

Santa Clara County Department of Planning and Development
Mitigation Monitoring and Reporting Program – Bagnas Residence

Environmental Impact	Mitigation Measures	Timeframe for Implementation	Responsibility for Implementation	Oversight of Implementation
Aesthetics				
<p>Impact AES-1: The project will create visual impacts to neighboring properties unless mitigated.</p>	<p>MM AES-MIT 1: The project applicant shall submit a final landscape plan to the Department of Planning and Development (Department) prior to final grading permit issuance which incorporates the tree replacement requirements as detailed in the Biological Resources Sections.</p> <p>Landscaping is required to be planted surrounding the residence and associated driveway and access road for the site. No additional trees beyond those identified on the project plans are authorized to be removed without prior County approval and necessary mitigation measures. Prior to issuance of the certificate of occupancy, but after the roof framing is complete, the County Department of Planning and Development will inspect the site. Should the residence be visible from the public right-of-way or accessible County Park lands, the applicant shall plant additional fast-growing evergreen trees (36-inch box) for visual screening to mitigate this impact. (Less-than-Significant Impact with Mitigation)</p>	Prior to permit issuance	Project Proponent	Project Planner of the Santa Clara County Dept of Planning and Development
<p>Impact AES-2: The project has the potential to create impacts to nighttime views due to lighting and glare.</p>	<p>MM AES-MIT 2: The project applicant shall submit a lighting plan shall be submitted for approval prior to building permit issuance.</p> <p>Any new outdoor lighting shall not adversely affect nighttime views. Lighting shall be of full cut off shrouded design to ensure that no direct offsite spill of light or glare will occur. (Less-than-Significant Impact with Mitigation)</p>	Prior to permit issuance	Project Proponent	Project Planner of the Santa Clara County Dept of Planning and Development

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Biological Resources				
<p>Impact BIO-1: The project will have impacts to the environmental setting without workers' training.</p>	<p>MM BIO-MIT 1: The project applicant shall ensure that a workers' environmental training shall be performed with the entire construction team prior to the start of the project. The training shall address species identification, natural history, local occurrence, and the protection measures implemented during the project, including actions to take if a special status species is encountered. All workers who receive the training must sign a certification sheet. Each new crew member must receive the environmental training prior to starting work. Applicant shall provide a copy of the certification sheet to the County Planning Division to verify that the Worker Environmental Training was implemented prior to construction activities. (Less-than-Significant Impact with Mitigation)</p>	<p>Prior to construction, grading, or demolition</p>	<p>Project Proponent</p>	<p>Qualified Biologist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development</p>
<p>Impact BIO-2: The project has the potential to impact the riparian area related to Sanborn Creek and its unnamed tributary.</p>	<p>MM BIO-MIT 2: The project applicant shall seek to avoid impacts to watercourses. The project is designed to avoid disturbing areas within 25 feet of the top of bank of either Sanborn Creek or its unnamed tributary. Prior to any ground disturbance related to covered activities, a surveyor shall mark off a distance 25 feet from the top of bank with orange construction fencing within which no work may occur without supervision of a qualified biologist (refer to BIO-MIT 3). In no instance shall construction activities occur within the bed of any watercourse. (Less-than-Significant Impact with Mitigation)</p>	<p>During construction</p>	<p>Project Proponent</p>	<p>Qualified Biologist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development</p>
	<p>MM BIO-MIT 3: The project applicant shall provide monitoring of activities within the riparian area. Based on the avoidance, minimization, and monitoring plan developed, during construction, the non-disturbance buffer zones around the watercourses will be monitored by a qualified biologist consistent with the requirements described above to ensure that buffers are enforced, and special status species are not disturbed. The biological monitor will also conduct training of construction personnel on avoidance procedures, buffer zones, and protocols. They will report any observed impacts to</p>	<p>During construction</p>	<p>Project Proponent</p>	<p>Qualified Biologist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development</p>

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	sensitive habitats or special status species to the County Department of Planning and Development. (Less-than-Significant Impact with Mitigation)			
	<p>MM BIO-MIT 4: The project applicant shall arrange for pre-construction surveys for amphibian species.</p> <p>Ground disturbing activities shall be limited to the dry season (April to October), when amphibian species are unlikely to be moving through the site. The project proponent will hire a qualified biologist to conduct pre-construction surveys of the site 48 hours prior to any construction activities. If no sightings are made within the development area, the project should proceed immediately, within two days. If these surveys discover any special status amphibian species within the project area, no work will begin until the species (turtles, frogs, salamanders) are relocated by a qualified biologist. Written results of the preconstruction survey shall be submitted to the California Department of Fish and Wildlife (CDFW) within five days of survey completion. The applicant is required to provide a copy of the preconstruction survey results to the County Planning Division. (Less-than-Significant Impact with Mitigation)</p>	Prior to construction	Project Proponent	Qualified Biologist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development
	<p>MM BIO-MIT 5: The project applicant shall arrange compensation for any impacts to the riparian area through riparian restoration.</p> <p>Mitigation in the form of minimization and the use of best management practices is required for the impacts to the tributaries. While no trees within 25 feet of the top of bank are proposed for removal, should any such trees be damaged the applicant will mitigate for any impact to riparian vegetation by planting replacement trees and understory vegetation along the tributaries just prior to the winter rains. Replacement plantings will be required for any loss of riparian vegetation. Riparian trees with a DBH i) less than 12 inches will be replaced at a 1:1 ratio; ii) between 12 and 18 inches will be replaced at a 2:1 ratio; iii) between 19 and 24 inches will be replaced at a 3:1 ratio; and iv) 25 inches or greater will be replaced at a 4:1 ratio. Replacement plantings should be installed as close to the onsite tributaries as possible. Native species should be</p>	During construction	Project Proponent	Project Arborist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development

