, the applicant/contractor shall perform moisture conditioning of all pads. Upon completion of grading operations, the applicant/contractor shall submit to the City an inventory of the final pad grade soil condition conducted by a qualified geologist. The inventory shall identify potential soil corrosion and expansive conditions and make geotechnical design recommendations for the proposed foundation systems. The findings of this inventory shall be incorporated into project plan revisions to the satisfaction of the Building Division. The City shall not issue a building	Project applicant and project contractor	Qualified geologist, City Community Development Department, and/or City Building Division	Prior to foundation placement	

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<p>permit for the project until the above measures are completed to the satisfaction of the City Building Inspector.</p>				
<p>SECTION VII. HAZARDS AND HAZARDOUS MATERIALS</p>				
<p>Mitigation Measure VII-1: Prior to the issuance of any grading permit by the City, the project applicant shall enlist the services of a qualified professional to prepare a Phase II ESA to assess the presence and extent of potentially unknown hazardous materials. The Phase II ESA shall, at minimum, consist of the collection and analysis of soil samples to determine the possible presence of agricultural chemicals. The Phase II ESA investigation shall be conducted in conformance with state and local guidelines and regulatory oversight. The findings of this investigation shall be documented in a written report and submitted to the City. If the results of the Phase II ESA confirm the presence of hazards or hazardous materials, such as agricultural chemicals or unrecorded gas and oil wells, site radiation remediation shall be required with oversight by applicable state and local regulatory agencies, depending on the nature and extent of contamination. If unrecorded gas or oil wells are uncovered, the tentative map shall be revised to create no-build easements or remove affected parcels entirely to ensure that no structures are built over or in proximity to an abandoned well location. Remedial plugging operations or re-abandonment shall also be performed pursuant to Section 3208.1 of the Public Resources Code and the California Department of Conversation shall be contacted. The impact of specific remedies implemented on air quality and resulting health effects,</p>	<p>Project applicant in coordination with qualified professional</p>	<p>City Community Development Department</p>	<p>Prior to the issuance of any grading permit</p>	

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nuisance conditions, risk of upset in the event of an accident, and transportation of contaminated material associated with the remediation shall be addressed prior to implementation of the site remedy.				
Mitigation Measure VII-2: Prior to the issuance of construction permits, the project applicant shall submit a Soil Management Plan (SMP) for review and approval by the City. The SMP shall establish management practices for handling fuels during construction to reduce the potential for spills and to direct the safe handling of these materials if encountered.	Project applicant	City Community Development Department	Prior to the issuance of construction permits	
<i>SECTION VIII. HYDROLOGY AND WATER QUALITY</i>				
Mitigation Measure VIII-1: Prior to the issuance of any grading or construction permits, the project applicant shall prepare for City review and approval a Stormwater Pollution Prevention Plan (SWPPP) as per the guidelines set forth by the City and the RWQCB. The SWPPP shall incorporate BMPs that minimize the amount of erosion occurring both during and after construction.	Project applicant	City Community Development Department	Prior to the issuance of any grading or construction permits	
Mitigation Measure VIII-2: Prior to the issuance of any grading or construction permits, the project applicant shall submit the Stormwater Control Plan to the City for review and approval. The Stormwater Control Plan shall satisfy all Provision C.3 requirements and meet or exceed all requirements. The contractor shall implement the Stormwater Control Plan, including all measures directed by RWQCB to limit the imperviousness of the site by constructing landscape islands and vegetated swales.	Project applicant and project contractor	City Community Development Department	Prior to the issuance of any grading or construction permits	

