



# INITIAL STUDY OF ENVIRONMENTAL SIGNIFICANCE

Community Development Department  
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Napa, CA 94559  
707.257.9530

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**STATE CLEARING HOUSE NUMBER:**

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<b>Project Name:</b>	Western Meadows Subdivision	<b>File Number:</b>	PL19-0048
<b>Site Address:</b>	1044 Borrette Lane	<b>APN:</b>	041-700-016
<b>General Plan:</b>	SFR-40 (Single Family Residential, 0-2 dwelling units/acre)		
<b>Zoning:</b>	RS-20 (Single-Family Residential, 20,000 sf minimum parcel size)		
<b>Applicant:</b>	Borrette Lane Estates LLC	<b>Phone:</b>	(707) 256-2145
<b>City Staff:</b>	Steven Rosen	<b>Phone:</b>	(707) 257-9530

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**PROJECT DESCRIPTION:**

The project would subdivide one 7.56-acre parcel into twelve (12) new lots and create twelve (12) single-family detached houses and a new street. Each house would be one story tall.

A detailed description of the house plans follows:

- House #1 be 5,352 square feet in size, 24'-10.5" tall, and would have three bedrooms, a one-bedroom accessory dwelling unit (ADU), a two-car garage, and a lot coverage of 7.4% on a 1.66-acre lot.
- House #2 would be 5,024 square feet in size, 25'-4.5" tall, and would have three bedrooms a two-car garage, and a lot coverage of 24.86% on a 0.46-acre lot.
- House #3 would be 5,165 square feet in size, approximately 25'-5" tall, and would have three bedrooms, a three-car garage, and a lot coverage of 24.5% on a 0.48-acre lot.
- House #4 would be 5,352 square feet in size, 24'-10.5" tall, and would have three bedrooms, a one-bedroom ADU, a two-car garage, and a lot coverage of 24.7% on a 0.50-acre lot.
- House #5 would be 5,096 square feet in size, 21'-11.5" tall, and have three bedrooms, a three-car garage, a junior accessory dwelling unit (JADU), and a lot coverage of 23.7% on a 0.49-acre lot.
- House #6 would be 3,790 square feet in size, 20'-10.5" tall, and have three bedrooms, a two-car garage, and a lot coverage of 18.9% on a 0.46-acre lot.
- House #7 would be 5,165 square feet in size, approximately 25'-5" tall, and would have three bedrooms, a three-car garage, and a lot coverage of 25.0% on a 0.47-acre lot.
- House #8 would be 4,999 square feet in size and 21'-11.5" tall, and have three bedrooms, a three-car garage, a JADU, and a lot coverage of 25.0% on a 0.46-acre lot.
- House #9 would be 5,016 square feet in size, 25'-4.5" tall, and have three bedrooms, a two-car garage, and a lot coverage of 25.0% on a 0.46-acre lot.
- House #10 would be 4,972 square feet in size, 21'-10.5" tall, and have three bedrooms, a three-car garage, and a lot coverage of 24.8% on a 0.46-acre lot.
- House #11 would be 3,790 square feet in size, 20'-10.5" tall, and have three bedrooms, a two-car garage, and a lot coverage of 18.9% on a 0.46-acre lot.
- House #12 would be 5,535 square feet in size, 21'-10.5" tall, and have three bedrooms, a three-car garage, and a lot coverage of 22.7% on a 0.56-acre lot.

The street would serve the 12 proposed lots and two existing lots developed with one house each. It would be 863.42' long. It would access Borrette Lane, a public street, via an easement across a neighboring parcel. The street would be 24 feet wide and have a sidewalk four feet wide with a four-foot wide landscape strip on one side for its

whole length. Three lots would access the new street via a driveway 328.2 feet in length. Three lots would access the new street via a driveway 331.1 feet in length.

**ENVIRONMENTAL SETTING:**

The 7.56-acre project site is located on the north side of an existing private driveway extending east from the north end of Borrette Lane. The project site is 275 feet from the Rural/Urban Limit at its closest approach and is adjacent to a developed single-family subdivision on its east and north sides, large-lot single-family houses on the south side, and a small vineyard and winery on the west and north sides. On the southern boundary of the parcel is Llama Creek. The site is located within a residentially zoned area containing all necessary utilities.

The parcel ranges in elevation between 255 feet in the north and 200 feet in the southeast, and is situated on a south-facing slope. Browns Valley Creek, located 640 feet south of the site, flows from northwest to southeast. Several wetlands and seeps occur on the northern portion of the property. On the southern boundary of the parcel is Llama Creek, a tributary to Browns Valley Creek, which is identified as a blue line creek on the topographic map. A reservoir is located upstream on the tributary, approximately 3,465 feet away.

Three vegetation communities, comprising four wildlife habitat types, occur within the entire study area. The vegetation communities are Phalaris aquatica Semi-Natural Herbaceous Stands or Harding grass swards, which is a non-native grassland type; potential seasonal wetland associated with the drainage ditch in the north; and Umbellularia californica Forest Alliance or California bay Riparian Forest that occurs along the Llama Creek.

**CITY APPROVALS REQUIRED:**

1. Design Review of a subdivision of five or more lots and the creation of flag lots;
2. Use Permit to allow flag lots;
3. Tentative Subdivision Map.

**OTHER PUBLIC AGENCIES:**

US Army Corps of Engineers  
US Fish and Wildlife Service  
California Department of Fish and Wildlife  
Regional Water Quality Control Board #2

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

- Aesthetics
- Biological Resources
- Greenhouse Gas Emissions
- Land Use & Planning
- Population & Housing
- Transportation & Traffic
- Mandatory Findings of Significance
- Agriculture & Forestry Resources
- Cultural Resources
- Hazards & Hazardous Materials
- Mineral Resources
- Public Services
- Tribal Cultural Resources
- Air Quality
- Geology & Soils
- Hydrology & Water Quality
- Noise
- Recreation
- Utilities & Service Systems

**DETERMINATION:**

- The proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.
- Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

**A Notice of Intent to Adopt a Mitigated Negative Declaration will be prepared and posted for the period of May 28, 2021 through June 28, 2021.**

**PREPARED BY:**



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Steven Rosen, Associate Planner  
for Vincent Smith, Community Development Director

5/27/2021

\_\_\_\_\_  
Date

I. AESTHETICS				
Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?			X	
<p>Discussion:</p> <p>The site cannot be seen from public viewpoints. While there would be visual changes as seen from private backyards, a change in itself would not necessarily be significant and with the imposition of the special conditions noted below, the overall impact would be reduced to less than significant. Residential development on the site has been planned since the adoption of the 1998 General Plan, which allows for residential development. The proposed single-family lots and associated residences will not have a substantial adverse effect on a scenic vista or result in substantial damage to scenic resources. Although there are views of the site from adjacent neighbors, there are no significant views of the site or from the site that are normally visible to a substantial number of people. Napa's General Plan focuses on preserving and enhancing Napa's special community identity by managing future growth, maintaining the qualities of its neighborhoods, and providing for maintenance of surrounding County open space. Development within the Rural Urban Limit (RUL) preserves scenic vistas outside the RUL.</p> <p>Sources: Site survey</p>				
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
<p>Discussion:</p> <p>The development is not visible from a State Scenic Highway.</p> <p>Sources: Scenic Highway Maps</p>				
c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				X
<p>Discussion:</p> <p>The project is in an urbanized area and does not conflict with regulations governing scenic quality in that the houses, if approved, would be found to conform to the Napa Residential Design Guidelines.</p> <p>Sources: Site survey</p>				
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	
<p>Discussion:</p> <p>Potential aesthetic impacts will be reduced to a less-than-significant level through the City's application of the standard conditions of approval to minimize visual impacts applied as a result of the architectural review process. The City requires lighting to be confined to the site. Although the project may generate light and cause reflective glare, these potential impacts will be reduced to a less-than significant level through application of the City's standard light and glare mitigation measures, and review of lighting plans during the City's architectural review process.</p> <p>Sources: Project plans</p>				

II. AGRICULTURAL & FOREST RESOURCES				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
<p>Discussion:</p> <p>The project site is designated as “Urban and Built-Up Land” on the Farmland Mapping and Monitoring Program map.</p> <p>Sources: California Resources Agency FMMP Map</p>				
b. Conflict with existing zoning for agricultural use or a Williamson Act Contract?				X
<p>Discussion: The site is zoned for single-family detached dwellings. There are no Williamson Act Contracts in the City limits.</p> <p>Sources: City of Napa Zoning Map</p>				
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
<p>Discussion:</p> <p>The site is not land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. It is not land which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products. It is not zoned, devoted to, and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses.</p> <p>Sources: Project Habitat Assessment, zoning map, site survey</p>				
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X
<p>Discussion:</p> <p>The site is not productive forest land. Its riparian woods are not within the proposed development envelopes.</p> <p>Sources: Site survey, site plans</p>				
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				X

II. AGRICULTURAL & FOREST RESOURCES				
Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>Discussion:</p> <p>Legislation effective January 1, 2009 requires that as a part of real estate transactions, land sellers and agents must disclose whether the property is located within one mile of farmland as designated on the most recent Important Farmland Map. Any of the five agricultural categories on the map qualifies for disclosure purposes, including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land.</p> <p>The site is within a mile of Farmland mapped by the California Resources Agency. This legislation will require owners to acknowledge that they are purchasing land that may host disruptive agricultural operations.</p> <p>Additionally, the mapped farmland is outside the Rural Urban Limit, which protects it from urban development.</p> <p>With these regulations in place, this project would not result in the conversion of the nearby mapped farmland to non-agricultural use.</p> <p>Sources: FMMP</p>				

III. AIR QUALITY [significance criteria established by BAAQMD may be relied upon to make the following determinations]				
Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?				X
<p>Discussion:</p> <p>The Bay Area Air Quality Management District advised the City of Napa that this impact is assessed by determining whether the project complies with the applicable Control Measures in Chapter 5 of the 2017 Clean Air Plan.</p> <p>The project complies with Control Measure TR9 by providing adequate sidewalks for a dead-end street. The project complies with Control Measure TR10 by increasing the supply of housing with the Rural/Urban Limit. The project complies with Control Measure BL1 by including buildings that will comply with the California Building Code's efficiency requirements.</p> <p>Because the project complies with all of the applicable Control Measures from the 2017 Clean Air Plan, the project will not conflict with or obstruct implementation of the air quality plan and have no impact.</p> <p>Sources: BAAQMD CEQA Guidelines May 2017</p>				
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?		X		
<p>Discussion:</p>				

**III. AIR QUALITY** [significance criteria established by BAAQMD may be relied upon to make the following determinations]

**Operational Phase Impacts**

The project consists of twelve single-family dwellings. The screening threshold for this land use type is 325 dwellings for criteria air pollutants and precursors and 56 dwellings for operational greenhouse gas emissions. Therefore, the project does not exceed the threshold of significance for this land use type, and the impact is less than significant.

The screening criteria for carbon monoxide (CO) impacts are whether the project is consistent with any applicable congestion management program, increases traffic volumes at affected intersections to more than 44,000 vehicles per hour, or increases traffic volumes at affected intersections to more than 24,000 vehicles per hour where air mixing is substantially limited. The Napa Valley Transportation Agency does not have a congestion management program, and there are no intersections in the region with traffic counts that exceed the thresholds. Therefore, the impact on CO levels is less than significant.

**Construction Phase Impacts**

BAAQMD's CEQA Guidelines establish screening criteria. If the criteria are met, a construction project would result in a less-than-significant impact to air quality. The first criterion is whether the project is below the screening size. As discussed above in the Operation Phase Impacts section, the project is below that screening size. The second is whether all of the BAAQMD *Basic Construction Mitigation Measures* would be implemented. These measures will be conditions of approval. The remaining criteria are that the project does not include demolition, simultaneous occurrence of more than two construction phases, simultaneous construction of more than one land use type, site preparation more extensive than the assumptions in Cal EE Mod models, and extensive material transport consisting of greater than 10,000 cubic yards of soil imported or exported. The project will not include these activities. Therefore, the project's construction phase impacts to air quality will be less-than-significant.

Implementation of City of Napa Standard Mitigation Measures III-1 through III-3 and BAAQMD Construction Best Management Practices, Mitigation Measure III-4, would reduce impacts to a less than significant level:

**City of Napa Standard Mitigation Measures (City Council Policy Resolution 27):**

Mitigation Measure III-1: Grading and construction equipment shall be shut down when not in use.

Mitigation Measure III-2: Construction activities shall not occur during windy periods.

Mitigation Measure III-3: Exposed soil surfaces shall be periodically sprinkled to retard dust; no City water shall be used for this purpose.

**Special Mitigation Measures:**

Mitigation Measure III-4: BAAQMD Basic Construction Air Pollution Prevention Measures for All Projects:

- a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- d. All vehicle speeds on unpaved roads shall be limited to 15 mph.
- e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

III. AIR QUALITY [significance criteria established by BAAQMD may be relied upon to make the following determinations]				
<p>g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</p> <p>h. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.</p> <p>Sources: BAAQMD CEQA Guidelines May 2017</p>				
c. Expose sensitive receptors to substantial pollutant concentrations?				X
<p>Discussion:</p> <p>The project will not generate substantial pollutant concentrations during the operation phase or the construction phase. As discussed above, the project would not exceed thresholds of significance in either the operation phase or construction phase. This means that the project will not create substantial pollutant concentrations.</p> <p>Sources: BAAQMD CEQA Guidelines May 2017</p>				
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				X
<p>Discussion:</p> <p>The BAAQMD CEQA Guidelines contain lists of uses that might result in emissions that could adversely affect substantial numbers of people. Residential land uses are not on this list.</p> <p>Sources: BAAQMD CEQA Guidelines May 2017</p>				

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Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?		X		
<p>Discussion:</p> <p>Special Status Plant Species</p> <p>The CDFW has compiled a list of "Special Plants" (CDFW 2018), which include California Special Concern species. These designations are given to those plant species whose vegetation communities are seriously threatened. Although these species may be abundant elsewhere, they are considered to be at some risk of extinction in California. Although Special Concern species are afforded no official legal status under FESA or CESA, they may receive special consideration during the planning stages of certain development projects and adverse impacts may be deemed significant under the California Environmental Quality Act (CEQA).</p> <p>No special status plants were observed during the 2018 and 2019 surveys and none are expected to occur. The site is dominated by non-native grasses, specifically Harding grass, which is an aggressive and noxious species,</p>				



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and which is likely to exclude establishment of native plants. Some common herbaceous native plants were observed, such as dense sedge, spreading rush, creeping wildrye, man root (*Marah fabaceus*), miner's lettuce (*Claytonia perfoliata*), and centaury (*Zeltnera muehlenbergii*). Although present on the site they represent a small portion of the overall herbaceous plant cover. No further studies are required.

There will be no impacts to special status plants.

##### Invertebrates

Although two native bee pollinators are on the watch list for the CDFW, there is a moderate potential for them to occur on the site, based on the habitats present. Based on the proposed design, a sufficient amount of habitat will likely occur in the vegetative plantings for the development and in the remaining habitat along the tributary that will not cause a decrease in the number of individual native bees in this portion of Napa County.

##### Vertebrates

California red-legged frogs (CRF) may occur within the vicinity of the study area and may use the unnamed tributary to move between water bodies. A discharge pipe placed within the riparian corridor may impact individual California red-legged frogs. Mitigation Measure IV-1 requires consultation with the USFWS several months in advance of construction. The result of the consultation may involve focused surveys by a qualified biologist to determine occupancy of the site. If focused surveys are conducted and no California red-legged frogs are observed no further action is required. However, if individuals are observed, then the mitigation measure requires additional steps to protect the individuals. Implementation of Mitigation Measure IV-1 would reduce the level of the impact to less-than-significant by determining whether the species are present and, if present, protecting them from construction.

Passerines and raptors nesting in the riparian trees and the lowlands within the project area could be impacted if construction occurs during the nesting season (March through August). Mitigation Measure IV-2 would reduce this impact to a less-than-significant level by determining whether birds are present prior to construction and, if present, protecting them from construction.

Removal of trees may cause direct mortality of roosting bats if the trees provide suitable roosting habitat and are removed during seasonal periods of inactivity (maternity season or winter). Mitigation Measure IV-3 and IV-4 would mitigate this impact to a less-than-significant level by implementing two-stage removal of trees during seasons when bats are active and able to flee to safety from the noise and disturbance of the first stage of tree removal and prohibiting removal of other trees.

##### Special Mitigation Measures:

Mitigation Measure IV-1: The Applicant shall implement the following measures to minimize and avoid take of individual CRF, measures that would additionally benefit western pond turtle, if present. Prior to issuance of any permits, the Applicant shall provide the Planning Division proof that a qualified professional has been engaged to perform the tasks that comprise this mitigation measure. Prior to Certificate of Occupancy, the Applicant shall provide proof that the qualified professional performed these tasks.

- Immediately prior to the start of work, a pre-construction survey will be conducted in the construction area for CRF by a USFWS -approved biologist. If CRF are found the USFWS shall be notified, the project work shall stop and the relocation of the individual shall be completed with approval by the USFWS.
- A USFWS-approved biologist shall conduct an Employee Education Program for all construction personnel. At a minimum, the training will include a description of the CRF and their habitat, the importance of the species and their habitats, and the general measures that are being implemented to protect the CRF as they relate to the project. Instruction shall include the appropriate protocol to follow in the event CRF are found onsite.
- The number of access routes, number and size of staging areas and the total area of activity shall be limited to the minimum necessary to achieve the project goal. The Service-approved biological monitor will identify the boundaries of the work and staging area and ensure that that contractor does not disturb any ground

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outside the designated construction area. The contractor shall obtain approval from the monitor to go outside designated areas.

- A USFWS-approved biologist shall be present during initial grading activities. Thereafter, an onsite person shall be designated to monitor onsite compliance with all minimization measures. The USFWS-approved biologist shall ensure that this individual receives training consistent with that outlined in the Biological Opinion.
- Best Management Practices shall be implemented during construction to prevent any construction debris or sediment from impacting adjacent habitat.
- During all phases of project operations, all trash that may attract CRF predators shall be properly contained and removed from the site.
- The fueling and maintenance of vehicles and other equipment shall occur at least 20 meters from any riparian habitat or water body.

Mitigation Measure IV-2: Prior to issuance of any permits, the Applicant shall provide the Planning Division proof that a qualified professional has been engaged to perform the tasks that comprise this mitigation measure. Prior to Certificate of Occupancy, the Applicant shall provide proof that the qualified professional performed these tasks. The following measures should be followed in order to avoid or minimize impacts to passerines and raptors that may potentially nest in the trees:

- Grading or removal of nesting trees should be conducted outside the nesting season, which occurs between approximately February 1 and August 31.
- If grading between August 31 and February 1 is infeasible and groundbreaking must occur within the nesting season, a pre-construction nesting bird (both passerine and raptor) survey of the grasslands and adjacent trees shall be performed by a qualified biologist within 7 days of ground breaking. If no nesting birds are observed, no further action is required and grading shall occur within one week of the survey to prevent “take” of individual birds that could begin nesting after the survey.
- If active bird nests (either passerine and/or raptor) are observed during the pre-construction survey, a disturbance-free buffer zone shall be established around the nest tree(s) until the young have fledged, as determined by a qualified biologist.
- The radius of the required buffer zone can vary depending on the species, (i.e., 75-100 feet for passerines and 200-300 feet for raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist in consultation with CDFW.
- To delineate the buffer zone around a nesting tree, orange construction fencing shall be placed at the specified radius from the base of the tree within which no machinery or workers shall intrude. After the fencing is in place there will be no restrictions on grading or construction activities outside the prescribed buffer zones.

Mitigation Measure IV-3: Prior to issuance of any permits, the Applicant shall provide the Planning Division proof that a qualified professional has been engaged to perform the tasks that comprise this mitigation measure. Prior to Certificate of Occupancy, the Applicant shall provide proof that the qualified professional performed these tasks. Applicant shall conduct an updated bat habitat assessment. Trees identified as potential bat habitat, providing canopy, cavity, crevice, or exfoliating bark roosting habitat, shall be field-located and marked prior to tree removal. Trees tagged during this assessment shall only be removed following these procedures:

- a. Conduct tree removal only:
  - Under instruction and initial direct supervision of a qualified bat biologist experienced with two-step tree removal procedures;
  - During seasonal periods of bat activity: either between March 1 (or after evening temperatures rise above 45°F and/or no more than 0.5” rainfall within 24 hours occurs); and
  - Within 24 hours after the removal of non-bat habitat trees.
- b. Habitat trees are to be removed over two consecutive days by first cutting non-habitat branches and limbs from habitat trees on Day 1 using chainsaws only (no excavators or other heavy machinery). The remainder of the habitat tree is to be removed the following day (Day 2).

Mitigation Measure IV-4: Other trees shall only be removed during seasonal periods of bat activity. Trees outside the project boundary and trees that will remain shall not be trimmed, removed, or damaged. The biologist’s

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letter, submitted prior to Certificate of Occupancy, shall attest that all trees were removed within this period. All trees not being removed shall be protected with temporary fencing at the dripline.

Sources: Wildlife Research Associates, Jane Valerius Environmental Consulting (2020). *Habitat Assessment, 1030 & 1040 Borrette Lane, Napa, Napa County, CA*

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?			X	
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**Discussion:**

No special status vegetation communities have been reported in the California Natural Diversity Database (CNDDDB) for the two topographic quadrangles Napa and Sonoma (CNDDDB 2018). The California Bay woodland riparian did not show up on the CNDDDB but CDFW considers this to be a sensitive natural community and it shows up on the Natural Communities List (CDFW 2010). In addition, one small area of native creeping wildrye grass was observed but this area is not large enough to qualify as a separate vegetation type. The potential seasonal wetlands mapped for the site would also be considered a sensitive natural community and require mitigation if impacted. Drainages and their associated riparian woodland communities will be mostly avoided by establishing creek setbacks in accordance with the County’s rules and regulations. However, the project will have one creek outfall that will occur at top of bank. A Streambed Alteration Agreement from the CDFW will be obtained for this structure.

For discussion of the outfall, Streambed Alteration Agreement, and mitigation, see Section IV.C of this study.

Sources: Wildlife Research Associates, Jane Valerius Environmental Consulting (2020). *Habitat Assessment, 1030 & 1040 Borrette Lane, Napa, Napa County, CA*

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
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**Discussion:**

All of seasonal wetland W-1 (a 0.014 acre wetland labeled as W-1 was mapped in the extreme northeastern corner) will be avoided and a 10-foot setback from the ditch will be maintained. Approximately 20 linear feet of D-2 (a portion of the drainage ditch that occurs in the northern portion of the project area that has been mapped as Waters of the U.S. because it has an identifiable ordinary high-water mark (OHWM) but that lacks wetland vegetation) will be filled at the southern end and the rest will be undisturbed. Approximately 6 linear feet of D-1 (a small portion of the same drainage at the extreme southwestern area of the lot associated with the culvert under the entrance road that is also mapped as a Waters of the U.S. because it also has an OHWM) will also be culverted. The small seasonal wetland, W-2, located in Lot 3, cannot not be avoided and will be filled. Mitigation Measure IV-5 would mitigate this impact to a less-than-significant level by requiring wetland replacement at a mitigation-to-loss ratio deemed adequate by the qualified biologists studying the project.

A new outfall is proposed for Llama Creek, a tributary to Browns Valley Creek, in the southeastern corner. The outfall will be placed above the OHWM of the creek so will be outside of the jurisdiction of the USACE but not CDFW and the RWQCB. Mitigation Measure IV-6 would mitigate impacts to this watercourse to a less-than-significant level by ensuring the work is done to the standards required by the California Department of Fish and Wildlife (CDFW) and Regional Water Quality Control Board (RWQCB).

**Special Mitigation Measures:**

**IV. BIOLOGICAL RESOURCES**

Mitigation Measure IV-5: Prior to issuance of any permit and any site disturbance, a Section 404 nationwide permit will need to be obtained from the USACE along with a 401 water quality certification from the RWQCB for placement of fill for the 0.008 wetland area in Lot 3 and for the new culvert at D-1 and fill of 20 linear feet at the southern portion of D-2. For the loss of 0.008 acres of wetlands, the Applicant shall to do on-site mitigation by expanding the existing wetland W-1 and creating 813 square feet or 0.018 acres for a 2:1 mitigation to loss ratio. The non-native and invasive blackberry and other weeds will be removed and native wetland plants will be seeded and/or planted in the newly created wetland area. The area will be excavated slightly to match the elevation of the existing wetland and water will be allowed to pond creating the necessary hydrology to sustain the wetland plants.

Approximately 6 linear feet of ephemeral drainage labeled as D-1 and the approximately +/- 20 linear feet of the D-2 ditch that will be developed, will be mitigated by expanding the northern portion of D-1 and adding 30 linear feet for a total of 60 square feet which is a greater than 1:1 mitigation to loss ratio.

The Applicant shall prepare a formal mitigation plan as part of the permit applications for the USACE and RWQCB. Mitigation will be at a 2:1 ratio so that 0.018 acres of wetland will be created on site to compensate for the loss of 0.008 acres of wetlands in Lot 3. There will a minimum of a ratio of 1:1 mitigation to loss for linear feet of drainage equaling approximately 60 square feet or 0.0014 acres as compensation for the loss of 6 linear feet at D-1 and 20 linear feet of D-2. All mitigation will be on site. If mitigation cannot be completed on site then other options for mitigation include the purchase of credits in an approved wetland mitigation bank, in-lieu fees, or off-site creation. The Applicant shall provide a copy of the approved mitigation plan and permit(s) from USACE and RWQCB to the City prior to issuance of a grading permit.

Mitigation Measure IV-6: Prior to issuance of any permit and any site disturbance, the Applicant shall enter into a Streambed Alteration Agreement with CDFW for the new outfall for Llama Creek in the southeastern corner of the site and obtain a 401 water quality certification from the RWQCB. A riparian habitat mitigation plan for impacts to any riparian vegetation along the creek may be required to compensate for the loss of any riparian habitat as a result of the construction of the new outfall. Mitigation would be in the form of planting of native trees and shrubs in degraded areas of the creek along with removal of invasive non-native species as part of a habitat restoration and mitigation plan. The plan would have a 5-year monitoring period and establish criteria for determining successful mitigation. The Applicant shall provide a copy of the approved mitigation plan and permit(s) from CDFW and RWQCB to the City prior to issuance of a grading permit.

Sources: Wildlife Research Associates, Jane Valerius Environmental Consulting (2020). *Habitat Assessment, 1030 & 1040 Borrette Lane, Napa, Napa County, CA*

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
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**Discussion:**

The open grasslands on the parcel allows for unimpeded movement. The proposed subdivision development will not impede movement by aquatic or terrestrial species.

Sources: Wildlife Research Associates, Jane Valerius Environmental Consulting (2020). *Habitat Assessment, 1030 & 1040 Borrette Lane, Napa, Napa County, CA*

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
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**Discussion:**

**IV. BIOLOGICAL RESOURCES**

NMC Chapter 12.45 regulates the removal of protected native trees on private property. This ordinance establishes categories of protected native trees and requires that removal of protected native trees that is part of a discretionary permit be reviewed by the decision-making body and be subject to tree replacement requirements.

The project requires the removal of two protected native trees. The arborist report submitted with the project application identifies these as Trees #7 and #10. Tree #7 is a 21.2"-diameter coast live oak. Tree #10 is an 18.5"-diameter coast live oak. The tree replacement ratio for protected native trees is two trees of the same species for every six inches or fraction thereof. The replacement trees shall be 15-gallon or larger. If the project site is inadequate in size to accommodate the replacement trees, with the recommendation of the Director, the trees shall be planted on public property. The Director may accept an in-lieu fee. The in-lieu fee is established by the City's master fee schedule and is currently \$325 per 15-gallon replacement tree. The number of replacement trees required for the removal of Trees #7 and #10 is eight coast live oaks. Mitigation Measure IV-7 will mitigate the removal of two protected native trees by requiring the Applicant to comply with NMC Chapter 12.45.

The arborist report also identifies protected native trees that must be protected with tree protection plans and recommends that the tree protection plans be included in construction drawings. These include a 30.5"-diameter coast redwood, a 20.5"-diameter coast live oak, a 36.2"-diameter coast live oak, and a California bay laurel with two trunks, 19" and 20" in diameter. Tree protection typically requires prohibiting disturbance within the tree's dripline and erecting a temporary fence to prevent entry to the dripline. The arborist report made a special recommendation for the redwood that the root protection zone be at least 13 feet in radius, measured from the trunk. Mitigation Measure IV-8 prevents destruction of trees that the Applicant does not propose removing, which would be a significant impact in that it would conflict with ordinances protecting native trees.

**Special Mitigation Measures:**

Mitigation Measure IV-7: The removal of Tree #7 and Tree #10 shown on the November 2018 tree survey shall be mitigated pursuant to NMC Section 12.45.070. Prior to the issuance of a grading permit, the Applicant shall provide Planning staff with a landscape plan showing where eight coast live oaks, each at least 15-gallons in size, will be planted. The trees shall be planted in accordance with best arboriculture practices prior to recordation of the final map. If the site cannot accommodate the replacement trees, the applicant shall submit an in-lieu fee for eight replacement trees at the rate on the current City Master Fee Schedule to the Director.

Mitigation Measure IV-8: Prior to the commencement of site disturbance and/or grading activities, Tree #5 shall be protected with a temporary barrier erected at a distance of 13 feet from its trunk. Trees #18, #19, and #21 shall be protected with temporary barriers erected at the dripline, except that the barrier around Tree #21 need not extend into the adjacent creek.

Sources: Report by Bill Pramuk, Consulting Arborist

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
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Discussion: There is no such plan for the area.

Sources: Napa General Plan

**V. CULTURAL RESOURCES**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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V. CULTURAL RESOURCES				
a. Cause a substantial adverse change in the significance of an historical resource as defined in Sec.15064.5?				X
<p>Discussion:</p> <p>The properties are not listed on the California Register of Historical Resources, the City of Napa Historic Resources Inventory or otherwise historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.</p> <p>Sources: CRHP, HRI</p>				
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Sec. 15064.5?		X		
<p>Discussion:</p> <p>The Napa Pastfinder database states that this site is in an area considered to have a medium archaeological sensitivity. No previous evaluation is on file and no archaeological sites are reported to be present. If undiscovered archaeological resources are present, then Mitigation Measures V-1 and V-2 are sufficient to protect unexpected archaeological resources. With these mitigation measures, the impact to cultural resources of being unearthed and from the loss of its context in sedimentary strata during construction is reduced to a less-than-significant level because the mitigation measure will stop work immediately upon discovery, while the resource is still in its context.</p> <p>Special Mitigation Measures:</p> <p>Mitigation Measure V-1: In the event that buried, or previously unrecognized archaeological deposits or materials of any kind are inadvertently exposed during any construction activity, work within 50 ft. of the find shall cease until a qualified archaeologist can assess the find and provide recommendations for further treatment, if warranted. Construction and potential impacts to the area(s) within a radius determined by the archaeologist shall not recommence until the assessment is complete. Implementation of this mitigation measure would reduce potential impacts to archaeological resources to a less than significant level.</p> <p>Mitigation Measure V-2: Prior to issuance of site improvement permits, the Applicant shall provide evidence to the Planning Division that it has engaged an archaeologist for worker education. Prior to the start of any subsurface excavations that would extend beyond previously disturbed soils, all construction forepersons and field supervisors shall receive training by a qualified archaeologist who is experienced in teaching non-specialists to ensure they can recognize cultural resources and will follow proper notification procedures in the event any are uncovered during construction. Procedures to be conveyed to workers include halting construction within 50 feet of any cultural resource find and notifying a qualified archaeologist, who will evaluate its significance.</p> <p>Sources: Pastfinder Database</p>				
c. Disturb any human remains, including those interred outside of dedicated cemeteries?		X		
<p>Discussion: As discussed in Section 5.b above, the site is considered to have medium archaeological sensitivity. It is unlikely that there are undiscovered human remains on the site, but no studies have been done on the site. Mitigation Measure V-3 will protect unexpected resources from being disturbed, which would be an affront to the people claiming the discovered human remains as a potential ancestor, and from being removed from their context in geological strata, which would reduce their value as resources in research into prehistory. These mitigation measures reduce the impact to a less-than-significant level.</p> <p>Special Mitigation Measures:</p>				

**V. CULTURAL RESOURCES**

Mitigation Measure V-3: Native American coordination shall follow the protocols established under Assembly Bill 52, State of California Code, and applicable City of Napa procedures. In addition, the following measures shall be implemented with regard to human remains:

- The treatment of any human remains and associated, or unassociated funerary objects discovered during soil disturbing activities shall comply with applicable state laws. Such treatment would include immediate notification of the Napa County Coroner. In the event of the coroner’s determination that the human remains are Native American, the coroner shall notify the Native American Heritage Commission, which would appoint a Most Likely Descendant (MLD) (PRC § 5097.98). The archaeological consultant, the City of Napa, and MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of any human remains and associated or unassociated funerary objects (CEQA Guidelines § 15064.5[d]). The agreement would take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. The PRC allows 48 hours to reach agreement on these matters. If the MLD and the other parties could not agree on the reburial method, the Event Authority shall follow Section 5097.98(b) of the PRC, which states that “the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.”

Sources: Pastfinder Database

**VI. ENERGY**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				X
<p>Discussion:</p> <p>No wasteful use of energy is anticipated in the construction phase. The resulting structures, while large, will comply with California’s energy-efficient building code.</p> <p>Sources: Project plans</p>				
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X
<p>Discussion:</p> <p>The applicable plan is the California Energy Efficiency Strategic Plan. This is a plan to create codes and regulations that result in energy efficient buildings. This project would comply with the Building Code and any rules about appliance efficiency. The City’s Building Division would ensure compliance with these codes.</p> <p>Sources: California Energy Efficiency Strategic Plan</p>				

**VII. GEOLOGY & SOILS**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving:				X

VII. GEOLOGY & SOILS				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Pub. 42.				
<p>Discussion:</p> <p>The site is not located within an Alquist-Priolo Earthquake Fault Zone. The site is 950 feet west of the West Napa Fault. The site is not subject to fault rupture, where the surface of the earth breaks along a fault.</p> <p>Sources: <a href="https://maps.conservation.ca.gov/cgs/EQZApp/app/">https://maps.conservation.ca.gov/cgs/EQZApp/app/</a>, RGH Geotechnical Study Report</p>				
ii) Strong seismic ground shaking?				X
<p>Discussion:</p> <p>The construction of the project would not have impacts on surrounding properties or the people within those properties.</p> <p>The site would be subject to shaking that could cause damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. However, compliance with the current Building Code would mean there would not be a significant impact to safety of people within the project.</p> <p>Sources: MTC/ABAG Hazard Viewer Map  <a href="https://mtc.maps.arcgis.com/home/item.html?id=c3a21989363b484ca6f9c0730e14d9f6">https://mtc.maps.arcgis.com/home/item.html?id=c3a21989363b484ca6f9c0730e14d9f6</a></p>				
iii) Seismic-related ground failure, including liquefaction?				X
<p>Discussion: The site is not within an area subject to liquefaction.</p> <p>Sources: <a href="https://maps.conservation.ca.gov/cgs/EQZApp/app/">https://maps.conservation.ca.gov/cgs/EQZApp/app/</a></p>				
iv) Landslides?				X
<p>Discussion: The site is not in a mapped landslide hazard zone.</p> <p>Sources: Napa General Plan Health and Safety Element Landslide Susceptibility Map</p>				
b. Result in substantial soil erosion or the loss of topsoil?				X
<p>Discussion:</p> <p>The project would comply with construction phase and operations phase runoff control regulations. These regulations prevent erosion and the loss of topsoil, apply to all projects, and are enforced by the City's Stormwater Quality staff. There would be no impact.</p> <p>Sources: Stormwater control plans</p>				
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
<p>Discussion:</p>				



**VII. GEOLOGY & SOILS**

As discussed in Section VII(a) above, the project site is not in such an area. To ensure that the project does not create these situations and that there is no unexpected soil instability, the City of Napa Municipal Code (NMC Section 16.20.010) requires all applications for tentative maps to include a soils investigation and/or geotechnical report. This report concluded that the development can be built as planned, provided the recommendations presented in the report are incorporated into its design and construction. This is required of all Building Permit applications.

Sources: RGH Geotechnical Study Report

d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property?		X		
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Discussion:

The Geotechnical Study Report submitted with the project application found that the site contains expansive soils. The report also included recommendations that will mitigate the threat caused by these soils to the proposed development. Mitigation Measure VII-1 requires that the measures proposed in that report, consisting either of building the proposed houses on engineered fill of a specified depth or of construction the houses with raised floors on joists, be implemented. The impact is that the houses would be unstable. The mitigation measure mitigates the impact by requiring that they be built to counteract the expansive soil.

City of Napa Standard Mitigation Measures (City Council Policy Resolution 27):

Mitigation Measure VII-1: For all subdivision and parcel maps, the Applicant shall prepare a Soils Investigation/Geotechnical Report in accordance with Section 16.36.200 of the NMC. The improvement plans shall incorporate all design and construction criteria specified in the report. The geotechnical engineer shall sign the improvement plans and approve them as conforming to their recommendations prior to parcel/final map approval. The geotechnical engineer shall also assume responsibility for inspection of the work and shall certify to the City, prior to acceptance of the work, that the work performed is adequate and complies with their recommendations. Additional soils information may be required by the Chief Building inspector during the plan check of individual house plans in accordance with Title 15 of the NMC.

Sources: RGH Geotechnical Study Report

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
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Discussion:

The project would connect to the Napa Sanitation District’s sewer system.

Sources: Napa Sanitation District, project plans

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
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Discussion:

There are no unique geologic features on the site. Mitigation Measure VII-2 will mitigate the impact of potentially unearthing unknown paleontological resources to a less-than-significant level. The value of buried paleontological resources is in their location within geologic strata. This strata is used to place the resources in time. The mitigation measure stops work when the resources are discovered so that they can be unearthed by a qualified

**VII. GEOLOGY & SOILS**

professional who can take note of where the resource sits in the sediment and this preserve its value to the humanity’s body of scientific knowledge.

Special Mitigation Measures:

Mitigation Measure VII-2: If paleontological resources are encountered during ground-disturbing project activities, work shall be halted immediately at the location of the resources. The on-site construction foreman shall notify the City’s Community Development Department to contact a qualified paleontologist to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. Construction workers shall not collect or move any paleontological resources. If found to be significant, and project activities cannot avoid the paleontological resources, adverse effects to paleontological resources shall be mitigated. Mitigation may include on-site monitoring, recording the fossil locality, data recovery and analysis, a final report, and accessioning the fossil material and technical report to a paleontological repository. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the City of Napa Community Development Department and, if paleontological materials are identified, a paleontological repository, such as the University of California Museum of Paleontology.

Sources: Site Survey

**VIII. GREENHOUSE GAS EMISSIONS**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		X		

Discussion:

The Bay Area Air Quality Management District’s (BAAQMD) 2017 CEQA Guidelines establish three alternative thresholds of significance for greenhouse gas (GHG) for projects other than stationary sources. These thresholds are: (1) Compliance with Qualified GHG Reduction Strategy, (2) 1,100 metric tons of CO2e (carbon dioxide equivalent) per year, or (3) 4.6 metric tons of CO2e per person per year (residents + employees).

BAAQMD’s 2017 CEQA Guidelines’ Table 3-1 lists the size of developments that meet or exceed 1,100t of CO2e. The threshold for this development type is 56 dwelling units. This project proposes 12 dwelling units. This project does not meet or exceed the threshold of significance value, and therefore would not have a potentially significant impact on GHG emissions.

BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. The Lead Agency is encouraged to incorporate best management practices to reduce GHG emissions during construction, as applicable. Construction phase GHG are caused by equipment exhaust and construction/demolition waste.

Construction-related emissions mitigation measures are included in Section III above. These are considered to mitigate the impact to a less-than-significant level.

All projects in the City of Napa are subject to NMC Chapter Chapter 15.32 which requires projects that; (a) exceed \$100,000 in building valuation; or (b) exceed 5,000 sq.ft. of new, improved, or remodeled areas; to file a Waste Reduction and Recycling Plan (WRRP) with the building permit application. No building permit shall be issued for any project until the Compliance Official has approved the WRRP. The plan shall document that recyclable materials shall be separated for recycling in order to meet the requirement of the City’s construction

**VIII. GREENHOUSE GAS EMISSIONS**

and demolition debris ordinance - recycling mandatory recyclables and exceeding overall 50% diversion. Official weight receipts/tags for each load shall be obtained, and at the conclusion of construction shall be submitted for review by the Compliance Official prior to the approval of a Certificate of Occupancy. Therefore, no special mitigation measure is required to meet the construction waste recommendation.

Special Mitigation Measures:

Mitigation Measures III-1 through III-4.

Sources: BAAQMD 2017 CEQA Guidelines

b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X
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Discussion:

The applicable plan is the BAAQMD 2017 Clean Air Plan (CAP). If a project does not conflict with or hinder the implementation of the control measures in Chapter 5 of the CAP, it is considered to not have a significant impact on GHG emissions. The applicable control measures are those that apply to greenhouse gases (GHG) and all pollutants. Many of the control measures for these pollutants are not applicable to residential projects, so they are not discussed in this checklist.

Transportation Control Measure TR9 encourages planning for bicycle and pedestrian facilities. This project will include sidewalks adequate to connect trips originating in the development to the pedestrian network. It also creates a quiet, dead-end street that would be comfortable for bicyclists originating in the development. The houses will all be built with garages adequate for the secure storage of bicycles. The project does not conflict with this control measure.

Energy Control Measure EN2 encourages local governments to adopt additional energy efficiency policies and programs. The City of Napa’s Building Division implements the latest CalGreen Building Code’s aggressive efficiency measures. This project does not conflict with this control measure.

Natural and Working Lands Control Measure NW2 encourages local governments to adopt and implement tree planting ordinances. The project will comply with the City of Napa’s urban forest regulations by complying with NMC Chapter 12.45’s tree replacement standards, as discussed in Section IV.e of this Initial Study Checklist.

Sources: BAAQMND CEQA Guidelines

**IX. HAZARDS & HAZARDOUS MATERIALS**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routing, transport, use, or disposal of hazardous materials?			X	

Discussion:

Activities associated with project construction would utilize hazardous materials such as vehicle fuels and lubricants in small quantities. While these are commonly used materials, if handled improperly, they could pose a hazard to the public or environment. The required compliance with applicable federal, state, and local hazardous materials regulations would minimize risks to the public during project construction.