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	<p>replaced with the same species as those removed and non-native species should be replaced with a native species suitable to the area. Trees must be obtained from a local native plant nursery or propagated from onsite acorn stock. Monitoring will be required following the planting of the replacement trees to ensure their success. A qualified biologist should develop a riparian restoration plan, and this plan at a minimum should identify the area(s) to accomplish this mitigation, a planting plan, and success criteria. (Less-than-Significant Impact with Mitigation)</p> <p>MM BIO-MIT 6: The project applicant shall protect the water quality of the watercourses adjacent to the project.</p> <p>The applicant must comply with the provisions of a County’s grading permit, including standard erosion control measures that employ best management practices (BMPs). The applicant would also need to develop a SWPPP per State Water Quality Control Board Stormwater Permit. The applicant shall provide County inspectors with all relevant documentation that these measures have been properly implemented. (Less-than-Significant Impact with Mitigation)</p>			
<p>Impact BIO-3: The project has the potential to impact mammals located on the property.</p>	<p>MM BIO-MIT 7: The project applicant shall arrange for pre-construction surveys for the San Francisco dusky-footed woodrat.</p> <p>No less than 14 days but no more than 30 days prior to the initial ground disturbance at the project site, a pre-construction survey for the San Francisco dusky-footed woodrat shall be conducted by a qualified biologist. The biologist shall search for nests of an appropriate size and shape, evidence of recent activity and other signs, such as tracks and scat. All nests shall be mapped and their status (whether the nests are active at the time of the survey) shall be determined. If no potential nests are found on the property, the project should proceed immediately, within two weeks. Written results of the preconstruction survey shall be submitted to the California Department of Fish and Wildlife (CDFW) within five days of survey completion and prior to the start of ground disturbance and/or construction. The applicant is required to provide a copy of the preconstruction survey results to the County Planning Division to verify</p>	<p>Prior to construction</p>	<p>Project Proponent</p>	<p>Qualified Biologist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development</p>

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	<p>status of nests (if any) prior to the start of construction. (Less-than-Significant Impact with Mitigation)</p>			
	<p>MM BIO-MIT 8: The project applicant shall consult with CDFW if San Francisco dusky-footed woodrat nests are found.</p> <p>If a potential nest is found, a qualified biologist shall determine if it is active using camera traps for three (3) consecutive nights. If a nest is determined to be active, CDFW shall be consulted regarding measures to avoid take. These may include establishing a temporary buffer zone around active dens during construction, and relocation through trapping, or other suitable methods which ensure the survivability of the rodents as determined by the qualified biologist. Destruction of dens shall not occur without prior consultation with and approval from CDFW and oversight of a qualified biologist. As this species usually breeds during the spring and summer months, and since young are altricial (dependent on parental care) during early development, the nests should be manually deconstructed when it is determined that the young can move effectively independent of their parents' care (generally from October through January) and reconstructed by the qualified biologist outside of the development area. If young are present, a suitable construction buffer should be established around the active nest until such time when the young can move on their own. (Less-than-Significant Impact with Mitigation)</p>	<p>Prior to construction if avoidance is not feasible</p>	<p>Project Proponent</p>	<p>Qualified Biologist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development, California Department of Fish and Wildlife</p>
	<p>MM BIO-MIT 9: The project applicant shall arrange for pre-construction surveys for the American Badger.</p> <p>No less than 14 days but no more than 30 days prior to the initial ground disturbance at the project site, a pre-construction survey for the American badger shall be conducted by a qualified biologist. The biologist shall search for burrows of an appropriate size and shape, evidence of recent activity and other signs, such as tracks and scat. All dens shall be mapped and their status (whether the dens are active at the time of the survey) shall be determined. If no potential burrows are found on the property, the project should proceed immediately, within two weeks. Written results of</p>	<p>Prior to construction</p>	<p>Project Proponent</p>	<p>Qualified Biologist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development</p>

