OAKVIEW MASTER PLAN AND LAND DIVISION
MITIGATION MONITORING PROGRAM AND MONITORING COMPLIANCE CHECKLIST

1.0 Authority and Purpose

Pursuant to California Resources Code, Section 21081.6 (AB 3180), Marin County is required to implement a mitigation monitoring and reporting program for the **Oakview Master Plan and Land Division** application. The County's monitoring program is established in the conditions of project approval and is set forth in the Environmental Impact Report mitigation and monitoring measures listed herein.

The purpose of this mitigation monitoring program and compliance checklist is to ensure compliance and effectiveness of the mitigation measures set forth in the Environmental Impact Report for the project. AB 3180 requires monitoring of mitigation measures for those impacts identified in the Environmental Impact Report as being significant or potentially significant.

2.0 County Monitoring Program Features

The following is the County's mitigation monitoring program for a project at each stage of project approval and development:

A. A list of mitigation and monitoring measures required of the project sponsor at each stage of project approval and development.

B. A checklist to document and verify mitigation measure compliance.

C. A general condition of project approval which requires the project sponsor to submit a detailed mitigation compliance plan and reporting checklist at specific stages of the project up to two years after completion of development of all project elements approved as part of the project.

3.0 Project Sponsor's Mitigation Compliance Plan and Reporting Checklist Requirements

The project sponsor shall submit a detailed written plan for mitigation measure compliance for review and approval by the Marin County Community Development Agency Director prior to each subsequent stage of project approval and development. The mitigation compliance plan shall serve a dual purpose of verifying compliance with required mitigation measures for the approved project and of generating information on the effectiveness of the mitigation measures. This plan should describe the steps the project sponsor (and project contractor) will take to assure compliance with project conditions and shall include the reporting checklist verifying compliance with required mitigation measures. County staff and/or hired consultants under contract to the County shall verify mitigation measure compliance through the reporting checklist. If necessary, the project sponsor shall agree to fund any additional County costs for mitigation compliance verification by registered professionals.

4.0 Mitigation and Monitoring Measures

(List Impact and Mitigation and Monitoring Measures as indicated from Initial Study.)

OAKVIEW MASTER PLAN AND LAND DIVISION – Project Mitigation and Monitoring Program

Impact	*Mitigation*	*Implemented by*	*When Implemented*	*Monitored by*	*Verified by and Date*	*N/A*
Geotechnical Issues						
5.1-1 Landsliding Several landslide deposits are present and have been identified in or near areas of proposed development. While some of the large ancient landslides were found to be stable, numerous smaller landslides are also present. These surficial landslides and debris flows could become reactivated during periods of heavy rain. Without adequate subsurface exploration and subsequent mitigation, landslide movements could potentially risk human life, damage or destroy existing structures off-site, block or damage roadways and escape routes (isolating people on-site and limiting access of emergency services), and sever utility service lines.	***5.1-1*** In order to mitigate the potential for future landslide movements, landslides and colluvial soils near proposed development areas should be repaired during grading. Standard techniques proposed to repair the landslides include removal and recompaction of loose materials, keying and benching, and installation of subdrains and surficial drainage systems. All grading should be performed in compliance with the Uniform Building Code, as well as local code and agency standards, under the observation and testing of the project geotechnical engineer and engineering geologist.	Applicant	Before Building, Grading or other Construction Permits	DPW		
5.1-3 Slope Stability If not properly designed for, and/or mitigated during grading, cut, natural and fill slopes with gradients of 2:1 (horizontal : vertical) or steeper, could potentially erode or fail due to the low shear strength of some of the on-site materials.	***5.1-3*** The proposed Grading and Drainage Plan limits cut and fill slopes to an average of ten feet in height by combining cut slopes with engineered timber retaining walls. Additionally, the applicant's geologist recommends thin buttress or stability fills on slopes found to be of weak materials during grading. They also recommend both surficial and subsurface drainage provisions. Although already proposed as part of the Grading and Drainage Plan, the specifics, such as extent and location, of these measures would be determined by the applicant's geologist or geotechnical engineer in the field at the time of construction. As currently proposed, mitigation measures would consist of a combination of site-specific recommendations by the applicant's consultant and local agency and code requirements. The following measures would be feasible in mitigating site-specific conditions and producing stable natural slopes, as well as engineered slopes, where cutting and filling would occur on the site: • Evaluate the effects of bedding orientation (information acquired during the design phase investigation required for the Precise Development Plan) on the gross stability of existing and proposed slopes in the development area to prepare the geotechnical consultant to observe and direct grading operations and make site-specific determinations (see immediately following measure). • Examine natural and cut slopes during grading to confirm their potential for long-term stability. If the geotechnical	Applicant	Before Building, Grading or other Construction Permits	DPW		

Impact	*Mitigation*	*Implemented by*	*When Implemented*	*Monitored by*	*Verified by and Date*	*N/A*
	consultant determines that the exposed earth materials are weaker than expected, mitigate this condition by recompacting as an earth buttress or stability fill or by the selected use of retaining walls or other acceptable methods, as have been proposed by the applicant's geologist. • Design drainage facilities to conform with agency and code standards. This should include terrace drains every 30 feet of vertical height on all graded slopes with grades steeper than 5:1. The terrace drains should have a minimum flowline gradient of six percent to make them self-cleaning (a minimal tenet of the Uniform Building Code). They also should be fitted with downdrains every 150 linear feet of terrace to allow for quick drainage. • Plant cut and fill slopes with ground cover in order to prevent erosion, raveling, or development of rills, sloughs, and other failures which could reduce the effectiveness of stabilization methods whereas roots of newly planted vegetation would enhance stability of graded slopes by holding materials in place.					
5.1-4 Groundwater The direct impact of proposed development on groundwater would be less-than-significant. However, due to the anticipated increase in water infiltration into area D as a result of the proposed development, there is the potential for the seepage at the base of the cut on the adjacent property to increase unless the slide is drained properly.	***5.1-4(a)*** Drainage devices should be employed during grading to reduce the potential for seepage from area D to the adjacent residential development. This should include a subdrain system to intercept this seepage water and a surficial drainage system to reduce the ponding and infiltration of surface water into the landslide. The drainage system should be designed by the project engineer and installed under his / her supervision. With proper surficial and subsurface drainage provisions, the impact of off site seepage should be reduced to a less than significant level. **5.1-4(b):** The construction contractor shall slope temporary excavations no steeper 1-1/2:1 or shall install shoring as excavations proceed in order to maintain lateral support. Shoring shall be designed to resist lateral earth pressures as outlined in the Temporary Shoring section of August 2016 geotechnical report prepared for the project by Herzog Geotechnical Consulting Engineers, or as updated by the geotechnical engineer of record. In addition, the construction contractor shall implement the following additional measures: • To the maximum extent feasible, all excavations and other site grading shall be performed during the late summer and fall months to minimize the potential for seepage to infiltrate the excavations required for Project construction. To the extent feasible, excavation within soft areas shall be done from the unexcavated perimeter	Applicant	Before Building, Grading or other Construction Permits	DPW		