IX. HAZARDS & HAZARDOUS MATERIALS				
Sources: Project scope				
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
<p>Discussion:</p> <p>Hazardous materials will not be concentrated on the site.</p>				
Sources: Project description				
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
<p>Discussion:</p> <p>The site is not within one-quarter mile of an existing or proposed school.</p>				
Sources: City maps				
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
<p>Discussion:</p> <p>The project is not on such a site.</p>				
Sources: EnviroStor Cortese list				
. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
<p>Discussion:</p> <p>The project is not located in the Napa County ALUCP boundaries.</p>				
Sources: Napa County ALUCP				
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
<p>Discussion:</p> <p>The project would not inhibit emergency response or evacuation by severing circulation network connections or causing congestion on the network. It would not obstruct or conflict with any other infrastructure that would be used in an emergency.</p>				
Sources: City of Napa Emergency Operations Plan 2019				

IX. HAZARDS & HAZARDOUS MATERIALS				
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X
<p>Discussion:</p> <p>The site is not in the Wildland/Urban Interface area.</p> <p>Sources: Napa General Plan Health and Safety Element Wildland/Urban Interface Map</p>				

X. HYDROLOGY & WATER QUALITY				
Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		X		
<p>Discussion:</p> <p>The project would cause increases to runoff volume, velocity, and pollutant load. With the implementation of mandatory runoff control measures, connection to the Napa Sanitation District’s sewer system, and the City’s standard mitigation measures (X-1 through X-4), the impacts would be mitigated to less-than-significant.</p> <p>City of Napa Standard Mitigation Measures (City Council Policy Resolution 27):</p> <p>Mitigation Measure X-1: The Applicant shall ensure that no construction materials (e.g., cleaning fresh concrete from equipment) are conveyed into the storm drain system. The Applicant shall pay for any required cleanup, testing and City administrative costs resulting from consequence of construction materials into the storm water drainage system.</p> <p>Mitigation Measure X-2: All materials that could cause water pollution (i.e., motor oil, fuels, paints, etc.) shall be stored and used in a manner that will not cause any pollution. All discarded material and any accidental spills shall be removed and disposed of at an approved disposal site.</p> <p>Mitigation Measure X-3: All construction activities shall be performed in a manner that minimizes, to the maximum extent practicable, any pollutants entering directly or indirectly the storm water system or ground water. The Applicant shall pay for any required cleanup, testing and City administrative costs resulting from consequence of construction materials into the storm water drainage system.</p> <p>Mitigation Measure X-4: Applicant shall mark all new storm drain inlets with permanent markings, which state “No Dumping—Flows to River.” This work shall be shown on improvement plans.</p> <p>Sources: Project plans</p>				
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
<p>Discussion:</p> <p>The project will be served by the City water system and will not rely on groundwater. The City water system is sized to accommodate growth envisioned by the General Plan.</p>				

X. HYDROLOGY & WATER QUALITY				
Sources: Utilities Department memo				
c	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			
	i. result in a substantial erosion or siltation on- or off-site?			X
Discussion:				
The project includes a drainage plan reviewed and approved by the City's Public Works Department that maintains the runoff from the site at the pre-project level.				
Sources: Public Works Department				
	ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			X
Discussion:				
The project includes a drainage plan reviewed and approved by the City's Public Works Department that maintains the runoff from the site at the pre-project level.				
Sources: Public Works Department				
	iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X
Discussion:				
The project includes a drainage plan reviewed and approved by the City's Public Works Department that maintains the runoff from the site at the pre-project level.				
Sources: Public Works Department				
	iv. impede or redirect flood flows?			X
Discussion:				
The project site is not in a floodway.				
Sources: FEMA's Flood Insurance Rate Map viewer				
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X
Discussion:				
The project is not in any of these zones, and it will not concentrate pollutants.				
Sources: General Plan Health and Safety Element, Project Description				

X. HYDROLOGY & WATER QUALITY				
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	
<p>Discussion:</p> <p>The project is designed to have the same runoff volume and velocity as the pre-project condition, and it will not draw any groundwater or cover an area large enough to result in significantly reduced percolation into the groundwater table.</p> <p>Sources: Project description</p>				

XI. LAND USE & PLANNING				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?				X
<p>Discussion:</p> <p>The project would not sever any existing or planned streets, trails, or informal paths. It is at the edge of the City limits near the Rural/Urban Limit.</p> <p>Sources: General Plan Circulation Element</p>				
b. Conflict with any applicable land use plan, policy, or resolution of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
<p>Discussion:</p> <p>The project conforms to the General Plan Land Use Element's density range for the project. The density range allowed is between zero and two dwellings per acre. This project would build 1.59 dwellings per acre. The minimum lot size is 20,000 square feet, or 0.46 acres. Each lot will exceed this requirement. Each of the home designs meets the development standards and parking requirements of the RS-20 Zoning District.</p> <p>Sources: Project Description</p>				
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
<p>Discussion:</p> <p>No such plan exists.</p> <p>Sources: Planning Division Library</p>				

XII. MINERAL RESOURCES				
Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
<p>Discussion:</p> <p>No such mineral resources exist within the City limits.</p> <p>Source: General Plan Natural Resources Element</p>				
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X
<p>Discussion:</p> <p>No such mineral resources exist within the City limits.</p> <p>Source: General Plan Natural Resources Element</p>				

XIII. NOISE				
Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
<p>Discussion:</p> <p>Construction would cause a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local noise ordinance unless Mitigation Measures XIII-1 through XIII-4 were applied. These mitigation measures reduce the impact to below the threshold of significance.</p> <p>After construction, the homes would not create noise that exceeds the City's regulations.</p> <p>City of Napa Standard Mitigation Measures (City Council Policy Resolution 27):</p> <p>Mitigation Measure XIII-1: Construction activities shall be limited to specific times pursuant to NMC 8.08.025 which limits construction activities to 7:00 a.m. to 7:00 p.m., Monday through Friday and 8:00 a.m. to 4:00 p.m. on weekends or legal holidays, unless a permit is first secured from the City Manager (or his/her designee) for additional hours. The ordinance further states that there will be: no start up of machines nor equipment prior to 8:00 a.m., Monday through Friday; no delivery of materials nor equipment prior to 7:30 a.m. nor past 5:00 p.m., Monday through Friday; no cleaning of machines nor equipment past 6:00 p.m., Monday through Friday; no servicing of equipment past 6:45 p.m., Monday through Friday.</p>				



XIII. NOISE				
Mitigation Measure XIII-2: Construction equipment shall have state-of-the-art muffler systems required by current law. Muffler systems shall be properly maintained.				
Mitigation Measure XIII-3: Noisy stationary construction equipment, such as compressors, shall be placed away from developed areas off-site and/or provided with acoustical shielding.				
Mitigation Measure XIII-4-X: Grading and construction equipment shall be shut down when not in use.				
Sources: Project description.				
b. Generation of excessive groundborne vibration or groundborne noise levels?				X
Discussion:  Construction of single-family dwellings does not require pile driving or other unusual construction techniques that cause ground borne vibration or noise. The dwellings themselves would not produce ground borne vibration or noise.  Sources: Project description.				
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
Discussion:  The project is not in the vicinity of an airport or airstrip or within an airport land use plan area.  Sources: Airport Land Use Plan, maps				

XIV. POPULATION AND HOUSING				
Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
Discussion:  The project is within the General Plan Land Use Element density range for the site. The City has planned for this population level in this area.  Sources: General Plan Land Use Element				
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X
Discussion:				

The project site is vacant. No housing or people would be displaced as a result of the project.

Sources: Site survey

**XV. PUBLIC SERVICES**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
i) Fire Protection?		X		

**Discussion:**

The development would result in an increase in the overall demand for fire protection and emergency medical services within the City but would not require the construction of new firefighting facilities. To enable effective fire suppression with the existing facilities, the City imposes standard mitigation measures on all discretionary projects that reduce any potential impacts to less than significant.

City of Napa Standard Mitigation Measures (City Council Policy Resolution 27):

Mitigation Measure XV-1: Applicant shall comply with all applicable requirements of the Uniform Fire Code the Fire Department and PWD Standard Specifications and the Fire Department "Standard Requirements for Commercial/Residential Projects," including, without limitation, the requirements for access, new construction, smoke detectors, fire extinguishers, fire hydrants, etc. Existing fire hydrants may be used to meet hydrant location requirements only if they meet or are changed to meet current hydrant specifications.

Mitigation Measure XV-2: Properties having common ownership shall provide the Fire Department with a notarized copy of the recorded conditions, covenants, and restrictions agreement in a form satisfactory to the City Attorney ensuring that all components of fire protection system(s), and fire access roads will be maintained by a maintenance district, owner's association, or similar legally responsible entity.

Mitigation Measure XV-3: All newly constructed buildings must have automatic sprinkler systems conforming to NFPA and City Standard Specifications, for which an installation permit must be obtained from Fire Prevention. In multi-building complexes, or in buildings with three (3) or more stories, special monitoring conditions will be required. Existing habitable buildings, which are retained, shall be retrofitted.

Mitigation Measure XV-4: Applicant shall pay the required fire and paramedic fees for new development in accordance with Napa Municipal Code Chapter 15.78. Such fees shall be payable at the rate in effect at the time of payment for the unit involved. The findings set forth in the ordinance and Resolution 94-106 are incorporated herein. The City further finds that calculation of the fee pursuant to the formula set forth therein demonstrates that there is a reasonable relationship between the fees imposed and the cost of improvements attributable to this project.

Sources: Policy Resolution 27

ii) Police Protection?			X	
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Discussion:

The 2019 American Community Survey found 31,800 housing units in the City. This project would increase that amount by 0.037%. Therefore, the demand for police service would increase by less than 0.037%, given that industrial, commercial, and public properties also demand police service. This impact would be less than significant.

Sources: Project Plans, 2019 ACS

iii) Schools?			X	
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Discussion:

The number of new students living in the proposed 12 houses would be less than significant, given the 17,000 students currently enrolled in the Napa Valley Unified School District.

Sources: Policy Resolution 27

iv) Parks?				X
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Discussion:

Because the project only includes 12 single family homes, it will not significantly increase the demand for City parks. The existing parks within the City are sufficient to service the project, and the project will not require the construction of any additional parks.

Sources: Napa General Plan Land Use Element

v) Other Public Facilities?				X
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Discussion:

The City's public facilities are planned in advance based on General Plan growth projections. The General Plan is a comprehensive planning document and plans for the needs of the development described in the Land Use Element. The demand for public facilities caused by this development's incremental addition of housing units to the City has been accounted for in the General Plan because the General Plan's Land Use Element designated this site for development at the proposed density. The water and sewer pipes will be built within areas already disturbed by roadway construction or within existing, low-volume roadways.

Sources: Napa General Plan Land Use Element

<b>XVI. RECREATION</b>				
Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated??		X		
<p>Discussion:</p> <p>The project will increase the use of existing neighborhood and regional parks and other recreational facilities. The impact fees imposed by Mitigation Measures XVI-1 through XVI-2 will enable the operators of these facilities to accommodate the additional use and offset the deterioration caused by that use.</p>				

City of Napa Standard Mitigation Measures (City Council Policy Resolution 27):

Mitigation Measure XVI-1: Applicant shall pay the required fees for each new dwelling unit in accordance with the Napa Municipal Code Chapter 15.68. Such fee shall be payable at the rate in effect at the time of payment for the unit involved. The findings set forth in the ordinance and Resolution 92-084 are incorporated herein. The City further finds that calculation of the fee due pursuant to the formula set forth in Section 15.68.040 of the Napa Municipal Code demonstrates that there is a reasonable relationship between the fees imposed and the cost of the improvements attributable to this project.

Mitigation Measure XVI-2: Unless project approval requires only land dedication, the Applicant shall pay In-lieu Park dedication fee(s) in accordance with and for the purposes of NMC Sections 16.32.040, 15.68.010 and 15.68.090 for each residential unit authorized or allowed by project approval. Such fee(s) shall be payable at the rate in effect at time of payment. The findings set forth in the ordinances and in Resolution 92-084 are incorporated herein. The City further finds that the calculation of fees in accordance with the formula set forth in NMC Section 16.32.040D demonstrates that there is a reasonable relationship between the amount of fees imposed and the costs of acquisition attributable to this project.

Source: City Council Policy Resolution 27

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
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Discussion: See Section XV(a)(iv) above.

**XVII. TRANSPORTATION & TRAFFIC**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?		X		

Discussion:

The General Plan Transportation Element’s Major Transportation Objectives are to:

- *Develop a transportation infrastructure that provides for an acceptable traffic flow and provides access to all destinations.*
- *Create a citywide transportation system that allows users to choose from a variety of safe transportation options including an adequate system of streets, transit, pedestrian and bicycle facilities.*
- *Minimize the negative effects of additional automobile traffic and other transportation.*

The project proposes adding a new street. This street would be adequate in capacity to serve the new development. It would be built to an alternative, rural street standard approved by the Public Works Department through its design exception process. This alternative is acceptable to Public Works because the street is not a through street, it serves only the twelve houses in the development, and it is in a rural area near the City limits. Therefore, this project would not conflict with the Major Transportation Objectives.

The impact of the added traffic on the transportation network would be mitigated by the impact fee in Mitigation Measure XVII-1, established to be proportional to developments’ impacts.

**XVII. TRANSPORTATION & TRAFFIC**

City of Napa Standard Mitigation Measures (City Council Policy Resolution 27):

Mitigation Measure XVII-1: In order to mitigate the cumulative impact of the traffic generated by the subject project on the City's arterial and collective street system, the Applicant shall pay a Street Improvement Fee in accordance with Napa Municipal Code Chapter 15.84 and implementing resolutions to pay for the traffic improvements identified therein. Such fee shall be payable at the rate in effect at the time of payment. The findings set forth in the ordinance and implementing resolutions are incorporated herein. The City further finds that the calculation of the fees in accordance with the trip generation capacity of development demonstrates there is a reasonable relationship between the amount of the fees imposed and the cost of the street improvements attributable to this project.

Sources: General Plan Transportation Element

b. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?		X		
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Discussion:

For a residential project, the City of Napa has established a threshold of significance that a proposed project exceeding a level of 15 percent below existing regional Vehicle Miles Traveled per capita may indicate a significant transportation impact. For the City of Napa, 15 percent below existing regional Vehicle Miles Traveled per capita is 14.7. The proposed project is located in an area with an existing Vehicle Miles Traveled per capita rate of 20.26 which is above the City of Napa's threshold of significance of 14.7 for residential projects. Per the Technical Advisory on Evaluating Transportation Impacts in CEQA published by the Governor's Office of Planning and Research (OPR), "projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact". The proposed project of 12 single-family residences would generate 113 daily trips according to the Institute of Transportation Engineers, Trip Generation Manual, 10th Edition.

Mitigation Measure XVII-2 would require the Applicant make physical improvements to the adjacent bicycle network to reduce the potential Vehicle Miles Traveled impact of the project to less-than-significant. The proposed bicycle network improvement will link the nearest public roadway connecting to the project to the City's existing bicycle network. The proposed improvement is consistent with the City of Napa Bicycle Plan and the Transportation Element of the General Plan. The mitigation measure would reduce vehicle miles traveled in the City by making bicycling more amenable, which could encourage different travel mode choices.

Special Mitigation Measures:

Mitigation Measure XVII-2: The Applicant shall construct a Class III bicycle facility along Patrick Road from Borrette Lane to Browns Valley Road.

Sources: Public Works Department

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
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Discussion:

The project has been reviewed by the Public Works Department and has been found to comply with its standards for street geometry and sidewalk design. The one-sided sidewalk configuration is safe and appropriate due to the very low volume of traffic expected on the dead-end street.

Sources: Public Works Department

d. Result in inadequate emergency access?				X
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**XVII. TRANSPORTATION & TRAFFIC**

Discussion:

The project’s new street has been reviewed by the Fire Prevention Division and has been found to comply with its standards for fire apparatus access and maneuvering. The project would not sever or disrupt any existing or proposed roads.

Sources: Fire Prevention Division

**XVII. TRIBAL CULTURAL RESOURCES**

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X

Discussion:

There is no such listed resource on the site.

Sources: California Register of Historical Resources, City of Napa Historic Resources Inventory

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		
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Discussion:

PRC Section 5024.1(c) establishes the following criteria for significance of historic resources:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.
- (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history.

There appears to be no such resource eligible for listing on the site. Notification pursuant to AB52 was sent to all tribes listed as having historical ties to the area by the Native American Heritage Commission. The Yocha Dehe Wintun Nation’s Interim Director of Cultural Resources concluded that it was not within the aboriginal territories of the Yocha Dehe Wintun Nation. The other tribes have not yet responded to indicate that they believe the area contains such resources. However, there may be unexpected resources that could be unearched

by construction. This impact would be mitigated to a less-than-significant level by Mitigation Measures V-1 through V-4, in Section V.

Source: NAHC

<b>XIX. UTILITIES &amp; SERVICE SYSTEMS</b>				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
<p><b>Discussion:</b></p> <p>The project is within the Rural Urban Limit, where urban development is planned to be accommodated. The site is already connected to investor-owned and public utilities by virtue of it already being developed with two single-family dwellings. The site is within the Napa Sanitation District's service area, and a condition of approval will require annexation to the district and connection to the system. Construction will comply with Public Works and Utilities requirements to minimize runoff, erosion, and disruption to the transportation network. The Utilities Department and Napa Sanitation District have reviewed the project and determined that they have the capacity to serve the project. Therefore, the impacts of extending utilities to the new lots will be less than significant.</p> <p>Sources: Utilities Department</p>				
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
<p><b>Discussion:</b></p> <p>The City of Napa Utilities Department's Water Division reviewed the application and indicated that the City's water supply is sufficient to serve the development.</p> <p>Sources: Utilities Department</p>				
c. Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
<p><b>Discussion:</b></p> <p>The Napa Sanitation District reviewed the application and indicated that it has the capacity to serve the development. Its impact fees will offset the additional sewage generated by the development.</p> <p>Sources: Napa Sanitation District</p>				
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
<p><b>Discussion:</b></p>				

The City of Napa Utilities Department's Materials Diversion Division reviewed the application and indicated that the City has the capacity to serve the development. The Project will be required to have three waste stream pick-ups (landfill, compost, recycling). During construction the Project will be required to meet the City's Construction and Demolition Debris Recycling requirements.

Sources: Utilities Department

e. Comply with federal, state, and local statutes and regulations related to solid waste?			X	
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Discussion:

The Project will be required to comply with federal, state, and local statutes and regulations related to solid waste during construction and throughout the life of the Project.

Sources: Utilities Department

**XX. WILDFIRE**

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?				X

Discussion:

The property is approximately 300 feet from a State Responsibility Area at its closest point.

The project would not inhibit emergency response or evacuation by severing circulation network connections or causing congestion on the network. It would not obstruct or conflict with any other infrastructure that would be used in an emergency.

Sources: City of Napa Emergency Operations Plan 2019

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
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Discussion:

The project would not exacerbate wildfire risks. It is a single-family dwelling development built on gentle-sloping grassland. It would replace annual grasses with irrigated landscaping, reducing grassfire risk.

Sources: Project plans

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
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Discussion:



The proposed development will not require additional changes to the land for fire prevention. No fuel breaks, reservoirs, or above-ground power lines are proposed.				
Sources: Project plans				
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X
Discussion:  The project is not atop, on, or beneath a slope that could become unstable as a result of a wildfire.				
Sources: Topographic maps, site visit, General Plan Health and Safety Element Landslide Risk Map				

XX. MANDATORY FINDINGS OF SIGNIFICANCE				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X		
b. Does the project have impacts which are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in conjunction with the effects of past projects, the effects of other current projects and the effects of probable future projects.)		X		
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		
Discussion:  As discussed in Section IV of this initial study, the project would have significant impacts to rare species and important habitat if not mitigated. The mitigation measures included in Section IV mitigate these impacts to a less-than-significant level.  Impacts to Greenhouse Gas are cumulatively considerable but are considered to be mitigated by the mitigation measures included in Section III of this initial study.  Noise and Air Quality Impacts could have adverse effects on human beings but are mitigated to a less-than-significant level with the mitigation measures included in Sections III and XIII of this study.				

**SOURCES OF INFORMATION USED IN PREPARATION OF THIS INITIAL STUDY:**

- Project Development Plans (attached)
- Habitat Assessment finalized March 15, 2021 prepared by Wildlife Research Associates and Jane Valerius Environmental Consulting (attached)
- Delineation of US Waters prepared by Jane Valerius Environmental Consulting (attached)
- Arborist Report dated 11/26/18 prepared by Bill Pramuk (attached)
- Geotechnical Study Report dated 10/24/16 prepared by RGH Consultants (attached)

- Hazards Report dated 1/29/18 prepared by JCP&LGS Hazard Disclosures (attached)

#### **INCORPORATION BY REFERENCE**

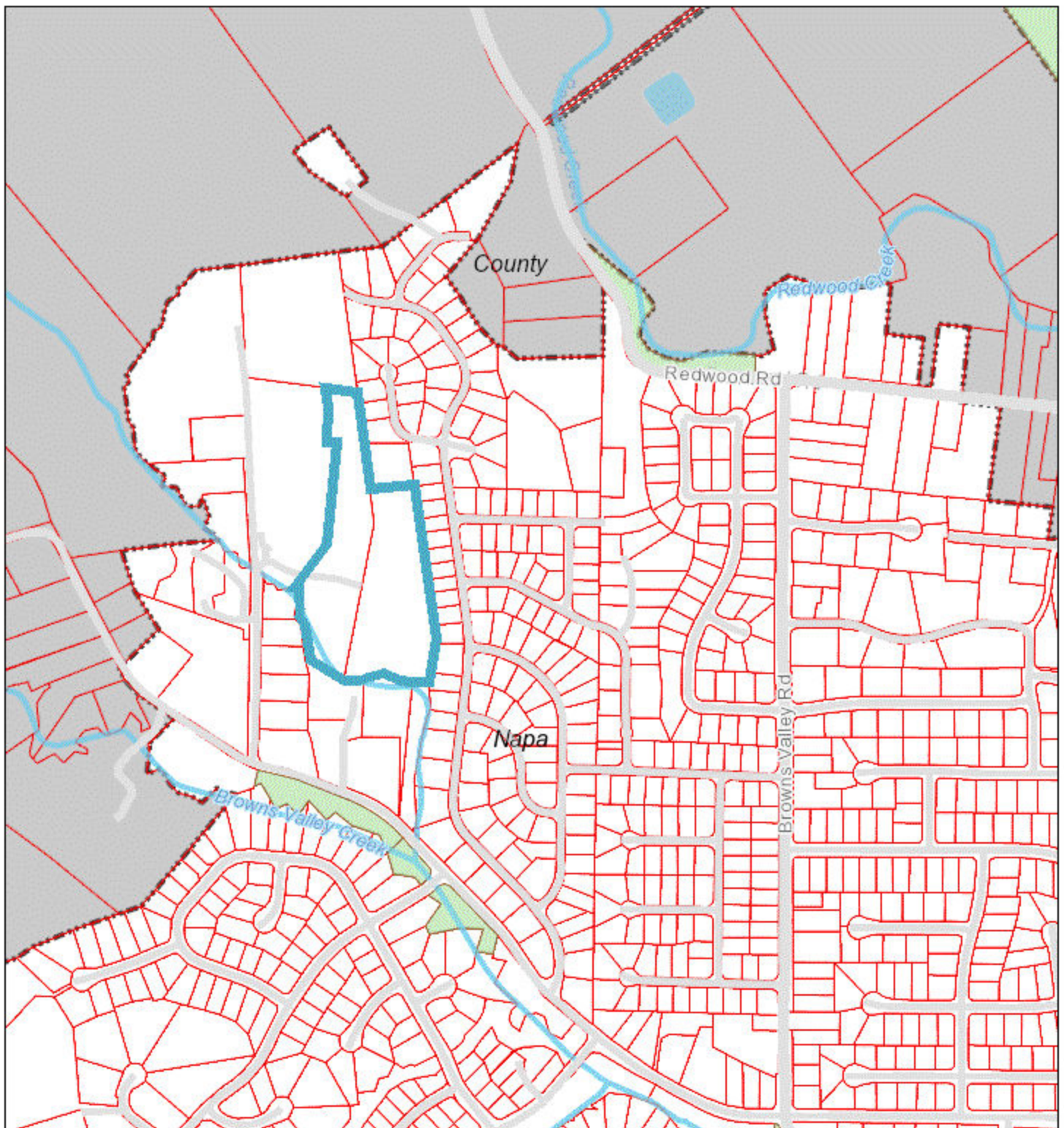
As permitted by Section 15150 of the State CEQA Guidelines, this initial study incorporates several documents by reference. The reference documents identified below were utilized during the preparation of the Initial Study. The relevant information and/or analysis that has been incorporated by reference into this initial study has been summarized. Each of the documents identified below, which have been incorporated by reference, are available for review at the City of Napa Community Development Department, located at 1600 First Street, Napa, California 94559.

- City of Napa; General Plan Policy Document, Adopted December, 1998
- City of Napa; General Plan Background Report, Adopted December, 1998
- City of Napa; General Plan Final Environmental Impact Report, Adopted December, 1998
- City of Napa; Zoning Ordinance, 2003
- City of Napa; Resolution 89-362 Establishing a Street Improvement Fee for all new Development within the City and subsequent Resolutions Amending this Resolution: Resolution 93-198.
- City of Napa, Water System Optimization and Master Plan, 1997; West Yost & Associates
- City of Napa; Water System Optimization and Master Plan; Final EIR; 1997
- County of Napa; Napa County Airport Land Use Compatibility Plan, April, 1991
- Bay Area Air Quality Management District; CEQA Guidelines, 2017
- Bay Area Air Quality Management District; Bay Area 2017 Clean Air Plan
- State of California, Resources Agency; Farmland Mapping and Monitoring Program

#### **ATTACHMENTS:**

- Location Map
- Project Development Plans
- Delineation of US Waters
- Habitat Assessment
- Geotechnical Study Report
- Arborist Report
- AB52 Tribal Notification Letters
- Natural Hazard Report

# Western Meadows



4/8/2019, 3:10:02 PM

1:9,028

## Roads Highway and Arterials

- Highway
- Arterials

## Roads Local

- Collectors
- All Other

Streams, Rivers

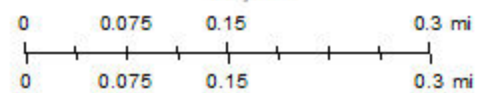
Lakes

Parks

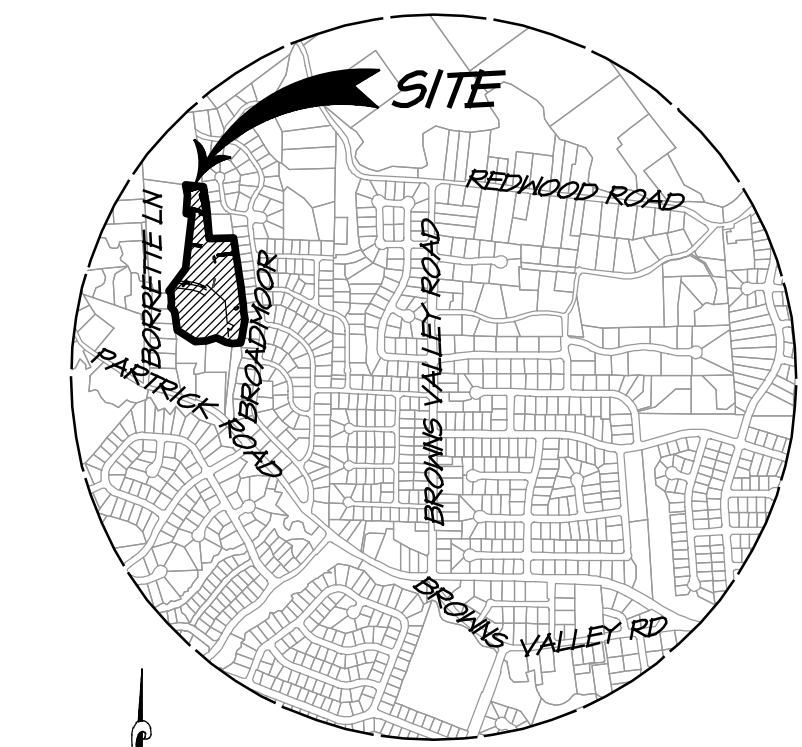
Parcels

Cities

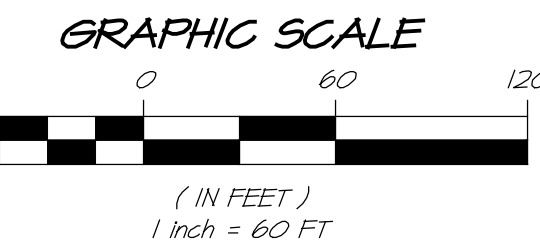
County Area



# TENTATIVE SUBDIVISION MAP WESTERN MEADOWS SUBDIVISION NAPA CALIFORNIA

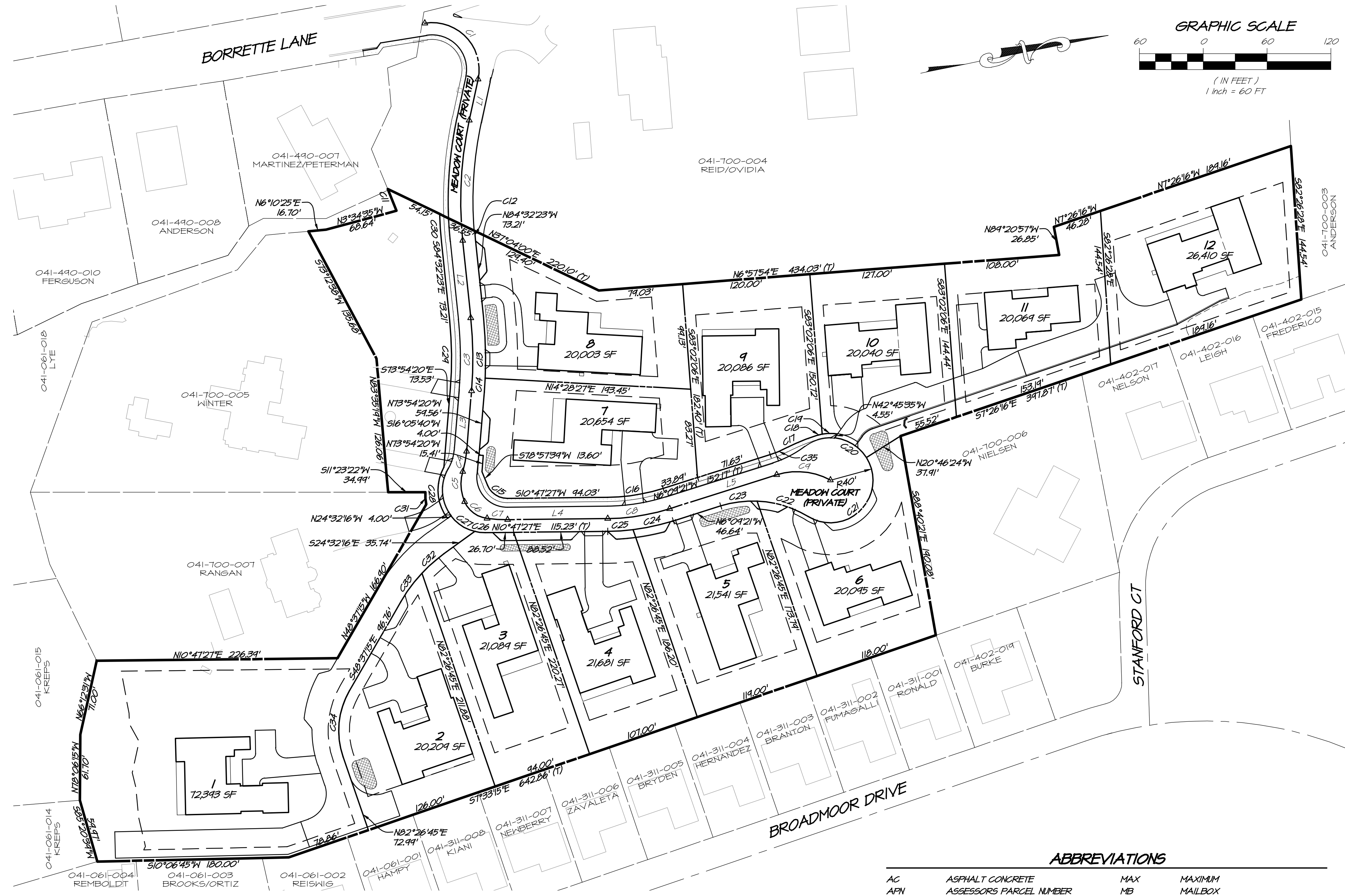


LOCATION MAP  
1" = 1500'



### SYMBOL LEGEND

EXISTING	
	EDGE OF PAVEMENT
	CURB AND GUTTER
	BOLLARD
	TREE TO BE REMOVED
	TREE TO REMAIN
	VINE ROW
	FENCE
	CONTOUR LINE
	SPOT ELEVATION
	JOINT POLE W/ GUY
	OVERHEAD ELECTRIC
	FIRE HYDRANT
	WATER VALVE
	WATER LINE
	STORM DRAIN MANHOLE
	STORM DRAIN LINE
	SANITARY SEWER LINE
	SANITARY SEWER MANHOLE
	SANITARY SEWER CLEANOUT
	GAS LINE
	EX WETLAND
	EX WATERS OF THE US
PROPOSED	
	ADJOINING PROPERTY LINE
	PROPERTY LINE
	PARCEL RIGHT OF WAY BOUNDARY SETBACK
	EASEMENT
	EDGE OF PAVEMENT
	STANDARD DRIVEWAY APPROACH PER CITY OF NAPA STD S-5
	STD SIDEWALK
	STD CURB
	PARKING
	SLOPE AS NOTED
	FIRE HYDRANT
	WATER VALVE
	WATER SERVICE LINE
	DRAINAGE INLET
	JUNCTION BOX
	PRE-CAST SANITARY SEWER MANHOLE PER NAPA STD S-9 AND S-9A
	SANITARY SEWER LINE
	SANITARY SEWER CLEANOUT PER NAPA STD S-1
	STORM DRAIN CLEANOUT
	STORM DRAIN LINE
	100 YEAR OVERLAIN RELEASE FLOW
	WETLAND MITIGATION AREA
	WATERS OF THE US MITIGATION AREA



### GENERAL NOTES

OWNER: BORRETTE LANE ESTATES, LLC  
2380 FIRST STREET  
NAPA, CA 94954

DEVELOPER: MIKE TURK  
KD DEVELOPMENT  
4041 INERAHAM STREET  
SAN DIEGO, CALIFORNIA 92104  
(658) 274-5945

ARCHITECT: KIRK SEYER DESIGN  
2276 LOMA HEIGHTS RD.  
NAPA, CALIFORNIA 94958  
(707) 337-3025

CIVIL ENGINEER & SURVEYOR: RSA+  
1515 FOURTH STREET  
NAPA, CALIFORNIA 94954  
(707) 252-8901

LANDSCAPE ARCHITECT: GSM  
1700 SOSCOL AVE, SUITE 23  
NAPA, CALIFORNIA 94954  
(707) 255-4630

ARBORIST: FRANK TREES AND ASSOCIATES, LLC  
1041 JEFFERSON, SUITE 4  
NAPA, CALIFORNIA 94954  
(707) 226-2884

GEOTECHNICAL ENGINEER: RGH  
1041 JEFFERSON, SUITE 4  
NAPA, CALIFORNIA 94954  
(707) 252-8105

EXISTING PARCEL: APN (PENDING PM)

PARCEL AREA: 156 ACRES

EXISTING USE: RESIDENTIAL

PROPOSED USE: RESIDENTIAL

WATER: CITY OF NAPA

SEWER: SEPTIC (EXISTING)  
NAPA SANITATION DISTRICT (PROPOSED)

EXISTING ZONING: RS 20

PROPOSED ZONING: RS 20

GENERAL PLAN DESIGNATION: SFR-40

### BASIS OF BEARINGS

THE MONUMENTED CENTERLINE OF BORRETTE LANE PER BOOK 15 OF RECORD MAPS AT PAGES 10-14, TAKEN AS NO. 12240'E.

### PROJECT BENCHMARK

CITY OF NAPA BENCHMARK NO. 310, A 3/4" IP TAGGED 28255 SOUTHWEST 15' FROM WIRE FENCE AT THE NORTH END OF THE LINE COMMON TO WINTER & RANSAN TRUST. ELEVATION TAKEN AS 227.58'

### SHEET INDEX

TM1	COVER SHEET
TM2	EXISTING CONDITIONS & DEMOLITION PLAN
TM3	SITE LAYOUT
TM4	GRADING PLAN
TM5	GRADING SECTIONS
TM6	UTILITY PLAN
TM7	SCP SITE PLAN
TM8	EROSION AND SEDIMENT CONTROL PLAN

### PROJECT NOTES

- THE TOPOGRAPHY SHOWN ON THESE PLANS WAS COMPILED FROM A FIELD SURVEY DONE BY RSA+ IN MAY 2016, UPDATED NOVEMBER 2016 & JUNE 2018.
- BOUNDARY INFORMATION SHOWN IS BASED ON FOUND MONUMENTS, OCCUPATIONAL LOCATIONS OF STREETS AND RECORD INFORMATION. SUBJECT PROPERTY IS NOT SUBJECT TO INUNDATION BY FLOOD WATERS & DOES NOT LIE WITHIN THE 100 YEAR FLOOD PLAIN. EXISTING & PROPOSED EASEMENTS ARE SHOWN.
- EXISTING AND PROPOSED UTILITIES ARE SHOWN. EXISTING UNDERGROUND UTILITIES AS SHOWN WERE DRAWN FROM RECORD SOURCES ONLY. BURIED PIPES WERE NOT VERIFIED, NOR WAS ANY SUBSURFACE EXPLORATION CONDUCTED.
- EXISTING UTILITY POLES AND OVERHEAD LINES ARE SHOWN.
- CONTOUR LINES ARE SHOWN AT 1 FOOT INTERVALS.
- SUBJECT PROPERTY IS NOT WITHIN EARTHQUAKE FAULT ZONE PER THE NAPA QUADRANGLE EARTHQUAKE FAULT ZONES MAP DATED JAN 11, 2018.
- THERE IS AN EXISTING WELL ON SUBJECT PROPERTY, AS SHOWN ON TM2, WHICH WILL BE REMOVED & DISPOSED PER NAPA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH REGULATIONS.
- THERE ARE EXISTING SEPTIC TANKS ON SUBJECT PROPERTIES AS SHOWN ON TM2, WHICH WILL BE REMOVED & DISPOSED PER NAPA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH REGULATIONS. THERE ARE NO PUBLIC RECREATION SITES, PUBLIC TRAILS OR PUBLIC PARKS PROPOSED ON THIS PROJECT.

### WESTERN MEADOWS COURT SEGMENT TABLE

LINE TABLE		
LINE #	BEARING	LENGTH
L1	S66° 21' 41.94"E	34.35'
L2	S04° 32' 23.04"E	73.21'
L3	S73° 54' 19.83"E	56.99'
L4	N10° 41' 26.88"E	94.03'
L5	N6° 09' 21.01"W	105.52'

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	85.55'	44.00'	111°23'44"
C2	113.54'	360.00'	10°04'42"
C3	60.67'	370.00'	10°38'03"
C4	14.45'	93.06'	11°58'28"
C5	28.80'	40.79'	40°33'58"
C6	27.56'	26.82'	58°51'25"
C7	14.30'	140.76'	7°51'17"
C8	54.15'	200.00'	16°56'48"
C9	52.17'	64.40'	46°24'51"

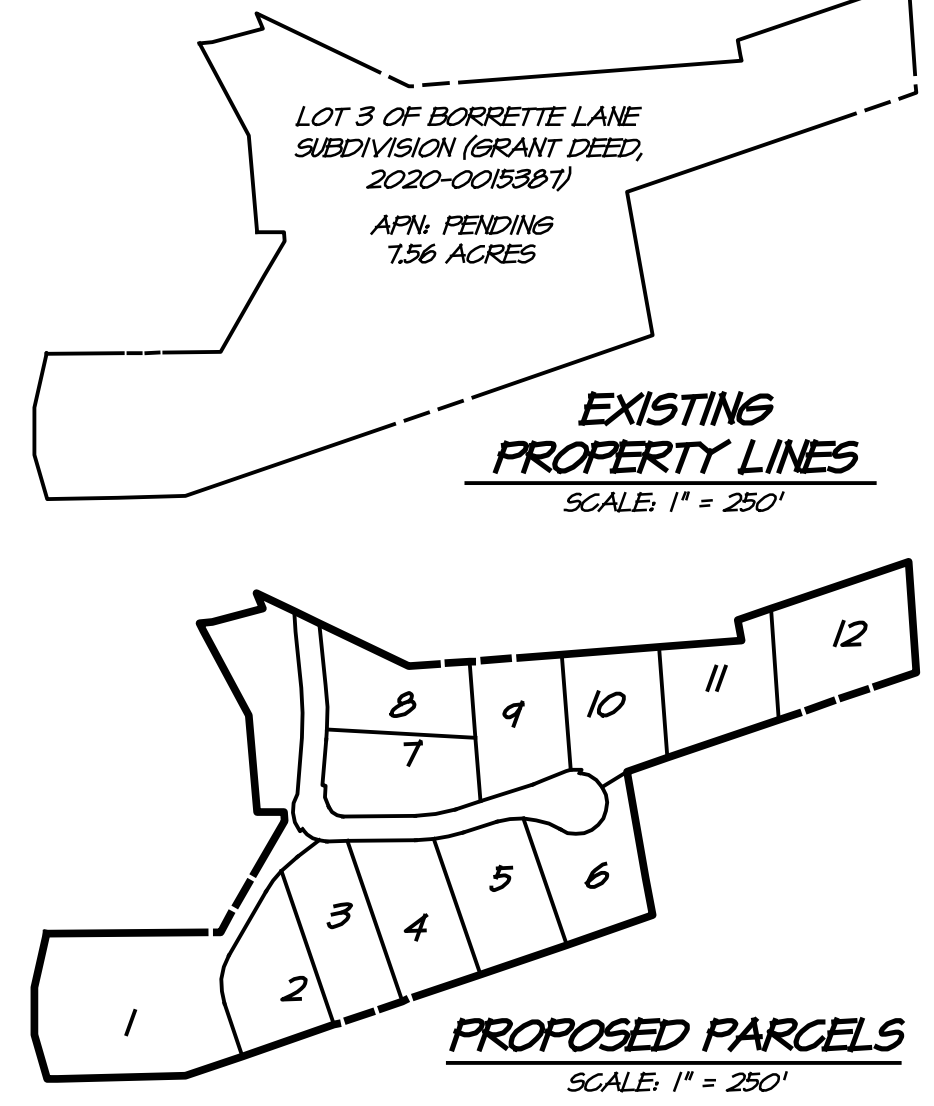
### PARCEL CURVE TABLE

CURVE #	LENGTH	RADIUS	DELTA
C11	22.08'	310.64'	4°04'22"
C12	7.83'	348.00'	1°17'23"
C13	57.86'	382.00'	8°40'41"
C14	13.04'	382.00'	1°57'22"
C15	23.80'	20.00'	68°10'12"
C16	53.24'	180.00'	16°56'48"
C17	31.14'	182.00'	9°48'08"
C18	5.80'	44.00'	7°33'17"
C19	14.44'	44.00'	18°48'21"
C20	36.24'	40.00'	51°54'12"
C21	107.14'	40.00'	153°32'06"
C22	50.74'	100.00'	24°04'10"
C23	34.64'	100.00'	14°50'54"
C24	38.84'	212.00'	10°30'40"
C25	23.81'	212.00'	6°28'08"
C26	4.86'	40.00'	14°01'47"
C27	21.30'	40.00'	34°06'33"
C28	54.11'	44.00'	66°33'17"
C29	6.46'	350.00'	10°58'03"
C30	27.01'	380.00'	4°04'22"
C31	11.62'	40.00'	16°38'26"
C32	27.72'	148.00'	10°57'14"
C33	33.22'	148.00'	13°07'40"
C34	64.05'	75.00'	48°56'00"
C35	15.74'	42.00'	9°48'08"

### HORIZONTAL AND VERTICAL BENCHMARKS

G.P.S. CONTROL COORDINATE DATA  
NAD 1983/NAVD 1988 PER 41 RS 44/47, NAPA COUNTY RECORDS

#	GRID NORTHING	GRID EASTING	ELEV.	DESCRIPTION
32	1873164.185	6463831.993	179.764'	2" BRASS DISC IN WELL AT INTERSECTION OF BROWNS VALLEY RD. & PARTRICK RD.