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	<p>the preconstruction survey shall be submitted to CDFW within five days of survey completion and prior to the start of ground disturbance and/or construction. The applicant is required to provide a copy of the preconstruction survey results to the County Planning Division to verify status of burrows (if any) prior to the start of construction. (Less-than-Significant Impact with Mitigation)</p>			
	<p>MM BIO-MIT 10: The project applicant shall avoid and if necessary, relocate any American badgers in the project area.</p> <p>If a potential den is found, the qualified biologist shall determine if it is active using camera traps for three (3) consecutive nights. If a den is determined to be active, CDFW shall be consulted regarding measures to avoid take. These may include establishing a temporary buffer zone around active dens during construction, and relocation through trapping or passively. Destruction of dens shall not occur without prior consultation with and approval from CDFW. If a badger den is found, the Planning Division shall be notified immediately, and any approval provided by the CDFW shall be forward to the Planning Division for record keeping purposes. (Less-than-Significant Impact with Mitigation)</p>	<p>Prior to construction if avoidance is not feasible</p>	<p>Project Proponent</p>	<p>Qualified Biologist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development, California Department of Fish and Wildlife</p>
	<p>MM BIO-MIT 11: The project applicant shall install construction envelope perimeter fencing for the American Badger.</p> <p>Regardless of whether potential dens are identified, an exclusion fence shall be installed around the perimeter of the construction envelope to exclude possible badger occurrence onto the project site during construction activities. At a minimum, the exclusion fence shall be constructed from Department of Transportation (DOT) grade silt fence. The fence shall be buried one (1) foot below grade and encircle the project site and incorporate a gate that would allow construction vehicle access and serve as a barrier to wildlife trespass. A qualified biologist shall monitor the installation of the fence. The applicant is required to provide evidence of fence installation around perimeter of the construction envelope prior to start of construction. (Less-than-Significant Impact with Mitigation)</p>	<p>Prior to construction</p>	<p>Project Proponent</p>	<p>Qualified Biologist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development</p>

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<p>Impact BIO-4: Noise and equipment activity associated with construction activities at the proposed project site could impact nesting raptors, migratory birds, roosting bats, including due to the loss of in utero or newborn bats</p>	<p>MM BIO-MIT 12: The project applicant shall avoid disturbing nesting raptors and other migratory birds.</p> <p>To the extent possible, any project-related ground disturbance, vegetation removal, or structural demolition activities should occur outside of the bird breeding season, i.e., during the period from September 1st through January 31st. Project-related activities that occur during the bird breeding season, i.e., during the period from February 1st through August 31st, could be constrained in the vicinity of any active nests. If tree removal, ground disturbance, or structural demolition activities are scheduled to commence during the breeding season, a qualified ornithologist will conduct pre-construction nesting bird surveys to identify possible nesting activity within 15 days prior to such activities. A construction-free buffer of suitable dimensions as determined by a qualified ornithologist must be established around any active raptor or migratory bird nest for the duration of the project, or until it has been determined that the young have fledged and are foraging independently from their parents. (Less-than-Significant Impact with Mitigation)</p>	<p>Prior to construction if avoidance of the nesting season is not feasible</p>	<p>Project Proponent</p>	<p>Qualified Biologist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development</p>
	<p>MM BIO-MIT 13: The project applicant shall avoid disturbing roosting bats.</p> <p>To the extent possible, any project-related ground disturbance, vegetation removal, or structural demolition activities should occur outside of the bat maternity roosting season, from approximately April 15 through August 15, and the bat winter torpor season, approximately October 15 to March 1. Project-related activities that occur during this time must be constrained in the vicinity of any active roosts. If tree removal, ground disturbance, or structural demolition activities are scheduled to commence during this time, a qualified biologist who is experienced with bat surveying techniques (including auditory sampling methods), behavior, roosting habitat, and identification of local bat species will be consulted prior to tree removal or building demolition activities to conduct a pre-construction habitat assessment to characterize potential bat habitat and identify potentially active roost sites. No further action is required should the pre-construction habitat assessment not identify potential bat roosting</p>	<p>Prior to construction if avoidance of the bat maternity roosting season is not feasible</p>	<p>Project Proponent</p>	<p>Qualified Biologist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development</p>

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	<p>habitat or signs of potentially active bat roosts within the Project area (e.g., guano, urine staining, dead bats, etc.).</p> <p>The following measures will be implemented should potential bat roosting habitat or potentially active bat roosts be identified during the habitat assessment in buildings to be demolished:</p> <p>a) In areas identified as potential roosting habitat during the habitat assessment, initial building demolition will occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15, to the extent feasible. These periods avoid the bat maternity roosting season and period of winter torpor (a state of decreased physiological activity with reduced body temperature and metabolic rate).</p> <p>b) The existing building (80 square foot shed) could be a potential bat roosting habitat or active (outside of maternity and winter torpor seasons) roosts will be disturbed only under clear weather conditions when precipitation is not forecast for three days and when daytime temperatures are at least 50 degrees Fahrenheit.</p> <p>c) The demolition or relocation of buildings containing or suspected of containing potential bat roosting habitat or active bat roosts will be done under the supervision of a qualified biologist. When appropriate, buildings will be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost, likely in the evening and after bats have emerged from the roost to forage. Under no circumstances will active maternity roosts be disturbed until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist.</p> <p>d) If avoidance of the bat maternity roosting season and period of winter torpor, defined under a), above, is infeasible, the qualified biologist will conduct pre-construction surveys of potential bat roost sites identified during the initial habitat assessment no more than 14 days prior to building demolition.</p> <p>e) If active bat roosts or evidence of roosting is identified during pre-construction surveys for building demolition, the qualified biologist will</p>			