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	areas using an excavator. Trucks and other construction equipment shall be restricted from the soft subgrade soils. • To protect construction workers within excavations from material sloping into the excavations that may occur from exposure of relatively weak soils and bedrock with bedding, fracture, and shear surfaces, all excavations shall be laid back or shored in conformance with applicable federal Occupational Safety and Health Administration (OSHA) standards. Shoring may be achieved with cantilevered or tied-back soldier piers with lagging, tied-back shotcrete walls, soil nail walls, internally braced walls, or other equally effective measures. Adequate drainage facilities shall be provided to prevent hydrostatic buildup behind the shoring. • Excavations shall be dewatered as necessary to address intrusion of water through seepage. If seasonal high moisture contents of some near surface soils cause soft "pumping" conditions in and adjacent to excavations, the construction contractor shall perform additional overexcavation, install geotextile reinforcement, and/or import granular fill to provide adequate soil stability. • Where potentially unstable deposits will remain upslope of proposed improvements, debris fences or catchment/deflection berms shall be installed to protect workers and equipment. The debris fences shall consist of catchment areas and high-energy, ring net barriers (GeoBrugg® or equivalent). Material accumulated behind the barriers shall be removed periodically as necessary to maintain adequate catchment. Any occasional damage to fences caused by the high lateral forces of slide debris shall be repaired or, if necessary, the fences shall be replaced. • All other construction and design recommendations presented in the Herzog August 2016 geotechnical report shall be implemented unless updated or modified by the Project geotechnical engineer of record.					
~~***5.1-5 Soil Creep*** Soil creep could result in damage to structures built on moderate to steep hillsides.~~	~~***5.1-5*** The following measure would be required to mitigate soil creep impacts: • Design any structures on sloping ground to take creep forces into account. The Master Plan and Master Plan drawings indicate that proposed residential structures would be founded on raised floor foundations which follow the existing topography with minimal grading. As such, the foundations for such structures should be designed for creep loads. The design phase investigations for development of~~	~~Applicant~~	~~Before BP~~	~~CDA Building Inspection~~		Only applies to the Residential portion of the Master Plan

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	~~individual lots should determine the depth of the weathering profile and the zone affected by creep and should be used to establish specific design standards for each lot to comply with the Uniform Building Code as required to obtain site alteration and building permits from the County for construction of individual housing units or ancillary residential structures.~~					
5.1-6 Seismicity Strong seismic shaking is expected to occur on the site some time during the "life" of the development and could cause damage to structures and induce landsliding.	***5.1-6*** The following measure would be required to mitigate seismic impacts other than seismically-induced landsliding: • Design and build all on-site structures, roads, and utilities in conformance with the UBC.	Applicant	Before BP	CDA-Building Inspection		
5.1-9 Rockfall Rockfall could damage structures or injure people. Bedrock outcrops and / or residual boulders are reportedly rare at the site.	***5.1-9*** The following measure would be required to mitigate potential rockfall impacts: • Remove any unstable materials encountered adjacent to development areas. • Remove the materials and place rip-rap or other engineered erosion control devices, construct rockfall entrapment trenches, or undertake selective rock bolting of remaining materials with galvanized or gray PVC-coated gabion mesh. • Set development back from eroding rock faces not mitigated by the above measures or in addition to implementing those measures, depending on specific situations.	Applicant	Before Building, Grading or other Construction Permits	DPW		
5.1-10 Artificial Fill Areas New construction on existing artificial fill, where encountered, could settle unevenly and be damaged or could stimulate or accelerate erosion.	***5.1-10*** The following measures would be required to mitigate artificial fill impacts: • Conduct field investigations when formulating the Final Grading Plan required for the Development Plan to determine the presence and limits of such materials in the vicinity of parts of the site proposed for development. • Remove and recompact artificial fill located in or adjacent to areas of proposed grading during landslide repair, grading operations for road construction, or development of individual private lots under the observation and testing of a registered engineer.	Applicant	Before Building, Grading or other Construction Permits	DPW		
~~***5.1-13 Maintenance of Geotechnical and Hydrologic Mitigation Measures*** The difficult geologic conditions on-site and the mitigation measures required to stabilize landslides would involve long-term monitoring and maintenance after site development to ensure the effectiveness and success of mitigation.~~	~~***5.1-13*** The following measure would be required of the applicant to insure the effectiveness of long-term maintenance in mitigating the project's impacts: • The project applicant shall be responsible to establish a funding entity to insure the effectiveness of long-term maintenance in mitigating the project's geotechnical and hydrologic impacts. This entity could be a homeowners' or~~	~~Applicant~~	~~Before FM or BP~~	~~CDA~~		Only applies to the Residential portion of the Master

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	~~property owners' association, an assessment district, or a Geologic Hazard Abatement District (GHAD) for the project site. Whatever entity is established it shall provide for the technical aspects of long-term maintenance to be handled by a geotechnical consultant and reviewed by the County. The professional consultant should follow a regular maintenance schedule and should prepare and submit progress reports to the County every six months for its review. This would place a responsible professional, agreed to by the County, in the position of overseeing the site. Only site property owners would participate by paying taxes/fees into the fund..~~					Plan
5.2-2 Site Peak Flow Rates Project grading, construction of impervious surfaces, and installation of a storm drain system would increase site peak flow rates from Sub-watershed 1 by 1.6 percent and from Sub-watersheds 2, 3 and 6 by a minimum of 17 to 69 percent	***5.2-2*** The following mitigation measure would be required to reduce peak flow impacts: • Construct a stormwater detention / treatment basin Basin location shall be selected to minimize excessive topographic manipulation, even if one or more designated residential lots must be eliminated to accommodate its construction. Since stormwater quality impacts can be mitigated, in part, through the integration of water quality enhancements to normal detention basin design, the detention basin should be designed to serve a two-fold purpose: 1) fully attenuate 100-year peak flows from Sub-watersheds 2 and 3 to pre-project levels and, thus, reduce pressure on the downstream storm drain system- the Gallinas Creek tributary (i.e. Highway 101 box culvert); and (2) filter and cleanse stormwater runoff by use of a vegetated inlet swale and detention area (forebay). Other design considerations shall include: • Structural measures for normal pond dewatering and end-of-season (e.g. April) dewatering (fully) for mosquito control. ~~• An emergency overflow spillway with appropriate energy dissipater at the outlet.~~ ~~The project applicant shall prepare a monitoring and maintenance plan for the detention basin to ensure proper long-term basin functioning. The monitoring and maintenance plan would include provisions for sediment removal and basin repair, as well as associated conditions governing the use of heavy mechanical equipment (e.g. backhoes, excavators) and environmental safeguards and procedures. This information shall be incorporated into the project's Stormwater Pollution Prevention Plan (SWPPP) submitted to the County Department of Public Works.~~ ~~Prior to release of the project performance bond,~~	Applicant	Before FM	DPW		Only applies to the Residential portion of the Master Plan