### ABBREVIATIONS

AC	ASPHALT CONCRETE	MAX	MAXIMUM
APN	ASSESSORS PARCEL NUMBER	MB	MAILBOX
BRF	BIORETENTION FACILITY	MIN	MINIMUM
BSN	BACK OF SIDEWALK	N	NORTH
BU	BUBBLE UP	NAPASAN	NAPA SANITATION DISTRICT
BVC	BEGIN VERTICAL CURVE	OH	OVERHEAD OR OVERHANG
CB	CATCH BASIN	OS	OVERFLOW STRUCTURE
CCTV	CLOSED CIRCUIT TELEVISION	(P)	PROPOSED
CL	CENTERLINE	PG&E	PACIFIC GAS AND ELECTRIC
COMP	COMPOSITE	PL	PUBLIC UTILITY EASEMENT
CONC	CONCRETE	PVC	POLYVINYL CHLORIDE
CONF	CONFORM	ROW	RIGHT OF WAY
DI	DRAINAGE INLET	RW	RETAINING WALL
DIP	DUCTILE IRON PIPE	S	SLOPE
DMA	DRAINAGE MANAGEMENT AREA	SD	STORM DRAIN
DWS(S)	DRAINAGE(S)	SDMH	STORM DRAIN MANHOLE
DWT	DRIVEWAY	SDMS	STORM DRAIN METERING SYSTEM
(E) OR EX	EXISTING	SF	SQUARE FEET
EG	EXISTING GROUND	SS	SANITARY SEWER
EP	EDGE OF PAVEMENT	SSC	SANITARY SEWER CLEANOUT
EVC	END VERTICAL CURVE	SSMH	SANITARY SEWER MANHOLE
FF	FINISH FLOOR	STD(S)	STANDARD(S)
FG	FINISH GRADE	(T)	TOTAL
FS	FIRE HYDRANT	TC	TOP OF CURB GRADE
FL	FLOOD LINE	TSL	TOP OF SOIL LAYER
GB	GRADE BREAK	TH	TOP OF WALL GRADE
GF	GARAGE FLOOR	TYP	TYPICAL
ICV	IRRIGATION CONTROL VALVE	US	UNDERGROUND
IFO	IN FAVOR OF	UNO	UNLESS NOTED OTHERWISE
INV	INVERT	VC	VITRIFIED CLAY
JB	JUNCTION BOX	V	WATER SERVICE
JP	JOINT POLE	WM	WATER METER
LP	LINEAL FEET/FOOT	WV	WATER VALVE
LP	LOW POINT		

NO.
DATE
REVISIONS
BY
APPROVED

1515 FOURTH STREET  
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WESTERN MEADOWS SUBDIVISION  
COVER SHEET

NAPA  
CALIFORNIA

DATE: DEC 11, 2020

DRAWN: LAG

DESIGNED: EP

CHECKED: DMD

JOB NO.: 418028.0

SHEET NO.  
**TM1**

1 OF 8 SHEETS

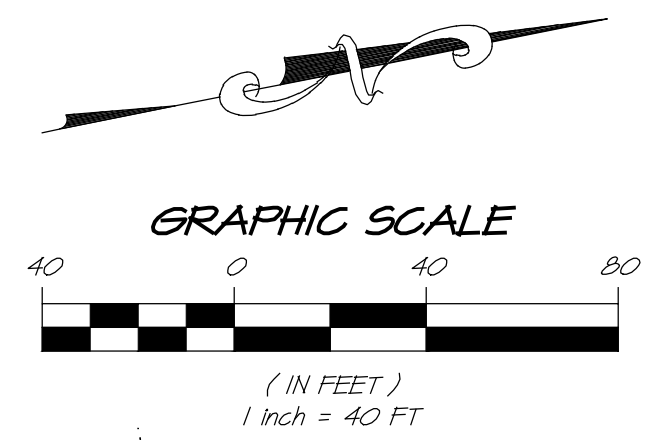
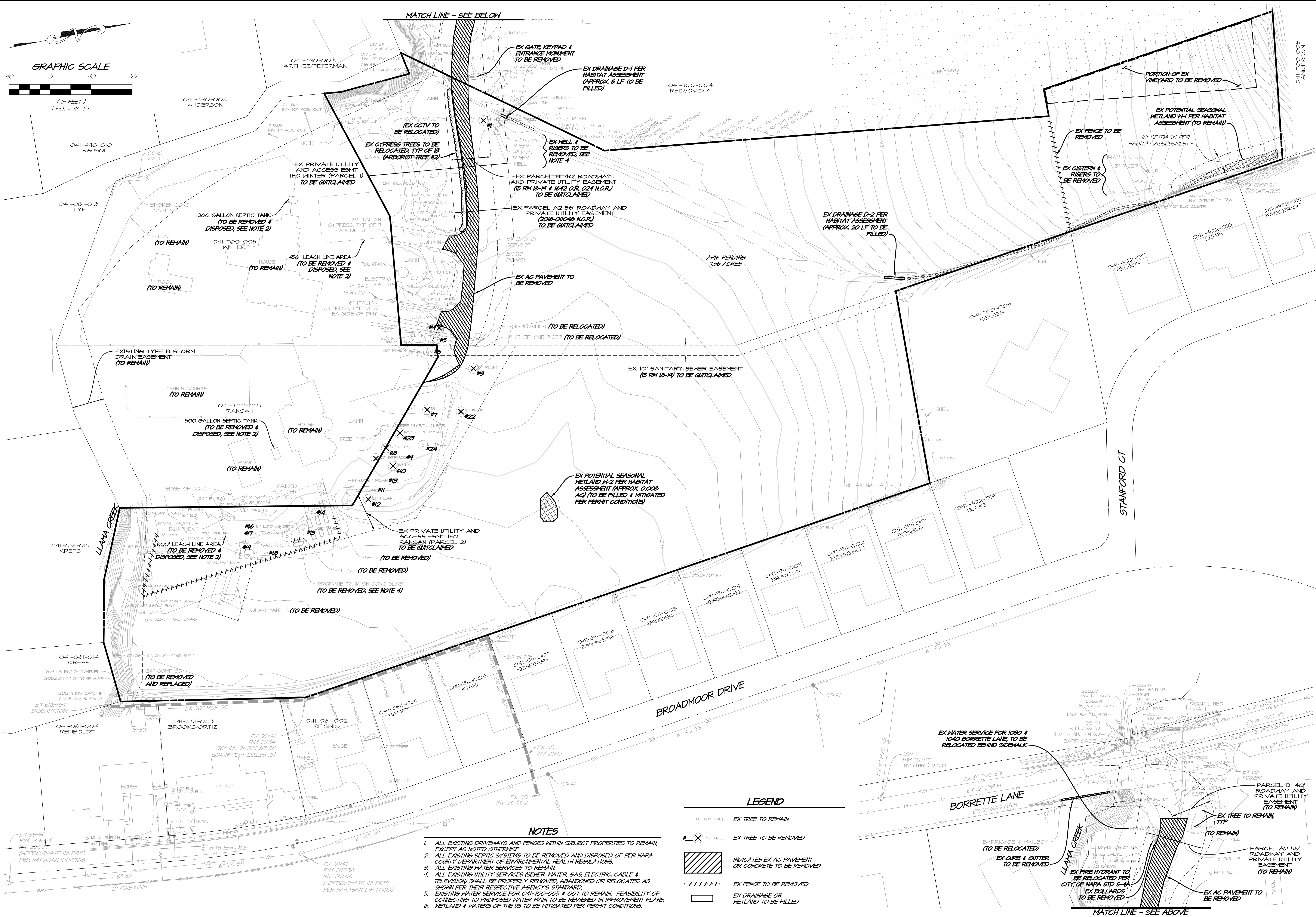
DATE: DEC 11, 2020

DRAWN: LAG

DESIGNED: EP

CHECKED: DMD

JOB NO.: 418028.0



GRAPHIC SCALE  
(IN FEET)  
1 inch = 40 FT

041-490-007 MARTINEZ/PETERMAN  
041-490-008 ANDERSON  
041-490-010 FERBUSON  
041-061-018 LYTE  
041-061-015 KREPS  
041-061-014 KREPS  
041-061-004 REMBOLDT  
041-061-003 BROOKS/ORTIZ  
041-061-002 REISING  
041-061-001 HAVERTY

041-100-005 WINTER  
041-100-007 RANGAN  
041-100-008 KIANI  
041-100-004 REID/OVIDIA  
041-311-003 BRANTON  
041-311-004 HERNANDEZ  
041-311-005 BRYDEN  
041-311-006 ZAVALETA  
041-311-007 NEWMERRY  
041-311-001 RONALD  
041-311-002 FUMAGALLI

041-402-016 LEIGH  
041-402-017 NELSON  
041-402-019 BURKE  
041-100-006 NIELSEN  
041-100-009 ANDERSON  
041-100-010 ANDERSON

041-100-004 REID/OVIDIA  
041-100-006 NIELSEN  
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041-100-004 REID/OVIDIA  
041-100-006 NIELSEN  
041-100-009 ANDERSON  
041-100-010 ANDERSON

MATCH LINE - SEE BELOW

MATCH LINE - SEE ABOVE

- NOTES**
1. ALL EXISTING DRIVENWAYS AND FENCES WITHIN SUBJECT PROPERTIES TO REMAIN, EXCEPT AS NOTED OTHERWISE.
  2. ALL EXISTING SEPTIC SYSTEMS TO BE REMOVED AND DISPOSED OF PER NAPA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH REGULATIONS.
  3. ALL EXISTING WATER SERVICES TO REMAIN.
  4. ALL EXISTING UTILITY SERVICES (SEWER, WATER, GAS, ELECTRIC, CABLE & TELEVISION) SHALL BE PROPERLY REMOVED, ABANDONED OR RELOCATED AS SHOWN PER THEIR RESPECTIVE AGENCY'S STANDARD.
  5. EXISTING WATER SERVICE FOR 041-100-005 & 007 TO REMAIN. FEASIBILITY OF CONNECTING TO PROPOSED WATER MAIN TO BE REVIEWED IN IMPROVEMENT PLANS.
  6. WETLAND & WATERS OF THE US TO BE MITIGATED PER PERMIT CONDITIONS.

- LEGEND**
- 10" TREE EX TREE TO REMAIN
  - ⊗ 10" TREE EX TREE TO BE REMOVED
  - ▨ INDICATES EX AC PAVEMENT OR CONCRETE TO BE REMOVED
  - ⋯ EX FENCE TO BE REMOVED
  - EX DRAINAGE OR WETLAND TO BE FILLED

NO.	DATE	REVISIONS	BY	APPD

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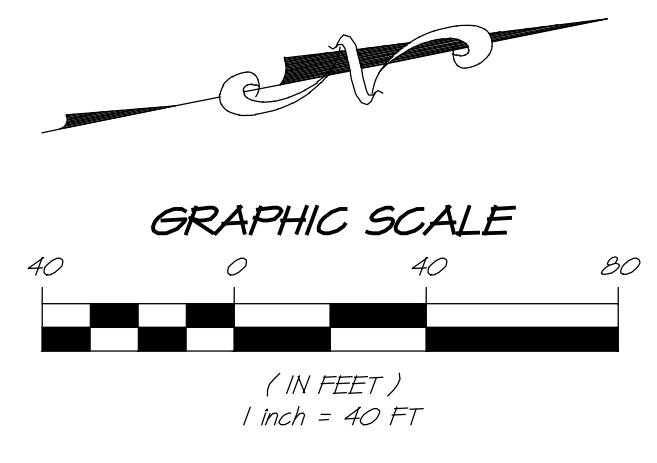
1815 FOURTH STREET  
NAPA, CALIF. 94559  
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**WESTERN MEADOWS SUBDIVISION  
EXISTING CONDITIONS & DEMOLITION PLAN**  
NAPA CALIFORNIA

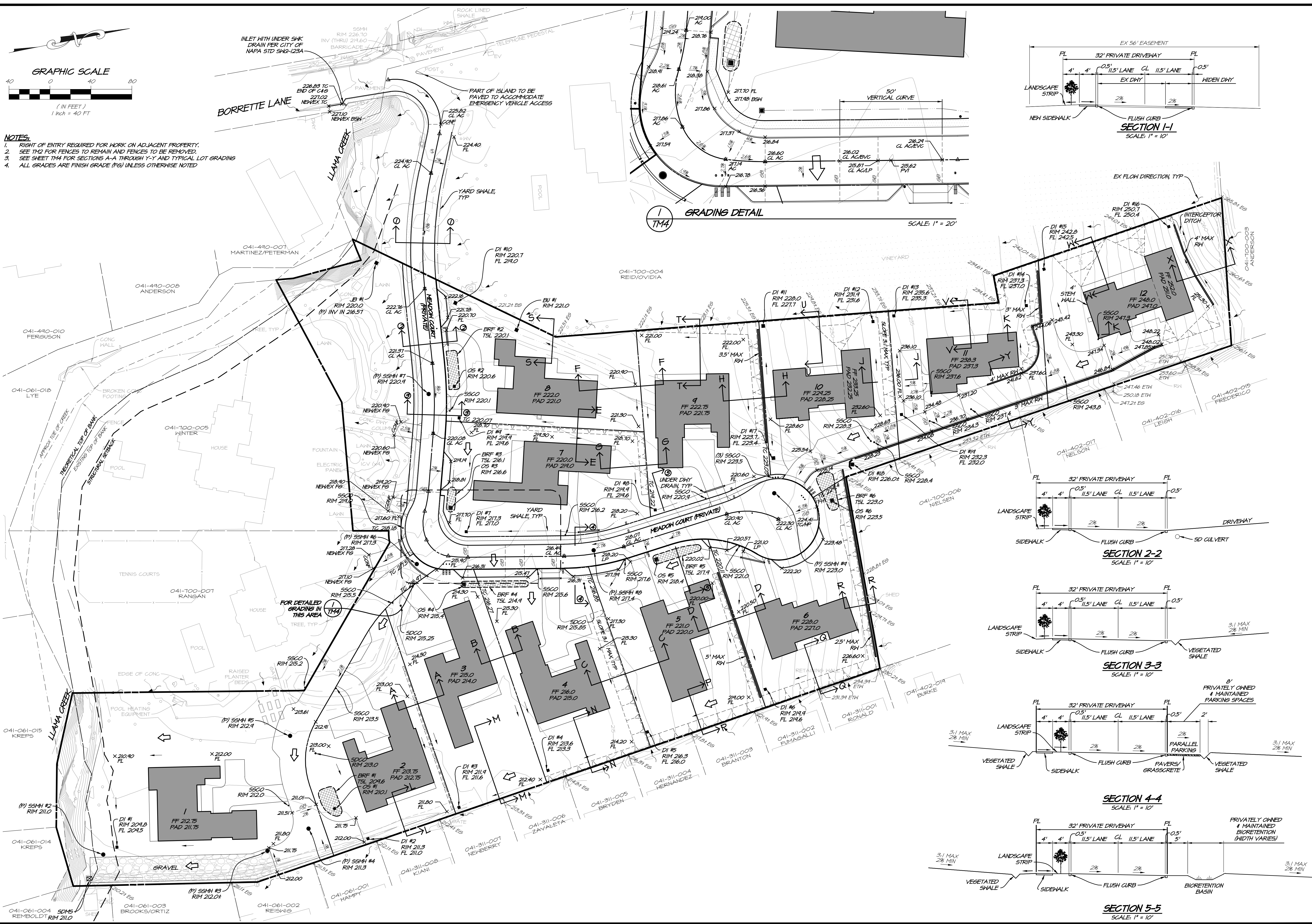
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No. 73257  
Exp. 12.31.2020  
CIVIL ENGINEER  
STATE OF CALIFORNIA

DATE	DEC 11, 2020
DRAWN	LAG
DESIGNED	EP
CHECKED	DMD
JOB NO.	418018.0
SHEET NO.	TM2
2 OF 8 SHEETS	





- NOTES:**
- RIGHT OF ENTRY REQUIRED FOR WORK ON ADJACENT PROPERTY.
  - SEE TM2 FOR FENCES TO REMAIN AND FENCES TO BE REMOVED.
  - SEE SHEET TM4 FOR SECTIONS A-A THROUGH Y-Y AND TYPICAL LOT GRADING.
  - ALL GRADES ARE FINISH GRADE (FG) UNLESS OTHERWISE NOTED.

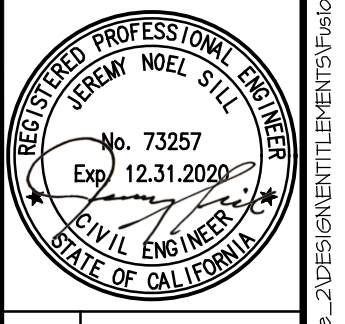


NO.	DATE	REVISIONS	BY

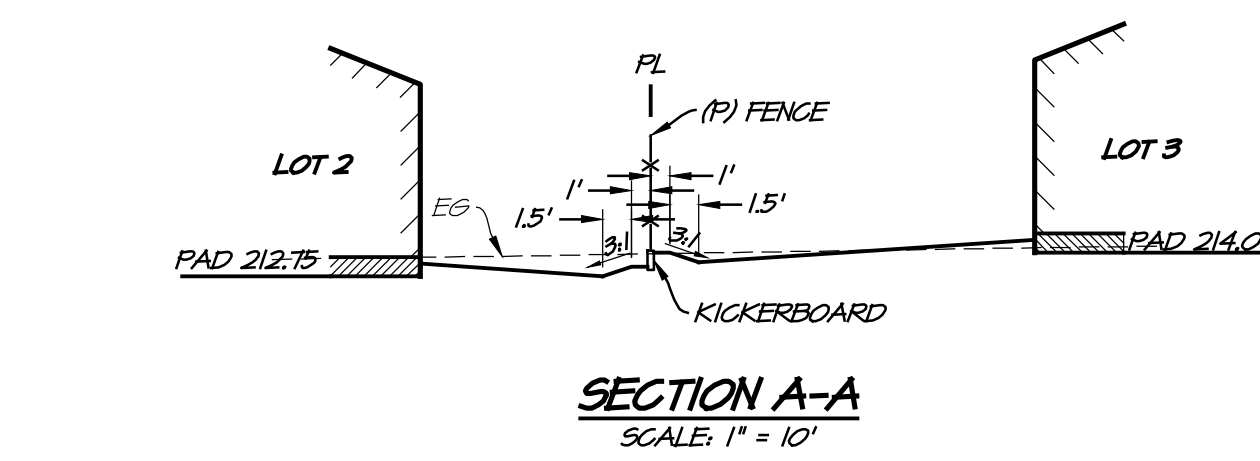
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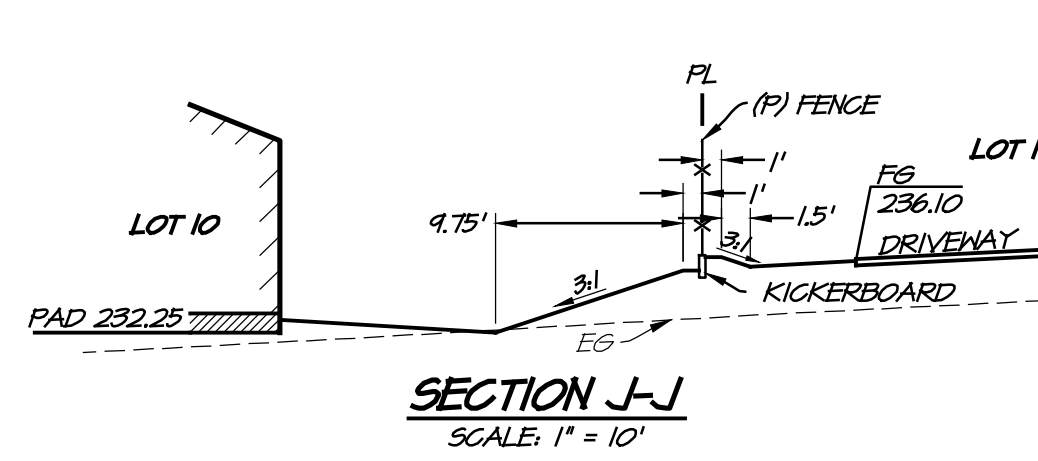
**WESTERN MEADOWS SUBDIVISION**  
**GRADING PLAN**  
CALIFORNIA



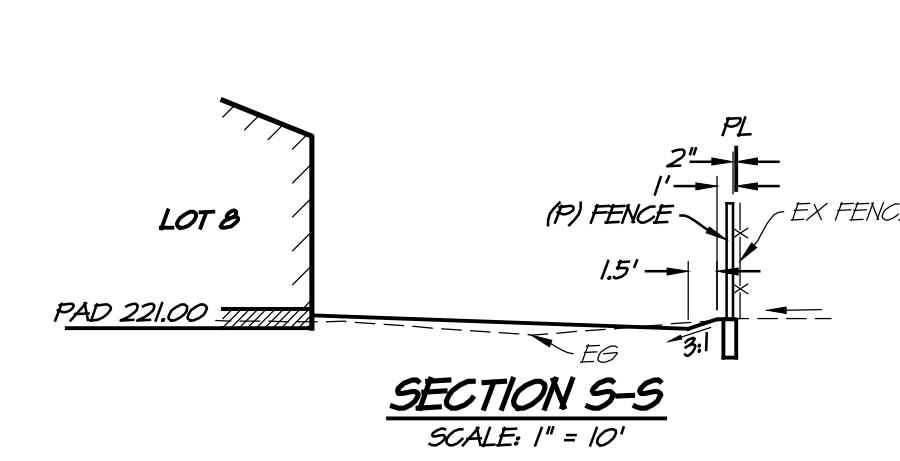
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JOB NO.	418018.0
SHEET NO.	<b>TM4</b>
	4 OF 8 SHEETS



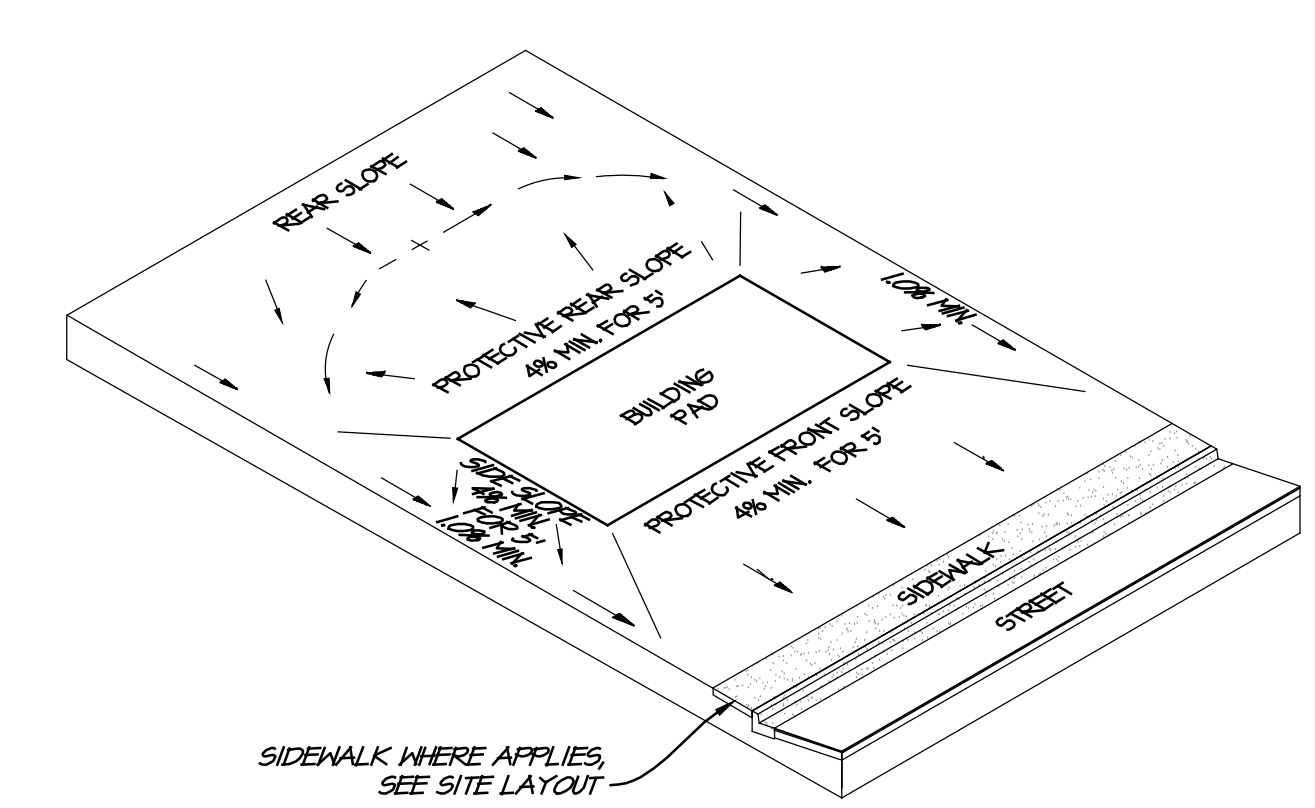
SECTION A-A  
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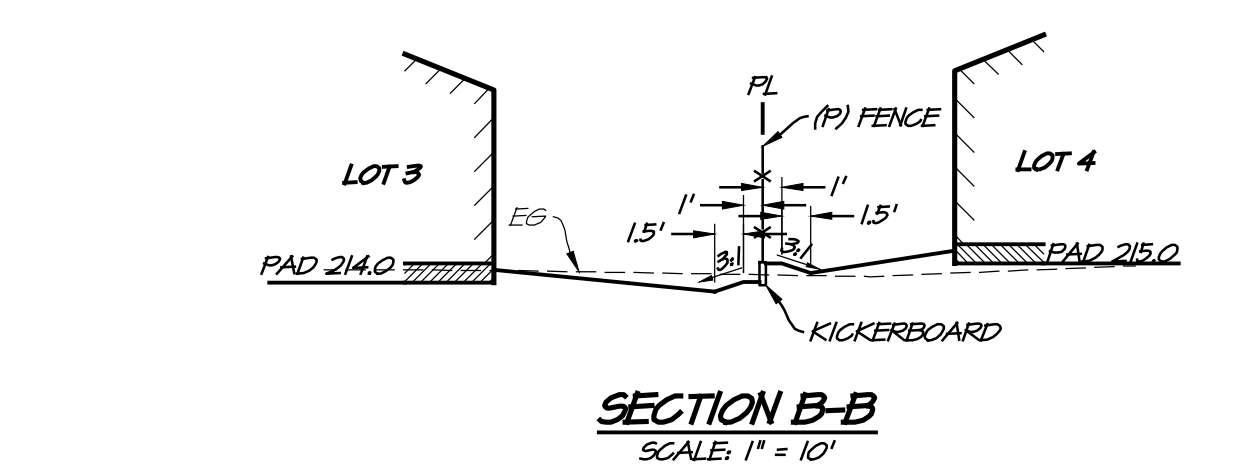
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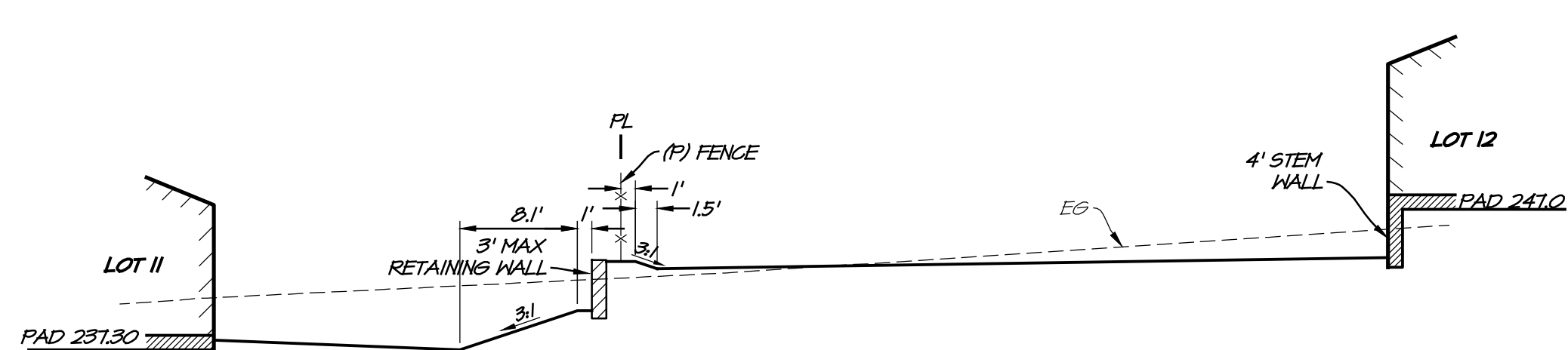
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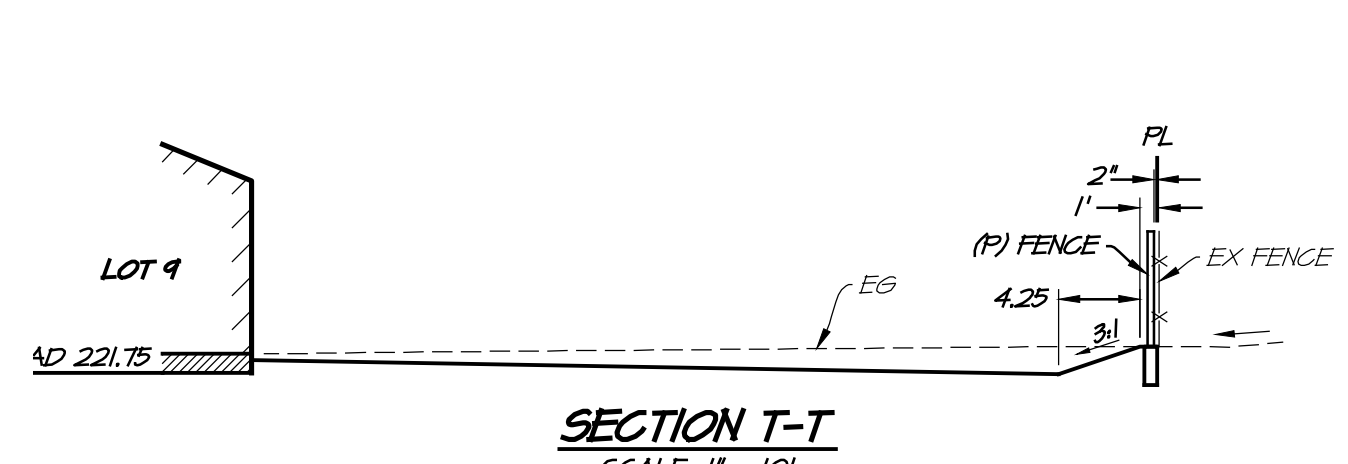
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TMS  
TYPICAL TYPE 'A' LOT GRADING  
MAX 12% DWY, UNO  
ALL DRAINAGE TO STREET  
LOTS 7-9  
NOT TO SCALE



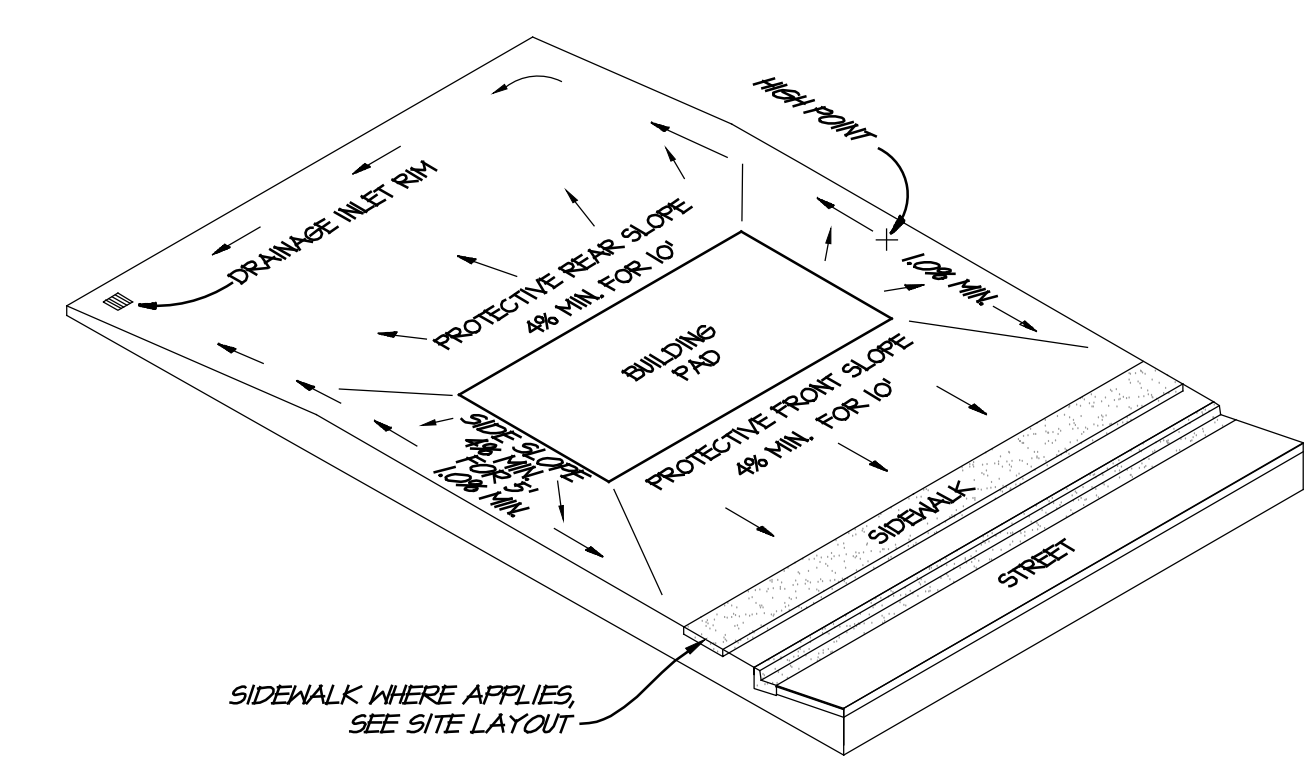
SECTION B-B  
SCALE: 1" = 10'



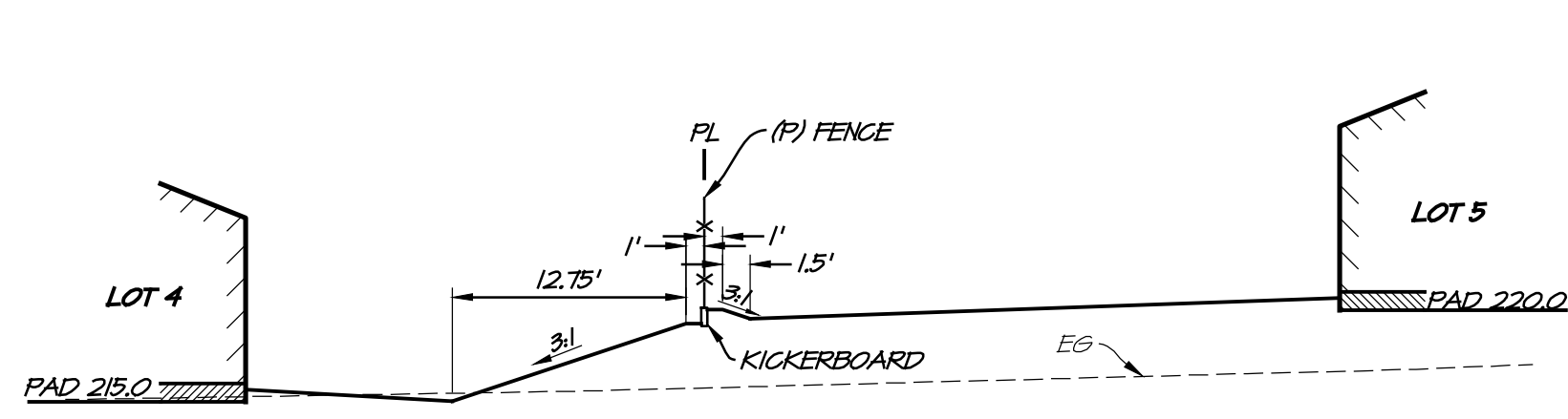
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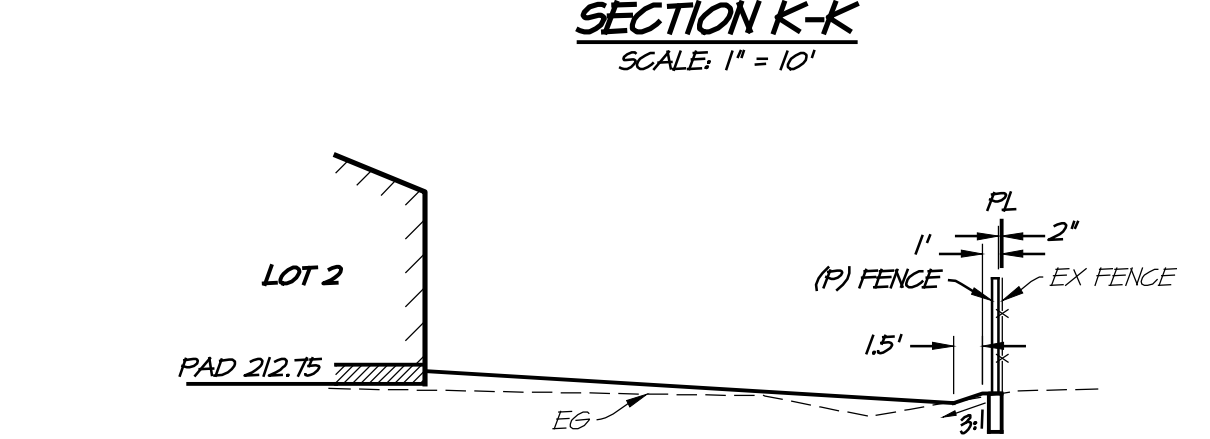
SECTION T-T  
SCALE: 1" = 10'



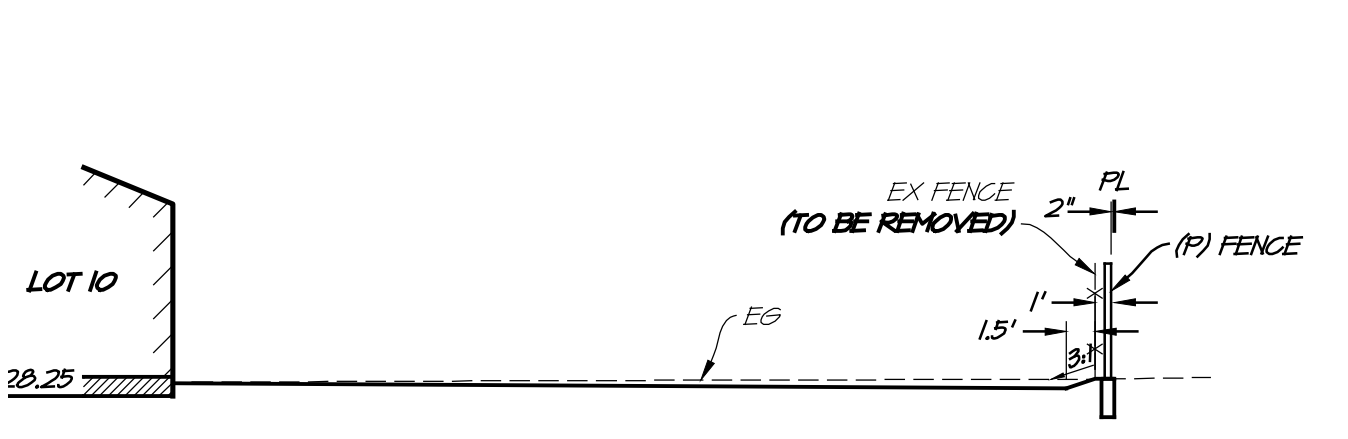
2  
TMS  
TYPICAL TYPE 'B' LOT GRADING  
MAX 12% DWY, UNO  
SOME DRAINAGE TO REAR OF LOT  
LOTS 10-12  
NOT TO SCALE



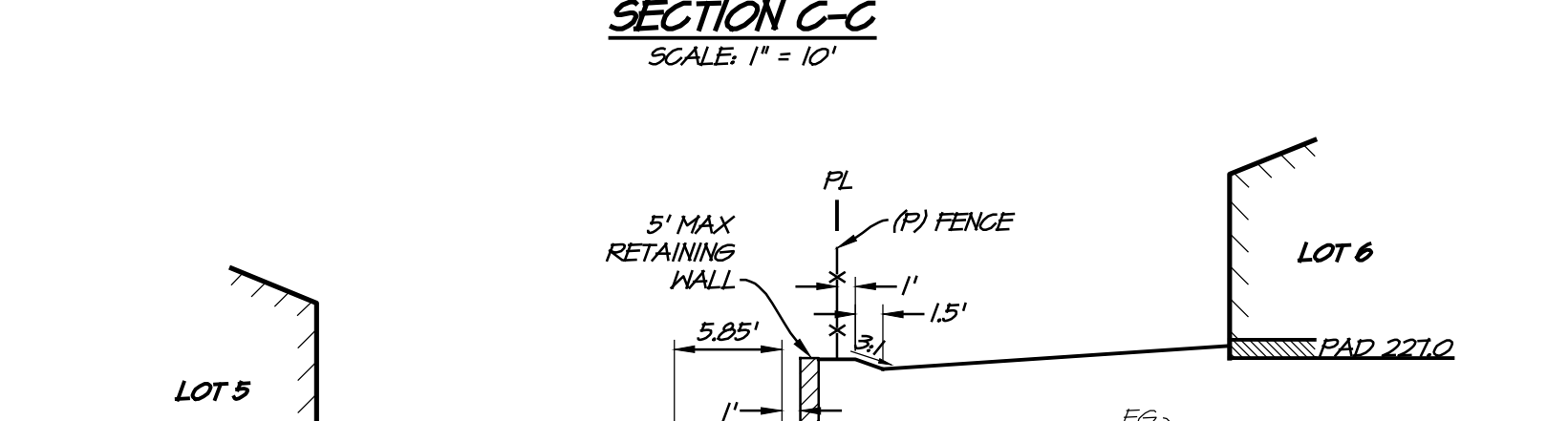
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SCALE: 1" = 10'



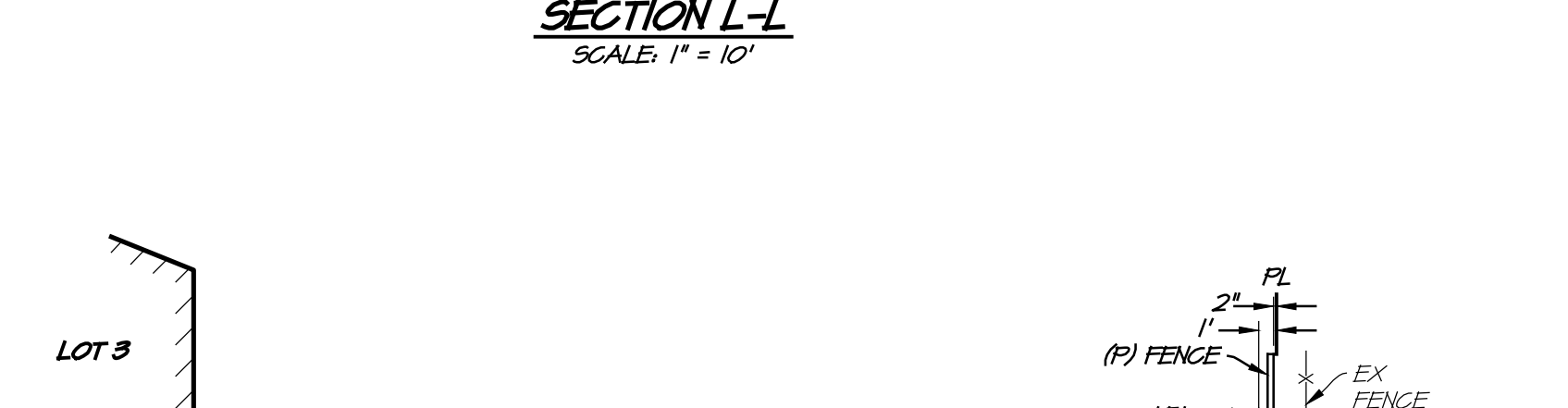
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SCALE: 1" = 10'



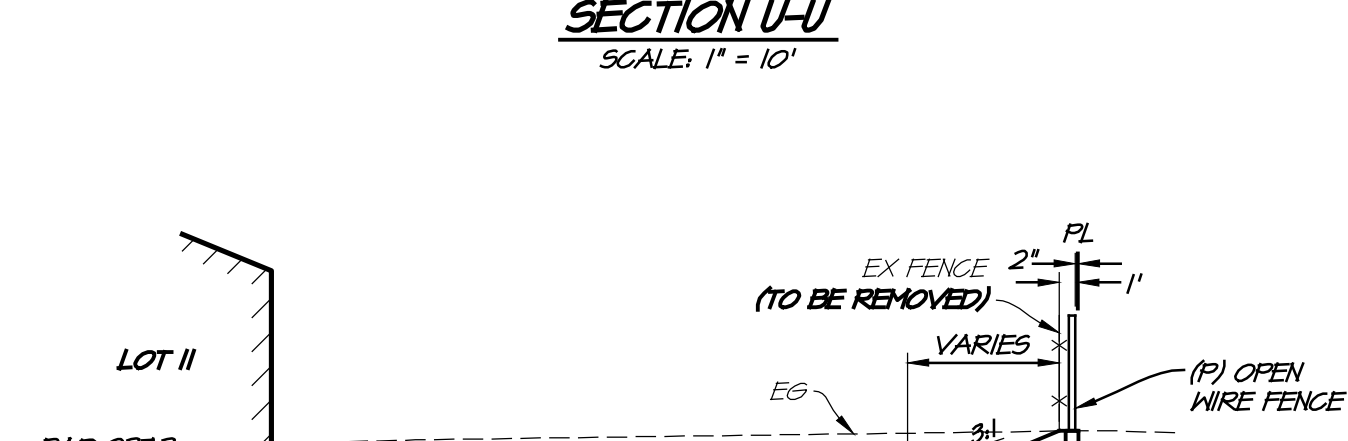
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SCALE: 1" = 10'



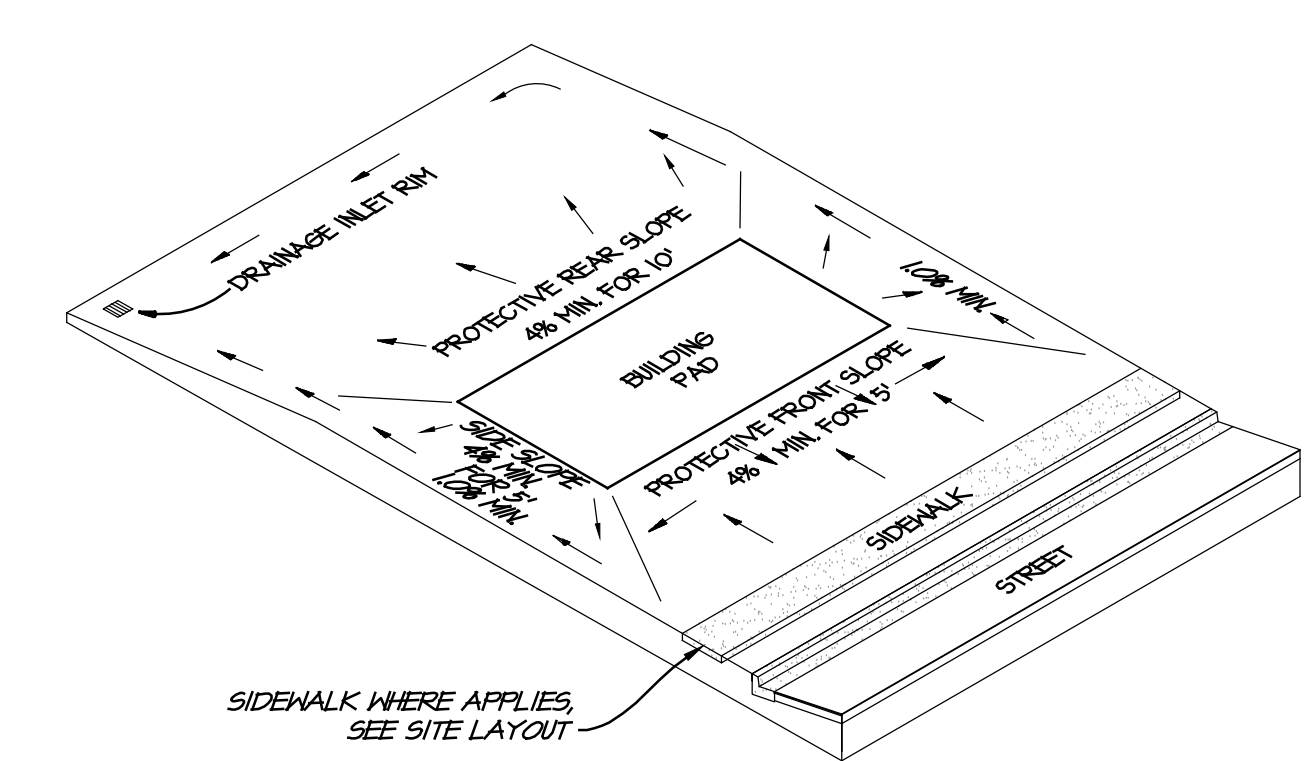
SECTION D-D  
SCALE: 1" = 10'