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	<p>determine, if possible, the type of roost and species. A no-disturbance buffer will be established around roost sites until the start of the seasonal windows identified above, or until the qualified biologist determines roost sites are no longer active. The size of the no-disturbance buffer would be determined by the qualified biologist and would depend on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), as well as the type of construction activity that would occur around the roost site. (Less-than-Significant Impact with Mitigation)</p>			
<p>Impact BIO-5: The project will have impacts to the environmental setting without proper mitigation.</p>	<p>MM BIO-MIT 14: The project applicant shall install replacement oak trees for all oak trees removed.</p> <p>Plans call for the removal of 16 coast live oak trees. Thirty-nine (39) 24-inch box coast live oaks shall be planted as replacement trees on site and inspected by County staff prior to final inspection for the project. Landscape plans submitted within the contracting and grading plans for the project are to be approved by Planning prior to final grading permit issuance shall show the required coast live oak tree replacements (Thirty-nine (39) 24-inch box trees, exceeding the 32 trees required by the County’s tree protection guidelines). Any additional trees damaged or removed require approval from the County’s Department of Planning and Development for replacement in line with the County’s tree replacement guidelines, or as described in BIO-MIT 5 if in the riparian area. All replacement trees must be planted prior to the issuance of the certificate of occupancy, and confirmed in place via a site inspection conducted by the County Planning Division. A minimum 80% survival rate is required upon completion of 3-year required irrigation program. If the survival rate requirements are not met, replacement of the dead or dying trees and follow up monitoring is required by a qualified biologist for an additional 2 years. A qualified biologist shall conduct and/or supervise monitoring, replacement planting, additional watering, weeding, invasive exotic eradication, and any other practice to achieve the required survival requirements. (Less-than-Significant Impact with Mitigation)</p>	<p>During construction</p>	<p>Project Proponent</p>	<p>Project Arborist (contracted by applicant), Project Planner of the Santa Clara County Dept of Planning and Development</p>

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	<p>MM BIO-MIT 15: The project applicant shall restrict construction activities to daylight hours.</p> <p>All construction activities shall be in conformance with the Santa Clara County Noise Ordinance Section B11-154 and prohibited between the hours of 7:00 p.m. and 7:00 a.m. on weekdays and Saturdays, and at any time on Sundays for the duration of construction. Additionally, all construction shall be restricted to daylight times and shall not extend after sunset. (Less-than-Significant Impact with Mitigation)</p>	During construction	Project Proponent	Building Inspector of the Santa Clara County Dept of Planning and Development
	<p>MM BIO-MIT 16: The project applicant shall design the project to minimize lighting impacts.</p> <p>A lighting plan shall be submitted for approval prior to building permit issuance. Any new outdoor lighting shall not adversely impact nocturnal species such as the San Francisco dusky-footed woodrat or roosting bats. Lighting shall be of full cut off design to ensure that no direct offsite spill of light or glare will occur. (Less-than-Significant Impact with Mitigation)</p>	Prior to construction	Project Proponent	Project Planner of the Santa Clara County Dept of Planning and Development
<p>Impact GEO-1: The project is located in a geohazard zone which could impact life and property.</p>	<p>MM GEO-MIT 1: The project applicant shall arrange for construction monitoring by a representative of a geotechnical firm.</p> <p>All earthwork, grading, and foundation construction shall be observed and inspected by a representative of a qualified geotechnical firm. The structural engineer responsible for foundation design shall determine final design of foundation and reinforcing requirements. The County Building Department shall approve all foundation plans prior to permit issuance, and all field changes prior to the County's foundation inspection. A representative of a geotechnical firm shall be present during the foundation excavation or drilling of piers. The soil engineer shall inspect any foundation excavation and all foundation piers at the time they are drilled. Modifications to pier depths may be made at that time as deemed necessary by field conditions. The geotechnical engineer shall prepare a final report upon completion of the grading operations and foundation construction. The geotechnical engineer shall submit a construction observation letter stating that the approved geotechnical recommendations</p>	Prior to construction	Project Proponent	Geotechnical firm (contracted by applicant), County Geologist, Land Development Engineer, Project Planner of the Santa Clara County Dept of Planning and Development

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	<p>for the grading and building construction were implemented. (Less-than-Significant Impact with Mitigation)</p> <p>MM GEO-MIT 2: All structures shall include seismic building design. The design of the structures and foundations shall meet local building code requirements for seismic effects. The residence shall use a pier and grade beam type of foundation. Special consideration will have to be given to the design of moisture cut-off provisions around the perimeters of the foundations. Concrete floor slabs-on-grade may be used for uninhabited structures, such as garages. End bearing piers and grade beams shall have a minimum diameter of 12-inches and penetrate a minimum of 12 feet into component bedrock materials. This depth of penetration shall not include any engineered fill or residual soil. These piers can be designed with an allowable end bearing capacity of 3,000 pounds per square foot (psf). This value is for dead plus live loads and may be increased by one third for short-term wind and seismic effects. The top three feet of the embedment shall not be included in the calculations. All piers should be reinforced with at least four #4 bars, which shall run the entire length of the piers, with these reinforcing members piers tied at least 12 inches into the grade beam's upper reinforcement bar. The grade beams should be founded a minimum depth of 6-inches below the adjacent pad grades and should be reinforced with a minimum of two #4 bars, one near the top and one near the bottom. Grade beams should be kept to a minimum width in order to minimize any effect of uplift pressures. Should concrete floor slabs-on-grade be used in the garage, they shall be underlain by at least four inches of Class II baserock and shall be poured structurally independent of the foundations or any fixed members when possible. The baserock should be compacted to not less than 95% relative maximum compaction according to ASTM D1557-91 test procedure. A vapor barrier (i.e. Visqueen, min. of 6mil thickness) shall be placed on top of the sand section of the concrete slab construction. This will minimize moisture intrusion through the slab. Prior to pouring the foundations or placing the vapor membrane in living areas or concrete slabs in garage areas, the foundation trenches and subgrade</p>	<p>Prior to construction if avoidance is not feasible</p>	<p>Project Proponent</p>	<p>County Geologist, Building Inspection Office, Project Planner of the Santa Clara County Dept of Planning and Development</p>