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	~~maintenance of the detention basin by a funding entity shall be established by the project applicant. Such an entity could chose to maintain the basin and other erosion and sediment control measures itself or could hire bonded independent contractors. (Also, see Geology Mitigation Measure 5.1-13.)~~					
Hydrology and Drainage						
~~***5.2-3 Downstream Hydraulic Structures and Flooding***~~ ~~Project-induced increases in peak flow rates and / or runoff volumes for Sub-watersheds 2 and 3 would exacerbate flooding in portions of the adjacent Marinwood Subdivision due to inadequate storm drain capacities and extant backwater conditions during floods. In addition, gaps have been noted in existing cross-slope interceptor ditches. If unrepaired, these gaps would create avenues for off-site, downslope diversion of concentrated ditch flows.~~	~~***5.2-3*** The following measures would be required to reduce project impacts on downstream flooding due to inadequate storm drain system capacities:~~ ~~• Replace the existing 18-inch storm drainpipe along the rear of 281 Ellen Drive with a 30-inch RCP, as indicated in the project Schematic Grading Plan.~~ ~~• Repair the gaps in the existing concrete, cross-slope interceptor ditch network and any other defects that could result in the diversion of ditch/hillslope runoff onto adjacent lots in the Marinwood Subdivision.~~	~~Applicant~~	~~Before FM~~	~~DPW~~		Only applies to the Residential portion of the Master Plan
~~***5.2-4 Downstream Hydraulic Structures and Flooding***~~ ~~Project-induced increases in peak flow rates for Sub-watersheds 1 and 2 would worsen flooding at the three- by six-foot box culvert under Highway 101. No corrective measures have been agreed upon to remedy this flooding condition and no funding currently exists for such action.~~	~~***5.2-4*** Implement Mitigation Measure 5.2-2.~~	~~Applicant~~	~~Before FM~~	~~DPW~~		Only applies to the Residential portion of the Master Plan
5.2-7 Site Erosion and Downstream Sedimentation and Flooding Hillslope grading activities associated with construction of residential and assisted living structures, roadways, and driveways would result in large areas of bare soils which would be subject to erosion by rainfall and hillslope runoff. Eroded sediments would eventually be discharged to off-site drainage channels, including Miller Creek, where sedimentation could reduce flood conveyance or impair water quality.	***5.2-7*** To reduce project impacts of on-site erosion and downstream sedimentation it would be necessary to: • Prepare and implement a comprehensive Stormwater Pollution Prevention Plan (SWPPP), which is submitted as part of the NPDES General Construction Activity Stormwater Permit (General Permit) filing with the State Water Resources Control Board. The NPDES General Permit is required for all developments which would disturb more than five acres of land. The SWPPP describes on-site measures for erosion control and stormwater treatment to be implemented during and following project construction, as well as a schedule for monitoring of performance. These measures are referred to as Best Management Practices (BMPs) for the control of point and non-point source pollutants in stormwater. BMPs incorporated in the project SWPPP would likely include *in-situ* protection, seeding and mulching of bare ground, planting of trees and shrubbery in both disturbed upland and riparian areas, and installation of other forms of biotechnical slope stabilization, such as	Applicant	Before Building, Grading or other Construction Permits	DPW		

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	appropriately staked straw bale perimeters, silt fences, or staked plant wattles on the slope contour. No grading should occur within the Miller Creek Stream Conservation Area during the winter season, thus restricting grading activities at the proposed Miller Creek bridge crossing to the period between May 1 and October 15. Grading in site areas outside of the SCA can occur during the winter season, as long as erosion control measures approved as a part of the Stormwater Pollution Plan (SWPPP) are installed and properly maintained during this period.					
5.2-8 Site Erosion and Downstream Sedimentation and Flooding Construction of the proposed Marinwood Avenue bridge would disturb the banks of Miller Creek significantly in the vicinity of the construction area. Subsequent bank erosion and downstream sedimentation could exacerbate flooding downstream of the Highway 101 bridge.	***Mitigation Measure 5.2-8*** To reduce project impacts of on-site erosion and downstream sedimentation due to construction of the Marinwood Avenue Bridge on Miller Creek, it would be necessary to: Implement Mitigation 5.2-7. • Acquire a 1603 Stream Alteration Agreement from the California Department of Fish and Game (CDFG). In addition to measures outlined in the project SWPPP for graded or exposed soil surfaces, the applicant's construction contractor(s) and field engineer should implement temporary measures, where required, to minimize channel sedimentation during bridge construction. Due to the good quality stream habitat and culverting impacts to aquatic life, a bypass pipe through the work area is not recommended. Some form of cofferdam segregating the work areas from the active channel would be preferable. All such measures would be described in the Stream Alteration Agreement submittal and would be subject to approval by CDFG. Submit an application or letter of notification, as appropriate, to the U.S. Army Corps of Engineers for an Army Fill Permit, in accordance with provisions of the Nationwide Permit Program. Acquire a Waiver of Water Quality Certification from the RWQCB.	Applicant	Before BP	CDA		
5.2-10 Water Quality- Violation of Water Quality Standards Proposed residential development in Sub-watersheds 2 and 3 and assisted living development in Sub-watershed 6 would increase the stormwater contaminant loading for some heavy metals, including copper, lead and zinc to levels exceeding those listed by regulatory agencies for the protection of aquatic habitats. Oil and grease concentrations in the site runoff reaching Miller Creek and the Gallinas Creek tributary would not exceed regulatory agency thresholds, however, even	***5.2-10*** The following measures would be required to minimize impacts on-site and downstream water quality to less-than-significant levels: • Implement Mitigation Measure 5.2-2 (Peak Flows). • The stormwater detention basins recommended for construction as part of the program for peak flow mitigation should be designed to maximize their water quality treatment function. Proper configuration, sizing and inlet / outlet characteristics would maximize deposition of particulates in incoming stormwater and would favor the growth of	Applicant	Before Building, Grading or other Construction Permits	DPW		

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
small concentrations are considered significant by the RWQCB. Establishment of irrigated landscaping and its associated herbicide and pesticide inputs could potentially result in the downstream migration of nutrient and contaminant residues in stormwater drainage channels leading to the recently constructed wetland pond in the industrial park area east of Highway 101, and potentially to Gallinas Creek Marsh.	emergent vegetation to facilitate filtering opportunities. Specific design characteristics for wet ponds are listed in the California Storm Water Best Management Practices Handbook for Construction Activity. • Implement Mitigation Measure 5.2-7 (Site Erosion and Downstream Sedimentation and Flooding). • Due to the close proximity to the sensitive wetland and aquatic habitats in the receiving waters of Miller Creek and lower Gallinas Creek, the following BMPs are considered a minimum for Oakview stormwater treatment to comply with the requirements of the NPDES General Permit and provisions of Title 24 of the Marin County Code (24.04.625), citing erosion control requirements associated with site grading. • Institute a regular schedule of street and parking lot sweeping. The frequency of cleaning should be higher (e.g. twice monthly) during the winter rainy season, yet maintained year-round. Regular cleaning of paved surfaces reduce the "first flush" phenomenon wherein the highest concentration of contaminants are flushed off the surfaces during the early portion of a runoff event. • Incorporate grass-lined swales to convey stormwater from paved surfaces to creek channels or wetlands. Grass-lined swales filter particulates from stormwater and, as a result, reduce the entry of heavy metals and contaminated sediments to drainageways. The current development plan includes one grass-lined (i.e. vegetated) swale each toward the lower end of Sub-watersheds 2 and 3, although the one proposed for Sub-watershed 2 would not provide significant water quality benefits. Two additional swale locations could be integrated into the project design for Sub-watershed 6 stormwater drainage. The first swale would extend downslope from the eastern edge of the Lot 30 parking lot to the top of the existing cut-slope, at the freeway interface. The second swale would extend from the northernmost storm drain inlet along Roadway C (Marinwood Avenue extension), parallel to the freeway, to the southern bank of Miller Creek. To forestall excessive rilling within such swales, it may be necessary to install biodegradable fabric along the swale flowline. Initially, the swale may need to be irrigated along with the landscaping. • Revegetate all disturbed areas prior to the onset of each winter rainy season during and for 2-3 years following completion of construction. Use of an erosion control grass and forb mixture, favoring native species, would be best					