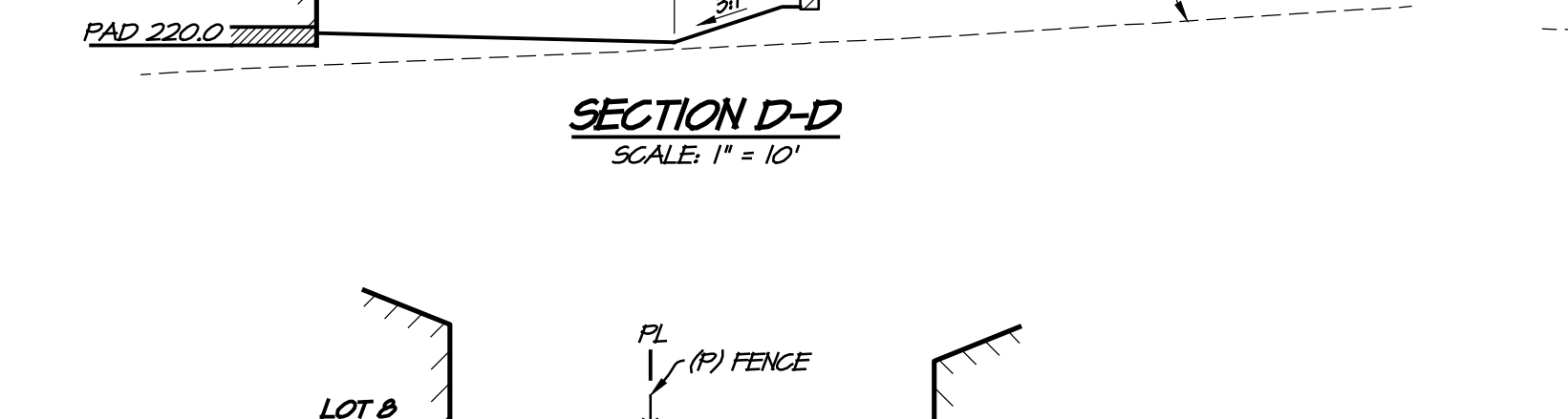
SECTION M-M  
SCALE: 1" = 10'



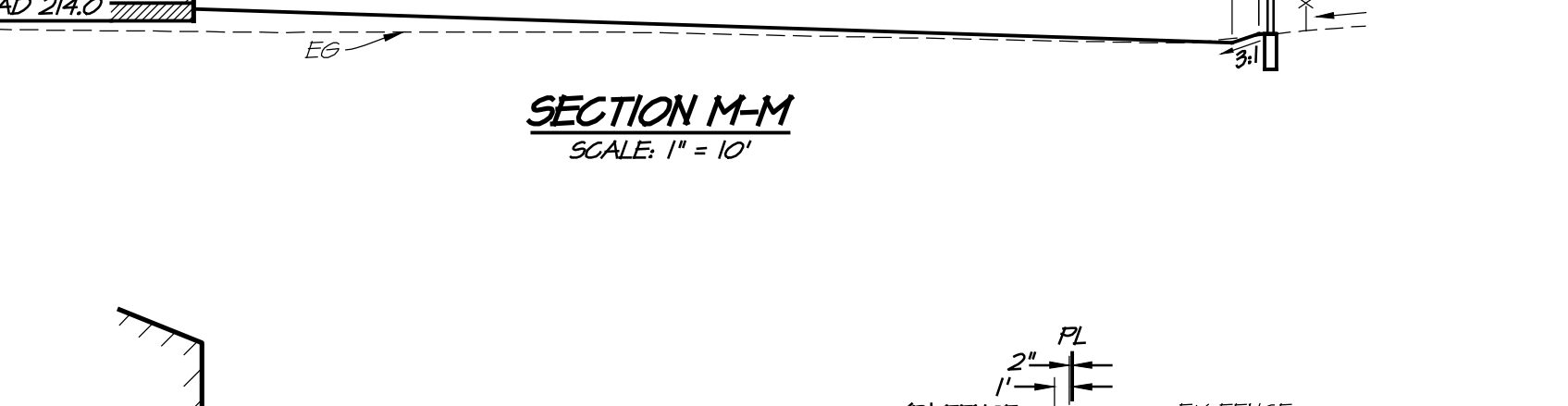
SECTION V-V  
SCALE: 1" = 10'



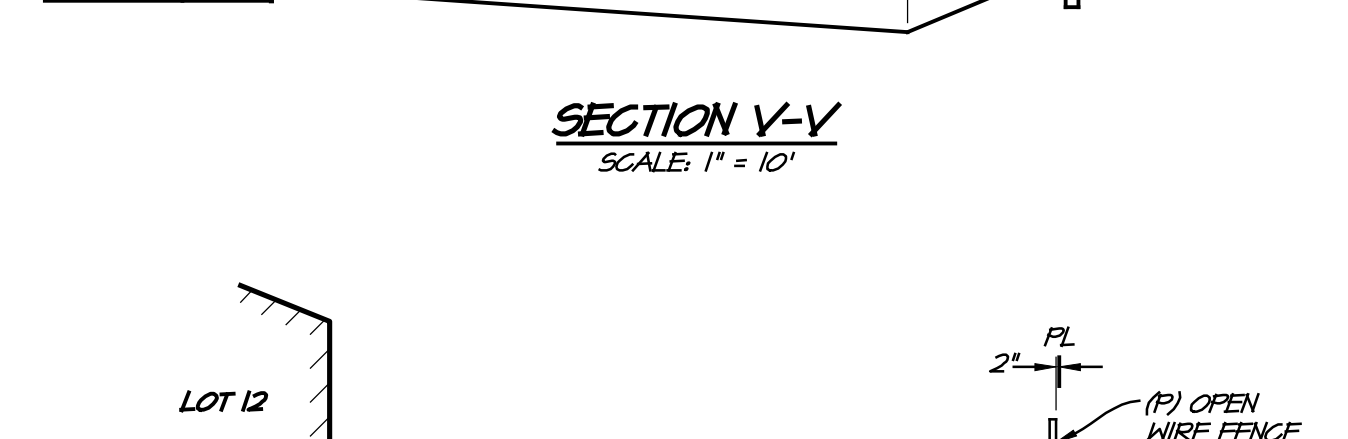
3  
TMS  
TYPICAL TYPE 'C' LOT GRADING  
MAX 12% DWY, UNO  
ALL DRAINAGE TO REAR OF LOT  
LOTS 1-6  
NOT TO SCALE



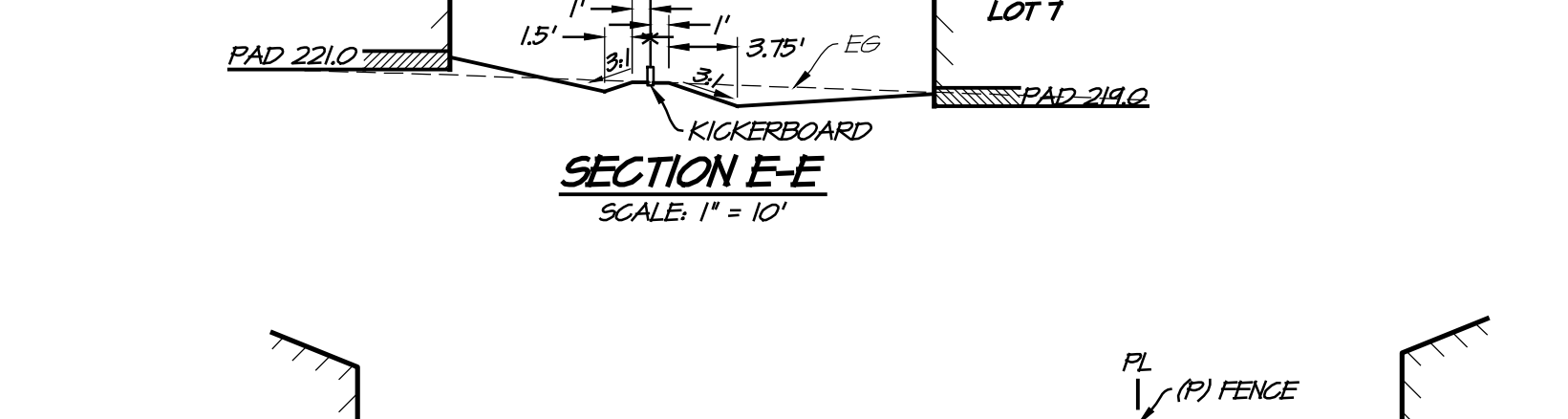
SECTION E-E  
SCALE: 1" = 10'



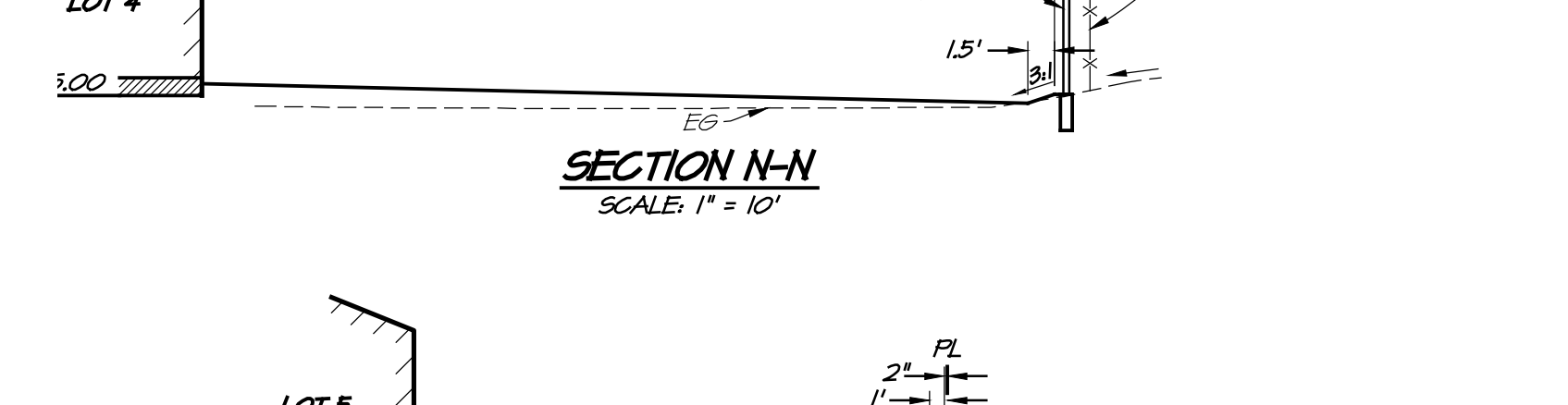
SECTION N-N  
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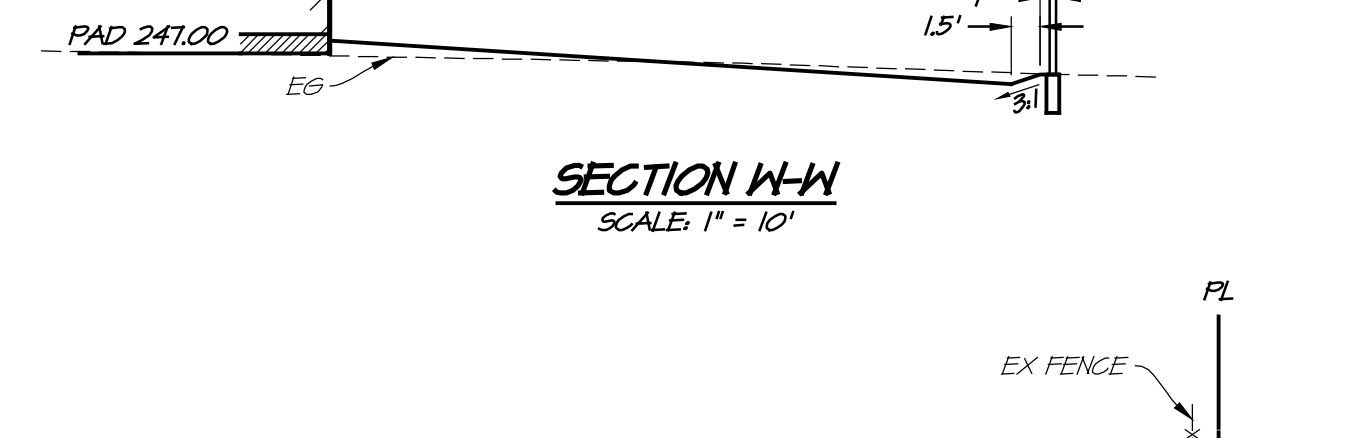
SECTION W-W  
SCALE: 1" = 10'



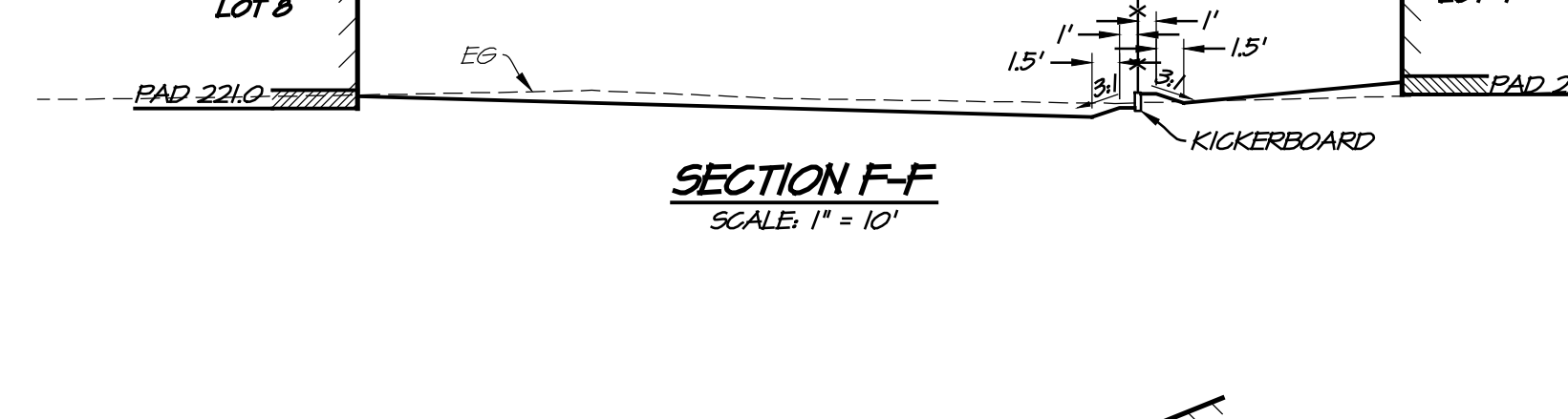
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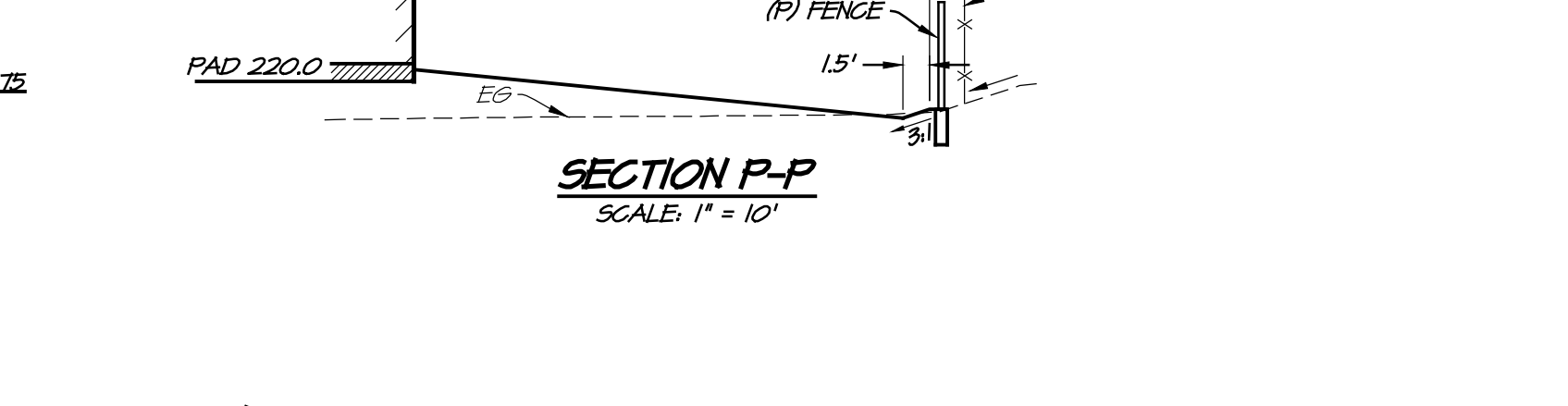
SECTION P-P  
SCALE: 1" = 10'



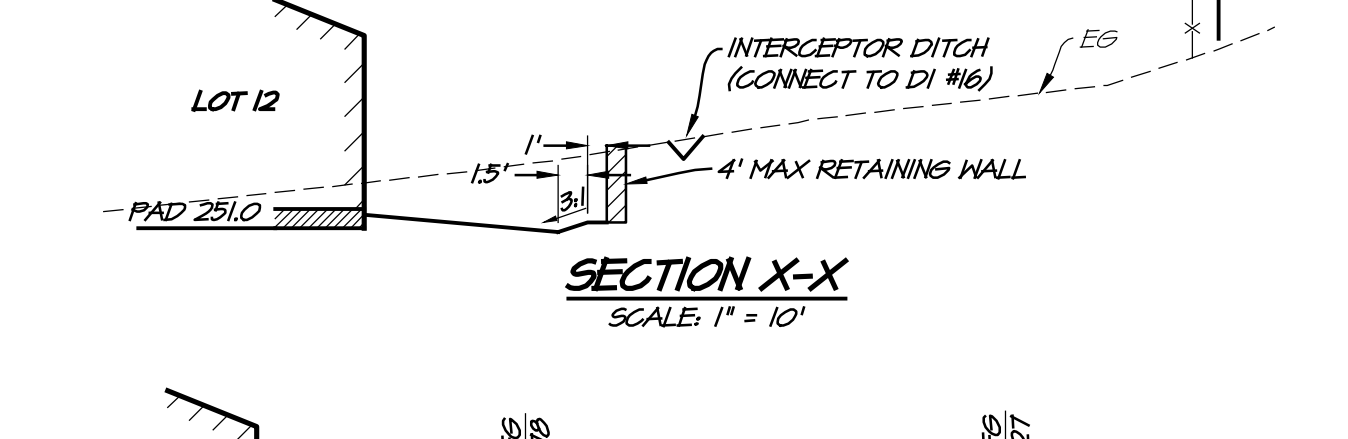
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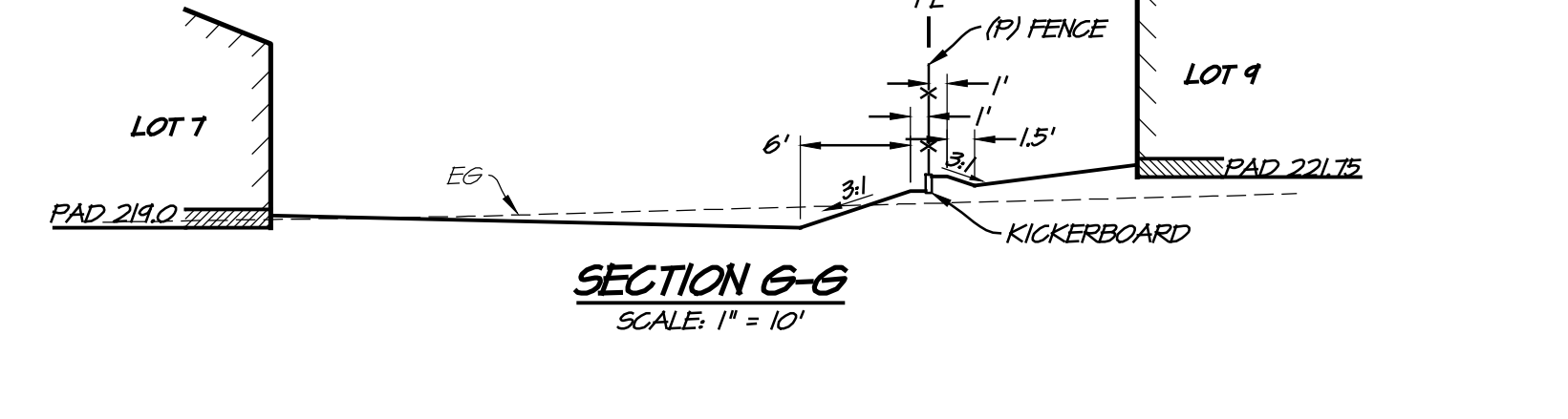
SECTION G-G  
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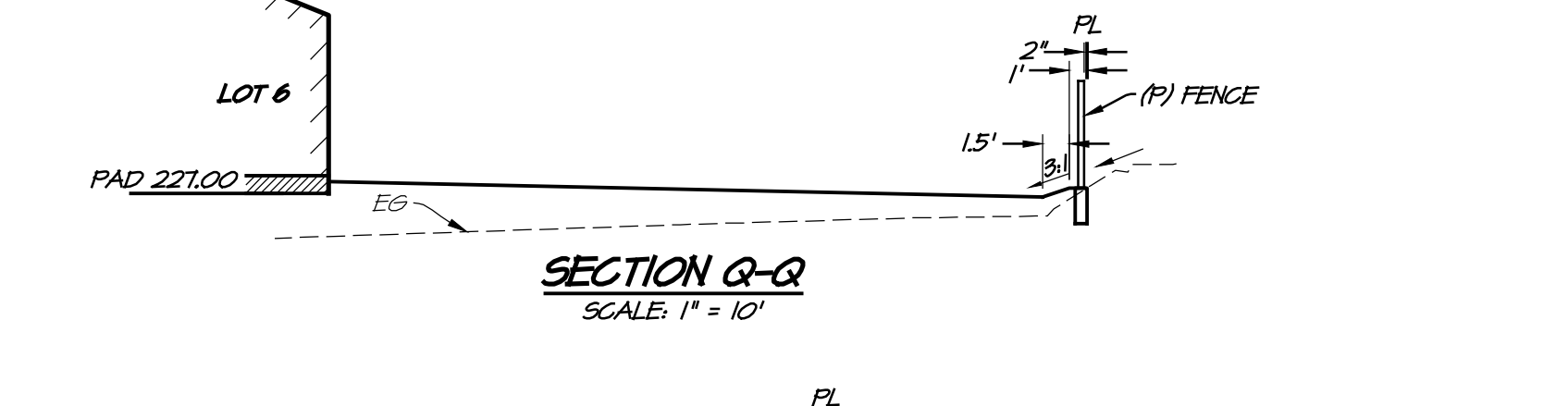
SECTION Q-Q  
SCALE: 1" = 10'



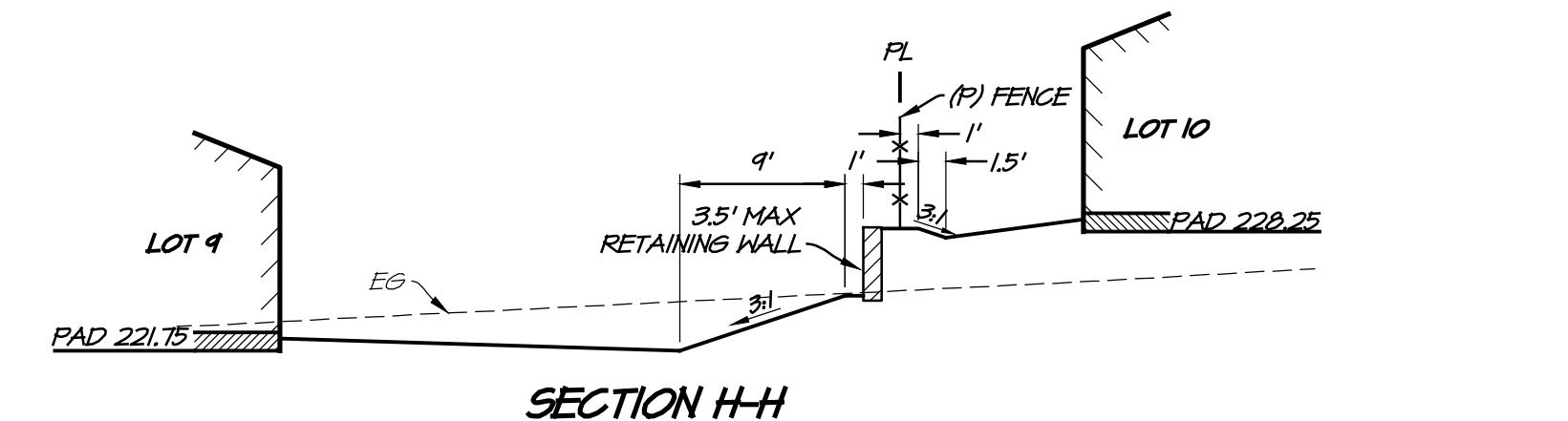
SECTION Y-Y  
SCALE: 1" = 10'



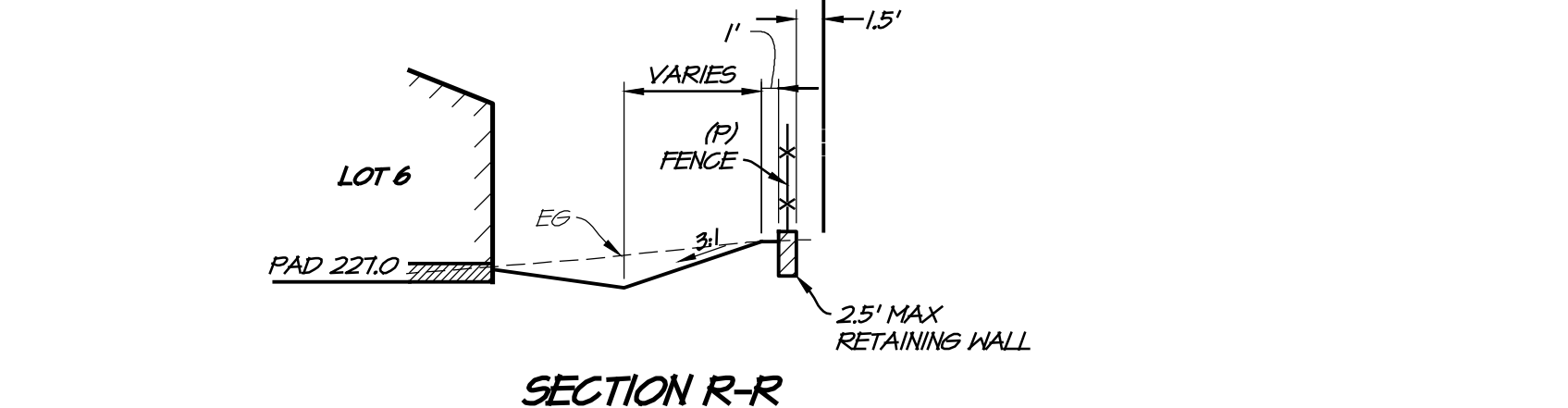
SECTION H-H  
SCALE: 1" = 10'



SECTION R-R  
SCALE: 1" = 10'



SECTION I-I  
SCALE: 1" = 10'



SECTION R-R  
SCALE: 1" = 10'

NOTES  
1. SEE LANDSCAPE PLANS FOR DETAILS OF NEW FENCES.  
2. GAP BETWEEN KICKERBOARD & FG TO ACCEPT EXISTING RUN-ON.

NO.	DATE	BY	APPD

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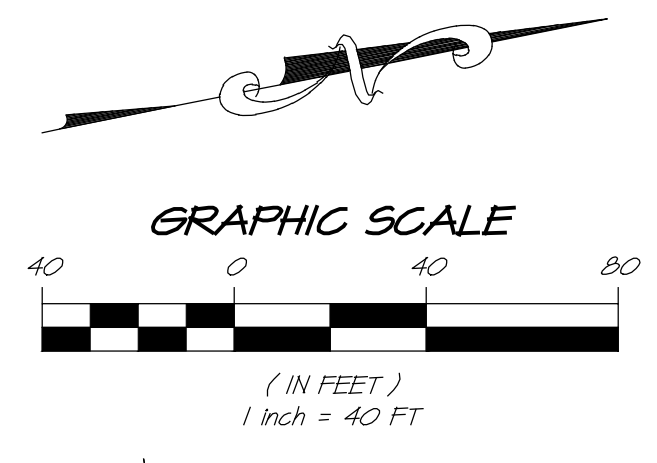
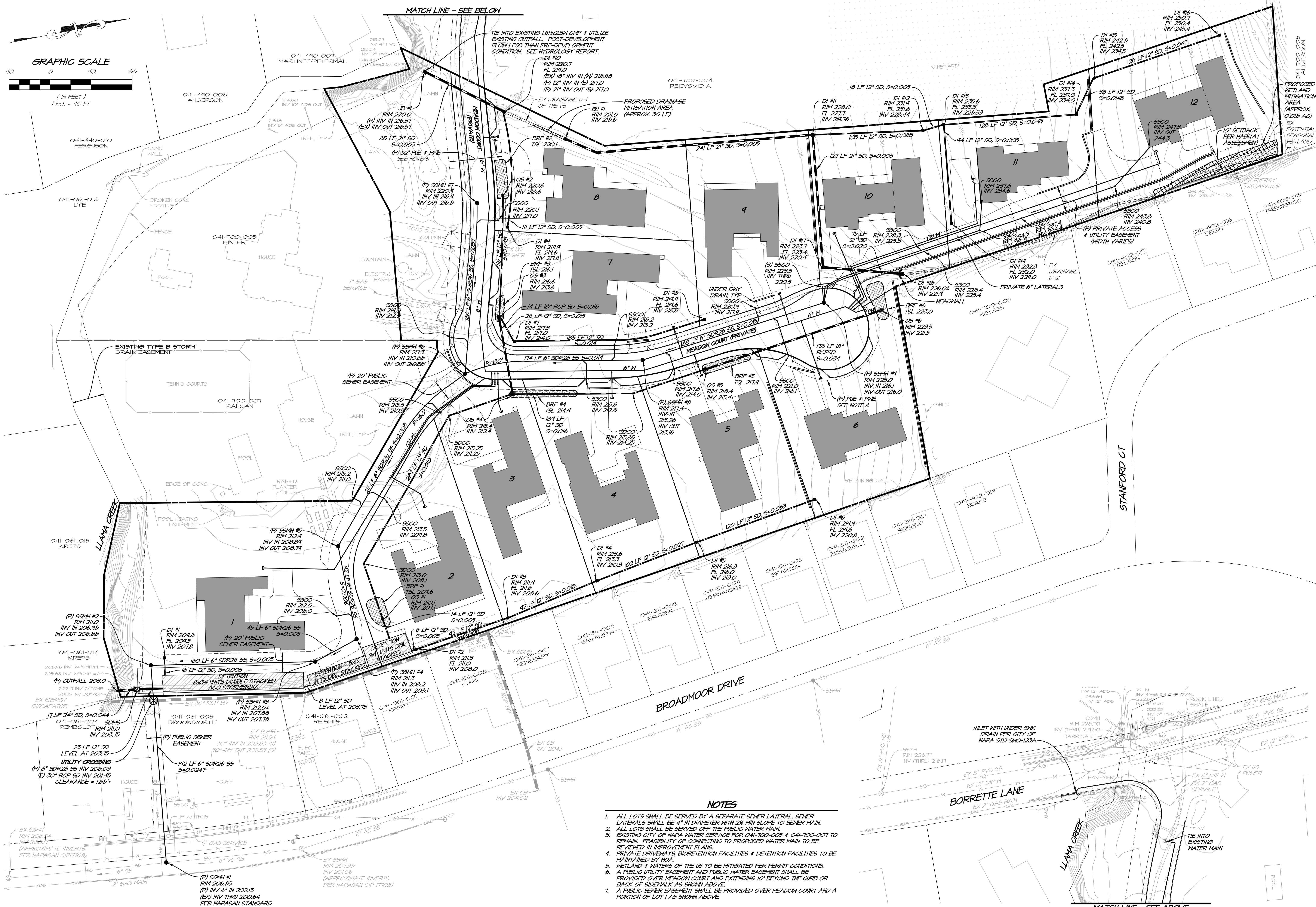
**RSACAL**  
RSACAL CONSULTING CIVIL ENGINEERS & SURVEYORS

WESTERN MEADOWS SUBDIVISION  
GRADING SECTIONS AND DETAILS  
CALIFORNIA  
NAPA

REGISTERED PROFESSIONAL ENGINEER  
No. 73257  
Exp. 12/31/2008  
CIVIL ENGINEER  
STATE OF CALIFORNIA

DATE	DEC 11, 2020
DRAWN	LAG
DESIGNED	EP
CHECKED	DMD
JOB NO.	418018.0
SHEET NO.	TM5
	5 OF 8 SHEETS





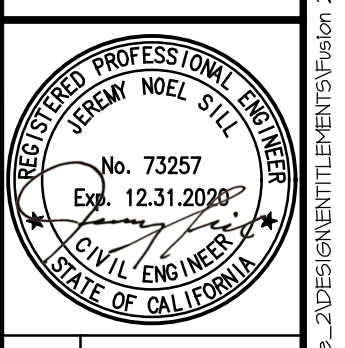
MATCH LINE - SEE BELOW  
 TIE INTO EXISTING 18"x24" CMP & UTILIZE EXISTING OUTFALL. POST-DEVELOPMENT FLOW LESS THAN PRE-DEVELOPMENT CONDITION. SEE HYDROLOGY REPORT.

- NOTES**
1. ALL LOTS SHALL BE SERVED BY A SEPARATE SEWER LATERAL. SEWER LATERALS SHALL BE 4" IN DIAMETER WITH 2% MIN SLOPE TO SEWER MAIN.
  2. ALL LOTS SHALL BE SERVED OFF THE PUBLIC WATER MAIN.
  3. EXISTING CITY OF NAPA WATER SERVICE FOR 041-100-005 & 041-100-007 TO REMAIN. FEASIBILITY OF CONNECTING TO PROPOSED WATER MAIN TO BE REVIEWED IN IMPROVEMENT PLANS.
  4. PRIVATE DRIVEWAYS, BIORETENTION FACILITIES & DETENTION FACILITIES TO BE MAINTAINED BY HOA.
  5. WETLAND & WATERS OF THE US TO BE MITIGATED PER PERMIT CONDITIONS. A PUBLIC UTILITY EASEMENT AND PUBLIC WATER EASEMENT SHALL BE PROVIDED OVER MEADON COURT AND EXTENDING 10' BEYOND THE CURB OR BACK OF SIDEWALK AS SHOWN ABOVE.
  6. A PUBLIC SEWER EASEMENT SHALL BE PROVIDED OVER MEADON COURT AND A PORTION OF LOT 1 AS SHOWN ABOVE.

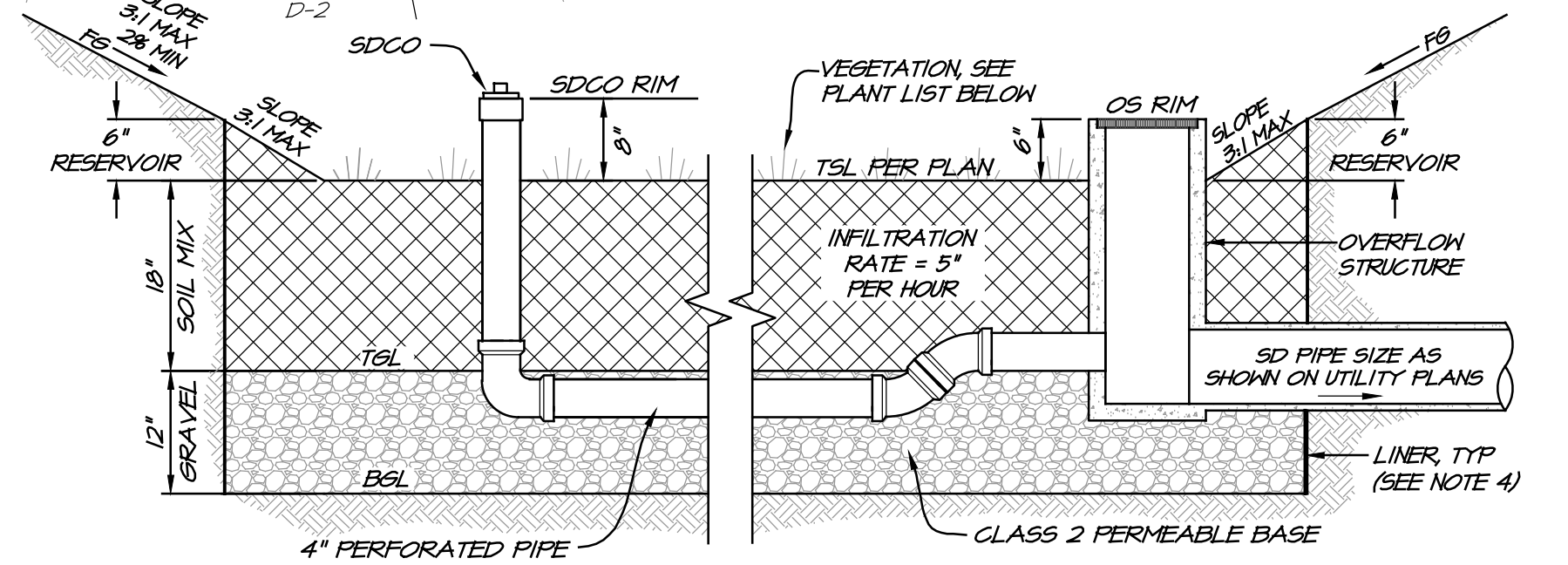
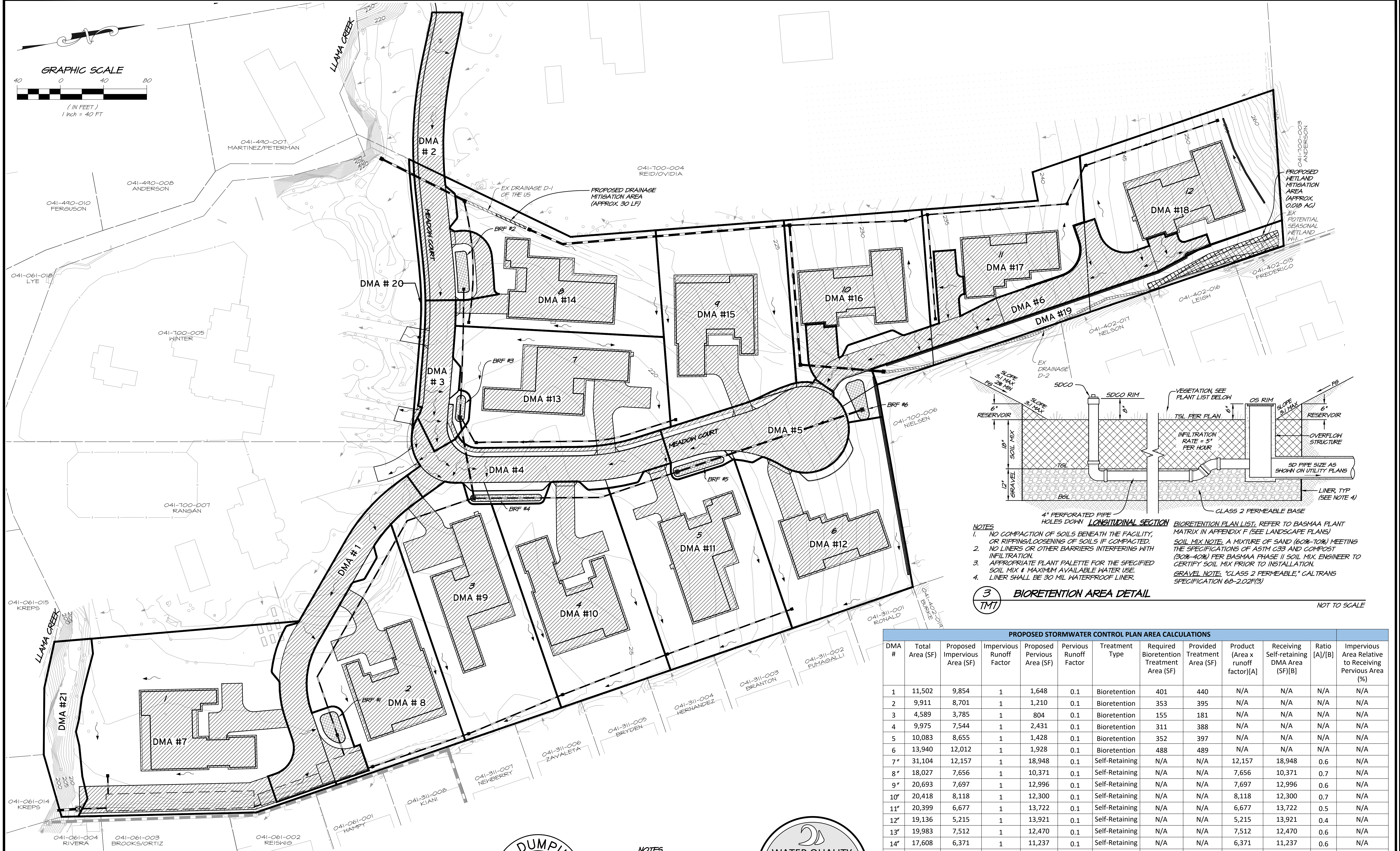
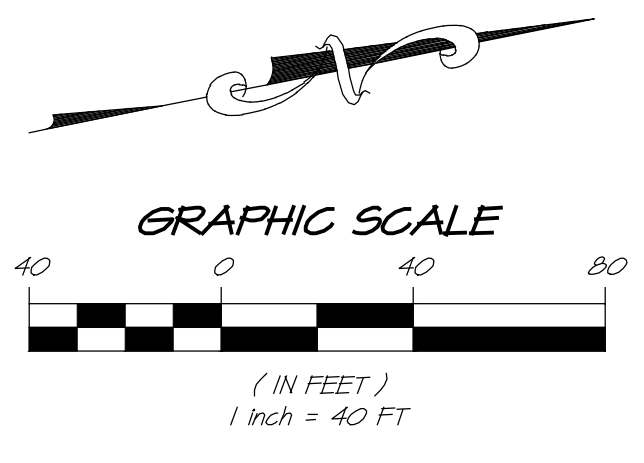
NO.	DATE	REVISIONS	BY

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 1515 FOURTH STREET  
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**WESTERN MEADOWS SUBDIVISION  
 UTILITY PLAN**  
 CALIFORNIA  
 NAPA



DATE	DEC 11, 2020
DRAWN	LAG
DESIGNED	EP
CHECKED	DMD
JOB NO.	418018.0
SHEET NO.	<b>TM6</b>
	6 OF 8 SHEETS



**NOTES**

- NO COMPACTION OF SOILS BENEATH THE FACILITY, OR RIPPING/LOOSENING OF SOILS IF COMPACTED.
- NO LINERS OR OTHER BARRIERS INTERFERING WITH INFILTRATION.
- APPROPRIATE PLANT PALETTE FOR THE SPECIFIED SOIL MIX & MAXIMUM AVAILABLE WATER USE.
- LINER SHALL BE 30 MIL WATERPROOF LINER.

**BIORETENTION PLAN LIST. REFER TO BASMAA PLANT MATRIX IN APPENDIX F (SEE LANDSCAPE PLANS)**

**SOIL MIX NOTE:** A MIXTURE OF SAND (60%-70%) MEETING THE SPECIFICATIONS OF ASTM C33 AND COMPOST (30%-40%) PER BASMAA PHASE II SOIL MIX. ENGINEER TO CERTIFY SOIL MIX PRIOR TO INSTALLATION.