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	<p>soils shall be pre-soaked with water. This pre-soaking operation shall be performed at least 12 hours in advance of concrete placement. The geotechnical engineer shall be contacted for specific recommendations. The structural engineer responsible for foundation design shall determine final design of foundation and reinforcing requirements. The soil engineer shall inspect all foundation excavations and piers. (Less-than-Significant Impact with Mitigation)</p>			
<p>Impact GEO-2: The project is located on steep slopes, and could create or exacerbate slope instability.</p>	<p>MM GEO-MIT 3: The project applicant shall restrict grading work to dry periods.</p> <p>No excavations shall be done during a period of sustained precipitation. The placement of fill and control of any grading operations at the site shall be performed in accordance with approved geotechnical recommendations. All existing utility lines and subsurface structures, if any, must be removed prior to any grading at the site. The depressions left by the removal of any subsurface structures shall be cleaned of all debris, backfilled, and compacted with clean, native soil. All new utilities shall be undergrounded. All backfill must be clean, native soil that is engineered and conducted under the supervision of the geotechnical engineer. All organic surface materials and debris, including grass, shall be stripped prior to any other grading operations, and transported away from areas that are to receive structures or structural fills. These organically contaminated soils may be stockpiled for later use in the landscaping area only. After removing and stripping, the building pad shall be scarified by a machine to the depth of six inches and thoroughly cleaned of vegetation and other deleterious matter. After scarifying and cleaning, the native soil shall be re-compacted over the entire building pad and five feet beyond the perimeter of the building pad. All engineered fill or imported soil shall be placed in uniform horizontal lifts of not more than six to eight inches in uncompacted thickness, and compacted. When fill material includes rocks, nesting of rocks will not be allowed, and all voids must be properly filled by compaction. Rocks larger than four inches in diameter shall not be used for the final two feet of the building pad. All imported soil must be approved by the geotechnical engineer prior to being brought to the site</p>	<p>During construction</p>	<p>Project Proponent</p>	<p>Land Development Engineer, Building Inspection Office, Project Planner of the Santa Clara County Dept of Planning and Development</p>

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	<p>and shall have a plasticity index no greater than 12 and an R-Value greater than 25.</p> <p>All soil compaction shall be to not less than 90% relative compaction using the ASTM D1557-91 test procedure. Before compaction of fill begins, the fill shall be brought to a water content that will permit proper compaction be either: 1) aerating the material if it is too wet, or 2) spraying the material with water if it is too dry. Each lift shall be thoroughly mixed before compaction to assure uniform distribution of the water content. Any vertical cuts deeper than 5 feet must be properly shored, unless in an unengineered “fill” area where shoring will be required from the ground surface. The minimum cut slope for excavation to the desired elevation is one horizontal to one vertical. The cut slope should be increased to 2:1 if excavating is performed during the rainy season, or when soil is highly saturated with water. (Less-than-Significant Impact with Mitigation)</p>			
	<p>MM GEO-MIT 4: The project applicant shall design the project to minimize grading.</p> <p>The applicant shall submit to the County Planning and Development Department all grading and drainage permit applications, including plans and geotechnical reports, to ensure that the adequate keying, benching, and subdrains are implemented. Large fills must be avoided and retaining walls constructed, as necessary. Cut slopes must be kept to a minimum and no steeper than 2:1 with a vertical height not exceeding 8 feet. If steeper slopes are required, then retaining walls will be required. (Less-than-Significant Impact with Mitigation)</p>	Prior to construction	Project Proponent	Land Development Engineer, Project Planner of the Santa Clara County Dept of Planning and Development
	<p>MM GEO-MIT 5: The project applicant shall design the project to maintain slope stability and limit water runoff.</p> <p>Where any fill is to be placed on the natural slopes, a keyway with a minimum width of eight feet shall be excavated at the toe of the fill slope, and the bottom of the key shall slope a minimum of 2% into the hill. The key shall be excavated a minimum of 4 feet into the natural ground. The basekey shall be covered with a geotextile material on which a 6-inch the</p>	Prior to construction	Project Proponent	Land Developm’t Engineer, Project Planner of the Santa Clara County Dept of Planning and Development