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	suited to this task. In addition, some type of surface erosion protection (e.g. jute netting, erosion control blankets, punched straw) should be installed to reduce the erosive energy of incoming raindrops for the first couple of winter seasons. • Prepare and implement an irrigation scheduling and chemical management plan governing the application of irrigation water and chemical amendments to landscaped areas adjacent to buildings and within or adjacent to parking lot facilities. Components of such a plan would likely include an irrigation schedule linked to soil moisture levels or related variables such as temperature, humidity and wind speed. Specific chemical inputs proposed for application to vegetation should be among those tested and cleared for use by the USEPA. Frequency and scheduling of these chemical inputs should also be indicated, based on-site-specific characteristics (e.g. soil and vegetative cover and rates of uptake) and the acknowledged sensitivity of downstream receiving waters. • Implement Mitigation Measure 5.2-8 (Site Erosion and Downstream Sedimentation and Flooding).					
5.2-11 Cumulative Water Quality Impacts Contaminants in stormwater discharges from the site would contribute to the contaminant loading of the waters of Miller Creek (a spawning stream), the Gallinas Creek tributary, and eventually Gallinas Creek.	***5.2-11*** The following measures would be required to reduce cumulative water quality impacts: • Implement Mitigation Measure 5.2-10.	Applicant	Before Building, Grading or other Construction Permits	DPW		
Biological Resources						
5.3-1 General Vegetation Removal and Landscaping Impacts Grading associated with project implementation would remove existing vegetation in areas proposed for development, primarily involving non-native grassland but also affecting oak woodland, native grasslands, and freshwater seeps. Landscape plantings would replace much of the vegetative cover disturbed by project implementation, raising concerns about the appropriateness of proposed plant materials, compatibility with sensitive plant communities, and need for long-term management to ensure successful establishment.	***5.3-1(a)*** A qualified landscape architect should prepare a detailed Landscape and Vegetation Management Plan in consultation with a plant ecologist experienced in management of native species. This Landscape and Vegetation Management Plan should be incorporated into the Final Landscape Plan prepared as a part of the Precise Development Plan. The plan should: 1) provide for re-establishment of native vegetation on graded slopes around the fringe of proposed development; 2) provide details on native plantings associated with proposed restoration, enhancement, and mitigation.; 3) establish a program to salvage suitable native plants for use in landscaping and revegetation; 4) identify unsuitable species which should not be used in landscaping; 5) control the establishment and spread of introduced broom; and 6) specify long-term management provisions to ensure re-establishment of	Applicant	Before PDP	CDA	Verified 5/17/18 Tejirian	

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	landscape improvements. Aspects of the plan should include the following: • Landscaping and revegetation should emphasize the use of native plant species along the fringe of proposed structures and grading. Plant lists should be expanded to include valley oak (*Quercus lobata*), California buckeye (*Aesculus californica*), California rose (*Rosa californica*), common rush (*Juncus patens*), creeping wildrye (*Leymus triticoides*), purple needlegrass (*Nassella pulchra*), iris-leaved rush (*Juncus xiphioides*), and slender rush (*Juncus tenuis*). • Suitable tufts of native grasses to be removed by the project should be salvaged before grading and used in landscaping and revegetation, providing a source of mature plants and re-establishing much of the desirable local cover which otherwise would be lost with development. The anticipated limits of grading should be flagged, and plant material suitable for use in the salvage program should be marked, carefully removed, and stored. The salvage material should be transplanted to selected mitigation areas at the appropriate time of the year before grading (generally in October and November), with maintenance provided as necessary to ensure re-establishment. • Non-native ornamental species used in landscape plantings should be restricted to the immediate vicinity of streets and development areas on residential lots on Parcel 1 and the parking lots and buildings on Parcel 2. The landscape plan should prohibit use of invasive non-native species which may spread into adjacent undeveloped areas. Unsuitable species include blue gum eucalyptus (*Eucalyptus globulus*), acacia (*Acacia* spp.), pampas grass (*Cortaderia selloana*), broom (*Cytisus* and *Genista* spp.), gorse (*Ulex europaeus*), bamboo (*Bambusa* spp.), giant reed (*Arundo donax*), English ivy (*Hedera helix*), German ivy (*Senecio milanioides*), and periwinkle (*Vinca* sp.), among others. • Species planted adjacent to retained woodlands should be native to the site, and "other trees offering seasonal color" should be eliminated from the Conceptual Landscape Plan. • Graded slopes and areas disturbed as part of the project should be monitored to prevent establishment and spread of French and Scotch broom. Removal and monitoring should include annual late winter removal of any rooted plants when soils are saturated and cutting back of any remaining flowering plants in the spring before seed begins to set in late April. • The landscape plan should specify provisions to maintain				Verified 5/17/18 Tejirian	

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	landscaping and graded slope revegetation with replacement plantings and seeding for a minimum of five years to ensure re-establishment of cover. ***5.3-1(b)*** Vehicles and motorcycles should not be allowed to travel off designated roadways to prevent further disturbance to grassland cover and other vegetation. Barriers should be provided where vehicular access to open space areas may be possible.	Applicant	Before PDP	CDA	Verified 5/17/18 Tejirian	
5.3-2 Tree Removal and Woodland Impacts Proposed development has generally been sited to avoid areas of woodland vegetation, although an estimated 35 trees would still be removed. Additional trees could be adversely affected by grading and construction unless protective measures are implemented. Although anticipated tree removal represents only a small percentage of the total number of trees on the site, their loss would still be considered significant due to their age and length of time needed to replace them	***5.3-2(a)*** ~~The development envelope shown on the Master Plan's Residential Area Layout should be revised to indicate building envelope areas which are intended to minimize tree removal. Deed restrictions or some other mechanism should be established over individual lots to prevent possible tree removal and disturbance of other native vegetation outside the identified building envelopes. Trees adjacent to building envelopes on Lots 8, 9, and 10 should be thinned or pruned under the guidance of a certified arborist rather than removed during house construction and yard landscaping.~~ Prior to the removal of 19 riparian trees, the project sponsor shall obtain authorization in a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). ***5.3-2(b)*** Where feasible from an engineering and geotechnical standpoint and warranted based on the good to excellent health and structure of the tree, trees near the limits of anticipated grading should be preserved and protected. Individual specimen-sized trees should be preserved by retaining walls, short over-steepened slopes, and other methods. Protection of larger native trees with trunk diameters exceeding 24 inches should take precedence over smaller live oaks and California bay which are abundant in the woodland habitat. ***5.3-2(c)*** A certified arborist should prepare detailed guidelines to protect trees to be preserved from possible damage. Trees to be retained should be identified in the field with flags or other obvious marking method before any grading. Standards contained in the preservation guidelines should include the following: • Grade changes should be avoided within 1.5 times the width of the tree dripline, and any encroachment should be prohibited closer than one-third the distance from the dripline to the trunk. Restrictions on the limits of grading, adjustments to the final grade of cut and fill slopes, and use of retaining walls should all be used to protect individual	Applicant Applicant Applicant	Before Tree Removal Before PDP Before PDP	CDA CDA CDA	 Verified 5/17/18 Tejirian Verified 5/17/18 Tejirian	