**GRAVEL NOTE:** "CLASS 2 PERMEABLE" CALTRANS SPECIFICATION 60-2.02(F3)

**CLASS 2 PERMEABLE BASE**

**SD PIPE SIZE AS SHOWN ON UTILITY PLANS**

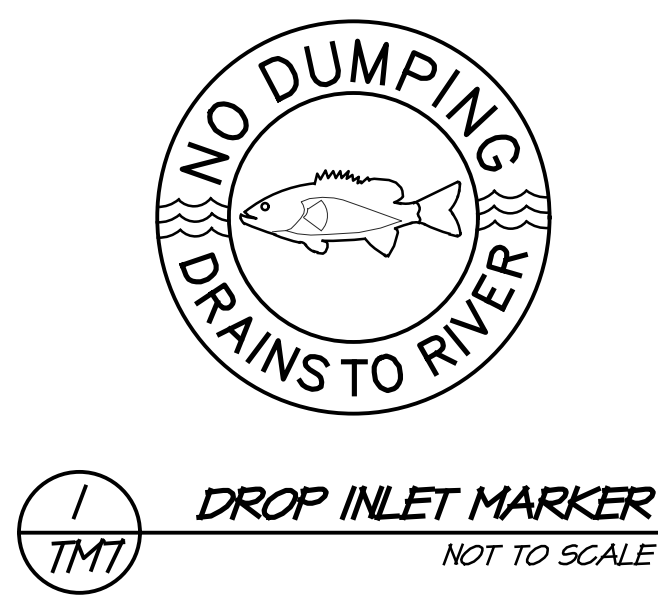
**LINER TYP (SEE NOTE 4)**

**NOT TO SCALE**

PROPOSED STORMWATER CONTROL PLAN AREA CALCULATIONS												
DMA #	Total Area (SF)	Proposed Impervious Area (SF)	Impervious Runoff Factor	Proposed Pervious Area (SF)	Pervious Runoff Factor	Treatment Type	Required Bioretention Treatment Area (SF)	Provided Treatment Area (SF)	Product (Area x runoff factor)[A]	Receiving Self-retaining DMA Area (SF)[B]	Ratio [A]/[B]	Impervious Area Relative to Receiving Pervious Area (%)
1	11,502	9,854	1	1,648	0.1	Bioretention	401	440	N/A	N/A	N/A	N/A
2	9,911	8,701	1	1,210	0.1	Bioretention	353	395	N/A	N/A	N/A	N/A
3	4,589	3,785	1	804	0.1	Bioretention	155	181	N/A	N/A	N/A	N/A
4	9,975	7,544	1	2,431	0.1	Bioretention	311	388	N/A	N/A	N/A	N/A
5	10,083	8,655	1	1,428	0.1	Bioretention	352	397	N/A	N/A	N/A	N/A
6	13,940	12,012	1	1,928	0.1	Bioretention	488	489	N/A	N/A	N/A	N/A
7*	31,104	12,157	1	18,948	0.1	Self-Retaining	N/A	N/A	12,157	18,948	0.6	N/A
8*	18,027	7,656	1	10,371	0.1	Self-Retaining	N/A	N/A	7,656	10,371	0.7	N/A
9*	20,693	7,697	1	12,996	0.1	Self-Retaining	N/A	N/A	7,697	12,996	0.6	N/A
10*	20,418	8,118	1	12,300	0.1	Self-Retaining	N/A	N/A	8,118	12,300	0.7	N/A
11*	20,399	6,677	1	13,722	0.1	Self-Retaining	N/A	N/A	6,677	13,722	0.5	N/A
12*	19,136	5,215	1	13,921	0.1	Self-Retaining	N/A	N/A	5,215	13,921	0.4	N/A
13*	19,983	7,512	1	12,470	0.1	Self-Retaining	N/A	N/A	7,512	12,470	0.6	N/A
14*	17,608	6,371	1	11,237	0.1	Self-Retaining	N/A	N/A	6,371	11,237	0.6	N/A
15*	19,935	7,033	1	12,902	0.1	Self-Retaining	N/A	N/A	7,033	12,902	0.5	N/A
16*	14,750	5,489	1	9,261	0.1	Self-Retaining	N/A	N/A	5,489	9,261	0.6	N/A
17*	12,442	4,224	1	8,218	0.1	Self-Retaining	N/A	N/A	4,224	8,218	0.5	N/A
18*	19,343	6,052	1	13,291	0.1	Self-Retaining	N/A	N/A	6,052	13,291	0.5	N/A
19*	6,867	0	1	6,867	0.1	Self-Treating	N/A	N/A	N/A	N/A	N/A	0.0%
20*	997	132	1	865	0.1	Self-Retaining	N/A	N/A	132	865	0.2	N/A
21**	5,278	121	1	5,157	0.1	Self-Treating	N/A	N/A	N/A	N/A	N/A	2.3%

PROPOSED POST CONSTRUCTION BMP'S	
BMP (BEST MANAGEMENT PRACTICES)	TREATMENT AREA
1. BIORETENTION AREAS, 6 EACH (SEE DETAIL 3 THIS SHEET)	SEE MAP FOR DMA
2. NO DUMPING, DRAINS TO RIVER! STAMPINGS ON ALL INLETS (SEE DETAIL 1 THIS SHEET)	ENTIRE PROJECT
3. WATER QUALITY FEATURE ON SITE! STAMPINGS ON ALL BIORETENTION INLETS (SEE DETAIL 2 THIS SHEET)	ENTIRE PROJECT
4. SPLASH BLOCKS ON ALL DOWNSPOUTS	ENTIRE PROJECT
5. HOMEOWNER EDUCATION: COPY OF SCP AND MAINTENANCE AGREEMENT TO BE PROVIDED TO OWNER	ENTIRE PROJECT

LEGEND	
	BIORETENTION AREA
	DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY
	PROPOSED IMPERVIOUS AREAS
	PROPOSED PERVIOUS AREAS



**NOTES**

- EACH BIORETENTION FACILITY WITHIN THE CITY LIMITS SHALL BE MARKED WITH A "WATER QUALITY FEATURE ON SITE - DO NOT ALTER OR REMOVE" MARKER.
- CONTRACTOR IS TO PURCHASE THESE MARKERS FROM THE PUBLIC WORKS DEPARTMENT LOCATED AT 1600 FIRST STREET.

\* THIS DMA IS CONSIDERED SELF-RETAINING BECAUSE IT HAS LESS THAN 2:1 RATIO OF IMPERVIOUS TO PERVIOUS, AND THE PERVIOUS AREAS ARE RELATIVELY FLAT. INLET RIM IS 3" HIGHER THAN THE LOW POINT TO ALLOW PONDING. THIS LOW POINT AREA IS GRADED CONCAVE.

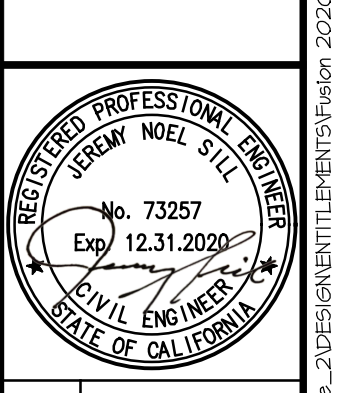
\*\* THIS DMA IS CONSIDERED SELF-TREATING BECAUSE IT DRAINS LANDSCAPED OR TURF AREAS THAT DO NOT DRAIN TO BIORETENTION FACILITIES, BUT RATHER DRAIN DIRECTLY OFF SITE. IN GENERAL, SELF-TREATING AREAS INCLUDE NO IMPERVIOUS AREAS, UNLESS THE IMPERVIOUS AREA IS VERY SMALL (5% OR LESS) RELATIVE TO THE RECEIVING PERVIOUS AREA AND SLOPES ARE GENTLE ENOUGH TO ENSURE RUNOFF WILL BE ABSORBED INTO THE VEGETATION AND SOIL.

NO.	DATE	REVISIONS	BY	APPD

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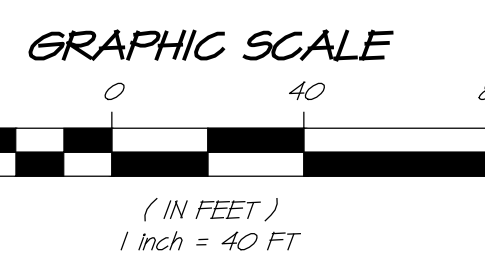
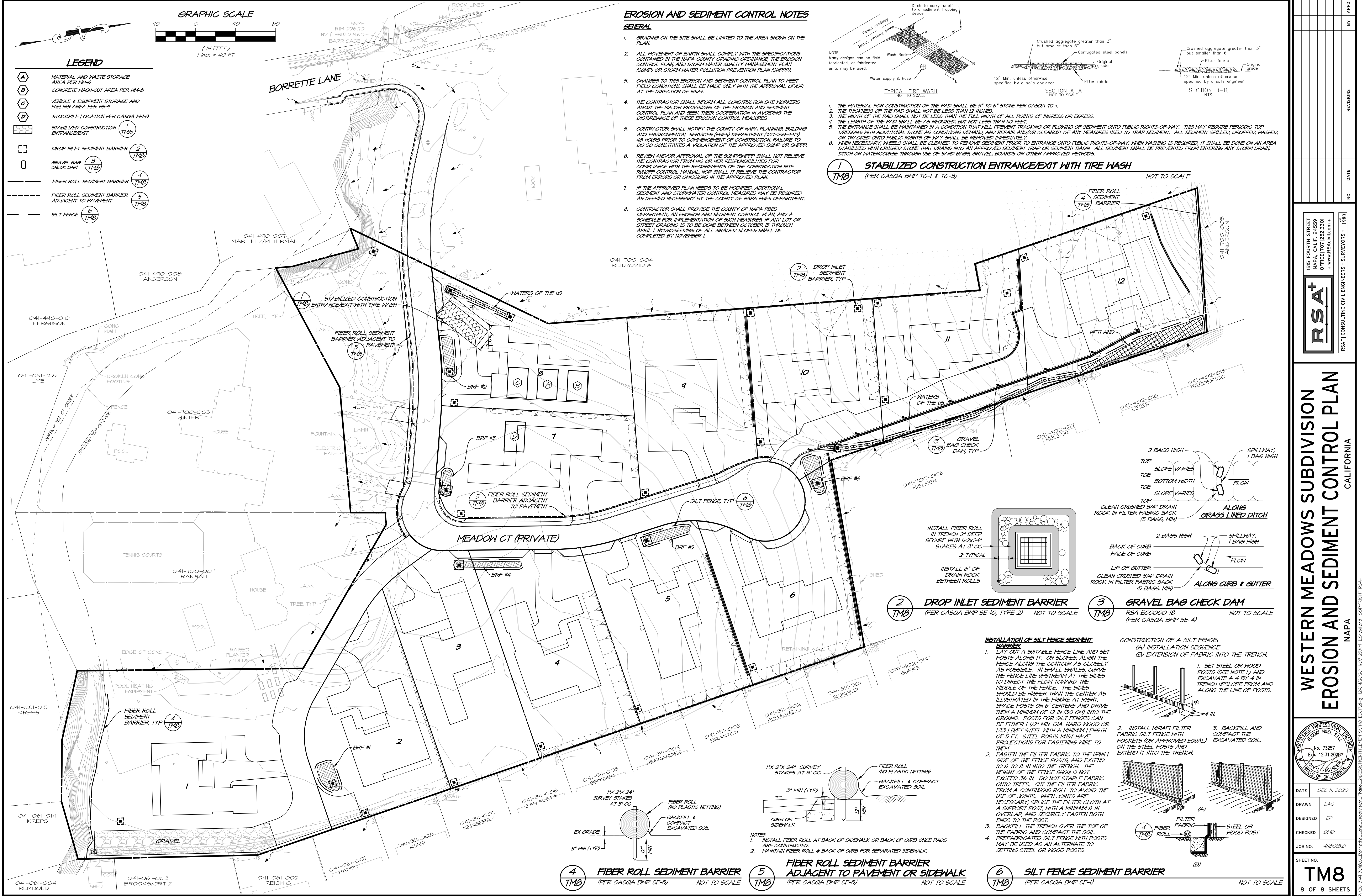
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NAPA, CALIF. 94559  
OFFICE (707) 252-3301  
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**WESTERN MEADOWS SUBDIVISION  
SCP SITE PLAN**  
CALIFORNIA  
NAPA



DATE	OCT. 10, 2019
DRAWN	LAC
DESIGNED	EP
CHECKED	JNS
JOB NO.	418010.0

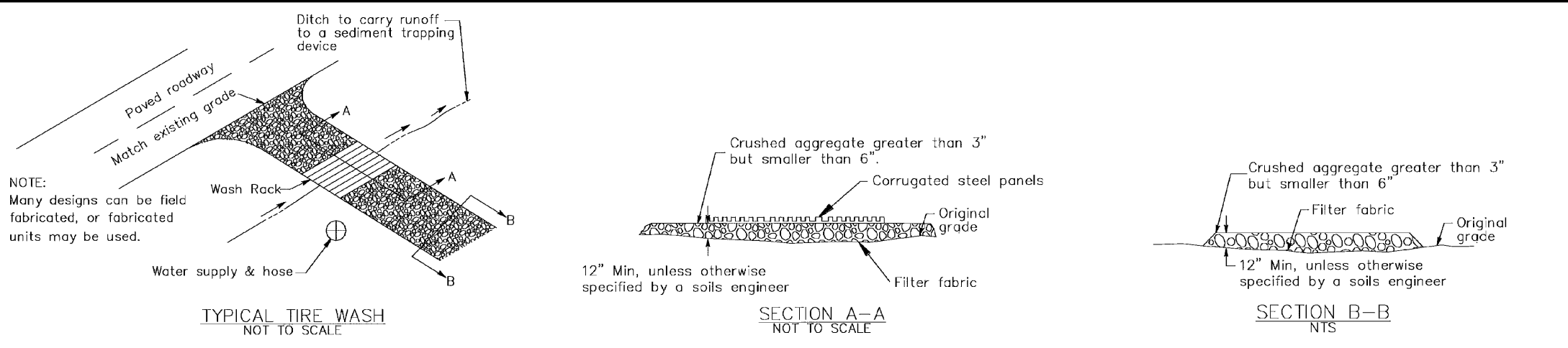
SHEET NO.  
**TM7**  
7 OF 8 SHEETS



- LEGEND**
- (A) MATERIAL AND WASTE STORAGE AREA PER MM-6
  - (B) CONCRETE WASH-OUT AREA PER MM-6
  - (C) VEHICLE & EQUIPMENT STORAGE AND FUELING AREA PER IS-9
  - (D) STOCKPILE LOCATION PER CASQA MM-3
  - (1) STABILIZED CONSTRUCTION ENTRANCE/EXIT
  - (2) DROP INLET SEDIMENT BARRIER
  - (3) GRAVEL BAG CHECK DAM
  - (4) FIBER ROLL SEDIMENT BARRIER
  - (5) FIBER ROLL SEDIMENT BARRIER ADJACENT TO PAVEMENT
  - (6) SILT FENCE

**EROSION AND SEDIMENT CONTROL NOTES**

- GENERAL**
- GRADING ON THE SITE SHALL BE LIMITED TO THE AREA SHOWN ON THE PLAN.
  - ALL MOVEMENT OF EARTH SHALL COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE NAPA COUNTY GRADING ORDINANCE, THE EROSION CONTROL PLAN, AND STORM WATER QUALITY MANAGEMENT PLAN (SQMP) OR STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
  - CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN TO MEET FIELD CONDITIONS SHALL BE MADE ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF RSA.
  - THE CONTRACTOR SHALL INFORM ALL CONSTRUCTION SITE WORKERS ABOUT THE MAJOR PROVISIONS OF THE EROSION AND SEDIMENT CONTROL PLAN AND SEEK THEIR COOPERATION IN AVOIDING THE DISTURBANCE OF THESE EROSION CONTROL MEASURES.
  - CONTRACTOR SHALL NOTIFY THE COUNTY OF NAPA PLANNING, BUILDING AND ENVIRONMENTAL SERVICES (PES) DEPARTMENT (707-253-4417) 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SQMP OR SWPPP.
  - REVIEW AND/OR APPROVAL OF THE SQMP/SWPPP SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION SITE RUNOFF CONTROL MANUAL, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLAN.
  - IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY THE COUNTY OF NAPA PES DEPARTMENT.
  - CONTRACTOR SHALL PROVIDE THE COUNTY OF NAPA PES DEPARTMENT, AN EROSION AND SEDIMENT CONTROL PLAN, AND A SCHEDULE FOR IMPLEMENTATION OF SUCH MEASURES, IF ANY LOT OR STREET GRADING IS TO BE DONE BETWEEN OCTOBER 15 THROUGH APRIL 1. HYDROSEEDING OF ALL GRADED SLOPES SHALL BE COMPLETED BY NOVEMBER 1.



- THE MATERIAL FOR CONSTRUCTION OF THE PAD SHALL BE 3" TO 6" STONE PER CASQA-TG-1.
- THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 12 INCHES.
- THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
- THE LENGTH OF THE PAD SHALL BE AS REQUIRED, BUT NOT LESS THAN 50 FEET.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
- WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS OR OTHER APPROVED METHODS.

**(1) STABILIZED CONSTRUCTION ENTRANCE/EXIT WITH TIRE WASH**  
(PER CASQA BMP TC-1 & TC-3)

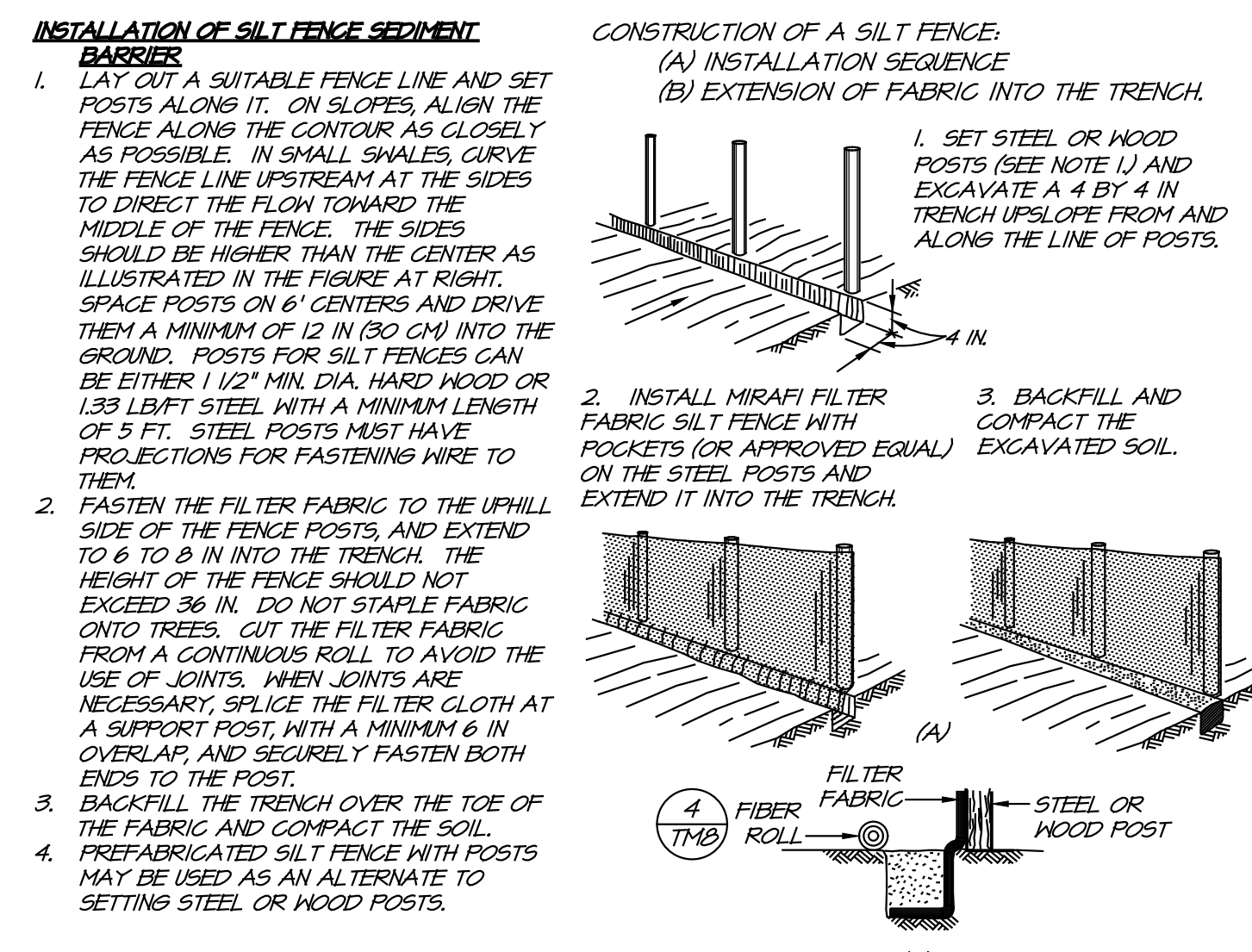
**(2) DROP INLET SEDIMENT BARRIER**  
(PER CASQA BMP SE-10, TYPE 2) NOT TO SCALE

**(3) GRAVEL BAG CHECK DAM**  
RSA EC0000-1B (PER CASQA BMP SE-4) NOT TO SCALE

**(4) FIBER ROLL SEDIMENT BARRIER**  
(PER CASQA BMP SE-5) NOT TO SCALE

**FIBER ROLL SEDIMENT BARRIER ADJACENT TO PAVEMENT OR SIDEWALK**  
(PER CASQA BMP SE-5) NOT TO SCALE

**(6) SILT FENCE SEDIMENT BARRIER**  
(PER CASQA BMP SE-1) NOT TO SCALE



NO.	DATE	REVISIONS	BY	APPD

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**WESTERN MEADOWS SUBDIVISION  
EROSION AND SEDIMENT CONTROL PLAN**  
CALIFORNIA  
NAPA

REGISTERED PROFESSIONAL ENGINEER  
No. 73257  
Exp. 12.31.2027  
DATE OF CALIFORNIA EXPIRES

DATE	DEC 11, 2020
DRAWN	LAG
DESIGNED	EP
CHECKED	DMD
JOB NO.	418010.0
SHEET NO.	<b>TM8</b>
	8 OF 8 SHEETS

# Western Meadows

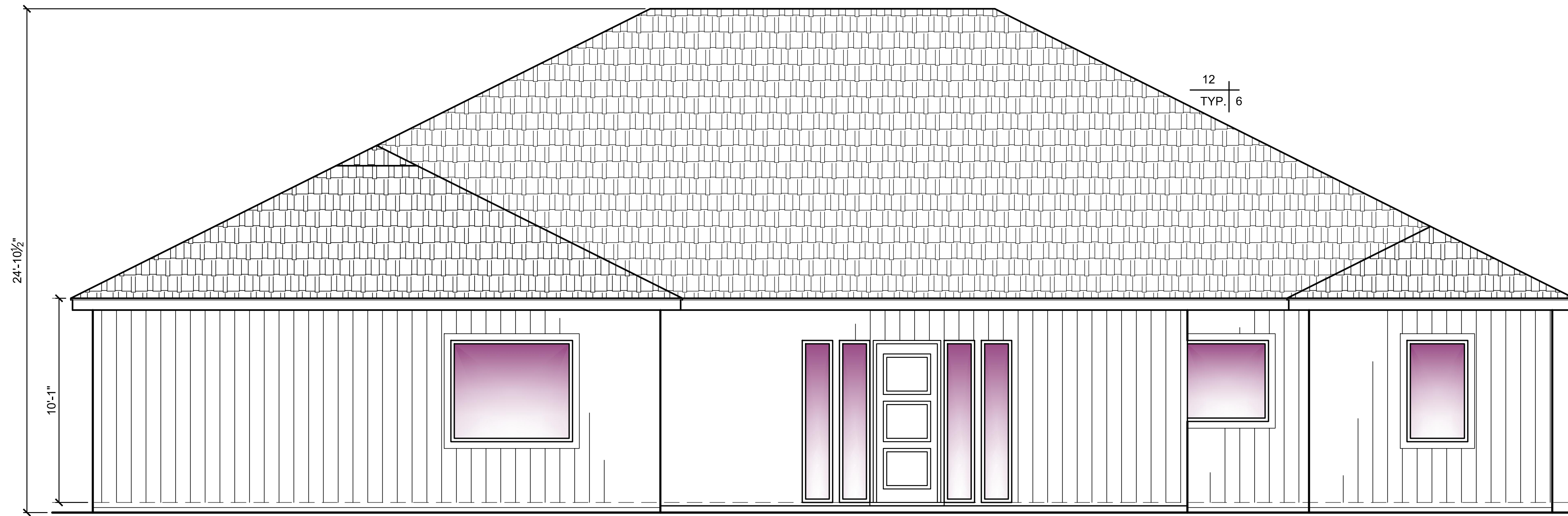
## Napa, CA



1. Presidential Shake TL- Charcoal Black  
[www.certainteed.com/residential-roofing/products/presidential-shake-tl/](http://www.certainteed.com/residential-roofing/products/presidential-shake-tl/)
2. Presidential Shake TL- Shadow Grey  
[www.certainteed.com/residential-roofing/products/presidential-shake-tl/](http://www.certainteed.com/residential-roofing/products/presidential-shake-tl/)
3. Dark bronze standing seam roof
4. Stucco Shade 1/Finish 1
5. Stucco Shade 2/Finish 2
6. Wood siding sample for exterior
7. Garage Door Carriage House Collection-Mahogany/Walnut  
[www.overheaddoor.com/carriage-house-garage-doors](http://www.overheaddoor.com/carriage-house-garage-doors)
8. Garage Door Modern Aluminum Collection Black trim/Frosted glass  
[www.overheaddoor.com/aluminum-garage-doors](http://www.overheaddoor.com/aluminum-garage-doors)
9. Sliding door open concept/ Four light pattern with one horizontal bar and one vertical bar to creates a four panel window look- Oil rubbed bronze finished or matte black

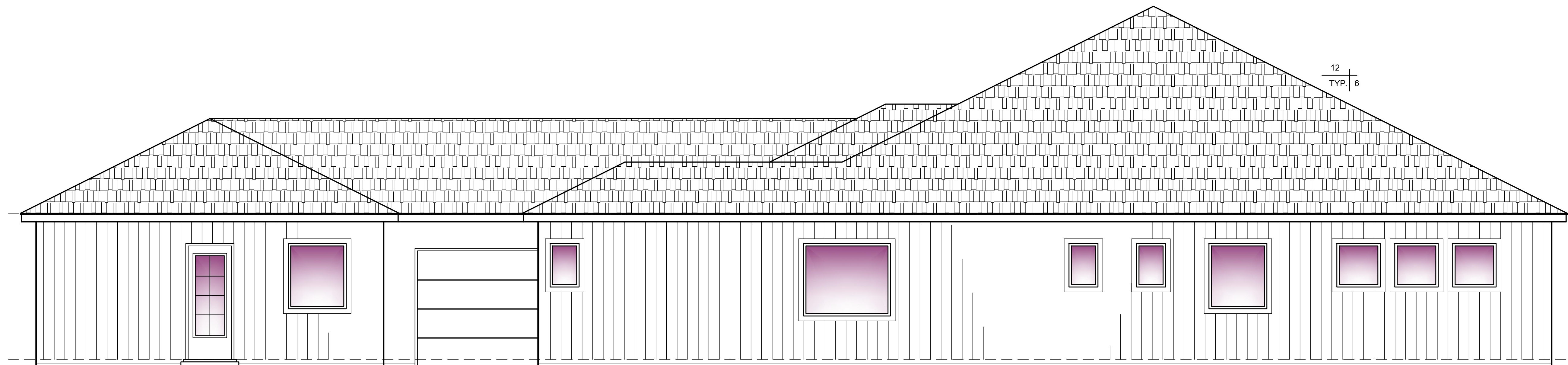
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**FRONT ELEVATION**

SCALE: 1/4" = 1'-0"



**RIGHT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"

**AREA TABULATION:**

TABULATIONS TO FACE OF STUD/ FOUNDATION		
CONDITIONED AREA:	MAIN FLOOR	3,672 SQ. FT.
CONDITIONED AREA:	GUEST SUITE	672 SQ. FT.
TOTAL LIVING AREA		4,344 SQ. FT.
COVERED PORCH		104 SQ. FT.
COVERED PATIO		400 SQ. FT.
GARAGE		496 SQ. FT.
TOTAL UNDER ROOF		5,352 SQ. FT.

**WYATT EARP ELEVATIONS**

SCALE: 1/4" = 1'-0"

**SCOPE OF WORK:**

CONSTRUCTION OF SINGLE FAMILY PRIVATE DWELLING AND ALL ASSOCIATED SITE WORK, INCLUDING GARAGE, UTILITIES, PATIOS, AND DRIVEWAYS.

**LOT #1 WESTERN MEADOWS**  
**11.60% LOT COVERAGE**

No.	Description	Date

2276 LOMA HEIGHTS RD  
 NAPA CA 94558  
 707 / 337-3025  
 KIRKGEYER@SBCGLOBAL.NET



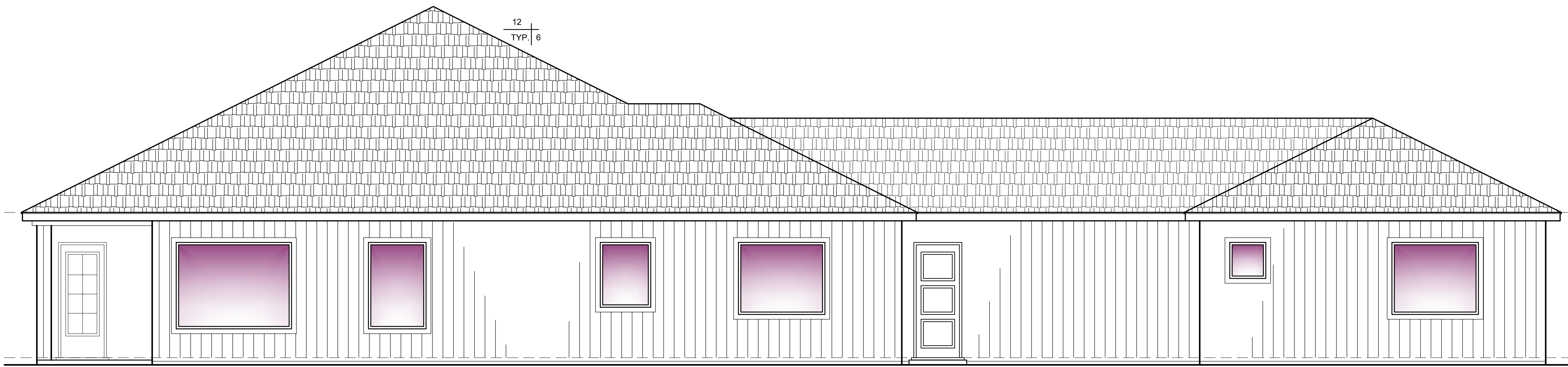
**KIRK GEYER DESIGN**  
 2276 LOMA HEIGHTS RD.  
 NAPA CA 94558  
 707 / 337-3025  
 KIRKGEYER@SBCGLOBAL.NET

**WESTERN MEADOWS PROJECT**

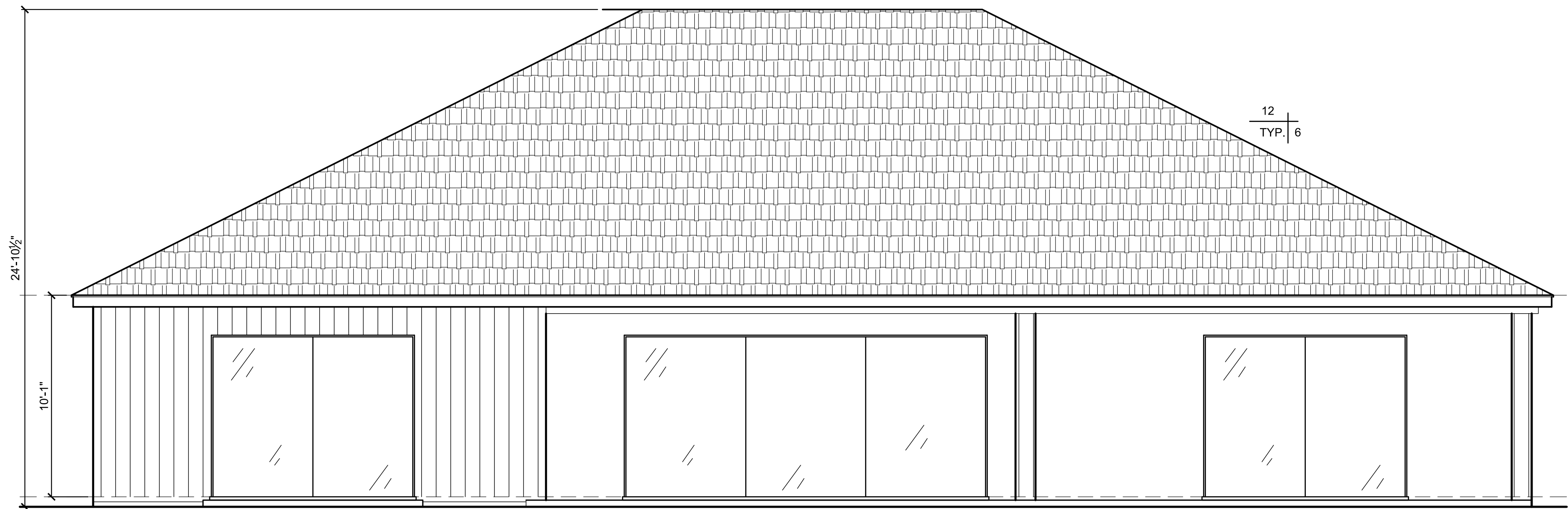
**LOT #1**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	A-101

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**LEFT SIDE ELEVATION** SCALE: 1/4" = 1'-0"



**REAR ELEVATION** SCALE: 1/4" = 1'-0"

**WYATT EARP ELEVATIONS** SCALE: 1/4" = 1'-0"

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No.	Description	Date

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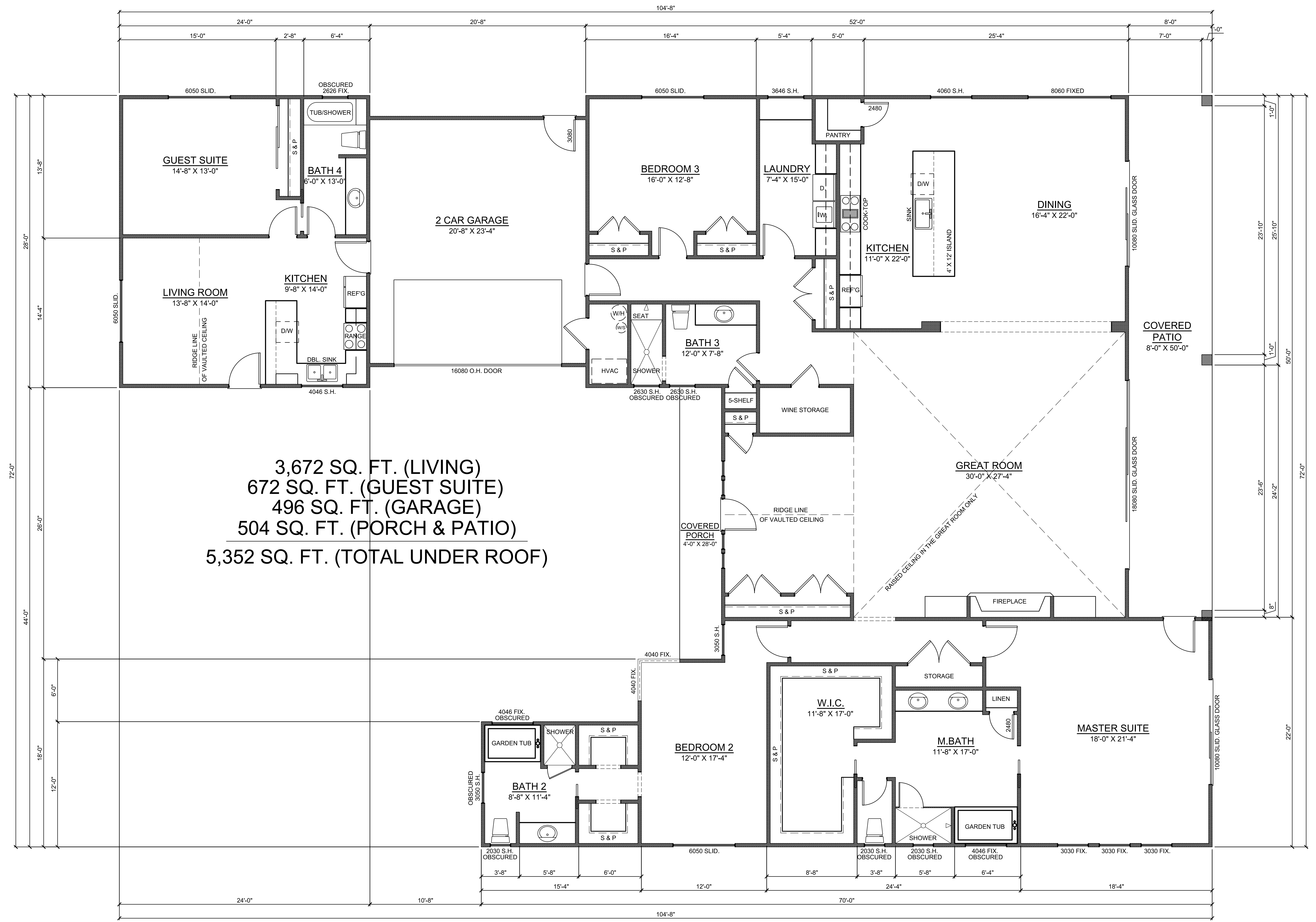
**WESTERN MEADOWS PROJECT**

**LOT #1**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	

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WYATT EARP FLOOR PLAN (G.L.) SCALE: 1/4" = 1'-0"

No.	Description	Date

**2276 LOMA HEIGHTS RD**  
**NAPA CA 94558**  
**707 / 337-3025**  
 KIRKGEYER@SBCGLOBAL.NET

**KIRK GEYER DESIGN**  
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 NAPA CA 94558  
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 KIRKGEYER@SBCGLOBAL.NET

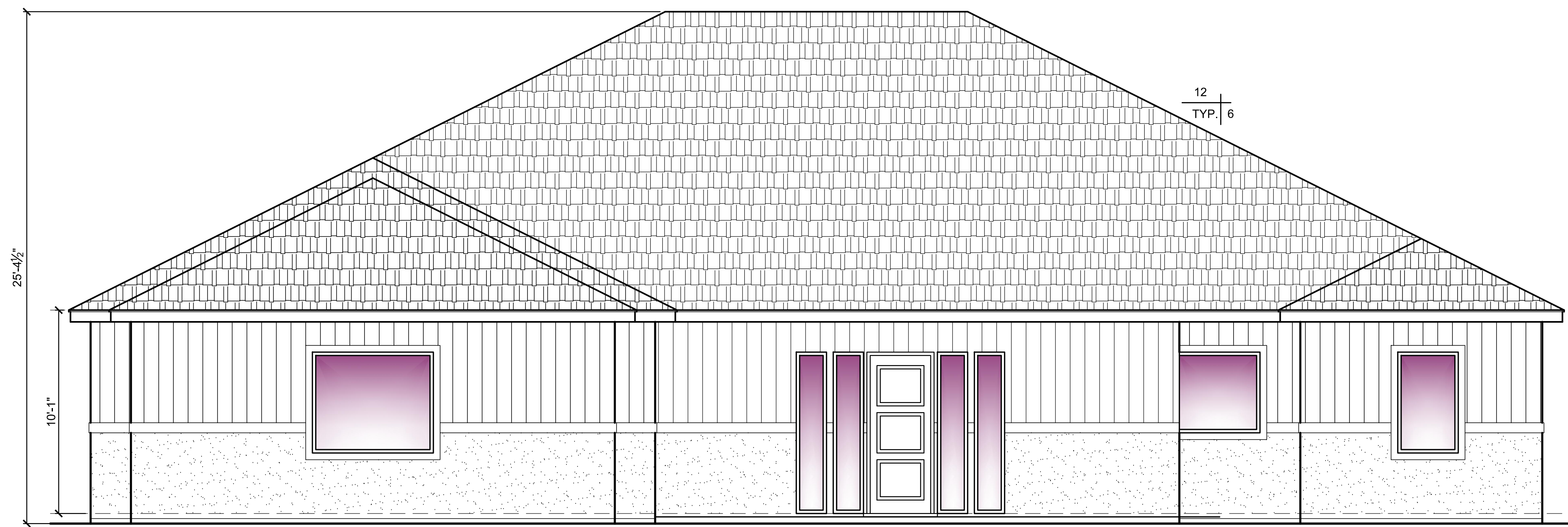
**WESTERN MEADOWS PROJECT**

**LOT #1**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	

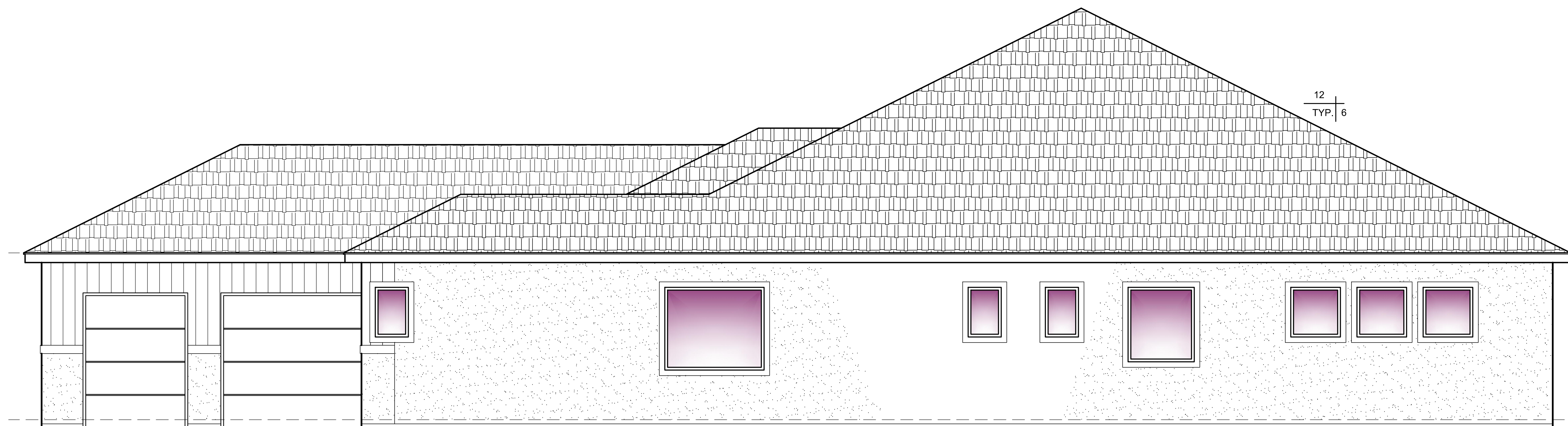
KIRK GEYER DESIGN, INC. SHALL BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

KIRK GEYER DESIGN, INC. SHALL BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.



**FRONT ELEVATION**

SCALE: 1/4" = 1'-0"



**RIGHT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"

**AREA TABULATION:**

TABULATIONS TO FACE OF STUD/ FOUNDATION.

CONDITIONED AREA:	MAIN FLOOR	3,916 SQ. FT.
TOTAL LIVING AREA		3,916 SQ. FT.
COVERED PORCH		104 SQ. FT.
COVERED PATIO		300 SQ. FT.
GARAGE		704 SQ. FT.
TOTAL UNDER ROOF		5,024 SQ. FT.

**SCOPE OF WORK:**

CONSTRUCTION OF SINGLE FAMILY PRIVATE DWELLING AND ALL ASSOCIATED SITE WORK, INCLUDING GARAGE, UTILITIES, PATIOS, AND DRIVEWAYS.