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	<p>thick layer of drain rock shall be placed at the heel of the key. A 4-inch diameter perforated drainpipe shall be placed on this rock (i.e. perforations down). Two feet of drain rock shall be placed on top of the pipe. This pipe and drain rock shall then be wrapped with the geotextile fabric to protect the rock from being in contact with the native soil. The subdrain shall discharge onto an area that is protected from erosion. All subsequent fill shall then be placed in 8 inch lifts and properly compacted as indicated in the previous section above. As fill is placed, consecutive benches shall be cut into competent natural ground to allow for the fill to be placed and compacted on relatively horizontal surfaces. Our office shall inspect all excavations prior to the placement of fill. A pre-construction field meeting must be held with the contractor to review the field grading protocol. Cut and fill slopes should be limited to a ratio of two horizontal to one vertical (i.e., 2:1). The maximum vertical section shall not exceed eight feet. Surface water control measures shall be constructed at the top of slopes to prevent uncontrolled runoff. Overflow of water from the developed areas must be re-directed away from the proposed improvements via drainage pipes, catch basins and other engineered systems. All storm water runoff shall be directed to appropriate out-fall points west (i.e. down slope) of the residence. Appropriate measures shall be implemented to minimize surface soil erosion. The surface of the slopes shall be compacted to provide a surface free of loose material. It is suggested that vegetation be planted on the graded surfaces after completion of the grading operation. However, in areas where rock outcrop is exposed or the depth to bedrock is shallow, cut slopes may be constructed between 1.75horizontal:1vertical (1.75h:1v) and 1.5horizontal:1vertical (1.5h:1v), depending on the soundness of the rock exposed. Where the existing gradients are steeper than 1.5h:1v and the slopes are stable, cut slopes may be constructed to match the existing slopes. To minimize the potential for erosion, slope surfaces shall be covered with erosion resistant plants. The plants shall be maintained until the roots have become firm. (Less-than-Significant Impact with Mitigation)</p>			

Environmental Impact	Mitigation Measures	Timeframe for Implementation	Responsibility for Implementation	Oversight of Implementation
	<p>MM GEO-MIT 6: The project applicant shall design the project so that retaining walls can withstand lateral pressure.</p> <p>Any facilities that will retain a soil mass, such as retaining walls, shall be designed for a lateral earth pressure (active) equivalent to 75 pounds equivalent fluid pressure for horizontal backfill. If the retaining walls are restrained from free movement at both ends, they shall be designed for the earth pressure resulting for 85 pounds equivalent fluid pressure, to which shall be added surcharge loads. The structural engineer shall discuss the surcharge loads with the geotechnical engineer prior to designing the retaining walls. In designing for allowable resistive lateral earth pressure (passive) of 400 pounds, equivalent fluid pressure may be used with the resultant acting at the third point. The top foot of native soil shall be neglected for computation of passive resistance. A friction coefficient of 0.3 shall be used for retaining wall design. This value may be increased by one third for short-term seismic loads. The above values assume a drained condition and moisture content compatible with those encountered during our investigation. To promote proper drainage, a layer of at least 12-inches of gravel or drain rock shall be placed between the retaining wall and the retained material. Perforated pipes (perforations down) shall be included in the design to conduct excess water from behind the retaining structure. Suitable outfall locations for drainage shall be chosen to minimize future erosion. The County shall review and approve all retaining wall designs to evaluate the suitability of the drainage system. If retaining walls are proposed as part of an exterior wall of the structure, adequate water-proofing materials and sheeting shall be applied to the walls so that the interior of the walls remain free of moisture. (Less-than-Significant Impact with Mitigation)</p>	Prior to construction	Project Proponent	Land Development Engineer, Building Inspection Office, Project Planner of the Santa Clara County Dept of Planning and Development

Environmental Impact	Mitigation Measures	Timeframe for Implementation	Responsibility for Implementation	Oversight of Implementation
<p>Impact GEO-3: The project could create new drainage patterns which impact neighboring properties, roads, and watercourses.</p>	<p>MM GEO-MIT 7: The project applicant shall design the project to meet local and state drainage requirements.</p> <p>Proper and adequate drainage (surface and subsurface) systems must be incorporated into the planned development. Runoff collected from roof drains and area drains as well as discharge from subdrains (when needed) must be released to appropriate locations away from the proposed building site and to appropriate drainage facilities located at the property. The final exterior grade adjacent to the proposed building should be such that the surface drainage will flow away from the structures. A 2% final soil grade slope must be incorporated into the site grading. The slope must be sufficient to remove all storm water from the foundations. Rainwater discharge at downspouts must be directed onto pavement sections, splash blocks, or other acceptable facilities which will prevent water from collecting in the soil adjacent to the foundations. Utility lines that cross under or through perimeter footings must be completely sealed to prevent moisture intrusion into the areas under the slab and/or footings. The utility trench backfill must be of impervious material and this material should be placed at least 4 feet on either side of the exterior footings. All drainage systems shall comply with the requirements of the San Francisco Bay Regional Water Quality Control Board. (Less-than-Significant Impact with Mitigation)</p>	<p>Prior to construction</p>	<p>Project Proponent</p>	<p>Land Development Engineer, Project Planner of the Santa Clara County Dept of Planning and Development</p>
<p>Impact HWC-1: The project could create new drainage patterns which impact neighboring properties, roads, and watercourses.</p>	<p>MM HWC-MIT 1: The project applicant shall design the project for erosion and sediment controls.</p> <p>The applicant will be required to submit grading plans with their permit applications which include an erosion and sediment control plan that outlines seasonally appropriate erosion and sediment controls during the construction period. These plans must include the County’s Standard Best Management Practice Plan Sheets BMP-1 and BMP-2, a drainage analysis prepared by a licensed civil engineer in accordance with criteria as designated in the 2007 County Drainage Manual (see Section 6.3.3 and Appendix L for design requirements). The on-site drainage must be controlled in such a manner as to not increase the downstream peak flow for the 10-year and 100-year storm event or cause a hazard or public</p>	<p>Prior to construction</p>	<p>Project Proponent</p>	<p>Land Development Engineer, Project Planner of the Santa Clara County Dept of Planning and Development</p>