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	trees worthy of preservation. • Temporary fencing should be provided along the outermost edge of the dripline of each tree or group of trees to be retained in the vicinity of grading to avoid compaction of the root zone and mechanical damage to trunks and limbs. • Paving within the tree dripline should be prohibited or stringently minimized by using porous materials such as gravel, loose boulders, cobbles, wood chips, or bark mulch where hardscape improvements are necessary for access in the vicinity of trees. • Trenching within the tree dripline should be prohibited, and any required utility line within the dripline should be installed by boring or drilling through the soil. • The amount of landscape irrigation within the tree dripline should be minimized by prohibiting turf or any landscaping with high water requirements and by limiting permanent irrigation improvements to bubbler, drip, or subterranean systems. • Storage of construction equipment, materials, and stockpiled soils should be prohibited within the tree driplines. ***5.3-2(d)*** A tree replacement program should be prepared to provide for replacement of native trees removed by proposed development. The tree replacement program should be included as a component of the project's Landscape and Vegetation Management Plan (required by Mitigation Measure 5.3-1[a]) and implemented as part of site revegetation and landscaping. Provisions of the tree replacement program should include the following: • Oaks and other native trees should be replaced at a ratio of 2:1 (ratio of replacement trees to number of trees removed). • Species composition of plantings in the tree replacement program should generally be consistent with the percentage of each tree species removed. If off-site nursery stock is used for replacement plantings, plants preferably should be seedlings with a container size of one-gallon or smaller. Younger plant material tends to have a higher survival rate than older nursery stock which has become established under ideal growing conditions provided at most nurseries. • A program to collect seed and grow seedlings for use in the tree replacement program should be considered as part of the tree replacement program. Seed should be collected on-site in the fall months, planted in temporary containers, and maintained for a period of one or more years until seedlings	Applicant	Before BP	CDA	Verified 5/17/18 Tejirian	

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	are ready for planting. Oak seedlings grown from an on-site seed source would be preferable to use of off-site nursery stock, and this program should be encouraged. • If trees proposed for removal are successfully salvaged and transplanted, no additional replacement mitigation should be required for those trees. • Tree replacement plantings should be monitored as part of the Landscape and Vegetation Management Plan (required for the project by Mitigation Measure 5.3-1(a)) for a minimum of five years. If mature salvaged trees die within this time period, replacement plantings should be made at the 2:1 ratio. Any on-site salvage, locally-collected and grown seedlings, or nursery stock plantings lost within this monitoring period should be replaced at a 1:1 ratio on an annual basis.					
5.3-3 Disturbance to Native Grasslands Proposed development would affect an estimated minimum of 1.6 acres of native grasslands on the site with a coverage classification of ten percent or greater. Native grassland species present consist mainly of purple needlegrass and California oatgrass. Because the CNDDB considers this natural community sensitive due to its rarity, any future loss of native grasslands would "substantially" diminish habitat for plants.	***5.3-3*** A grassland restoration and enhancement program should be required to mitigate the loss of native grasslands disturbed by proposed development which provides for replacement of native grasslands at a 1:1 ratio, meets or exceeds the cover class lost, and emphasizes the use of purple needlegrass and California oatgrass. A qualified plant ecologist experienced in grassland restoration using native grasses should prepare the program. The grassland program should be included as a component of the Landscape and Vegetation Management Plan required for the project by Mitigation Measure 5.3-1(a) and should be implemented as part of site revegetation and landscaping. Provisions of the grassland program should include: ~~• Deed restrictions or some other mechanism should be established over individual lots to prevent removal of native grasslands outside the building envelopes, particularly on Lots 2 to 7, 17 to 20, 27, and 28.~~ • Native grasslands disturbed by proposed development should be restored and replaced at a minimum 1:1 ratio with replacement provided on a per acre basis for each cover class lost. Success criteria for replacement should provide for establishment of native grasslands which meet or exceed the cover class of the existing stands lost as a result of development. • Replacement grasslands should be consolidated to the degree feasible to improve the value of the currently scattered stands, expanding the extent of native grasslands in the	Applicant	Before PDP	CDA	Verified 5/17/18 Tejirian	

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	proposed open space in the southern part of the site, and used to revegetate the graded slopes above the proposed assisted living area and recommended wetland mitigation area. • Prior to construction, the boundary of proposed grading within or adjacent to stands of native grasslands to be preserved should be clearly staked with color-coded flags set at 50-foot intervals, and disturbance from construction equipment operation, storage, or other activities should be prohibited inside the delineated "no disturbance zone." Native grasslands within the limits of grading should be considered as possible salvage material to be used in the replacement program. • Tree plantings shown in the Conceptual Landscape Plan and replacement plantings required for anticipated tree removal should be restricted to outside the existing and restored native grasslands. • The program should identify the on-site mitigation areas and acreage, specify performance criteria, maintenance, and long-term management responsibilities, monitoring requirements, and contingency measures, and define site preparation, revegetation procedures, and an implementation schedule.					
5.3-4 Disturbance to Freshwater Seeps and Wetlands Proposed development would affect a minimum estimated 1.4 acres of scattered freshwater seep wetlands and a limited area of unvegetated other waters.	***5.3-4(a)*** A qualified wetland consultant should prepare a detailed wetland protection, replacement, and restoration program which satisfies adopted standards and criteria of the County, Corps, CDFG, and RWQCB. The program should be prepared as a component of the recommended Landscape and Vegetation Management Plan required by Mitigation Measure 5.3-1(a) at the Precise Development Plan stage of the County's planning and project approval process and should be implemented as part of site revegetation and landscaping. The wetland plan should clearly identify the total wetland and other jurisdictional area affected by the project, replace wetland habitat at a minimum 2:1 ratio (consistent with County policy), and provide for re-establishment, enhancement, and / or replacement of wetland vegetation. Details of the plan should include the following: • Identify the location(s) of mitigation areas. Mitigation for loss of existing wetlands should be provided at a minimum replacement ratio of 2:1, consistent with *The Marin Countywide Plan*, and should result in created or restored wetlands with a higher habitat value than that of the lost wetland areas. • Replacement wetlands ~~should preferably~~ may be located on-site or on the adjacent parcel to the west (Assessor's	Applicant	Before PDP	CDA	Verified 5/17/18 Tejirian	

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	Parcel Nos. 164-270-006 and -007) at a ratio determined by the Corps, but could include consideration of both on-site and an off-site location in the general vicinity. Use of the southeastern portion of the site for wetland mitigation would be unacceptable given that this area will most likely be developed with freeway interchange improvements in the future. • Specify performance criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures. Monitoring should be provided for a minimum of five years and continue until the success criteria are met. • Define site preparation and revegetation procedures, an implementation schedule, and funding sources to ensure long-term management of the overall wetland mitigation plan.					
5.3-4 Disturbance to Freshwater Seeps and Wetlands Proposed development would affect a minimum estimated 1.4 acres of scattered freshwater seep wetlands and a limited area of unvegetated other waters.	***5.3-4(b)*** A detailed erosion and sedimentation control plan should be prepared and implemented during construction on the site. The plan should contain detailed measures to control erosion of stockpiled earth and exposed soil, provide for revegetation of graded slopes before the first rainy season following construction, and specify procedures for monitoring the plan's effectiveness. The revegetation component of the plan should be consistent with the Landscape and Vegetation Management Plan required by Mitigation Measure 5.3-1(a). Implement Mitigation Measures 5.2-7 and 5.2-8 (Site Erosion and Downstream Sedimentation and Flooding). [see above]	Applicant	Before Building, Grading or other Construction Permits	DPW		
5.3-4 Disturbance to Freshwater Seeps and Wetlands Proposed development would affect a minimum estimated 1.4 acres of scattered freshwater seep wetlands and a limited area of unvegetated other waters.	***5.3-4(c)*** The bridge or arched culvert proposed for the Marinwood Avenue crossing of Miller Creek should minimize disturbance to jurisdictional waters and riparian vegetation by designing it to conform with the County's minimum roadway width standards and restricting abutments to the upper channel banks. Construction should be performed during the low flow period in the creek (from June through October), and construction debris should be kept outside of the creek channel by using silt fencing or other effective methods. Replacement planting with native trees and shrubs should be provided adjacent to the structure as part of mitigation following completion of bridge construction. **5.3-4(d)** As an alternative to Mitigation Measure 5.3-4(a), the applicant may mitigate for permanent impacts to U.S. Army Corps of Engineers (Corps) jurisdictional wetlands by	Applicant	Before Building, Grading or other Construction Permits	DPW		