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<i>SECTION IX. LAND USE AND PLANNING</i>				
The project would not result in any significant impacts to land use and planning.				
<i>SECTION X. MINERAL RESOURCES</i>				
The project would not result in any significant impacts to mineral resources.				
<i>SECTION XI. NOISE</i>				
<p>Mitigation Measure XI-1: Prior to the issuance of the first building permit, the City shall ensure that final project plans incorporate a permanent noise barrier six feet in height to be constructed along the entire project frontage on Heidorn Ranch Road. The barrier shall be completely solid with a minimum surface weight of 3 pounds per square foot (i.e. one-inch thick wood, masonry block, concrete, or metal). The approximate location of the barrier is shown in Figure 7.</p>	Project applicant	City Community Development Department	Prior to the issuance of the first building permit	
<p>Mitigation Measure XI-2: Prior to the issuance of building permits, the City shall ensure that final project plans for the buildings on lots 1 through 7 incorporate appropriate and feasible noise reduction measures, including forced-air mechanical ventilation so that windows could be kept closed to control noise. Noise reduction measures would also include sound rated windows and building insulation as necessary to achieve compliance with Title 24 regulations. Results of project specific analyses, including the description of the necessary noise control treatments, shall be submitted to the City along with the building plans and approved prior to issuance of a building permit.</p>	Project applicant	City Community Development Department	Prior to the issuance of building permits	

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<p>Mitigation Measure XI-3: Prior to issuance of the first occupancy permit, the applicant shall repave Heidorn Ranch Road along the project frontage with open grade asphalt concrete, or the city shall post a 35 mph travel speed along Heidorn Ranch Road.</p>	<p>Project applicant</p>	<p>City Community Development Department</p>	<p>Prior to issuance of the first occupancy permit</p>	
<p>Mitigation Measure XI-4: The City shall require that for the duration of project construction, the project applicant and project contractor shall limit all construction and grading activities to specific hours of operation to limit noise impacts on adjacent noise-sensitive land uses, as follows:</p> <ul style="list-style-type: none"> • Per Section 5-17.04 of the City’s Municipal Code, construction activities shall be limited to the hours of 7:00 AM to 6:00 PM on weekdays. • Construction within 300 feet of occupied dwelling units and the Heritage Baptist Academy and athletic fields shall be further limited to the hours between 8:00 AM to 5:00 PM on weekdays. • On weekends and holidays, irrespective of the distance from dwelling units, construction activity shall be limited to the hours between and 9:00 AM to 5:00 PM. 	<p>Project applicant and project contractor</p>	<p>City Community Development Department</p>	<p>On-going throughout project construction</p>	
<p>Mitigation Measure XI-5: Prior to the issuance of grading permits, the project applicant shall submit a construction-related noise mitigation plan to the City of Antioch for review and approval. The plan shall include the following elements:</p> <ul style="list-style-type: none"> • The project contractor shall use temporary noise-attenuation fences, where feasible, to reduce construction noise impacts on 	<p>Project applicant</p>	<p>City Community Development Department</p>	<p>Prior to the issuance of grading permits</p>	

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<p>adjacent sensitive land uses. In particular, the plan shall address the homes along the western project boundary. Temporary noise barrier fences would provide a 5 dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receiver and if the barrier is constructed in a manner that eliminates any cracks or gaps.</p> <ul style="list-style-type: none"> • During all project site preparation, the project contractors shall equip construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers’ standards. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site. • Utilize “quiet” air compressors and other stationary noise sources where technology exists. Locate this and other stationary noise generating equipment as far as possible from sensitive receptors. The project contractor shall construct temporary noise barriers to screen stationary noise generating equipment when located near adjoining sensitive land uses. • Depict the location of construction equipment storage and maintenance areas and how the noise from this equipment will be mitigated during construction. • All haul delivery trucks shall be subject to the same hours specified for construction equipment. The mitigation plan shall denote any construction traffic haul routes where heavy trucks would exceed 100 daily trips. 				