**LOT #2 WESTERN MEADOWS**  
**24.86% LOT COVERAGE**

**WYATT EARP ELEVATIONS**

SCALE: 1/4" = 1'-0"

No.	Description	Date

2276 LOMA HEIGHTS RD  
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 KIRKGEYER@SBCGLOBAL.NET



**KIRK GEYER DESIGN**  
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**WESTERN MEADOWS PROJECT**

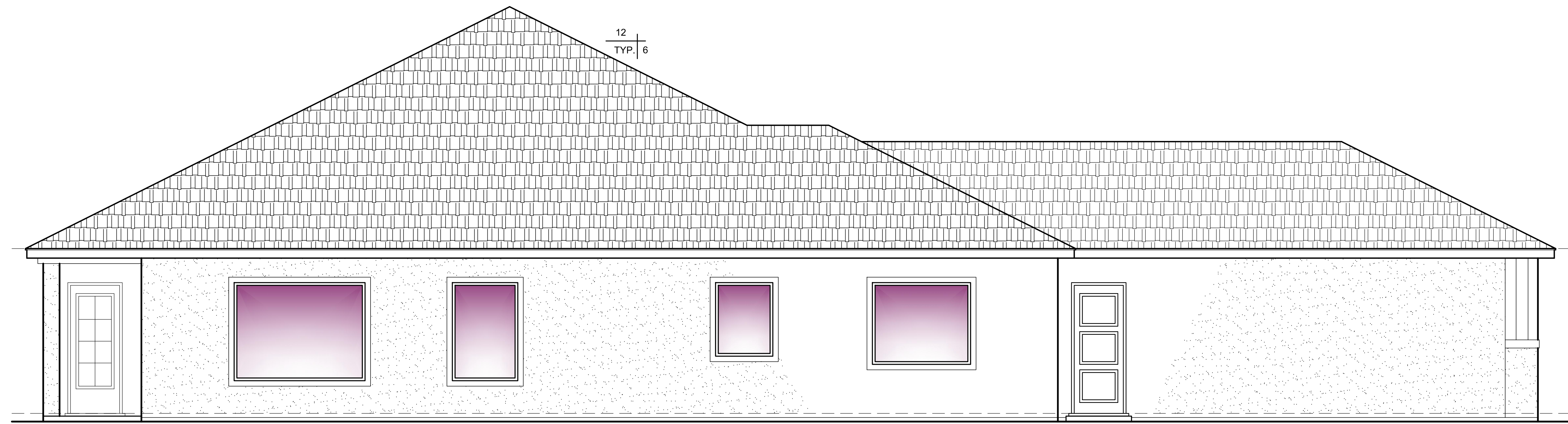
**LOT #2**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	A-101

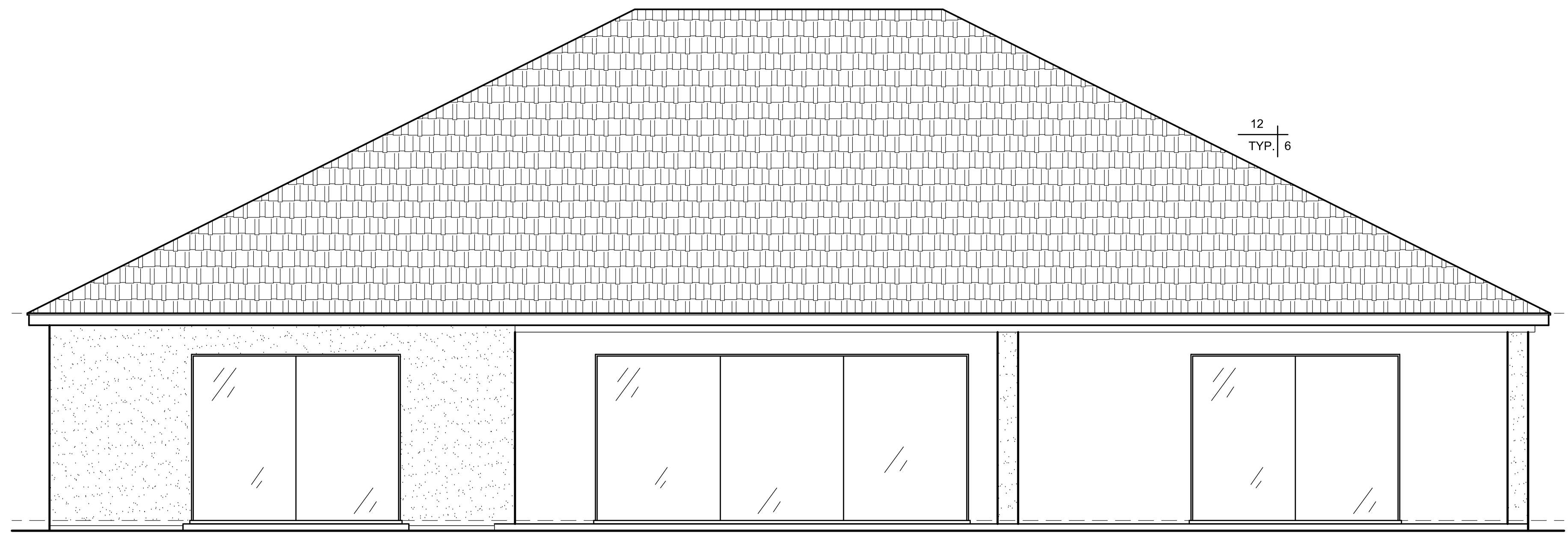


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**LEFT SIDE ELEVATION** SCALE: 1/4" = 1'-0"



**REAR ELEVATION** SCALE: 1/4" = 1'-0"

**WYATT EARP ELEVATIONS** SCALE: 1/4" = 1'-0"

No.	Description	Date

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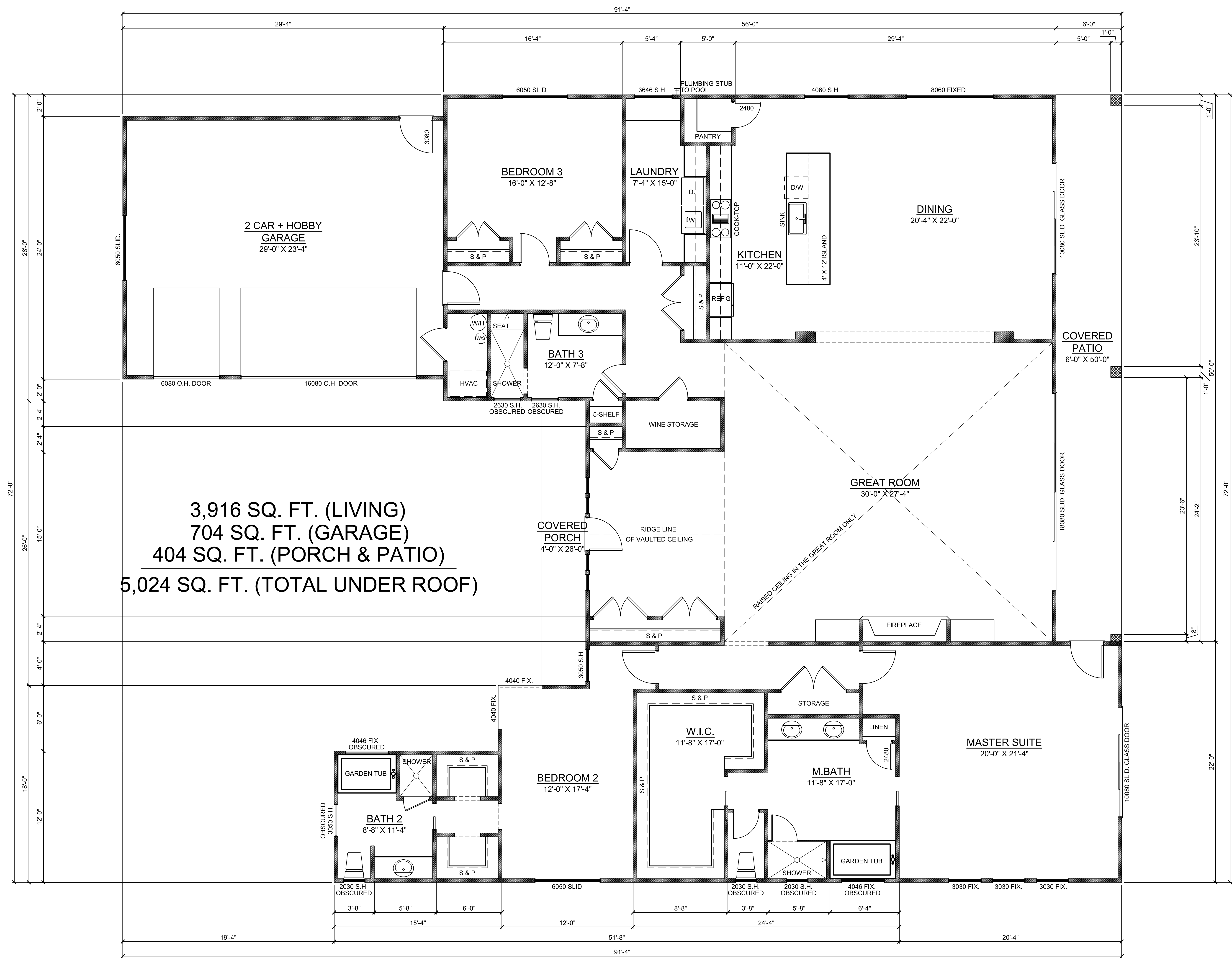
**WESTERN MEADOWS PROJECT**

**LOT #2**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	A-102

KIRK GEYER DESIGN, INC. HAS PREPARED THESE DOCUMENTS IN ACCORDANCE WITH THE PROFESSIONAL STANDARDS AND ETHICS OF THE ARCHITECTURAL PROFESSION. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

KIRK GEYER DESIGN, INC. HAS PREPARED THESE DOCUMENTS IN ACCORDANCE WITH THE PROFESSIONAL STANDARDS AND ETHICS OF THE ARCHITECTURAL PROFESSION. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.



**3,916 SQ. FT. (LIVING)**  
**704 SQ. FT. (GARAGE)**  
**404 SQ. FT. (PORCH & PATIO)**  
**5,024 SQ. FT. (TOTAL UNDER ROOF)**

**WYATT EARP FLOOR PLAN (G.L.)** SCALE: 1/4" = 1'-0"

No.	Description	Date

**2276 LOMA HEIGHTS RD**  
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**WESTERN MEADOWS PROJECT**

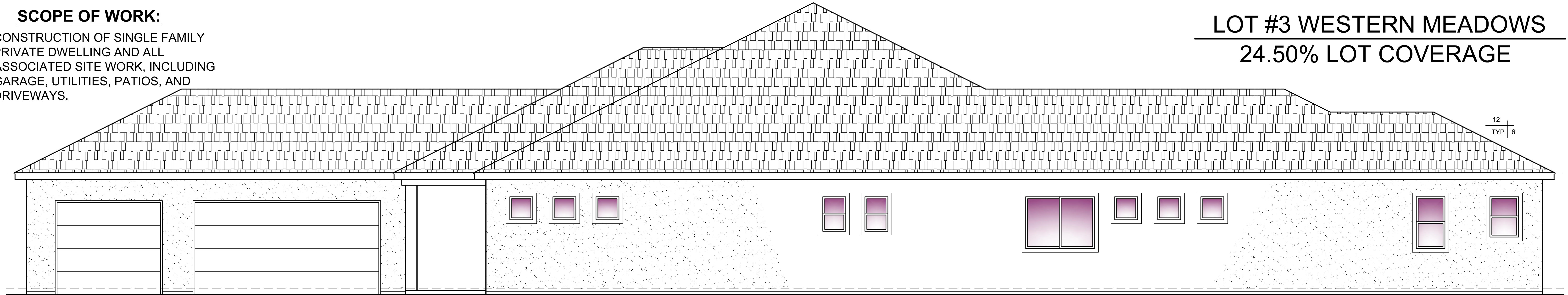
**LOT #2**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	

**SCOPE OF WORK:**

CONSTRUCTION OF SINGLE FAMILY PRIVATE DWELLING AND ALL ASSOCIATED SITE WORK, INCLUDING GARAGE, UTILITIES, PATIOS, AND DRIVEWAYS.

**LOT #3 WESTERN MEADOWS**  
**24.50% LOT COVERAGE**



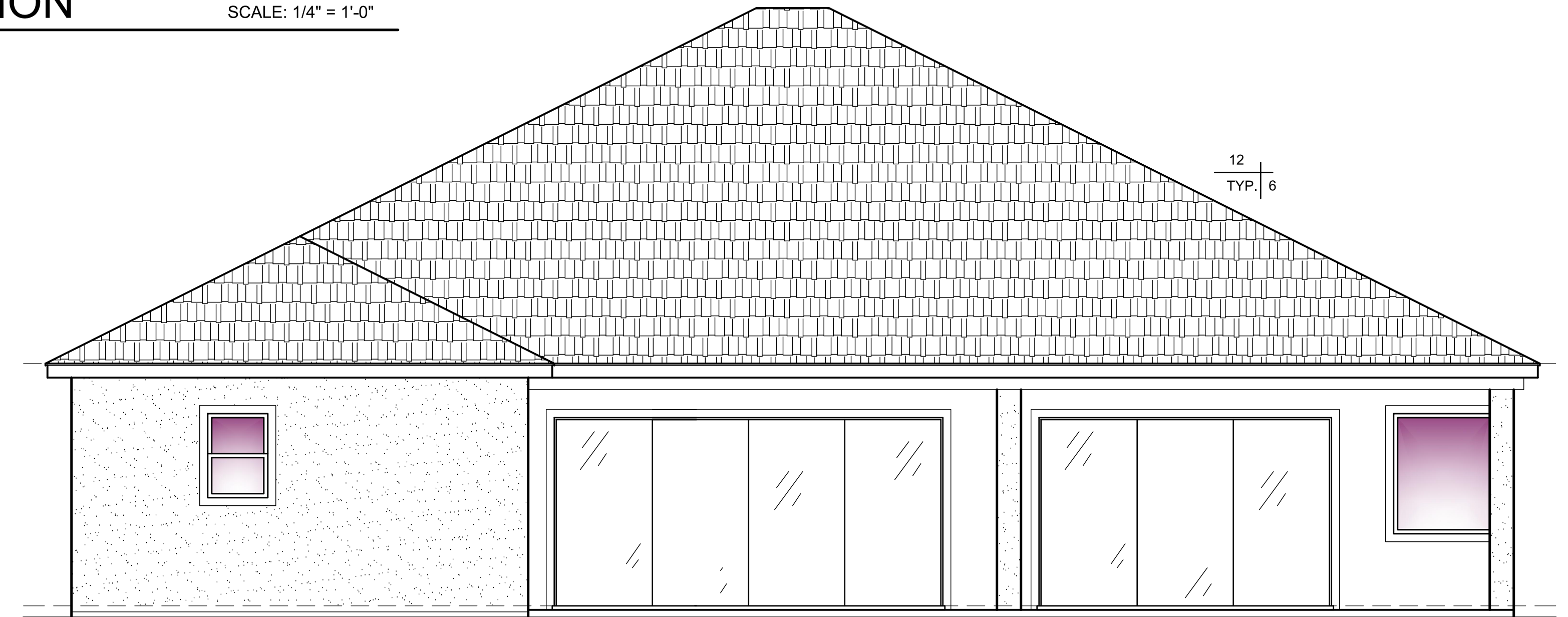
**RIGHT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"



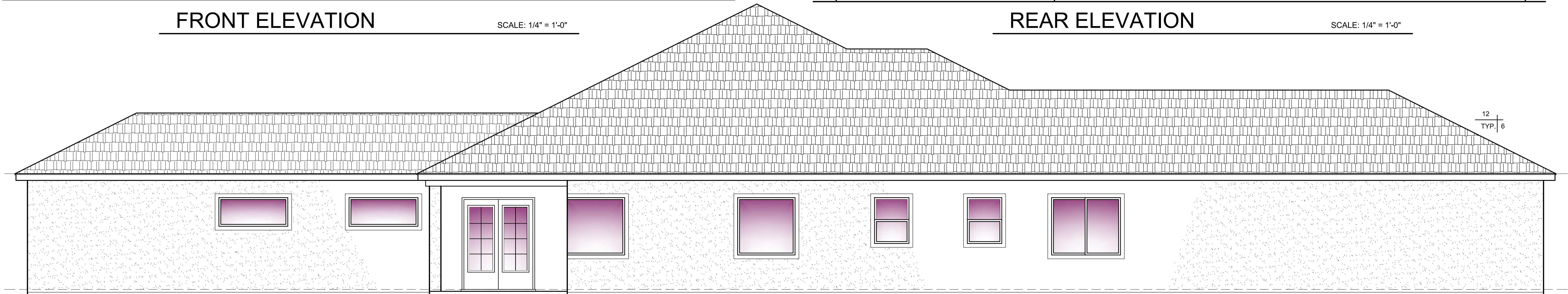
**FRONT ELEVATION**

SCALE: 1/4" = 1'-0"



**REAR ELEVATION**

SCALE: 1/4" = 1'-0"



**LEFT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"

**CISCO KID ELEVATIONS**

SCALE: 1/4" = 1'-0"

**LOT #3**

**SCALE: 1/4" = 1'-0"**

**WESTERN MEADOWS PROJECT**

2276 LOMA HEIGHTS RD  
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**AREA TABULATION:**

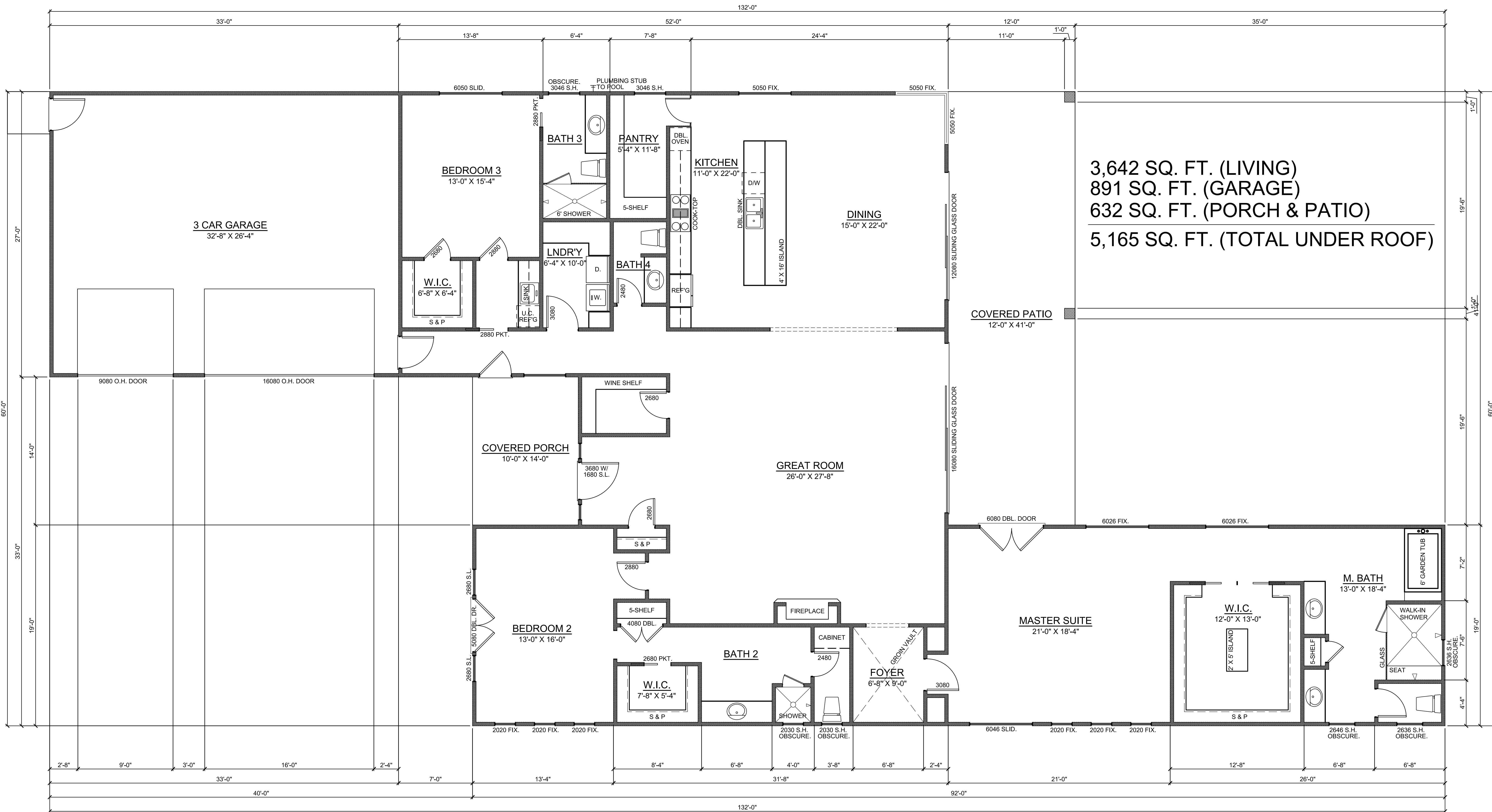
TABULATIONS TO FACE OF STUDY FOUNDATION.

CONDITIONED AREA:	MAIN FLOOR	3,642 SQ. FT.
TOTAL LIVING AREA		3,642 SQ. FT.
COVERED PORCH		140 SQ. FT.
COVERED PATIO		492 SQ. FT.
GARAGE		891 SQ. FT.
TOTAL UNDER ROOF		5,165 SQ. FT.

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	A-101



**KIRK GEYER DESIGN**  
 2276 LOMA HEIGHTS RD.  
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3,642 SQ. FT. (LIVING)  
 891 SQ. FT. (GARAGE)  
 632 SQ. FT. (PORCH & PATIO)  
 5,165 SQ. FT. (TOTAL UNDER ROOF)

**CISCO KID FLOOR PLAN**

SCALE: 1/4" = 1'-0"

**LOT #3**

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**WESTERN MEADOWS  
 PROJECT**

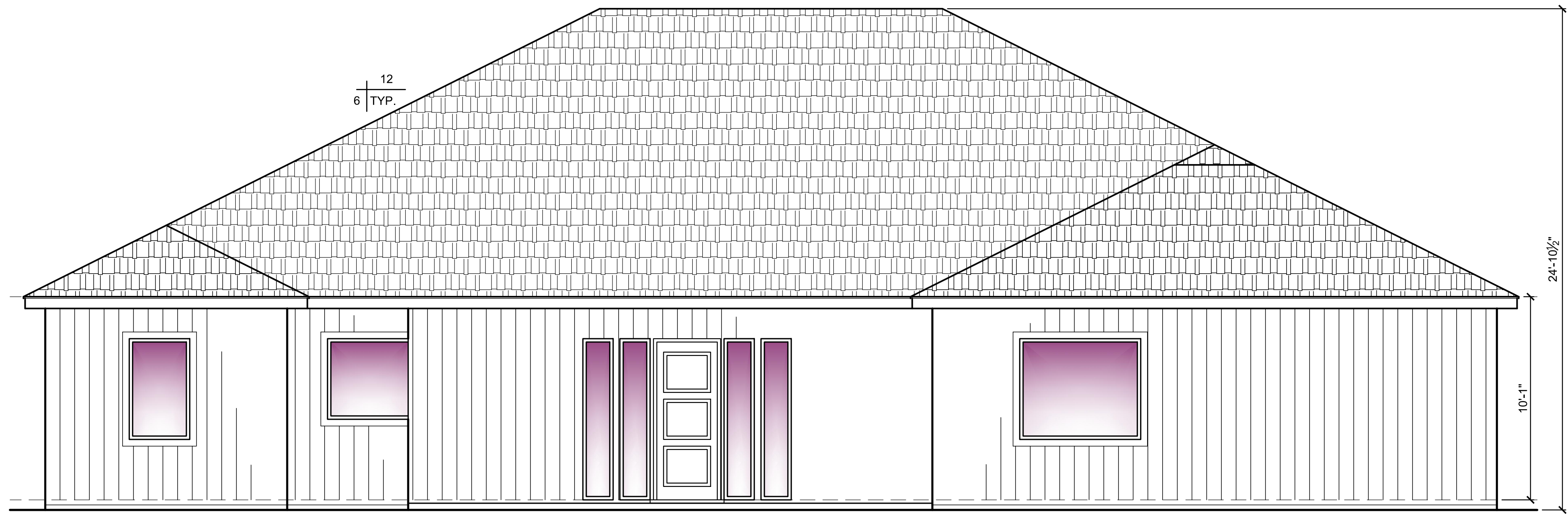
CHECKED BY	KIRK
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SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	



**SCALE: 1/4" = 1'-0"**

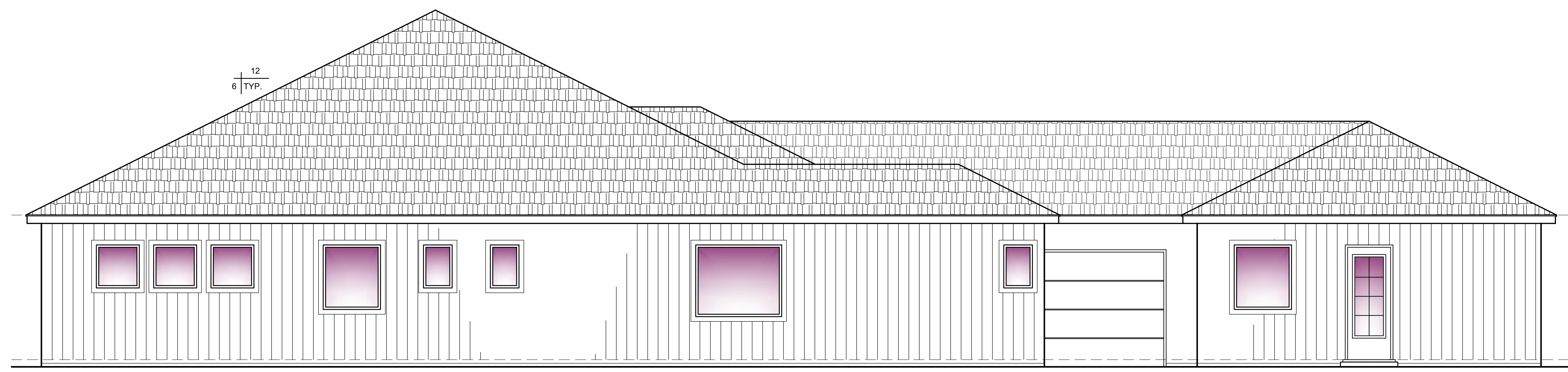
**A-102**

OF 2



**FRONT ELEVATION**

SCALE: 1/4" = 1'-0"



**LEFT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"

**AREA TABULATION:**  
TABULATIONS TO FACE OF STUD/ FOUNDATION.

CONDITIONED AREA:	MAIN FLOOR	3,672 SQ. FT.
CONDITIONED AREA:	GUEST SUITE	672 SQ. FT.
TOTAL LIVING AREA		4,344 SQ. FT.
COVERED PORCH		104 SQ. FT.
COVERED PATIO		400 SQ. FT.
GARAGE		496 SQ. FT.
TOTAL UNDER ROOF		5,352 SQ. FT.

**SCOPE OF WORK:**

CONSTRUCTION OF SINGLE FAMILY PRIVATE DWELLING AND ALL ASSOCIATED SITE WORK, INCLUDING GARAGE, UTILITIES, PATIOS, AND DRIVEWAYS.

**LOT #4 WESTERN MEADOWS**  
**24.69% LOT COVERAGE**

**WYATT EARP ELEVATIONS**

SCALE: 1/4" = 1'-0"

WESTERN MEADOWS ON THESE DOCUMENTS SHALL HAVE RESPONSIBILITY FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

No.	Description	Date

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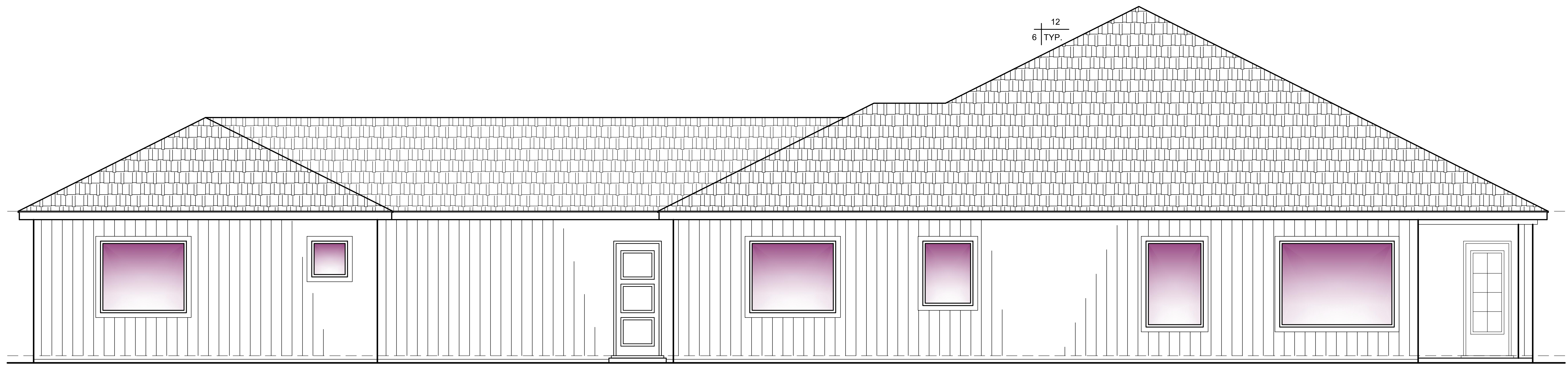
**WESTERN MEADOWS PROJECT**

**LOT #4**

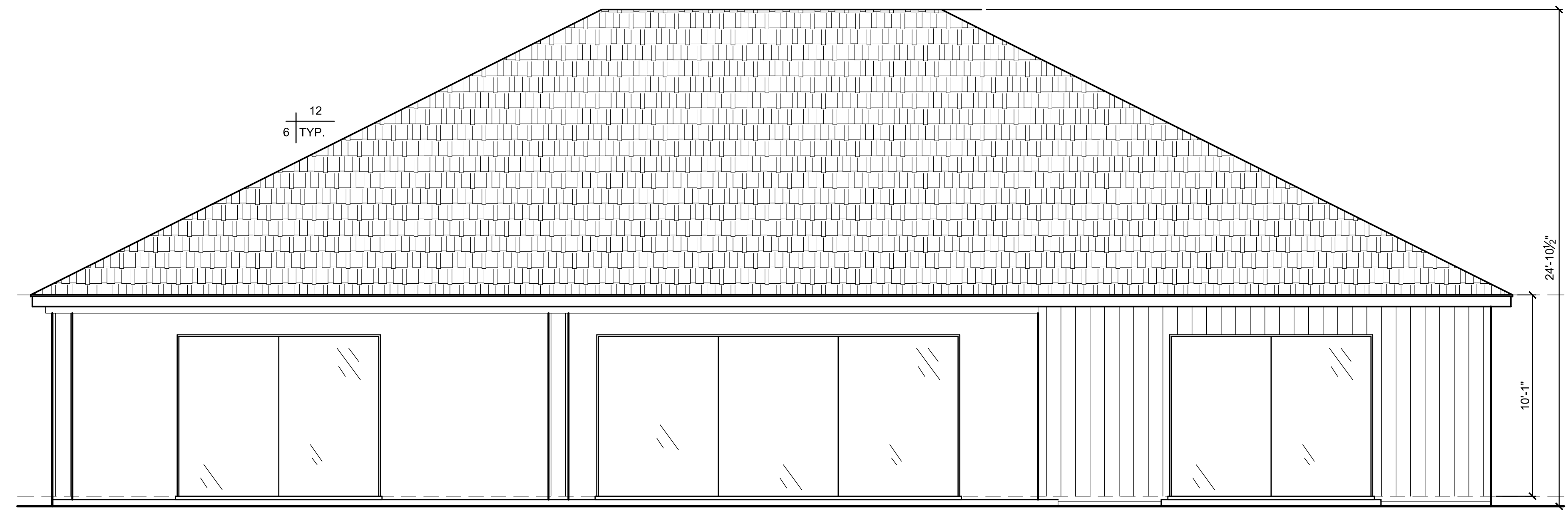
CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	A-101

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**RIGHT SIDE ELEVATION** SCALE: 1/4" = 1'-0"



**REAR ELEVATION** SCALE: 1/4" = 1'-0"

**WYATT EARP ELEVATIONS** SCALE: 1/4" = 1'-0"

No.	Description	Date

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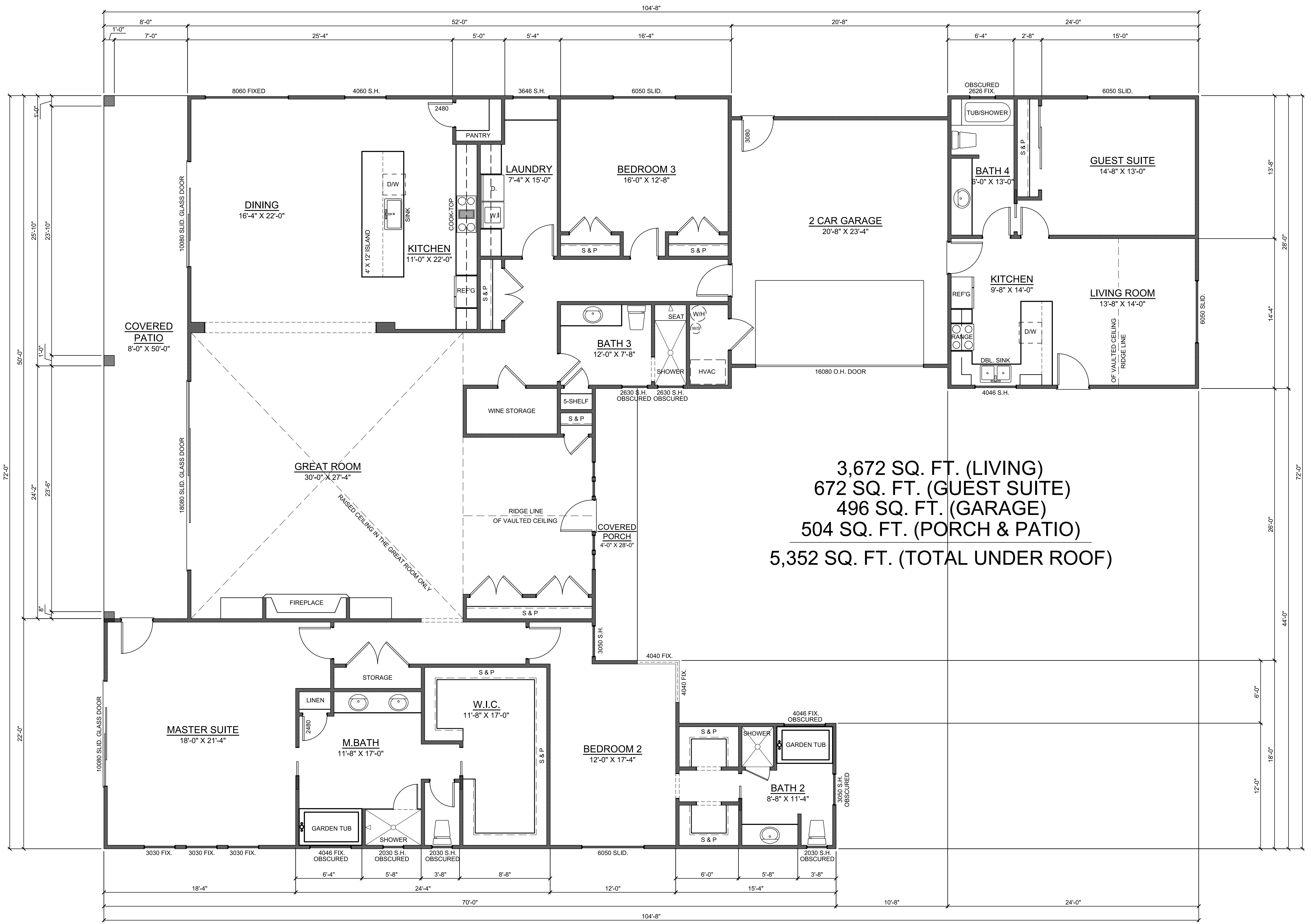
**WESTERN MEADOWS PROJECT**

**LOT #4**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

KIRK GEYER DESIGN, INC. RESERVES THE RIGHT TO MODIFY OR AMEND THESE DOCUMENTS AT ANY TIME WITHOUT NOTICE. THESE DOCUMENTS ARE NOT TO BE REPRODUCED, COPIED, OR COPIED IN ANY FORM OR MANNER WITHOUT THE WRITTEN PERMISSION AND CONSENT OF KIRK GEYER DESIGN.



**3,672 SQ. FT. (LIVING)**  
**672 SQ. FT. (GUEST SUITE)**  
**496 SQ. FT. (GARAGE)**  
**504 SQ. FT. (PORCH & PATIO)**  
**5,352 SQ. FT. (TOTAL UNDER ROOF)**

**WYATT EARP FLOOR PLAN (G.R.)** SCALE: 1/4" = 1'-0"

No.	Description	Date

**2276 LOMA HEIGHTS RD**  
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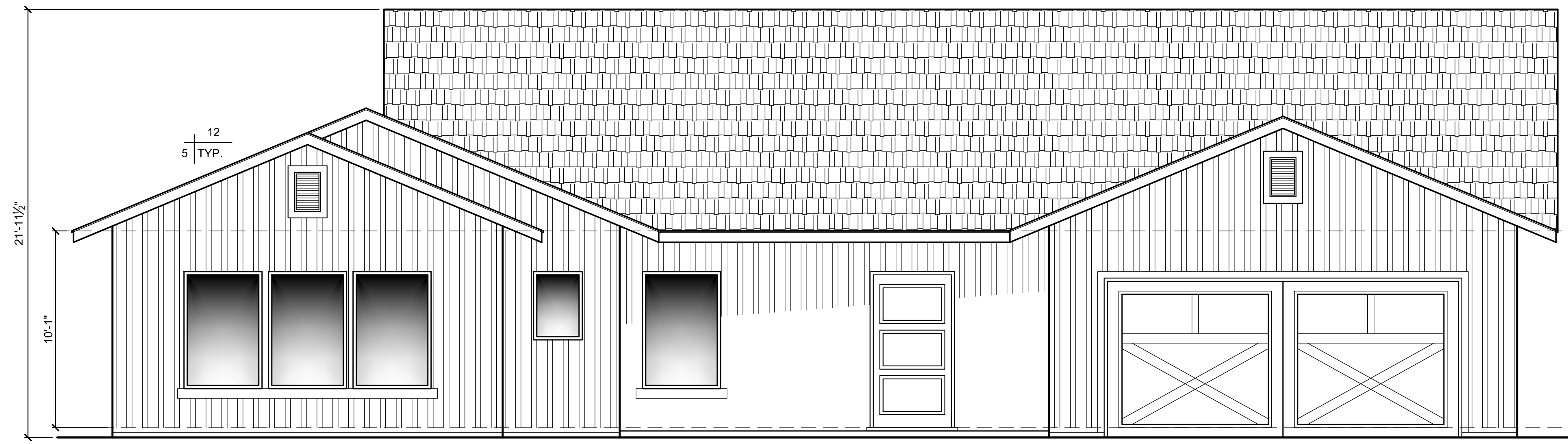
**WESTERN MEADOWS PROJECT**

**LOT #4**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	

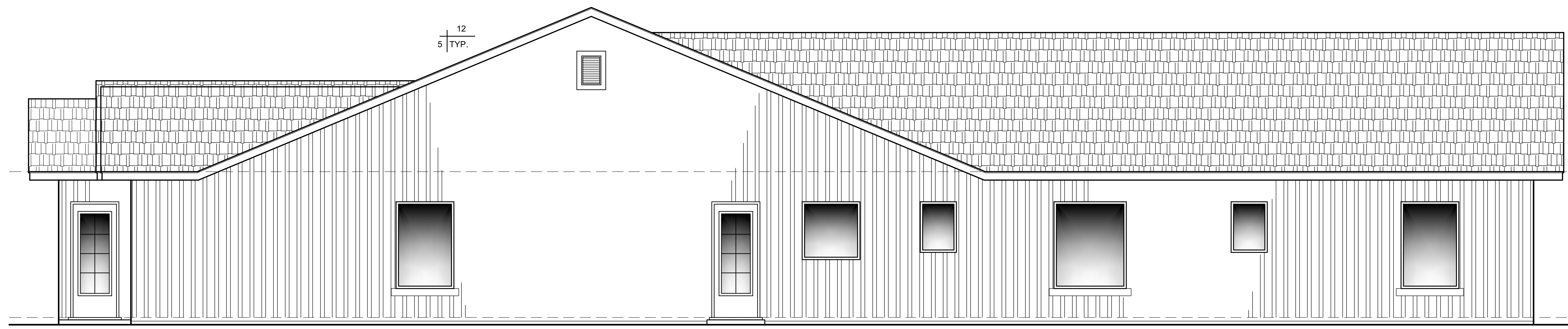
ALL DIMENSIONS ON THESE DOCUMENTS SHALL HAVE PRECEDENCE OVER ALL DIMENSIONS AND CONDITIONS ON THE JOB. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

KIRK GEYER DESIGN, ARCHITECTURE, INTERIORS AND LANDSCAPE ARCHITECTURE, INC. IS THE ARCHITECT OF RECORD FOR THIS PROJECT. THESE DOCUMENTS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WITHOUT THE WRITTEN PERMISSION AND CONSENT OF KIRK GEYER DESIGN.



**FRONT ELEVATION**

SCALE: 1/4" = 1'-0"



**RIGHT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"

AREA TABULATION:		
TABULATIONS TO FACE OF STUDY/ FOUNDATION.		
CONDITIONED AREA:	MAIN FLOOR	3,620 SQ. FT.
TOTAL LIVING AREA		3,620 SQ. FT.
COVERED PORCH		176 SQ. FT.
COVERED PATIO		508 SQ. FT.
GARAGE		792 SQ. FT.
TOTAL UNDER ROOF		5,096 SQ. FT.

**MAVERICK ELEVATIONS**

SCALE: 1/4" = 1'-0"

**LOT #5 WESTERN MEADOWS**  
**23.66% LOT COVERAGE**

**SCOPE OF WORK:**

CONSTRUCTION OF SINGLE FAMILY PRIVATE DWELLING AND ALL ASSOCIATED SITE WORK, INCLUDING GARAGE, UTILITIES, PATIOS, AND DRIVEWAYS.

No.	Description	Date

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**WESTERN MEADOWS PROJECT**

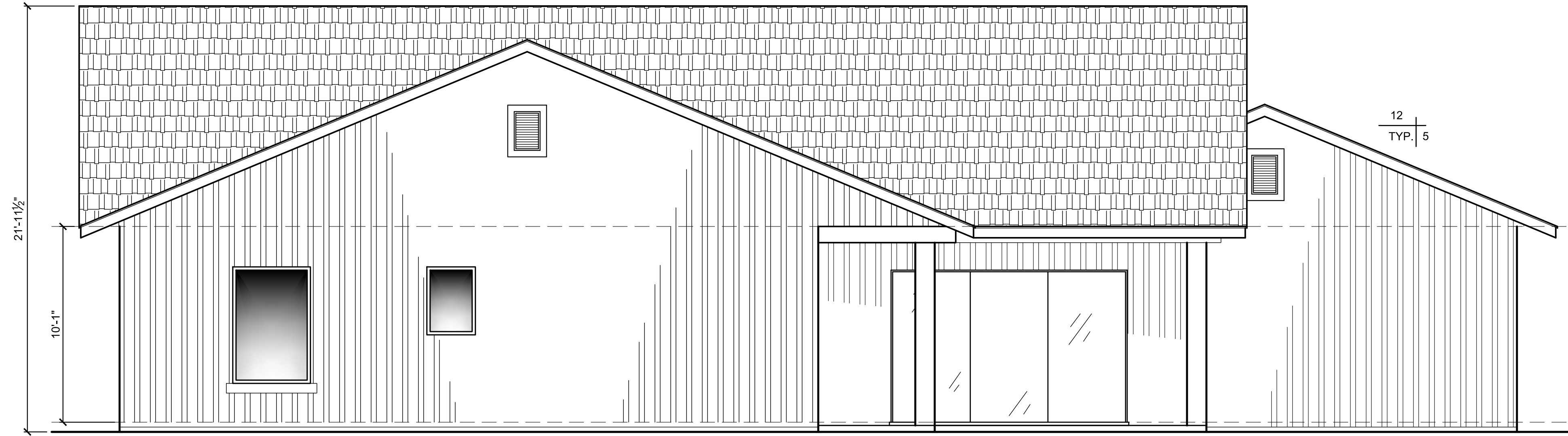
**LOT #5**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	A-101



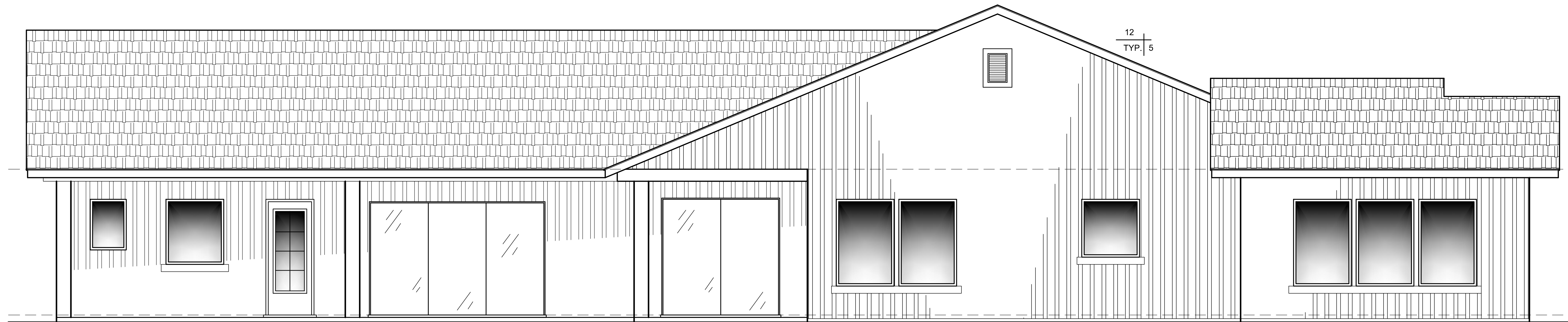
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KIRK GEYER DESIGN, INC. RESERVES THE RIGHT TO MAKE ANY CHANGES TO THESE DOCUMENTS WITHOUT NOTICE. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.