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	purchasing an appropriate amount of mitigation credits by an approved mitigation bank within the Project service area or another type of mitigation as approved by the Corps and the San Francisco Bay Regional Water Quality Control Board (RWQCB) through the permitting process.					
5.3-6 Disruption of Fish and Wildlife Habitat Site development would alter existing patterns of wildlife use and could disrupt movement of fish and wildlife species along the Miller Creek corridor.	***5.3-6*** The following measure would be required to mitigate impacts on wildlife resources: Disturbance within the Miller Creek corridor on the site should be minimized to protect its function for fish and wildlife movement. The proposed bridge or arched culvert crossing should be designed to avoid impeding movement of fish and wildlife along the creek channel, and drop structures under the bridge should be prohibited. Improvements to the existing creekside path should be limited to stabilizing and possibly surfacing, and lighting should be prohibited along the path to minimize disrupting creek use by wildlife at night.	Applicant	Before PDP	DPW	Verified 7/20/2018 by Cara Zichelli	
5.3-7 Impacts on Special-Status Plant and Animal Species No special-status species would be affected directly. However, the Miller Creek bridge could affect possible dispersal habitat of special-status turtle, frog, steelhead, and shrimp species, but would not affect other on-site habitat, and would not require confirmation surveys for those species. A possibility remains that raptors not presently occupying the site could establish nests between now and when development occurs which construction activities could destroy or induce raptors to abandon. This would be a potentially significant impact which only can be determined through supplemental field surveys before construction.	***5.3-7*** The following measures would be required to mitigate impacts on special-status species: **5.3-7(a) (Special-status Bats):** Potential significant impacts to roosting special-status bats shall be mitigated through avoiding disturbance to active roost sites. If tree removal or trimming is required, it shall take place between September and October. This time period for tree removal or trimming falls outside of both the maternity and hibernation periods for bats, and avoids the time period for bird breeding. Tree removal may take place during this period without a breeding bird or bat roost survey. If removal of large oaks or riparian trees (DBH >12 inch) occurs during the bat roosting season (November through August), these trees shall be inspected by a qualified biologist for the presence of bat roosts. Potential bat roosts include large oak trees, broad leafed riparian trees, exfoliating bark, tree cavities, and snags. If a maternity roost is detected, a 200-foot buffer shall be placed around the maternity site until the bats are no longer utilizing the site. Non-maternity roost sites can be removed under the direction of the biologist. Any large tree (DBH >12 inch) that will be removed shall be left on the ground for 24 hours before being taken offsite or chipped. This period will allow any day roosting bats the opportunity to leave before the tree is either removed from the area or chipped. **5.3-7(b) (Special-status Birds)** If any active ~~raptor~~ special-status bird nests are established within the vicinity of	Applicant	Before Tree Removal	CDA		

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	proposed grading in the future, they should be avoided until young birds are able to leave the nest (fledge) and forage on their own. Avoidance may be accomplished either by scheduling grading and tree removal during the non-nesting period (August 15 through January 14) or, if this is not feasible, by conducting a ~~pre-grading~~ survey for raptor and other special-status bird species nests not more than two weeks prior to the start of vegetation removal or grading. Provisions of the ~~pre-grading~~ nesting bird survey effort, if necessary, should include the following: • If vegetation removal or grading is scheduled during the sensitive nesting period (January 15 through August 14), a qualified wildlife biologist~~, chosen by the County and paid for by the applicant, should~~ shall conduct a pre-construction ~~grading~~ raptor and special-status bird survey to confirm the presence or absence of active nests in the vicinity of proposed construction activities. • If active nests are encountered, the biologist should prepare and implement species-specific measures to prevent abandonment of the active nest(s). At a minimum, grading in the vicinity of a nest's tree should be deferred until the young birds have fledged, and a construction-disturbance setback of ~~at least 300 feet should~~ within a distance determined by the biologist shall be provided. Grading or other disturbance in the vicinity of the nest should not be permitted until the biologist confirms that the young ~~raptors~~ birds have fledged. The biologist should submit a survey report to the County verifying that the young have fledged before grading in the construction-disturbance setback area is initiated. • As necessary, representatives of the CDFG and USFWS should be consulted about appropriate construction restrictions, building setbacks, landscape screening, and other methods to ensure compliance with the Migratory Bird Treaty Act and provisions of the State Fish and Game Code. **5.3-7(c) (Steelhead and Fish Habitat):** Prior to any work within jurisdictional wetlands involving fill for the bridge crossings or removal of the old bridge footings, a Section 404 permit and a Section 401 Water Quality Certification shall be obtained. In addition, a Streambed Alteration Agreement shall be obtained from the CDFW. If in-channel work will occur, the Corps may initiate consultation with National Marine Fisheries Service (NMFS) if there is a potential for adverse impact to the species in order to determine the appropriate impact avoidance, minimization, and mitigation measures (if any) for the proposed Project.	Applicant	Before BP	CDA		

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	Avoidance and minimization measures that may be required by NMFS and CDFW, and if required shall be implemented during the proposed Project, include the following: • Work below top of bank shall be conducted in isolation from flowing water and will only occur during the dry season (April 15 to October 31). In the event that flowing water is present, the work area shall be isolated, and flowing water shall be diverted around the work area. • The appropriate Corps, CDFW, and RWQCB permits and approvals shall be obtained prior to conducting work within the active channel or below top of bank within the Study Area. The Corps may initiate consultation with NMFS to determine if any additional impact avoidance, minimization, and mitigation measures would be required for the proposed Project. The Corps, CDFW, and NMFS (if necessary) will be consulted regarding the bridge crossing design. Additional avoidance and minimization measures recommended in these permits shall be followed to reduce the potential to impact steelhead and fish habitat.					
Visual and Aesthetic Quality						
~~***5.4-1 View from Proposed Lucas Valley Road Entrance*** From this viewpoint development on the lower parts of the site would dominate the view and contrast with the surrounding grassland area.~~	~~***5.4-1*** Implement the applicant's proposed project landscaping (which includes street trees, a 20-foot wide landscaped area between existing homes on Ellen Drive and Lisa Court and the project site landscaping along Lucas Valley Road) as shown in the Conceptual Landscape Plan. This would break up the form and lines of project site development.~~	~~Applicant~~	~~Before PDP~~	~~CDA~~		
~~***5.4-2 View from Proposed Lucas Valley Road Nighttime*** Nighttime lighting could dominate the view from this viewpoint.~~	~~***5.4-2*** The following measures would be required to be incorporated into the Development Plan as a condition of Master Plan approval to mitigation visual impacts: • Shield or focus outdoor night lighting downward and select roadway and pavement surfaces to minimize upward reflected light. • Recess lighting elements within fixtures to prevent glare. • Conceal lights to avoid glare and avoid placing lights too close to objects to prevent reflected glare. • Avoid high-angle high-candela distribution. • Select lighting fixtures which can be shielded after installation, if a problem is identified. • Because light trespass effects are subjective and site-specific, quantifiable criteria (such as controlling the amount of luminescence or restricting certain angles of lighting)~~	~~Applicant~~	~~Before PDP~~	~~CDA~~		Only applies to the Residential portion of the Master Plan