Environmental Impact	Mitigation Measures	Timeframe for Implementation	Responsibility for Implementation	Oversight of Implementation
	<p>nuisance. One of the following site design measures must be utilized in the project design: (a) direct hardscape and/or roof runoff onto vegetated areas, (b) collect roof runoff in cisterns or rain barrels for reuse, or (c) construct hardscape (driveway, walkways, patios, etc.) with permeable surfaces. Though only one site design measure is required, it is encouraged to include multiple site design measures in the project design. Additionally, the project will be conditioned to require drainage improvements to ensure that the storm drainage flowing down the inboard side of the shared access road is conveyed across, and not down, the Lands of Tengan driveway (APN: 517-37-002). (Less-than-Significant Impact with Mitigation)</p> <p>MM HWC-MIT 2: The project applicant shall design the project to protect the water quality of watercourses.</p> <p>To avoid potential erosion material from impacting the creek downslope from the building sites and driveways, construction is prohibited during the wet season. Ground disturbing activities shall be limited to the dry season (April to October). Less-than-Significant Impact with Mitigation)</p>			
<p>Impact TCR-1: The project could impact previously unidentified tribal cultural resources.</p>	<p>MM TCR-MIT 1A: The project applicant shall arrange for workers' training regarding the possibility of discovering tribal cultural resources. Prior to the start of earthmoving activities, the applicant shall implement a worker archeological awareness training for all construction personnel involved with excavation activities. The training shall include informing workers regarding the possibility of encountering buried cultural resources (including tribal cultural resources), the appearance and types of resources likely to be seen during construction, and proper notification procedures to be followed should resources be encountered. (Less-than-Significant Impact with Mitigation)</p>	<p>Prior to construction</p>	<p>Project Proponent</p>	<p>Qualified Archaeologist (contracted by applicant), Tribal Monitor (designated by Tribe), Project Planner of the Santa Clara County Dept of Planning and Development</p>

Environmental Impact	Mitigation Measures	Timeframe for Implementation	Responsibility for Implementation	Oversight of Implementation
	<p>MM TCR-MIT 1B: The project applicant shall arrange for construction monitoring to identify any discovered tribal cultural resources.</p> <p>During all ground disturbing activities (excavation, grading, utility trenching, and landscaping that occurs in previously undisturbed soil), the applicant shall retain a qualified archeologist and tribal cultural resources monitor to undertake construction monitoring at the project site. The tribal cultural resources monitor shall be a representative of the Muwekma Ohlone Indian Tribe who will be given at least 5 days’ notice prior to the start of ground disturbing activities. If, in the event the Muwekma Ohlone Indian Tribe is given such notice and cannot provide the required monitor in a manner mutually agreeable to the Tribe and the applicant, the applicant may retain an alternative tribal cultural resources monitor. The frequency of monitoring shall be determined based on the rate of excavation and grading activities, the materials being excavated, the depth and location of excavation, and, if found, the abundance and type of archaeological resources encountered. If the tribal cultural resources monitor determines that there is limited potential for encountering cultural resources (e.g., if remaining ground disturbing activities would only occur in areas and depths that were previously disturbed by Project construction), monitoring may be reduced or curtailed. (Less-than-Significant Impact with Mitigation)</p>	During construction	Project Proponent	Qualified Archaeologist (contracted by applicant), Tribal Monitor (designated by Tribe), Project Planner of the Santa Clara County Dept of Planning and Development
	<p>MM TCR-MIT 1C: The project applicant shall avoid, or if avoidance is not possible, appropriately handle any identified tribal cultural resources.</p> <p>In the event that tribal cultural resources are encountered during project construction, all activity within a 50-foot radius of the find shall be stopped, the applicant and the County’s Project Manager shall be notified, and a qualified archaeologist shall examine the find. Project personnel shall not collect or move any cultural material. The archaeologist, in collaboration with the tribal cultural resources monitor, shall evaluate the find(s) to determine if it meets the definition of a tribal cultural resource and follow the further procedures outlined below:</p>	During construction	Project Proponent	Qualified Archaeologist (contracted by applicant), Tribal Monitor (designated by Tribe), Project Planner of the Santa Clara County Dept of Planning and Development