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<ul style="list-style-type: none"> • Unnecessary idling of internal combustion engines shall be strictly prohibited. • Control noise from construction workers’ radios to a point where they are not audible at existing residences bordering the project site. • Designate a “disturbance coordinator” who shall be responsible for responding to any local complaints regarding construction noise. The disturbance coordinator shall determine the cause of the noise complaint and shall require that reasonable measures warranted to correct the problem be implemented. The project contractor shall conspicuously post a telephone number for the disturbance coordinator at the construction site. • The project applicant shall coordinate with the City of Antioch to notice to the residents immediately adjacent to the project site and the Heritage Baptist Academy regarding the project construction schedule. The notice shall include the contact information for the disturbance coordinator (discussed above). 				
<p>Mitigation Measure XI-6: Prior to the issuance of grading permits, the City shall require that the project applicant modify the construction phasing plan and submit the revised construction phasing plan to the City’s Community Development Director for review and approval.</p> <p>The modified construction phasing plan shall require that all grading and paving activities on the entire project site be completed within a period of one year to limit the duration of the</p>	Project applicant	City’s Community Development Director	Prior to the issuance of grading permits	

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loudest construction-related noise levels associated with earthmovers, bulldozers, and paving equipment. The phased construction of the residential units shall ensure that construction-related noise is localized to a single portion of the project site during each phase and would separate ongoing unit construction from the completed, occupied residential units on site.				
SECTION XII. POPULATION AND HOUSING				
The project would not result in any significant impacts to population and housing.				
SECTION XIII. PUBLIC SERVICES				
Mitigation Measure XIII-1: Prior to the issuance of occupancy permits, the City shall verify that the applicant has paid CCCFPD’s fire facility impact fees, according to the fee schedule established by the CCCFPD. As of August 2009, these fees were \$591 per residential unit.	Project applicant	City Community Development Department and/or CCCFPD	Prior to the issuance of occupancy permits	
SECTION XIV. RECREATION				
The project would not result in any significant impacts to recreation.				
SECTION XV. TRANSPORTATION AND TRAFFIC				
Mitigation Measure XV-1: The project applicant shall contribute a fair share towards the installation of a second westbound left-turn lane at the intersection of Hillcrest Avenue and Lone Tree Way. Project traffic would equate to less than 1 percent of the traffic volumes at this intersection or 25 to 47 project trips, depending on the alternative selected. Recommended improvements could involve obtaining additional right-of-way.	Project applicant	City Community Development Department	Prior to the issuance of building permits	

MITIGATION MEASURE	IMPLEMENTATION – RESPONSIBLE AGENCY	MONITORING – RESPONSIBLE AGENCY	TIMING	INITIALS
<p>The project shall contribute its fair share towards the cost of these improvements via a transportation mitigation fund that will be used by the City to ensure timely completion of the required improvements. Future development within the Sand Creek Focus Area and other projects determined to adversely affect this intersection will also be assessed a fair share of the estimated cost. The fair share amount will be developed in consideration of the “proportional fair share” this project contributes in traffic impacts to this intersection and other factors considered relevant in development of the mitigation fund. The City expects that sufficient funding will be accrued to allow programming of these improvements in the CIP by 2020 and completion of these improvements by 2025. With this improvement, the intersection would operate at an "acceptable threshold" and project impacts would be less than significant.</p>				
<p>Mitigation Measure XV-2: The project applicant shall contribute a fair share towards the re-striping of the westbound Lone Tree Way approach at the Heidorn Ranch Road/Lone Tree Way intersection to include two (2) left-turn lanes, three (3) through-lanes, and one (1) separate right-turn lane. Project traffic would equate to about 1-2 percent of the traffic volumes at this intersection or 81 to 111 project trips, depending on the alternative selected.</p> <p>The project shall contribute its fair share towards the cost of these improvements via a transportation mitigation fund that will be used by the City to ensure timely completion of the required improvements. Future development</p>	<p>Project applicant</p>	<p>City Community Development Department</p>	<p>Prior to the issuance of building permits</p>	