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	~~usually cannot be identified. For this reason, the applicant should consult a lighting design specialist to determine light source locations, light intensities, and types of light sources for the assisted living facility. A lighting plan for site roadways and public areas (such as assisted living parking lots) should be incorporated in the Precise Development Plan as a condition of Master Plan approval.~~					
5.4-5 View Looking Northwest from Highway 101 Northbound The form of the assisted living facility that would be visible from this viewpoint would dominate the surrounding environment.	***5.4-5*** Implement the applicant's proposed project landscaping (which includes landscaping around the assisted living area) as shown in the Conceptual Landscape Plan. This would break up the form and lines of project site development.	Applicant	Before Final Occupancy	CDA		
Air Quality						
5.6-3 Impacts to Sensitive Receptors Dust generation from short-term construction activities associated with development of the project components would cause potential health and nuisance air quality impacts to adjacent land uses.	***5.6-3*** Master Plan approval should be conditioned to require contractors to incorporate measures to reduce dust and equipment exhaust emissions into construction plans. Emissions from construction activities can be greatly reduced by implementing dust control measures. The significance of construction impacts to air quality is typically determined based on the control measures that will be implemented. Implementation of the measures listed below would reduce the dust impacts associated with grading and new construction to a less-than-significant level: • All active construction areas shall be watered at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times. • All hauling trucks shall be covered or at least two feet of freeboard shall be maintained. • Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. • Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas that are inactive for 10 days or more). • Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles. • Limit traffic speeds on any unpaved roads to 15 mph. • Install sandbags or other erosion control measures to	Applicant	Before BP	CDA		

Impact	*Mitigation*	*Implemented by*	*When Implemented*	*Monitored by*	*Verified by and Date*	*N/A*
	prevent silt runoff to public roadways. • Replant vegetation in disturbed areas as quickly as possible. • Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site. • Install wind breaks, or plant trees / vegetative wind breaks on the windward side(s) of construction areas. • Suspend excavation and grading activity when winds cause dust clouds to extend beyond the construction site and affect nearby land uses. • Limit the area subject to excavation, grading, and other construction activity at any one time. • Properly maintain construction equipment and avoid unnecessary idling near residences. • Designate a disturbance coordinator that would respond to complaints regarding construction-related air quality issues. The phone number for this disturbance coordinator shall be clearly posted at the construction sites.					
Noise						
5.7-1 ***Land Use Compatibility Impact*** Noise levels ~~on some proposed residential lots and~~ in the proposed assisted living area would exceed the Noise and Land Use Compatibility criteria set forth by the Noise Element of the *Marin Countywide Plan*. While indoor noise levels in the assisted living facility would conform to County criteria through normal building design, exterior sound levels could result in ~~a potentially significant impact on residents' use of their lots' yards, and~~ interior levels with residents' windows open <u>that</u> could conflict with the criteria.	~~***5.7-1*** No measures would be required to mitigate noise exposure of proposed assisted living facility. The following measure would be required to reduce the impact of noise exposure on future residential use of proposed Lots 27 and 28:~~ ~~• Design property-line privacy fences to shield the backyards of Lots 27 and 28. Fences should be six feet high and of solid construction so that there are no cracks or gaps either in the fence itself or at the bottom. A double-sided wooden fence or board-on-board construction consisting of a minimum of three-quarter-inch thick wood would provide the necessary sound attenuation. A masonry sound wall of the type discouraged by County policy would not be required. Lot-by-lot site plans submitted to the County during design review should show the noise reduction solution selected.~~ ~~• Depending on proposed site orientation and noise shielding (in response to the immediately preceding measure), design and build (or require the future homeowners to build) second floors of housing units on Lots 27 and 28 with mechanical ventilation so that windows can be closed to achieve interior noise criteria.~~ <u>Unnumbered Mitigation Measure (Condition of Approval No. 5-e): The applicant shall implement the proposed noise</u>	Applicant	Before BP	CDA		

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	mitigation measures to ensure that the project has been designed to meet the Countywide Plan's criteria for acceptable interior and exterior noise levels. This can be done by using sound rated windows and providing the buildings with mechanical ventilation so that the windows could be maintained closed. Non-operable (sealed) windows shall be provided on the Highway 101 frontage of the building. Outdoor areas exposed to an Ldn of 60 dB or less shall be provided on the westerly back side of the building.					
5.7-3 Construction Noise During construction, noise levels would be elevated outside and inside existing homes immediately adjacent to the project site boundary.	***5.7-3*** *Countywide Plan* Policy N-2.4 requires that measures should be taken during all phases of construction to minimize exposure of neighboring properties to excessive noise levels from construction-related activity. Further, the Noise Element states that the Community Development Agency reserves the right to set hours for construction-related activities involving the use of machinery, power tools, or hammering. The type of construction, site location, and noise sensitivity of nearby land uses would determine the hours of construction. The conditions of approval would specify hours for staging and type of construction activities. In order to implement these policies, the following measures would be required to mitigate the project's short-term construction noise impacts: • Adequately muffle and maintain all equipment used on the project site. All internal combustion engine-driven equipment should be fitted with intake and exhaust mufflers which are in good condition. Good mufflers with quieted compressors should result in all non-impact tools generating a maximum noise level of 85 dB when measured at a distance of 50 feet. • Powered construction equipment should be turned off when not in use. • Assign a disturbance coordinator to be available on-site during construction. • Clearly post the name and telephone number of the disturbance coordinator so that neighbors have a contact person at the project site with whom to discuss problems and who can facilitate resolution of these problems. ~~• Confine residential construction to 8:00 AM to 5:00 PM on weekdays, at least during periods when construction is taking place within 1,000 feet of the nearest existing homes. Construction hours for activity in other parts of the site could be lengthened as appropriate, including assisted living construction on Parcel 2.~~	Applicant	Before BP	CDA		