Environmental Impact	Mitigation Measures	Timeframe for Implementation	Responsibility for Implementation	Oversight of Implementation
	<p>i. If the find(s) is potentially a tribal cultural resource, then tribal representatives of the Muwekma Ohlone Indian Tribe shall be consulted. If, after consultation with the Muwekma Ohlone Indian Tribe, it is determined that the find(s) is a tribal cultural resource, then the find(s) shall be avoided by Project activities. If avoidance is not feasible, as determined by the County, the qualified archaeologist, in collaboration with Muwekma Ohlone Indian Tribal representative, shall make appropriate recommendations regarding the treatment and disposition of such finds, and significant impacts to such resources shall be mitigated in accordance with the recommendations of the archaeologist, and reasonably agreed upon by the Muwekma Ohlone Indian Tribe, prior to resuming construction activities within the 50-foot radius.</p> <p>ii. If the find(s) are human remains or grave goods, the requirements of Public Resources Code Section 5097.98 and County Ordinance Code Sections B6-18 through B6-20 shall be followed.</p> <p>Recommendations for treatment and disposition of finds could include, but are not limited to, the collection, recordation, and analysis of any significant cultural materials, or the turning over of tribal cultural resources to tribal representatives for appropriate treatment. A report of findings documenting any data recovery shall be submitted to Northwest Information Center (NWIC). A redacted report of findings shall be submitted to the County Director of Planning and Development. (Less-than-Significant Impact with Mitigation)</p>			
<p>Impact WF-1: The project is located in a fire hazard area, and would expose occupants to risk.</p>	<p>MM WF-MIT 1: The project applicant shall site the project in the least impactful way possible in regard to wildfires.</p> <p>The residence shall be sited as close to Sanborn Road and to the 1500-foot elevation line as possible. No structures shall be located above the 1700-foot elevation line in order to reduce risk as wildfires burn hotter traveling up hill and at ridgelines. (Less-than-Significant Impact with Mitigation)</p>	<p>Prior to construction, during construction</p>	<p>Project Proponent</p>	<p>Fire Marshal, Project Planner of the Santa Clara County Dept of Planning and Development</p>

Environmental Impact	Mitigation Measures	Timeframe for Implementation	Responsibility for Implementation	Oversight of Implementation
	<p>MM WF-MIT 2: The project applicant shall design the project to meet defensible space practices, and maintain them in perpetuity.</p> <p>The area within 5 horizontal feet of the structure, including attached decks of stairs, shall not contain any combustible decorative structures, attached gates or fences made of combustible materials, storage structures, wood piles, woody mulch, combustible boards, combustible landscape materials (including but not limited to lumber, railroad ties, creosote- or pressure-treated wood), potted plants in combustible pots, or synthetic lawns. Mature trees shall only be allowed within 5 feet of the structure if the branches are 10 feet above the roof and 10 feet from any chimney. Irrigated and mowed grass shall be kept below a maximum height of 3 inches. All plants within 5 feet of the structure shall be irrigated, non-woody, and/or herbaceous, and are not to exceed 2 feet in height. All pots for potted plants within 5 feet of the structure shall be made of ceramics, metals, or cement.</p> <p>In the area from 5 feet to 30 feet horizontally from the structure (within the property boundaries), all dead plants, grass, and weeds will be removed. Dead or dry leaves will be removed on an ongoing basis. Trees shall be trimmed on an ongoing basis to keep 10 feet of distance between branches of different trees. Dead tree limbs which overhang the roof are to be removed on an ongoing basis. Grasses are to be cut to a maximum of 4 inches on an ongoing basis. (Less-than-Significant Impact with Mitigation)</p>	Prior to construction, ongoing for the life of the project	Project Proponent	Fire Marshal, Project Planner of the Santa Clara County Dept of Planning and Development
	<p>MM WF-MIT 3: The project applicant shall design the project to underground utilities.</p> <p>All utilities, including powerlines, shall be undergrounded. (Less-than-Significant Impact with Mitigation)</p>	Prior to construction	Project Proponent	Fire Marshal, Project Planner of the Santa Clara County Dept of Planning and Development

Environmental Impact	Mitigation Measures	Timeframe for Implementation	Responsibility for Implementation	Oversight of Implementation
	<p>MM WF-MIT 4: The project applicant shall design the project including home hardening techniques.</p> <p>The project is required to comply with all WUI requirements within the California Building Code Chapter 7A. The applicant shall also propose building materials, windows, and vents which exceed these requirements. Communication equipment, including high-speed internet service, shall be fire-hardened. (Less-than-Significant Impact with Mitigation)</p>	Prior to construction	Project Proponent	Fire Marshal, Project Planner of the Santa Clara County Dept of Planning and Development
	<p>MM WF-MIT 5: The project applicant shall keep fire access clear of parked vehicles.</p> <p>Parking of vehicles along the fire access route, including the common driveway, fire department turnout, and fire department turnaround, shall be prohibited at all times. (Less-than-Significant Impact with Mitigation)</p>	Ongoing for the life of the project	Project Proponent	Fire Marshal, Project Planner of the Santa Clara County Dept of Planning and Development
	<p>MM WF-MIT 6: The project applicant shall provide greater than adequate water supply.</p> <p>At a minimum, one additional 5,000-gallon water tank beyond what is required by County and State fire regulations shall be provided on site. All water tanks and piping to the wharf hydrant shall be made of steel or similar material approved by the County Fire Marshal prior to installation. (Less-than-Significant Impact with Mitigation)</p>	Ongoing for the life of the project	Project Proponent	Fire Marshal, Project Planner of the Santa Clara County Dept of Planning and Development