**REAR ELEVATION**

SCALE: 1/4" = 1'-0"



**LEFT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"

**MAVERICK ELEVATIONS**

SCALE: 1/4" = 1'-0"

No.	Description	Date

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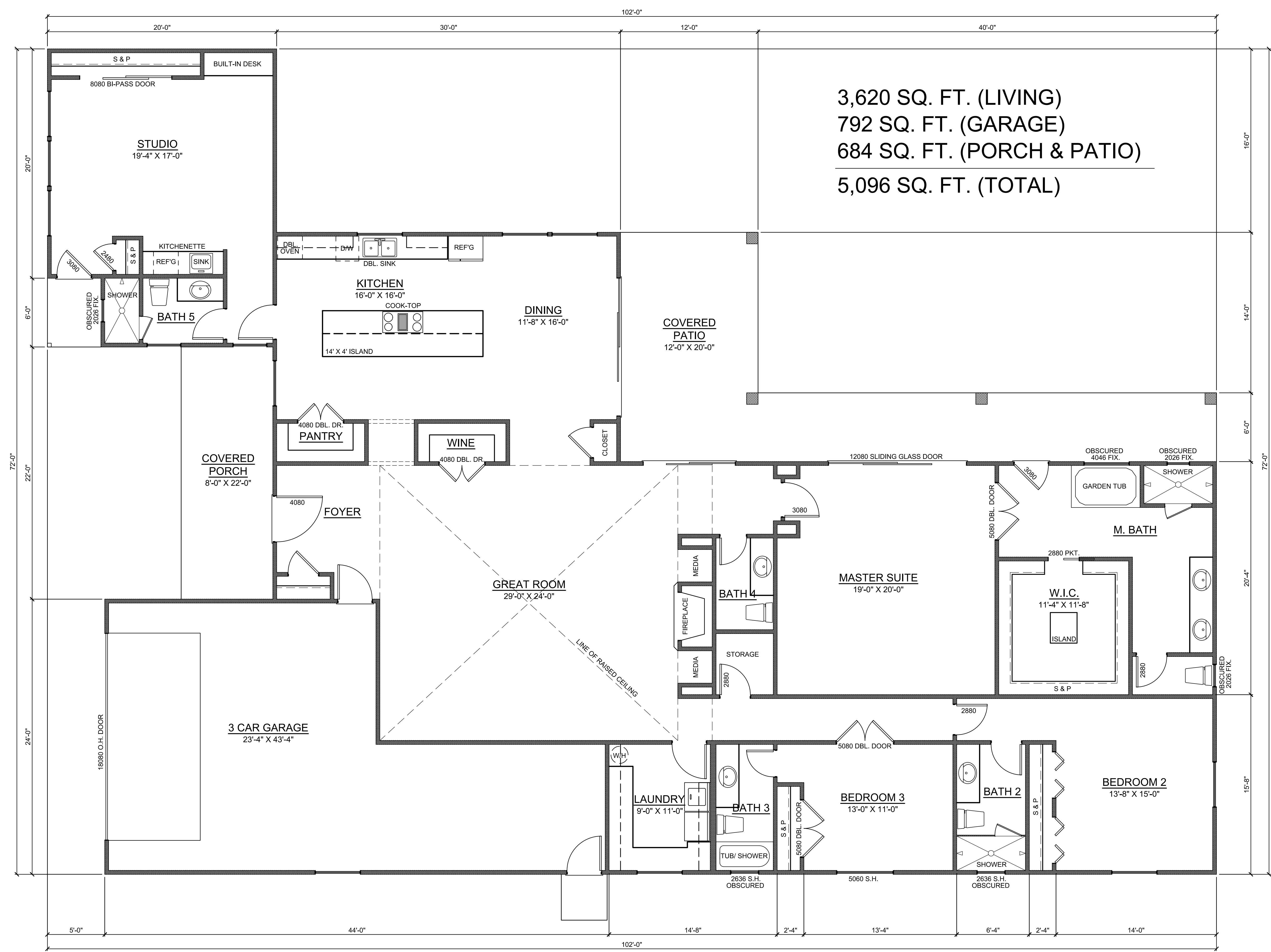
**WESTERN MEADOWS PROJECT**

**LOT #5**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	A-102

CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.  
 CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

WESTERN MEADOWS PROJECT: WESTERN MEADOWS AND OTHER PROPERTY RIGHTS IN THESE DOCUMENTS ARE RESERVED AND MUST BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WITHOUT THE WRITTEN PERMISSION AND CONSENT OF KIRK GEYER DESIGN.



3,620 SQ. FT. (LIVING)  
 792 SQ. FT. (GARAGE)  
 684 SQ. FT. (PORCH & PATIO)  


---

 5,096 SQ. FT. (TOTAL)

MAVERICK FLOOR PLAN SCALE: 1/4" = 1'-0"

No.	Description	Date

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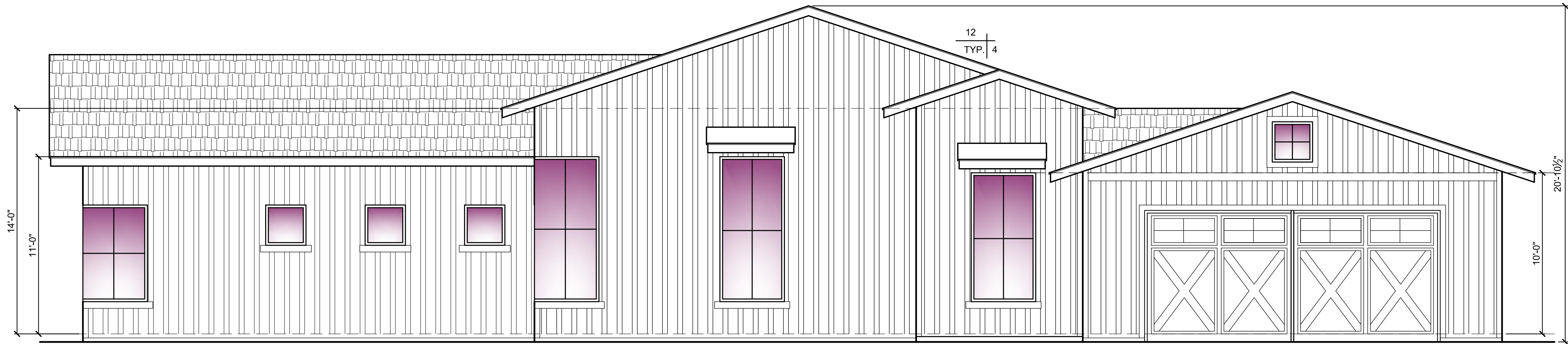
WESTERN MEADOWS PROJECT

LOT #5

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	

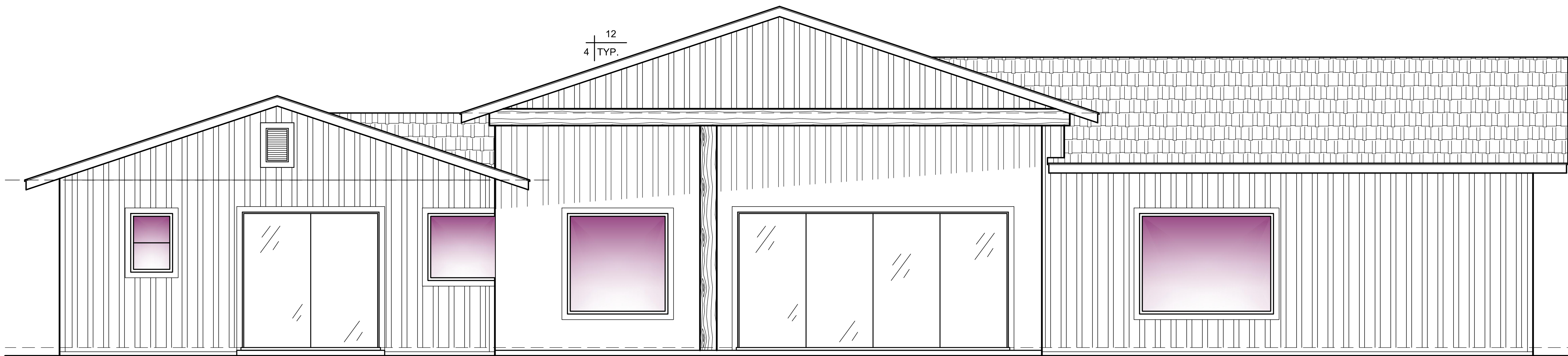
ALL DIMENSIONS ON THESE DOCUMENTS SHALL HAVE PRECEDENCE OVER SCALE DIMENSIONS.  
 CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

KIRK GEYER DESIGN, HEREBY, RESERVES ALL RIGHTS AND RESPECTFULLY REQUESTS THAT THESE DOCUMENTS NOT BE REPRODUCED, CHANGED, OR COPIED IN ANY  
 FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF KIRK GEYER DESIGN.



**FRONT ELEVATION (G.R.)**  
**FRONT ENTRY GARAGE**

SCALE: 1/4" = 1'-0"



**REAR ELEVATION**

SCALE: 1/4" = 1'-0"

**BUFFALO BILL ELEVATION**

SCALE: 1/4" = 1'-0"

**AREA TABULATION:**

TABULATIONS TO FACE OF STUD/ FOUNDATION.

CONDITIONED AREA:	MAIN FLOOR	2,953 SQ. FT.
TOTAL LIVING AREA		2,953 SQ. FT.
COVERED PORCH		0 SQ. FT.
COVERED PATIO		270 SQ. FT.
GARAGE		567 SQ. FT.
TOTAL UNDER ROOF		3,790 SQ. FT.

**LOT #6 WESTERN MEADOWS**  
**18.86% LOT COVERAGE**

**SCOPE OF WORK:**

CONSTRUCTION OF SINGLE FAMILY  
 PRIVATE DWELLING AND ALL  
 ASSOCIATED SITE WORK, INCLUDING  
 GARAGE, UTILITIES, PATIOS, AND  
 DRIVEWAYS.

No.	Description	Date

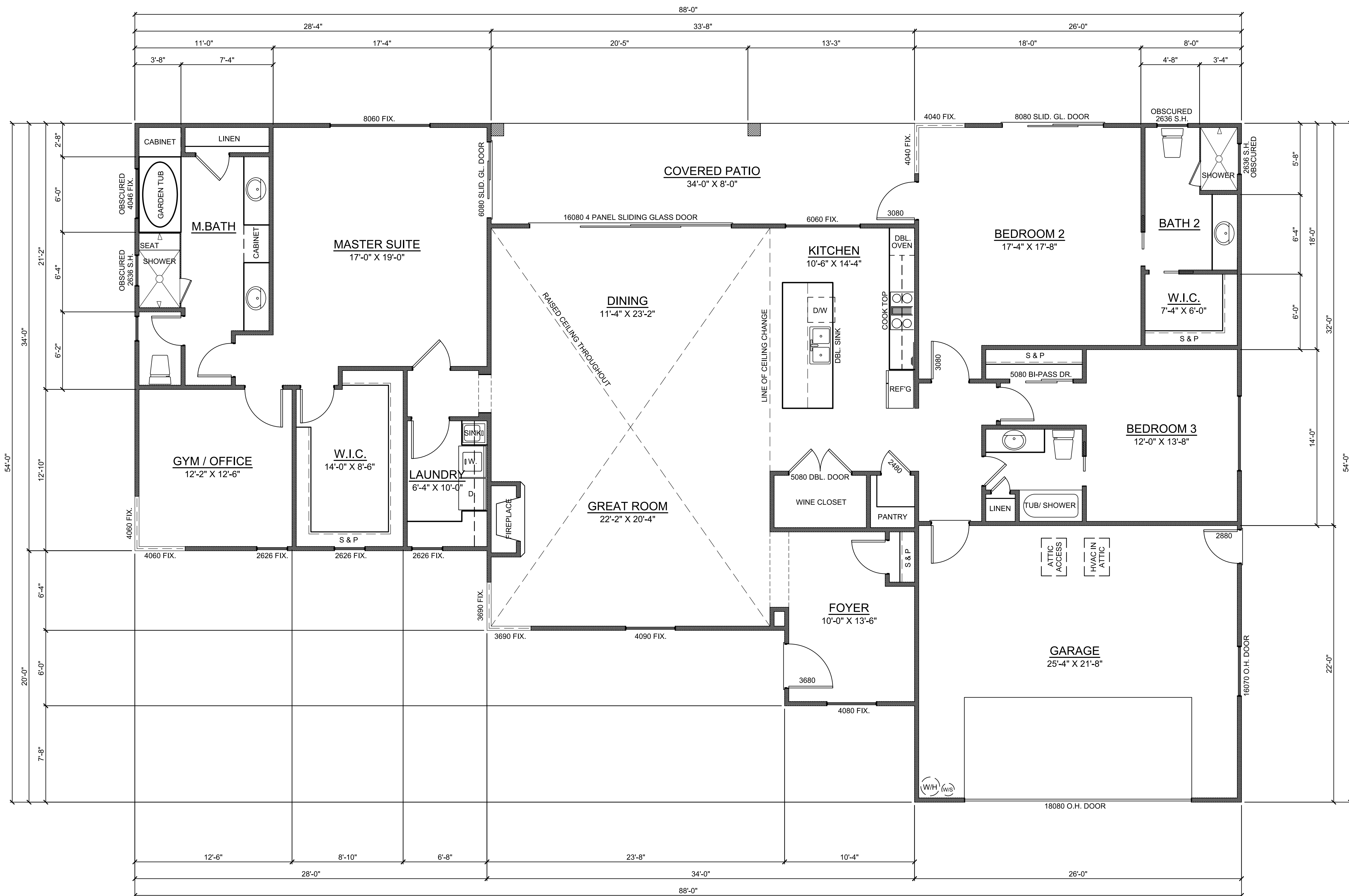
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**KIRK GEYER DESIGN**  
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**WESTERN  
 MEADOWS  
 PROJECT**

**LOT #6**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	



**BUFFALO BILL FLOOR PLAN (G.R.)**

SCALE: 1/4" = 1'-0"

2,953 SQ. FT. (LIVING)  
 567 SQ. FT. (GARAGE)  
 270 SQ. FT. (PATIO)  
 3,790 SQ. FT. (TOTAL)

WESTERN MEADOWS ON THESE DOCUMENTS SHALL HAVE RESPONSIBILITY FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

No.	Description	Date

2276 LOMA HEIGHTS RD  
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**KIRK GEYER DESIGN**  
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 707 / 337-3025  
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**WESTERN MEADOWS PROJECT**

**LOT #6**

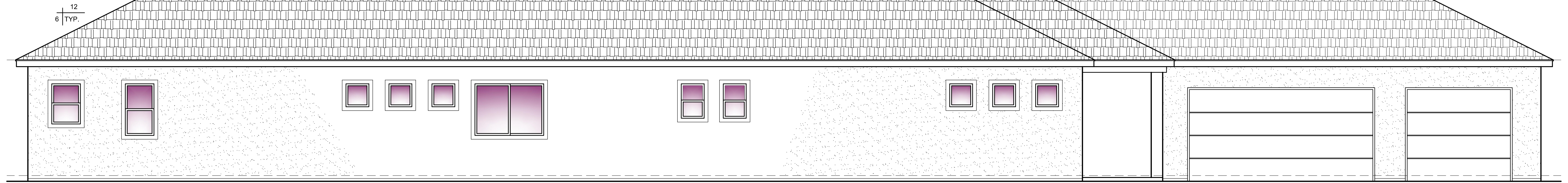
CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	

SHEET NO. **A-102** OF 2

**SCOPE OF WORK:**

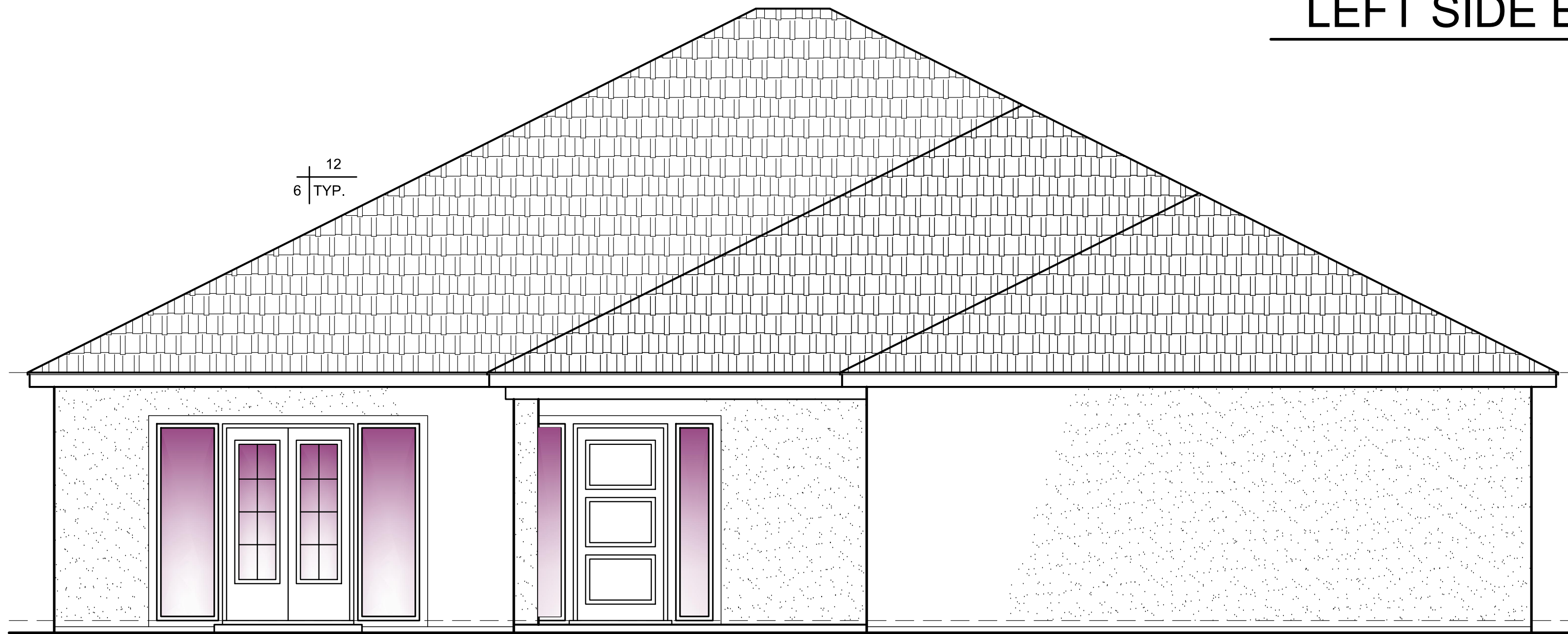
CONSTRUCTION OF SINGLE FAMILY PRIVATE DWELLING AND ALL ASSOCIATED SITE WORK, INCLUDING GARAGE, UTILITIES, PATIOS, AND DRIVEWAYS.

**LOT #7 WESTERN MEADOWS**  
**25.00% LOT COVERAGE**



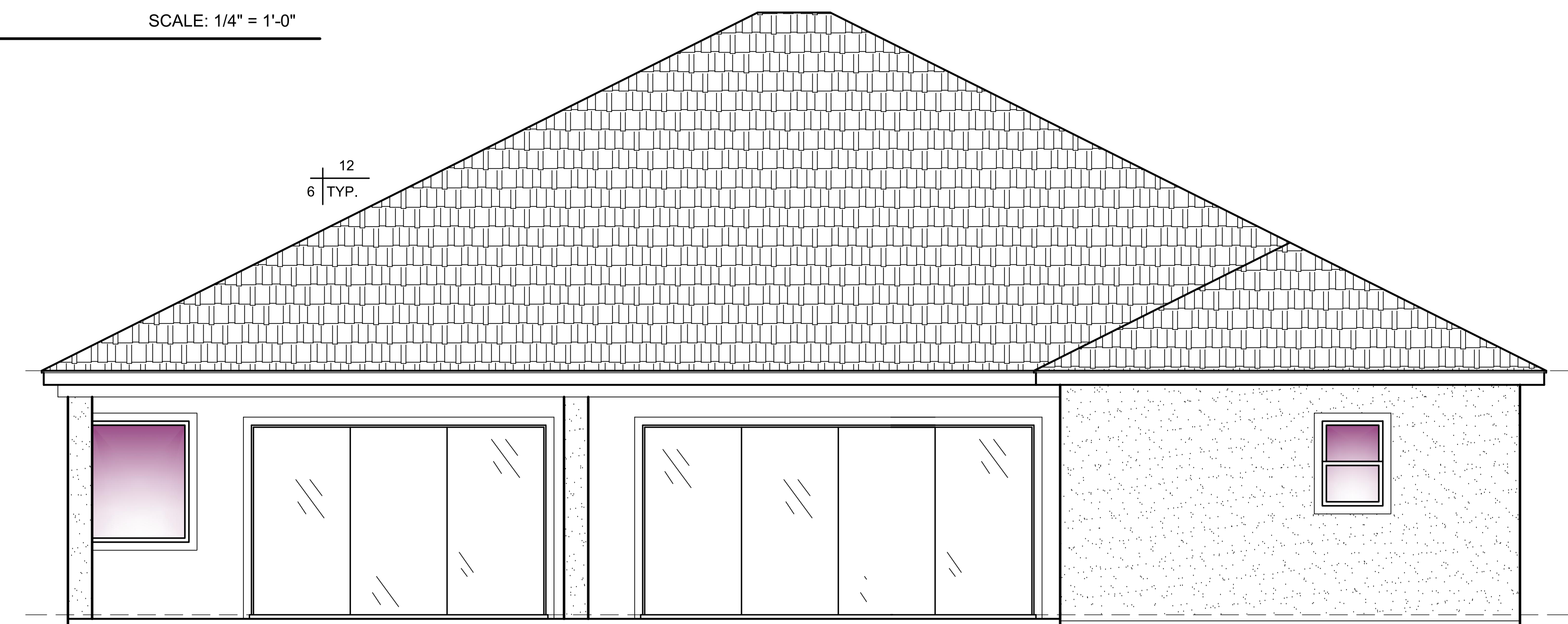
**LEFT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"



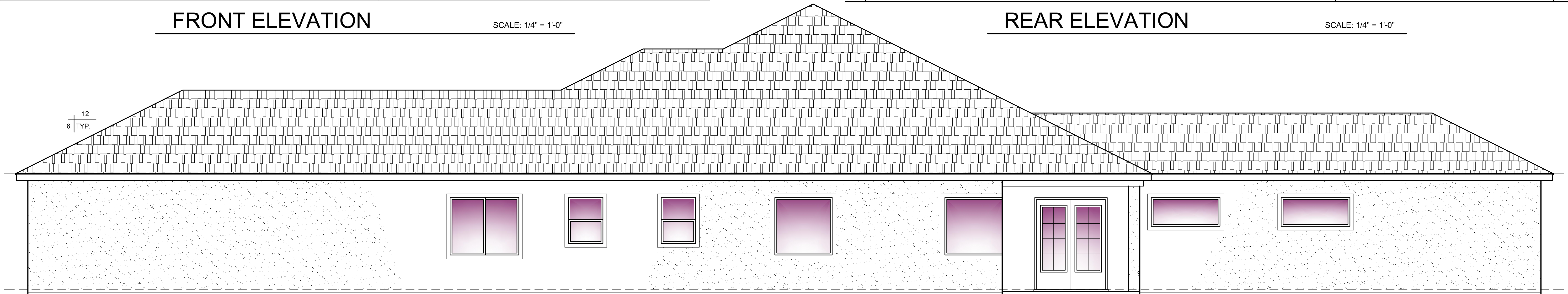
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SCALE: 1/4" = 1'-0"



**REAR ELEVATION**

SCALE: 1/4" = 1'-0"



**RIGHT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"

**CISCO KID ELEVATIONS**

SCALE: 1/4" = 1'-0"

**LOT #7**

**SCALE: 1/4" = 1'-0"**

**WESTERN MEADOWS PROJECT**

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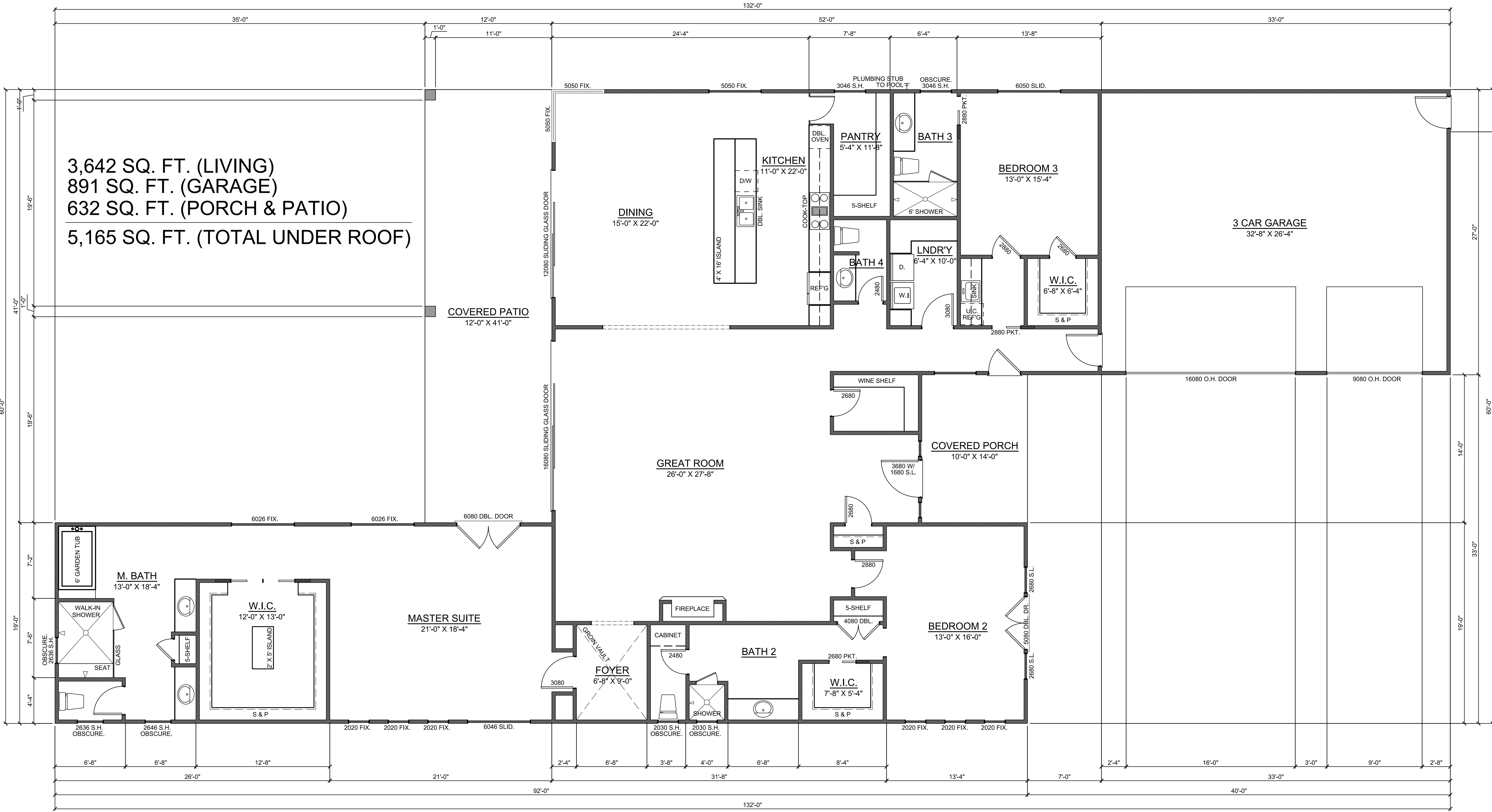
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DRAWN BY:	TOM W.
SCALE:	AS INDICATED
DATE:	10.10.2019
PROJECT NO.:	
PHASE NO.:	
SHEET NO.:	



**AREA TABULATION:**

TABULATIONS TO FACE OF STUDY/ FOUNDATION.

CONDITIONED AREA:	MAIN FLOOR	3,642 SQ. FT.
TOTAL LIVING AREA		3,642 SQ. FT.
COVERED PORCH		140 SQ. FT.
COVERED PATIO		492 SQ. FT.
GARAGE		891 SQ. FT.
TOTAL UNDER ROOF		5,165 SQ. FT.



3,642 SQ. FT. (LIVING)  
 891 SQ. FT. (GARAGE)  
 632 SQ. FT. (PORCH & PATIO)  
 5,165 SQ. FT. (TOTAL UNDER ROOF)

**CISCO KID FLOOR PLAN**  
**LOT #7**

SCALE: 1/4" = 1'-0"

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**WESTERN MEADOWS  
 PROJECT**

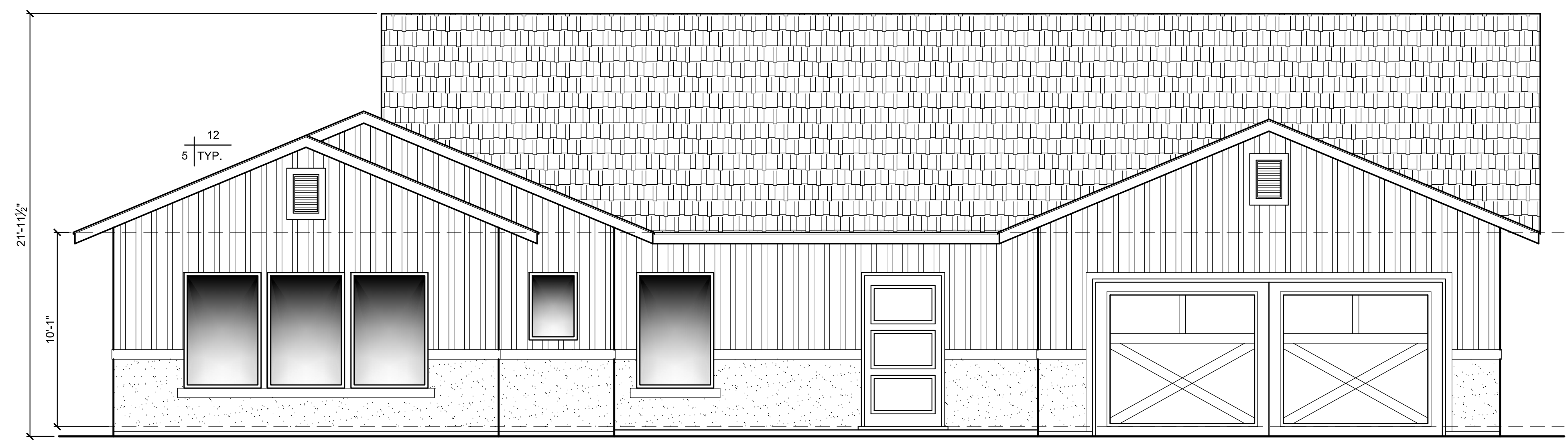
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SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	A-102



**SCALE: 1/4" = 1'-0"**

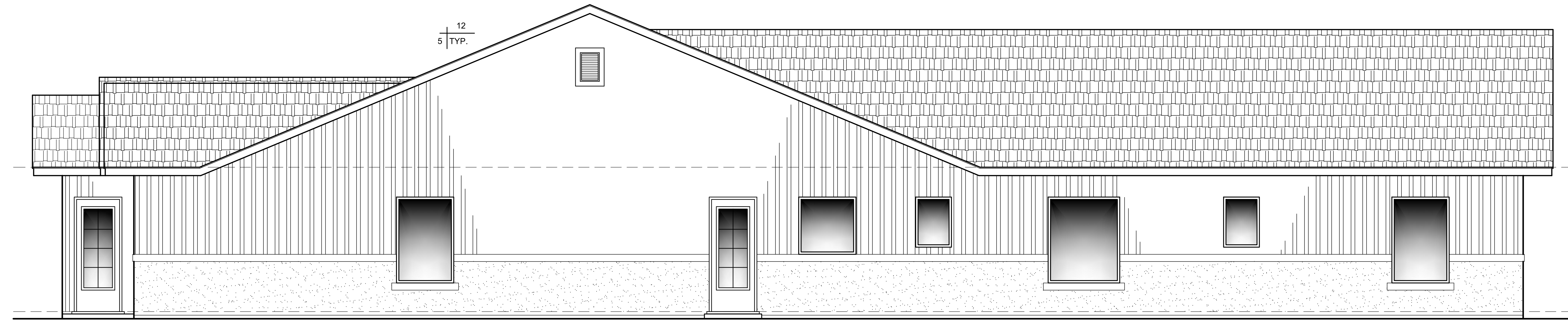
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**FRONT ELEVATION**

SCALE: 1/4" = 1'-0"



**RIGHT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"

AREA TABULATION:		
TABULATIONS TO FACE OF STUDY/ FOUNDATION.		
CONDITIONED AREA:	MAIN FLOOR	3,620 SQ. FT.
TOTAL LIVING AREA		
		3,620 SQ. FT.
COVERED PORCH		88 SQ. FT.
COVERED PATIO		499 SQ. FT.
GARAGE		792 SQ. FT.
TOTAL UNDER ROOF		4,999 SQ. FT.

**MAVERICK ELEVATIONS**

SCALE: 1/4" = 1'-0"

**LOT #8 WESTERN MEADOWS**  
**24.99% LOT COVERAGE**

**SCOPE OF WORK:**

CONSTRUCTION OF SINGLE FAMILY PRIVATE DWELLING AND ALL ASSOCIATED SITE WORK, INCLUDING GARAGE, UTILITIES, PATIOS, AND DRIVEWAYS.

No.	Description	Date

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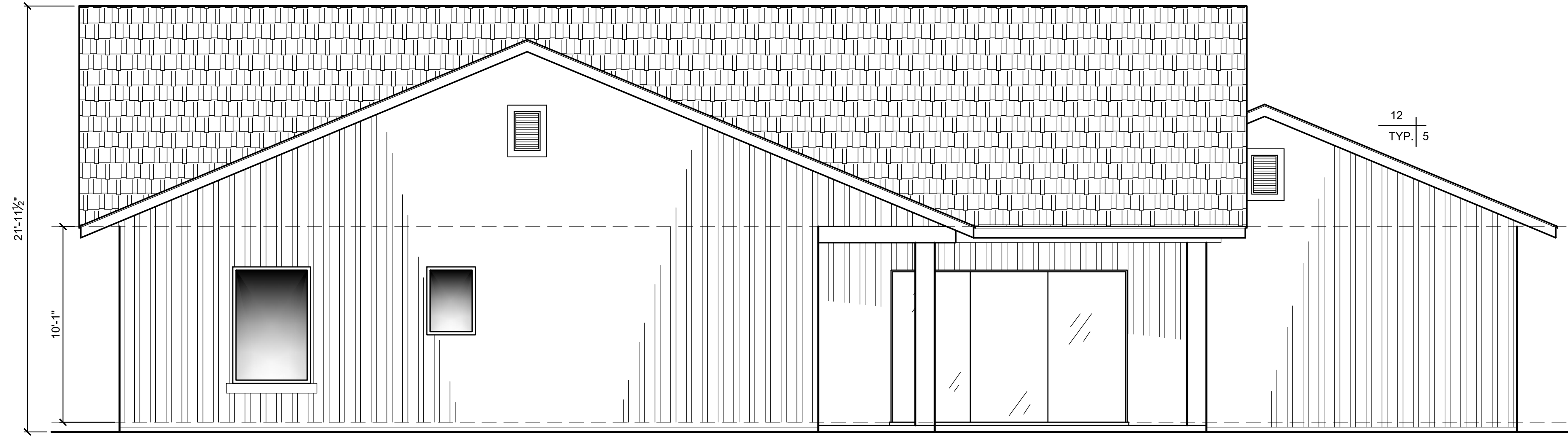
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**WESTERN MEADOWS PROJECT**

**LOT #8**

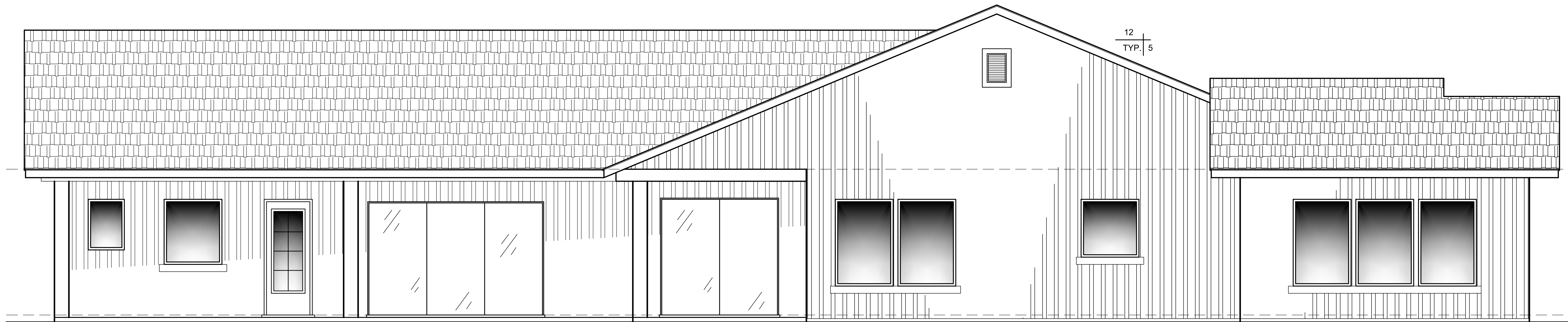
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**REAR ELEVATION**

SCALE: 1/4" = 1'-0"



**LEFT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"

**MAVERICK ELEVATIONS**

SCALE: 1/4" = 1'-0"

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**WESTERN MEADOWS PROJECT**

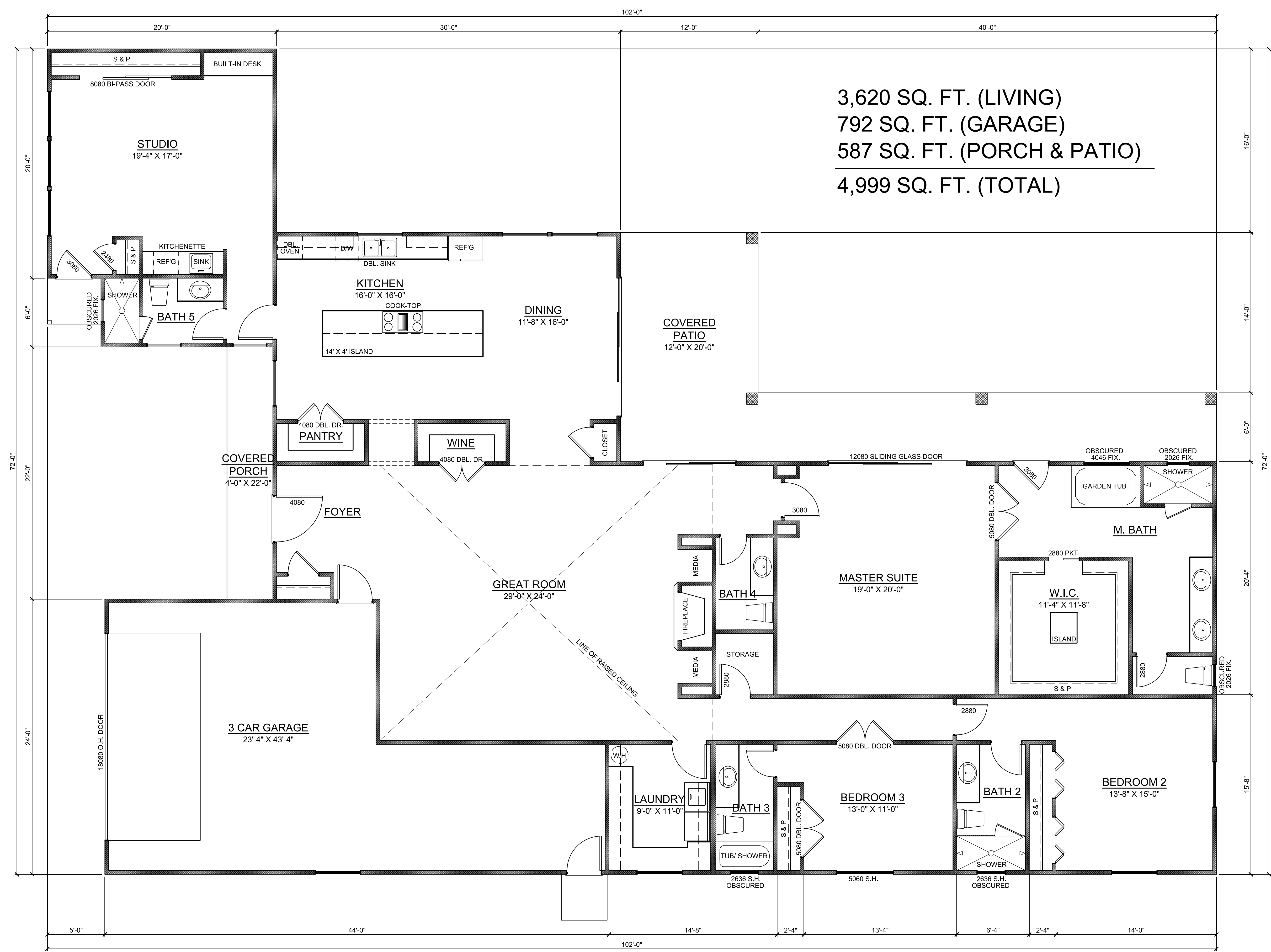
**LOT #8**

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SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	



WITHIN THE BOUNDS OF THESE DIMENSIONS, THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

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**MAVERICK FLOOR PLAN** SCALE: 1/4" = 1'-0"

No.	Description	Date

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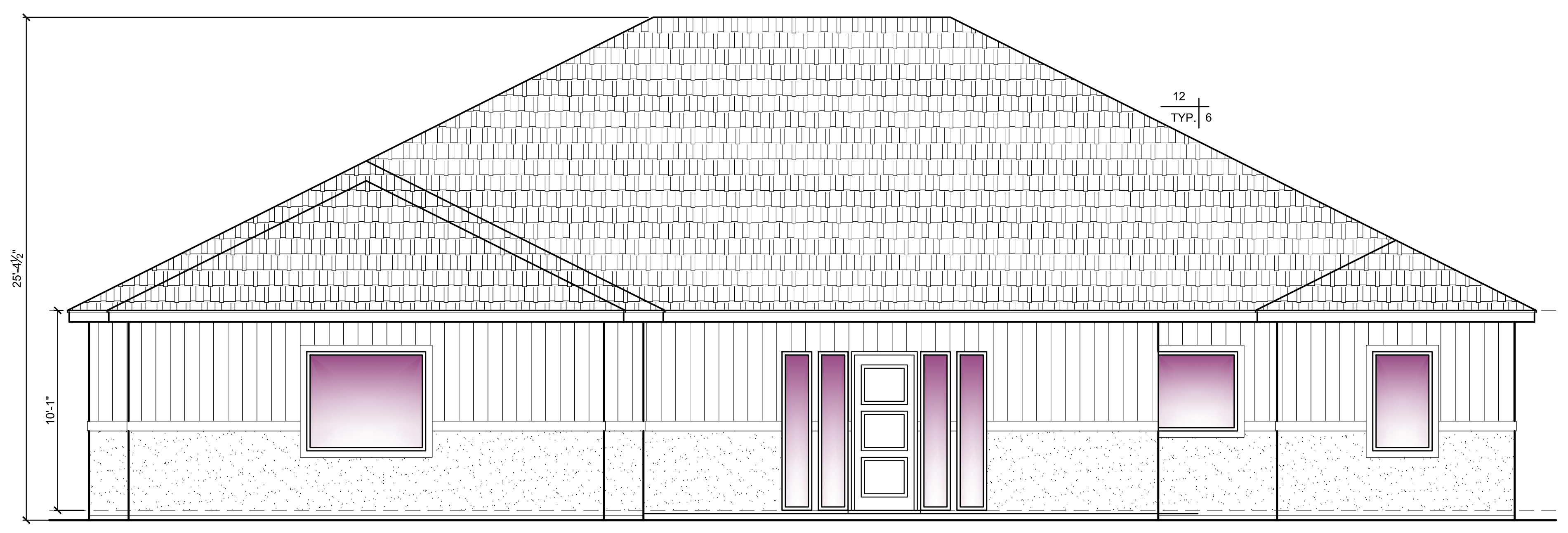
**WESTERN MEADOWS PROJECT**

**LOT #8**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	

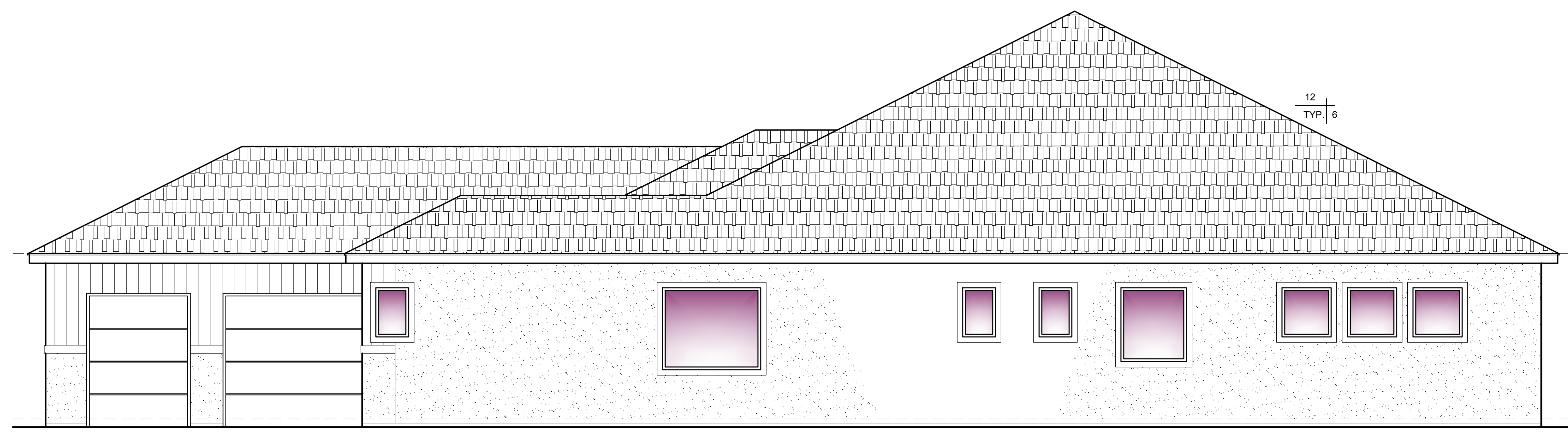
KIRK GEYER DESIGN, INC. SHALL BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

KIRK GEYER DESIGN, INC. SHALL BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.