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
Public Services						
5.8-2 Wildland-Building Fire Exposure Impacts New building construction adjacent to wildland areas on the project site would be exposed to fire hazards under severe weather and wind conditions.	***Mitigation Measure 5.8-2*** The following measures would be required to reduce the potential impacts of wildland fires: • The Fire Management Plan should include both a Vegetation Modification Plan (to ensure that a minimum defensible space -- 30 to 100 feet depending on specific site conditions -- would be provided by reducing flammable vegetation and fuel load) and a Vegetation Maintenance Plan (to describe the on-going annual vegetative maintenance program). The annual Vegetation Maintenance Plan reports would address the site's fire hazards based on fuel load, slope, aspect, topography, and other factors and should determine priority problem areas on the site where fire safety measures should be emphasized. Approval of the Fire Management Plan by the MFD would be required before construction, and implementation would be required prior to framing. ~~Because the Master Plan does not yet describe long-term site maintenance aspects of the project (such as establishment of a homeowners' association or equivalent organization composed of all the site's residential, assisted living, and open space landowners), the Vegetation Maintenance Plan should establish a mechanism and identify who would be responsible for implementing all elements of the Plan.~~ The MFD has materials and guidelines to prepare mitigation plans for defensible space. New plantings of trees and vegetation with a high fire risk (such as Bishop Pine [*Pinus muricata]*, Tan Oak [*Lithocarpus densiflorus*], California Bay [*Umbellularia californica*], and Coyote Brush [*Bacharis pilularis*]) should be prohibited within the defensible space zone of buildings. Existing trees with a high fire risk within the defensible space zone of buildings (such as California Bay) could be retained with permission of the MFD and would require special consideration in the Vegetation Management Plans, as described below. Resistant plantings should be encouraged (such as Coast Live Oak (*Quercus agrifolia*), Pacific Wax Myrtle (*Myrica californica*), California Lilac (*Ceanothus* spp.) and Toyon (*Heteromeles arbutifolia*)), all of which are included in the Conceptual Landscape Plan. • Implement fire prevention measures during construction. The applicant and individual residential or assisted living developers should be responsible for implementing the measures which should include (but not be limited to) the following:	Applicant	Before PDP	CDA	Verified 5/17/18 Tejirian	

Impact	Mitigation	Implemented by	When Implemented	Monitored by	Verified by and Date	N/A
	▫ Installing all project roadway and water requirements before any residential sidewall construction on the site, consistent with Section 10.502 of the *Uniform Fire Code.* ▫ Clearing brush and other potential fire fuel around construction areas. ▫ Maintaining and clearly marking on-site fire response equipment (such as fire extinguishers, fire retardant blankets, shovels, buckets, etc.) at each construction area. ▫ Ensuring that all construction workers are trained to use on-site fire response equipment and workplace safety measures. ▫ Locating and clearly identifying a cellular phone or other communication device on-site at all times during construction.					
Transportation and Circulation						
7.0-1 Existing Plus Project AM and PM Peak Hour Conditions The proposed project and in conjunction with existing traffic conditions would create significant AM peak hour impacts for the ~~Lucas Valley Road / Los Gamos Road,~~ Miller Creek Road / Marinwood Avenue~~, and Highway 101 Southbound Ramps / Miller Creek Road~~ intersection~~s~~. ~~Significant PM peak hour impacts would be created for the Lucas Valley Road / Los Gamos Road intersection.~~	***7.0-1*** The following mitigations would be required to reduce existing plus project AM and PM peak hour conditions to a less-than-significant level. ***7.0-1(a)*** Miller Creek Road / Marinwood Avenue - The recommended mitigation measure at this intersection is the installation of a traffic signal. ~~The applicant should fund this improvement.~~ Prior to issuance of a grading permit, the applicant shall pay the Project's 1.5-percent proportional share of this improvement, estimated to be $7,440. ~~***7.0-1(b)*** The property owners are willing to provide a voluntary offer of dedication of an appropriate interest (such as a fee simple dedication if required by the California Department of Transportation or an easement) for public roadway purposes over the approximately 9.4 acre portion of the Tentative Map that is identified as "Interchange Acquisition Parcel A'" and "Interchange Acquisition Parcel B'". The voluntary donation would be effected by an offer of dedication on the Parcel Map implementing the Tentative Map, by deed, or such other means as the parties may agree. The dedication or conveyance of the property shall be to the State of California, or to the County of Marin for conveyance to the State and shall be subject to the provisions of Government code Section 7050 and 66477.5.~~ ~~The voluntary offer of dedication of land area at the southeasterly corner of the property between Highway 101 and Lucas Valley Road for future southbound Highway 101 off-ramp improvements has been made in lieu of the paying the Transportation Facilities Fees that are required pursuant to Marin County Code Section 15.07.060.~~	Applicant Applicant	Before Building, Grading or other Construction Permits	DPW DPW		

Impact	*Mitigation*	*Implemented by*	*When Implemented*	*Monitored by*	*Verified by and Date*	*N/A*
	~~The voluntary offer of dedication of land area at the southeasterly corner of the property between Highway 101 and Lucas Valley Road for future southbound Highway 101 off-ramp improvements has been made in-lieu of paying the applicant's fair share of intersection improvements at the Lucas Valley Road / Los Gamos Road interchange since the signalization is intended to compliment the interchange improvements as identified in the Northgate Activity Center Plan. The EIR has identified that the applicant's fair share is 38% of the approved design and construction budget.~~ ***7.0-1(c)*** The applicant shall pay its estimated proportional share of 15.6 percent, estimated to be $77,876.	Applicant	Before Building, Grading or other Construction Permits	DPW		
7.0-2 Short-Range Cumulative AM and PM Peak Hour Conditions Short Range cumulative conditions would create significant peak hour impacts for the Miller Creek Road / Marinwood Avenue, Lucas Valley Road / Los Gamos Road, and Highway 101 Southbound Ramps / Miller Creek Road intersections.	***7.0-2(a) through 7.0-2(c)*** The recommended improvements for Miller Creek Road / Marinwood Avenue, ~~Lucas Valley Road / Los Gamos Road,~~ and Highway 101 Southbound Ramps / Miller Creek Road are the same as recommended for Impact 7.0-1.	Applicant	Before Building, Grading or other Construction Permits	DPW		

Impact	*Mitigation*	*Implemented by*	*When Implemented*	*Monitored by*	*Verified by and Date*	*N/A*
7.0-3 Long-Range Cumulative AM and PM Peak Hour Conditions Long-range cumulative conditions would create significant peak hour impacts for all of the unsignalized study intersections except the Highway 101 Northbound Ramps/Miller Creek Road intersection.	***7.0-3*** The following mitigations would be required to reduce long-range cumulative AM and PM peak hour conditions to a less-than-significant level. ~~The applicant would also pay Northgate Activity Center Plan traffic mitigation fees based on 56 PM peak hour project generated trips that would travel through the Highway 101 / Lucas Valley Road / Smith Ranch Road intersection. The amount of this fee would be offset by 55 percent of the cost of other area-wide improvements financed by the applicant, pursuant to the Board of Supervisors Resolution 84-501.~~ ***7.0-3(a)*** Miller Creek Road / Marinwood Avenue Same mitigation measure as 7.0-1(a). ~~***7.0-3(b)*** Lucas Valley Road / Los Gamos Road – Same mitigation measure as 7.0-1(b).~~ ***7.0-3(c)*** Highway 101 Southbound Ramps / Miller Creek Road – Same mitigation measure as 7.0-1 (c). ***7.0-3(d)*** Miller Creek Road / Las Gallinas Avenue The recommended mitigation measure at this intersection is the installation of a traffic signal. Prior to issuance of a grading permit, the applicant shall pay the Project's 2.1-percent proportional share of this improvement, estimated to be $10,615. ~~***7.0-3(e)*** Highway 101 Northbound Ramps / Miller Creek Road The recommended mitigation measure at this intersection is the installation of a traffic signal.~~	Applicant	Before Building, Grading or other Construction Permits	DPW		

Key
BP – Building or Grading Permit
PDP – Precise Development Plan
FM – Final Map
CDA – Community Development Agency
DPW – Department of Public Works

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