MITIGATION MEASURE	IMPLEMENTATION – RESPONSIBLE AGENCY	MONITORING – RESPONSIBLE AGENCY	TIMING	INITIALS
<p>within the Sand Creek Focus Area and other projects determined to adversely affect this intersection will also be assessed a fair share of the estimated cost. The fair share amount will be developed in consideration of the “proportional fair share” this project contributes in traffic impacts to this intersection and other factors considered relevant in development of the mitigation fund. The City expects that sufficient funding will be accrued to allow programming of these improvements in the CIP by 2030 and completion of these improvements by 2035. With this improvement, the intersection would operate at LOS D (0.81) during the PM peak hour and project impacts would be less than significant.</p>				
<p>Mitigation Measure XV-3: Prior to the issuance of the first certificate of occupancy, the project shall construct the following turn lane improvements at the Prewett Ranch Drive/Project Street D access intersection:</p> <ul style="list-style-type: none"> • Eastbound approach: one (1) left-turn lane, one (1) through-lane; • Westbound approach: one (1) shared through/right-turn lane; and • Southbound approach: one (1) left-turn lane, one (1) right-turn lane. 	Project applicant	City Community Development Department	Prior to the issuance of first certificate of occupancy	
<p>Mitigation Measure XV-4: Prior to the issuance of the first certificate of occupancy, the project shall construct the following turn lane improvements at the Heidorn Ranch Road/Project Street B intersection:</p> <ul style="list-style-type: none"> • Northbound approach: one (1) left-turn lane, two (2) through-lanes; 	Project applicant	City Community Development Department	Prior to the issuance of the first certificate of occupancy	

MITIGATION MEASURE	IMPLEMENTATION – RESPONSIBLE AGENCY	MONITORING – RESPONSIBLE AGENCY	TIMING	INITIALS
<ul style="list-style-type: none"> • Southbound approach: one (1) through-lane, one (1) shared through/right-turn lane; • Eastbound approach: one (1) left-turn lane, one (1) right-turn lane; and • Based on HCM 2000 Synchro-Sim traffic operations calculations and Transportation Research Board intersection design guidelines, the eastbound left-turn from Project Street B onto Heidorn Ranch Road should have a minimum storage of 100 feet to accommodate outbound vehicle traffic. 				
SECTION XVI. UTILITIES AND SERVICE SYSTEMS				
The project would not result in any significant impacts to utilities and service systems.				
APPENDIX A. CEQA GUIDELINE AMENDMENTS, APPENDIX G—ENVIRONMENTAL CHECKLIST				
A-I. AGRICULTURAL AND FOREST RESOURCES				
The project would not result in any significant impacts to agricultural and forest resources.				
A-II. GREENHOUSE GAS EMISSIONS				
<p>Mitigation Measure A-II-1: To the extent feasible and to the satisfaction of the City, the following measures shall be incorporated into the design and construction of the project:</p> <ul style="list-style-type: none"> • Project plans shall be revised to indicate use of building materials or products that have been extracted, harvested, or recovered, as well as manufactured within 500 miles of the project site, unless demonstrated to the satisfaction of the City to be infeasible. • Prior to issuance of grading or building permits, the project applicant shall revise project plans to incorporate a construction waste management plan in accordance with 	Project applicant	City Community Development Department	Prior to issuance of grading or building permits	

MITIGATION MEASURE	IMPLEMENTATION – RESPONSIBLE AGENCY	MONITORING – RESPONSIBLE AGENCY	TIMING	INITIALS
City Ordinance 6-3.203 which requires at least 50% of all construction and demolition debris generated by the project to be diverted.				
Mitigation Measure A-II-2: As a condition of project approval, the project applicant shall incorporate the green building design and construction measures identified in the project Residential Allocation Application and the project’s checklist for the New Home Construction Green Building Guidelines into final project design and construction plans, or ensure that equivalent measures are included in the project.	Project applicant	City Community Development Department	Prior to project approval	
Mitigation Measure A-II-3: While there are no formalized GHG emission thresholds or quantifiable reduction strategies available at the time of the preparation of this Initial Study, the project applicant shall comply with any formalized GHG thresholds and/or reduction measures at the time of issuance of building permits.	Project applicant	City Community Development Department	At the time of issuance of building permits	
<i>A-III. TRANSPORTATION AND TRAFFIC</i>				
Please refer to Section XV, Traffic and Transportation. The project would not result in additional significant impacts to transportation and traffic as already discussed in Section XV, Traffic and Transportation.				

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