**FRONT ELEVATION**

SCALE: 1/4" = 1'-0"



**RIGHT SIDE ELEVATION**

SCALE: 1/4" = 1'-0"

<b>AREA TABULATION:</b>		
TABULATIONS TO FACE OF STUD/ FOUNDATION.		
CONDITIONED AREA:	MAIN FLOOR	3,916 SQ. FT.
TOTAL LIVING AREA		3,916 SQ. FT.
COVERED PORCH		104 SQ. FT.
COVERED PATIO		300 SQ. FT.
GARAGE		696 SQ. FT.
TOTAL UNDER ROOF		5,016 SQ. FT.

**WYATT EARP ELEVATIONS**

SCALE: 1/4" = 1'-0"

**SCOPE OF WORK:**

CONSTRUCTION OF SINGLE FAMILY PRIVATE DWELLING AND ALL ASSOCIATED SITE WORK, INCLUDING GARAGE, UTILITIES, PATIOS, AND DRIVEWAYS.

**LOT #9 WESTERN MEADOWS**  
**25.00% LOT COVERAGE**

No.	Description	Date

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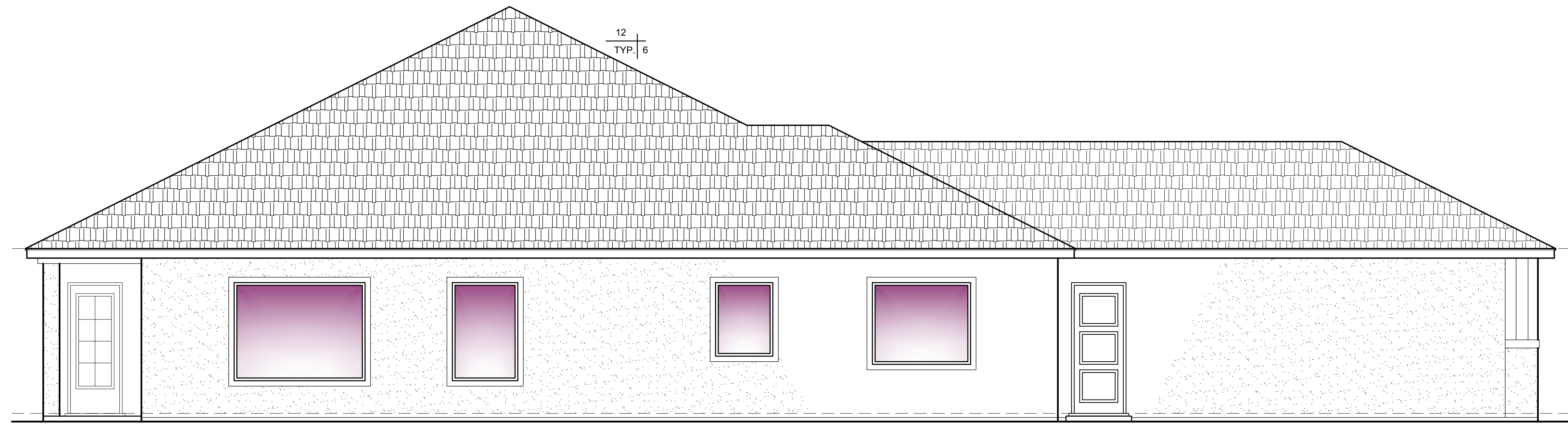
**WESTERN MEADOWS PROJECT**

**LOT #9**

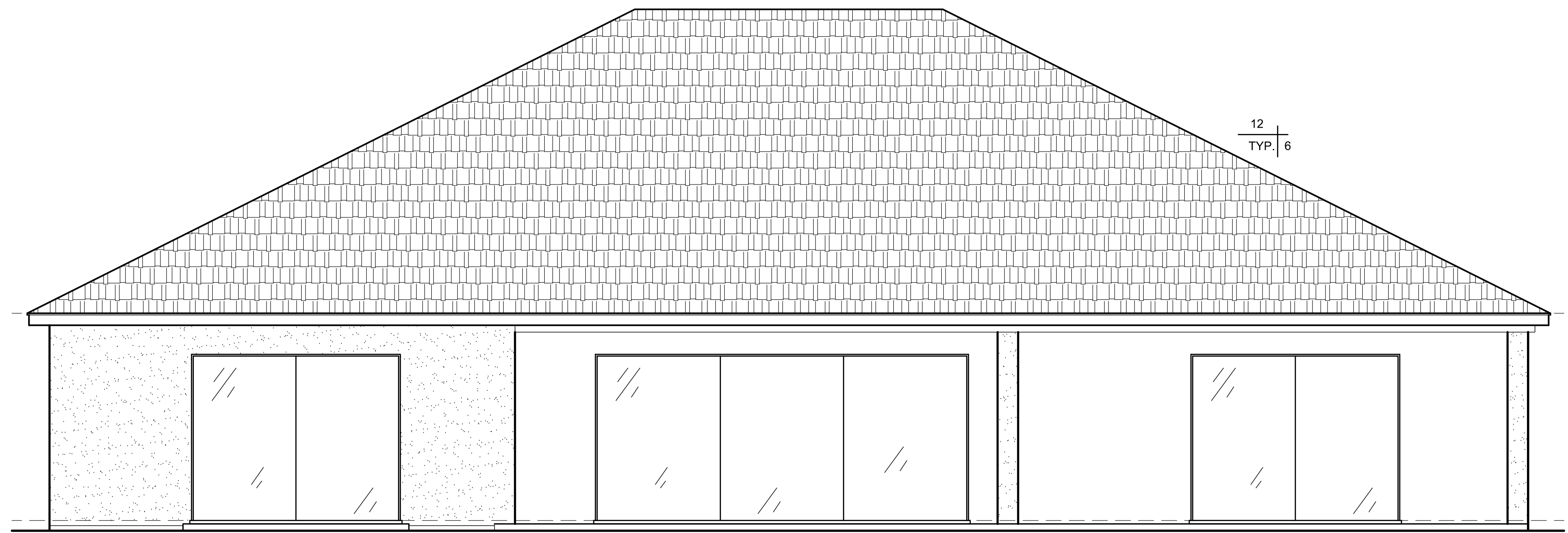
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**LEFT SIDE ELEVATION** SCALE: 1/4" = 1'-0"



**REAR ELEVATION** SCALE: 1/4" = 1'-0"

**WYATT EARP ELEVATIONS** SCALE: 1/4" = 1'-0"

No.	Description	Date

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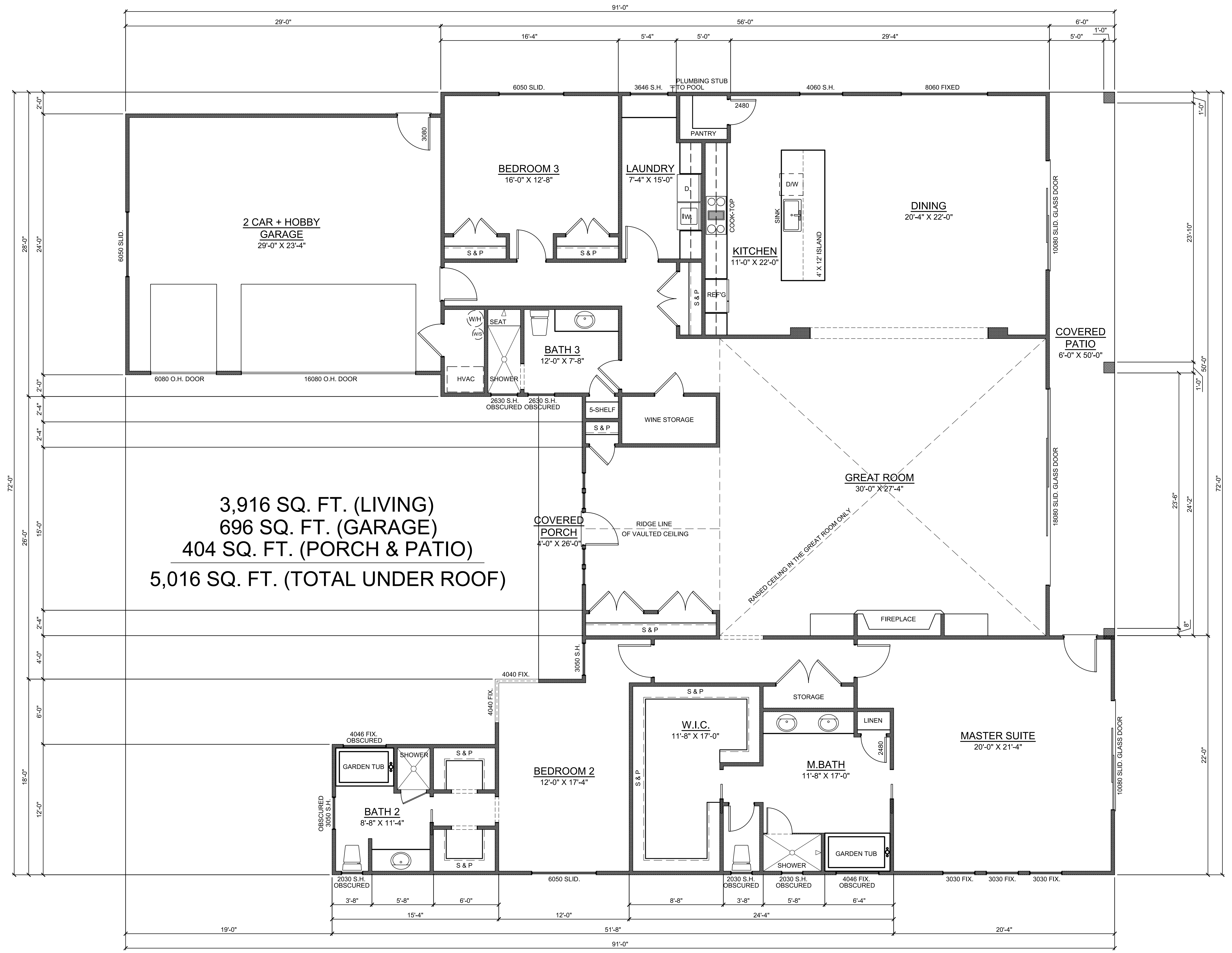
**WESTERN MEADOWS PROJECT**

**LOT #9**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
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WYATT EARP FLOOR PLAN (G.L.) SCALE: 1/4" = 1'-0"

No.	Description	Date

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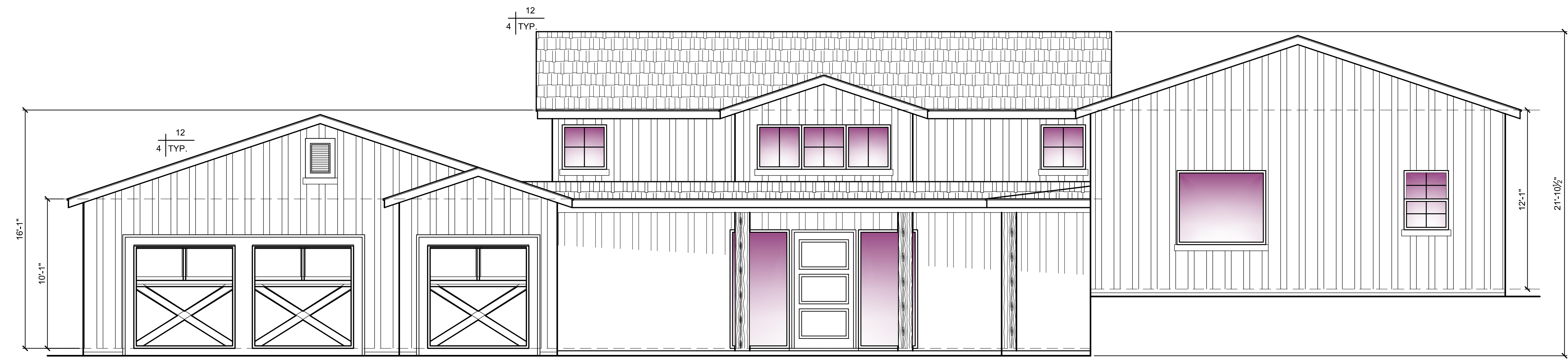
**WESTERN MEADOWS PROJECT**

**LOT #9**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	

ALL DIMENSIONS ON THESE DOCUMENTS SHALL HAVE PRECEDENCE OVER SCALE DIMENSIONS.  
 CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

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**FRONT ELEVATION**  
**LOT #10**  
 SCALE: 1/4" = 1'-0"

**SCOPE OF WORK:**

CONSTRUCTION OF SINGLE FAMILY  
 PRIVATE DWELLING AND ALL  
 ASSOCIATED SITE WORK, INCLUDING  
 GARAGE, UTILITIES, PATIOS, AND  
 DRIVEWAYS.

<b>AREA TABULATION:</b>		
<small>TABLATIONS TO FACE OF STUD/ FOUNDATION.</small>		
CONDITIONED AREA:	MAIN FLOOR	3,800 SQ. FT.
TOTAL LIVING AREA		3,800 SQ. FT.
COVERED PORCH		194 SQ. FT.
COVERED PATIO		289 SQ. FT.
GARAGE		689 SQ. FT.
TOTAL UNDER ROOF		4,972 SQ. FT.

**LOT #10 WESTERN MEADOWS**  
**24.56% LOT COVERAGE**

**ANNIE OAKLEY ELEVATIONS**  
 SCALE: 1/4" = 1'-0"

No.	Description	Date

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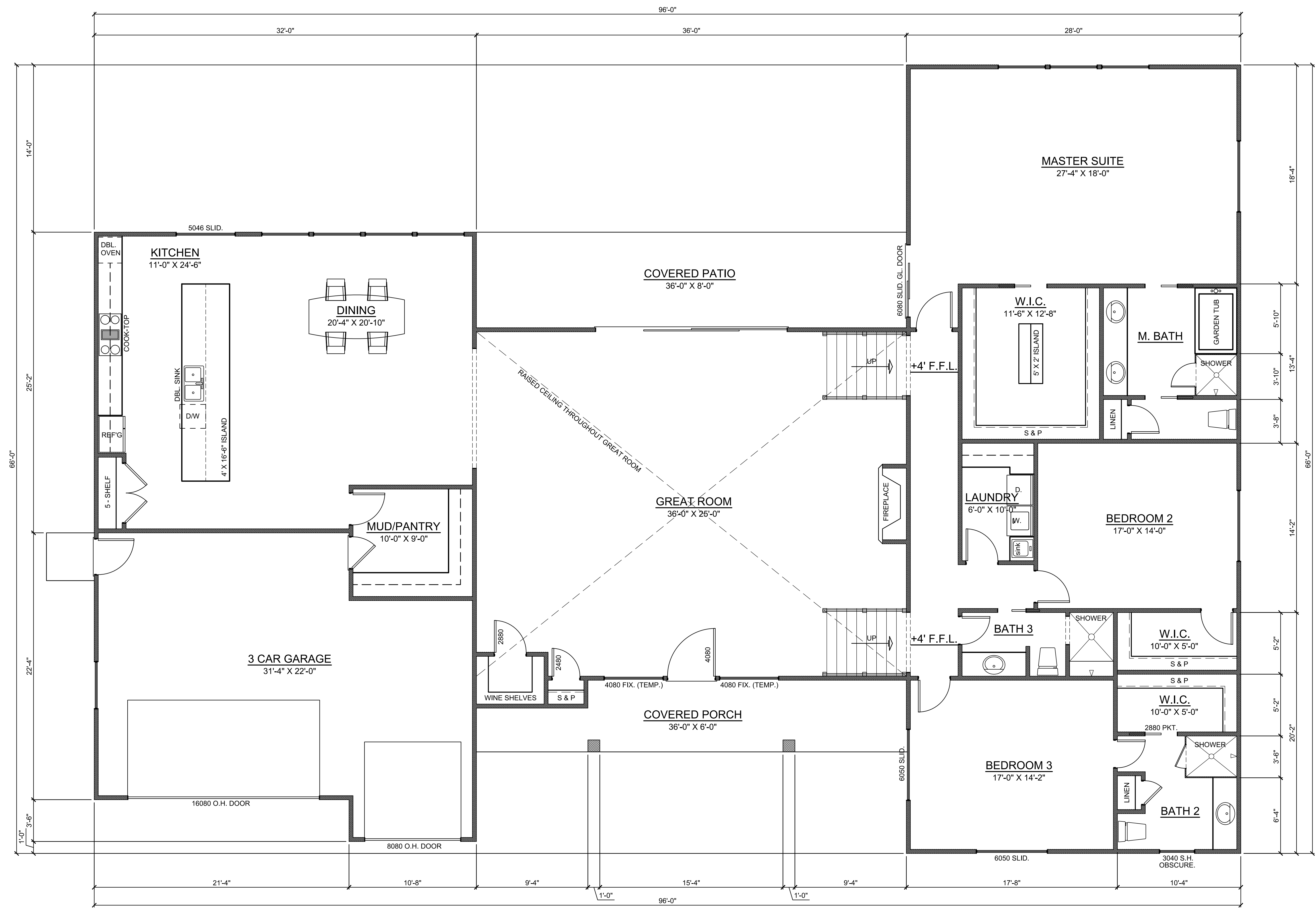
**WESTERN MEADOWS PROJECT**

**LOT #10**

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DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
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PHASE NO.	
SHEET NO.	A-101

I/WE, THE ARCHITECT, DESIGNER, ENGINEER, CONTRACTOR, AND/OR OTHER PROFESSIONALS, SHALL HAVE RESPONSIBILITY AND LIABILITY FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

WESTERN MEADOWS PROJECT: RESERVE THESE DOCUMENTS AND OTHER PROPERTY RIGHTS IN THESE DOCUMENTS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT THE EXPRESS WRITTEN PERMISSION AND CONSENT OF KIRK GEYER DESIGN.



**ANNIE OAKLEY FLOOR PLAN** SCALE: 1/4" = 1'-0"

**3,800 SQ. FT. (LIVING)**  
**689 SQ. FT. (GARAGE)**  
**483 SQ. FT. (PORCH & PATIO)**  
**4,972 SQ. FT. (TOTAL UNDER ROOF)**

No.	Description	Date

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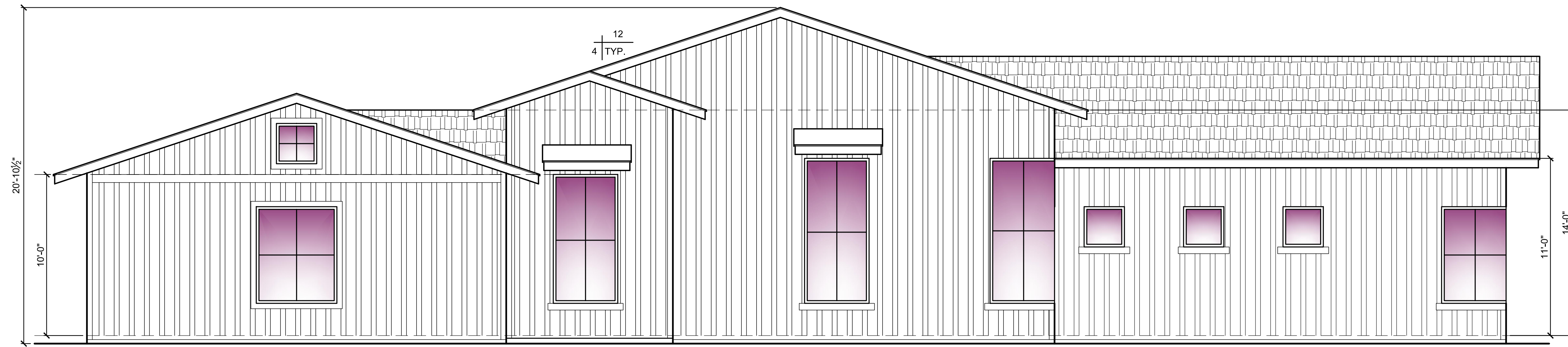
**WESTERN MEADOWS PROJECT**

**LOT #10**

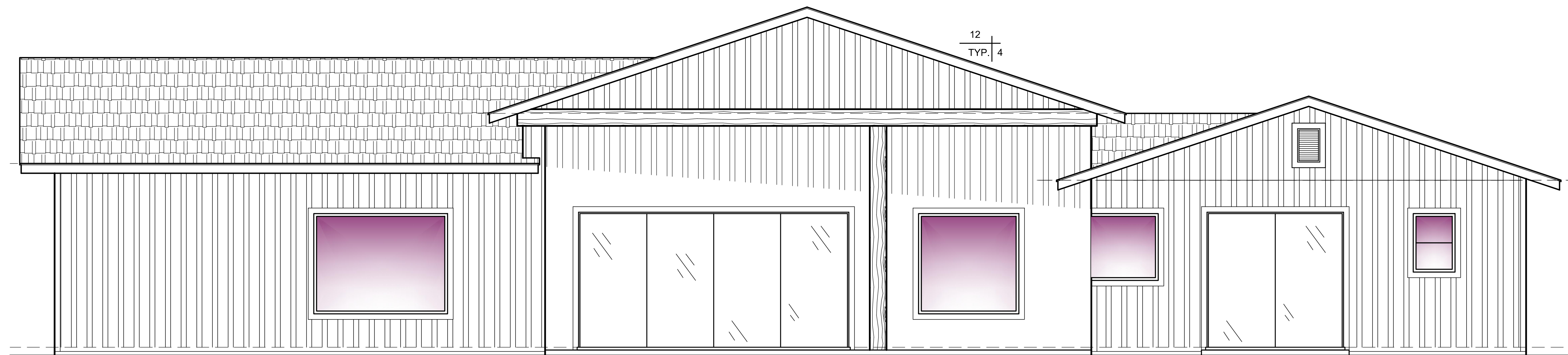
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SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
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 CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB.

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**FRONT ELEVATION (G.L.)**  
**SIDE ENTRY GARAGE**  
 SCALE: 1/4" = 1'-0"



**REAR ELEVATION**  
 SCALE: 1/4" = 1'-0"

**BUFFALO BILL ELEVATION**  
 SCALE: 1/4" = 1'-0"

<b>AREA TABULATION:</b>		
TABULATIONS TO FACE OF STUD/ FOUNDATION.		
CONDITIONED AREA:	MAIN FLOOR	2,953 SQ. FT.
TOTAL LIVING AREA		2,953 SQ. FT.
COVERED PORCH		0 SQ. FT.
COVERED PATIO		270 SQ. FT.
GARAGE		567 SQ. FT.
TOTAL UNDER ROOF		3,790 SQ. FT.

**LOT #11 WESTERN MEADOWS**  
**18.89% LOT COVERAGE**

**SCOPE OF WORK:**  
 CONSTRUCTION OF SINGLE FAMILY PRIVATE DWELLING AND ALL ASSOCIATED SITE WORK, INCLUDING GARAGE, UTILITIES, PATIOS, AND DRIVEWAYS.

No.	Description	Date

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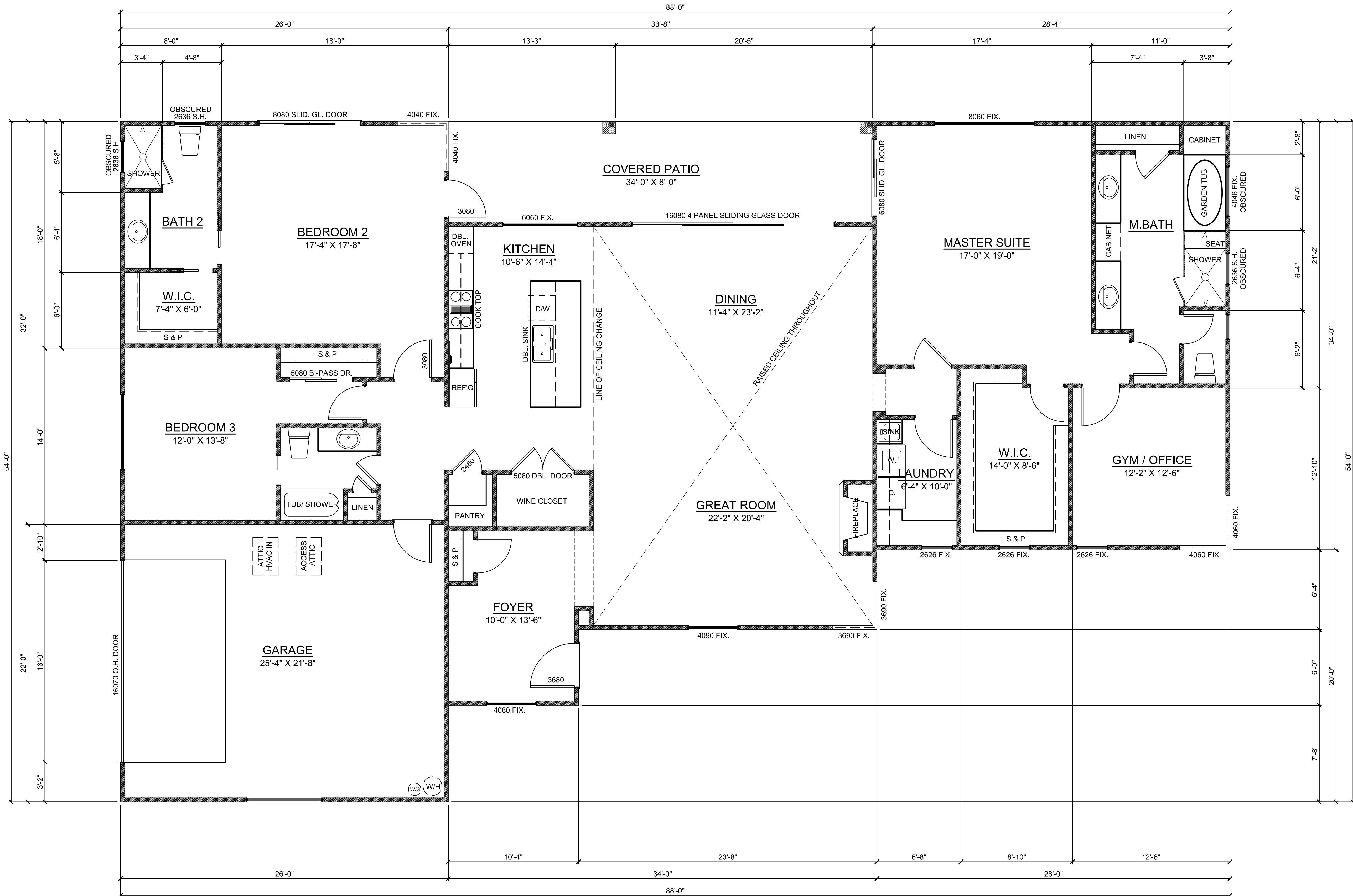
  
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**WESTERN MEADOWS PROJECT**

**LOT #11**

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SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
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**BUFFALO BILL FLOOR PLAN (G.L.)**

SCALE: 1/4" = 1'-0"

2,953 SQ. FT. (LIVING)  
 567 SQ. FT. (GARAGE)  
 270 SQ. FT. (PATIO)  
 3,790 SQ. FT. (TOTAL)

No.	Description	Date

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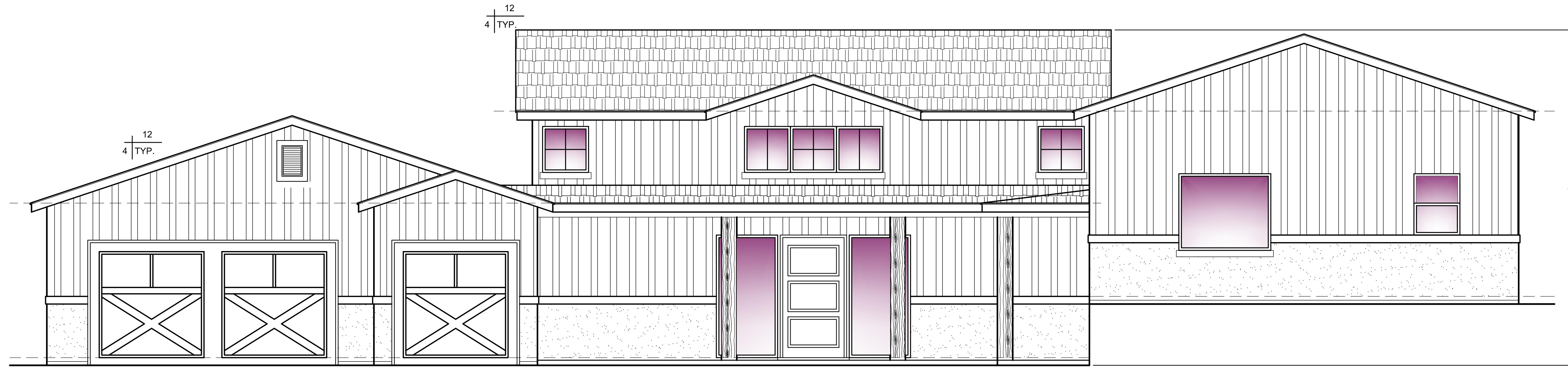
**LOT #11**

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**FRONT ELEVATION**  
**LOT #12**

SCALE: 1/4" = 1'-0"

**SCOPE OF WORK:**

CONSTRUCTION OF SINGLE FAMILY PRIVATE DWELLING AND ALL ASSOCIATED SITE WORK, INCLUDING GARAGE, UTILITIES, PATIOS, AND DRIVEWAYS.

**AREA TABULATION:**

TABLATIONS TO FACE OF STUD/ FOUNDATION.

CONDITIONED AREA:	MAIN FLOOR	3,800 SQ. FT.
TOTAL LIVING AREA		3,800 SQ. FT.
COVERED PORCH		350 SQ. FT.
COVERED PATIO		696 SQ. FT.
GARAGE		689 SQ. FT.
TOTAL UNDER ROOF		5,535 SQ. FT.

**LOT #12 WESTERN MEADOWS**  
**20.96% LOT COVERAGE**

**ANNIE OAKLEY ELEVATIONS**

SCALE: 1/4" = 1'-0"

No.	Description	Date

2276 LOMA HEIGHTS RD  
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KIRKGEYER@SBCGLOBAL.NET



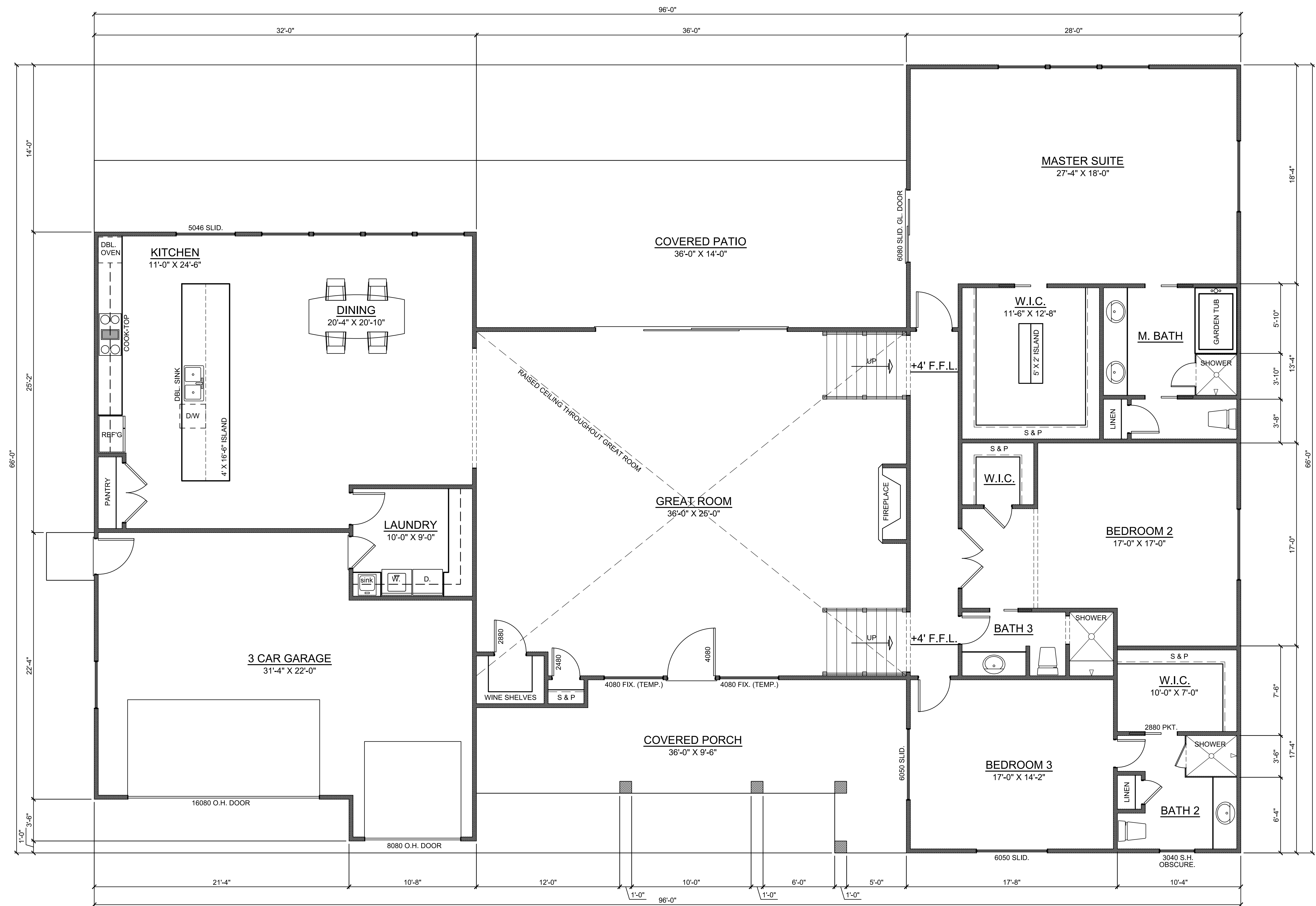
**KIRK GEYER DESIGN**  
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707 / 337-3025  
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**WESTERN MEADOWS PROJECT**

**LOT #12**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	

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No.	Description	Date

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**WESTERN MEADOWS PROJECT**

**LOT #12**

CHECKED BY	KIRK
DRAWN BY	TOM W.
SCALE	AS INDICATED
DATE	10.10.2019
PROJECT NO.	
PHASE NO.	
SHEET NO.	A-102

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**DELINEATION OF WATERS OF THE UNITED STATES,  
INCLUDING WETLANDS,  
FOR THE  
WESTERN MEADOWS SUBDIVISION  
1030 & 1040 BORRETTE LANE, CITY OF NAPA  
NAPA COUNTY, CALIFORNIA**

---

PREPARED FOR:

KD DEVELOPMENT  
C/O RANDY GULARTE  
780 TRANCAS STREET  
NAPA, CA 94558  
TEL: 707-256-2145

RECEIVED

OCT 10 2019

COMMUNITY DEVELOPMENT  
DEPARTMENT

PREPARED BY:

JANE VALERIUS ENVIRONMENTAL CONSULTING  
2893A SCOTTS RIGHT OF WAY  
SEBASTOPOL, CA 95472  
OFFICE: 707-824-1463  
MOBILE: 707-529-2394

JUNE 2019

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### Appendices

Appendix A – Delineation Data Forms

Appendix B – Soils Maps

Appendix C – Site Photographs

### Figures

Figure 1: Location Map on USGS quadrangle

Delineation Map Attached

**Delineation of Waters of the U.S., including Wetlands, for  
1030 & 1040 Borrette Lane, Napa, CA**

**SECTION 1 – INTRODUCTION AND BACKGROUND INFORMATION**

This wetland delineation report has been conducted on behalf of Mr. Randy Gularte with KD Development for the proposed Western Meadows Subdivision project. The applicant, KD Development in care of Randy Gularte, has requested approval of a Tentative Parcel Map to subdivide two (2) existing five acre parcels, each containing an existing single-family home, into three (3) parcels. The parcel map created one 1.33-acre parcel that contains one of the homes, one 1.11-acre parcel that contains the other home, and one 7.56-acre parcel vacant parcel to provide for future development. The delineation study area covers the 7.56-acre parcel. The APNs for the project study area are 041-700-005 & 041-700-007.

**Directions to Site:** From San Francisco drive north to Napa. In Napa take Highway 29 north and take the First Street Exit. Go left or west on First Street. First Street will turn into Browns Valley Road and then Patrick Road. Borrette lane is off of Patrick Road. The project site in on the east side of Borrette Lane.

This delineation was conducted according to the 1987 Corps of Engineers *Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (U.S. Army Corps of Engineers (2008), and U.S. Army Corps of Engineers, San Francisco District (2007) guidelines. Data sheets, soils map and site photographs from the delineation are provided in Appendices A, B and C respectively. The delineation should be considered preliminary until the U.S. Army Corps of Engineers, San Francisco District, issues a jurisdictional determination of the extent of jurisdictional waters, including wetlands, in the delineation/project study area. A total of 0.0142 acres of potential seasonal wetlands and 0.022 acres of ephemeral others waters and 0.0998 acres of intermittent other waters (Llama Creek) of the U.S. were mapped for the delineation/project study area (Figure 2). The total for potential wetlands and waters is 0.136 acres for the property.

The client contact for this report is: Mr. Randy Gularte  
KD Development  
780 Trancas Street  
Napa, CA 94558  
Tel: 707-256-2145  
Email: [r.gularte@ggsir.com](mailto:r.gularte@ggsir.com)

## **SECTION 2 – DESCRIPTION OF SITE CHARACTERISTICS**

### **General Description, Topography and Hydrology**

The project study area is located north of Browns Valley Road and is bounded by residential development on the north, east, south, and southwest, with vineyards on the northwest. The project area is situated in the unsectioned portion of Napa Valley, on the west side of Browns Valley, in the central portion of the Napa 7.5-minute topographic quadrangle, within Township 5N and Range 4W (Figure 1).

The project is located within the North Coast Province. This province is located along the Pacific coast from the California-Oregon border to the San Francisco Bay watershed in the south. The eastern boundary includes the Cascade Range along the northern portion of the province and the transition to the Sacramento Valley along the southern portion. The coastal mountain ranges within the province are aligned somewhat parallel and rise from low to moderate elevation (i.e., up to about 7,500 feet). The climate varies considerably across the province, with high precipitation levels and moderate temperatures in many coastal areas, and dry conditions with rain shadow effects and more extreme temperatures in some inland valleys. Overall, the province has a fairly wet climate and receives more rainfall than any other part of the state, feeding more than ten river systems.

North Coast Province vegetation consists predominantly of conifer and mixed-conifer forests dissected by chaparral stands, riparian forests, and wetlands. Valley and foothill grassland and woodland communities emerge along the central and southern eastern border of the province, while coastal wetlands and marshes appear along the coastline. Specifically, Douglas-fir, mixed-evergreen, western hardwoods, and chaparral-mountain shrub dominate the province.

The parcel ranges in elevation between 77 meters (255 feet) in the north and 67 meters (200 feet) in the northeast, and is situated on a south-facing slope. Brown Valley Creek, located 640 feet south of the site, flows from northwest to southeast. On the southern boundary of the parcel is Llama Creek, a tributary to Browns Valley Creek, which is identified as a blue line creek on the topographic map. A reservoir is located upstream on the tributary, approximately 3,465 feet away. Surrounding land uses consist of mainly of residential development and vineyards.

### **Soils**

Soils on the site are mapped as Cole silty loam, 0 to 2 percent slopes, MLRA 14 (Appendix B) by the Natural Resources Conservation Service (NRCS 2019). Cole series soils consist of somewhat poorly drained soils on alluvial fans and flood plains. These soils formed in alluvium weathered from sandstone, shale and basic rock. Included in this mapping unit were small areas of Bale, Clear Lake, Cortina, and Yolo soils (USDA 1978). Soils on the site were found to be mostly a clay loam soil type.

**Delineation of Waters of the U.S., including Wetlands, for  
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**Vegetation**

Three vegetation communities occur on the 7.56- acre parcel. A description of each community is presented below:

*Phalaris aquatica* Semi-Natural Herbaceous Stands or Harding grass swards: The Harding grass sward vegetation type is a non-native grassland type and is the dominant vegetation type within the study area. The dominant species is Harding grass (*Phalaris aquatica*). Other non-native grasses noted include wild oats (*Avena barbata*), bromes (*Bromus diandrus*, *B. hordaceus*, *B. catharticus*), ryegrass (*Festuca perennis*), and Mediterranean canary grass (*Phalaris minor*). Non-native forbs species noted include Italian thistle (*Carduus pycnocephalus*), rough cat's-ear (*Hypochaeris radicata*), English plantain (*Plantago lanceolata*), prickly lettuce (*Lactuca serriola*), and bristly ox-tongue (*Helminthotheca echioides*). Native species observed include centaury (*Zeltnera* sp.), goosefoot (*Chenopodium* sp.) and man root (*Marah* sp.).

California bay (*Umbellularia californica*) woodland. The California bay woodland occurs along Llama Creek located along the southern boundary line (Fig. 4). California bay is the dominant tree canopy with an understory of non-native grassland. Other tree species noted include willows (*Salix laevigata*, *S. lasiolepis*), coast live oak (*Quercus agrifolia*), and California buckeye (*Aesculus californica*). Understory vegetation included non-native and invasive species such as English ivy (*Hedera helix*), periwinkle (*Vinca major*), Italian thistle and Himalayan blackberry (*Rubus armeniacus*).

Potential seasonal wetland. Two small seasonal wetlands have been mapped for the site. A 0.014 acre wetland labeled as W-1 was mapped in the extreme northeastern corner and this wetland is associated with a drainage ditch (see attached delineation map). Another 0.008 wetland, labeled as W-2, and is located in the southeasterly portion of the site in a slight depression. Wetland plants associated with these two area include Himalayan blackberry, tall flat sedge (*Cyperus eragrostis*), dense sedge (*Carex densa*), spreading rush (*Juncus patens*), and fiddle dock (*Rumex pulcher*).

## **SECTION 3 – METHODS**

### **Literature Review**

Prior to the delineation field survey, literature pertinent to identifying potential wetlands and other waters of the United States in the project area was reviewed, including the USGS 7.5 minute topographic quadrangle map for the area, the detailed topographic/aerial photograph base map prepared for the project area, the soil survey report, and the county hydric soils list.

### **Field Survey and Map Preparation**

A formal delineation was conducted by Jane Valerius, botanist and wetland on May 20, 2019. Areas in which the topography or vegetation suggested that wetlands could exist were sampled using the routine onsite determination method procedures described in the 1987 Corps of Engineers *Wetlands Delineation Manual* (Environmental Laboratory 1987). The *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* U.S. Army Corps of Engineers (2008), U.S. Army Corps of Engineers, San Francisco District (2000) delineation guidelines and the U.S. Army Corps of Engineers San Francisco District November 2007 *Information Requested for Verification of Corps Jurisdiction* guidance was also used as part of the on-site wetlands analysis and report preparation.

The State of California 2016 Wetland Plant List (USACE 2016) was used to determine the wetland status for the plant species for the sample data points. A soil pit was excavated at each of the ten (10) delineation sample points (Appendix A) to a depth of 12 inches. The sample points were established in representative wetlands and adjoining non-wetlands. In most cases an adjoining nonwetland sample point was established near the wetland data point to “bracket” the wetland data point, as a means to identify the wetland-nonwetland boundary.

Creeks and drainages within the study area are designated as other waters of the United States and would have an ordinary high water mark (OHWM) that defines the extent of the Corps’ jurisdiction of that feature. An OHWM refers to “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area” (33 CFR Section 328.3[e]). There are two ephemeral drainages in the study area along with Llama Creek which is an intermittent creek and a tributary to Browns Valley Creek downstream.

Wetland areas were mapped on topographic maps provided by RSA+. Wetland areas and data points were surveyed in by RSA+ and they also provided the final graphics for the report.



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**SECTION 4 – RESULTS**

This section describes the results of the field survey. The preliminary jurisdictional features and data point locations are shown on the attached Delineation Map. Wetland delineation data sheets completed at the sample points are provided in Appendix A. The soil survey map is provided as Appendix B and a selection of site photographs is provided as Appendix C.

A total of 0.0142 acres of potential seasonal wetlands and 0.022 acres of ephemeral others waters and 0.0998 acres of intermittent other waters (Llama Creek) of the U.S. were mapped for the delineation/project study area. The total for potential wetlands and waters is 0.136 acres for the property. Areas mapped as potential jurisdictional areas on the property include:

W-1 is a small 0.014 acre wetland associated with an ephemeral drainage in the northeastern corner of the project study area. This area is represented by data point DP-2.

W-2 is a small 0.008 acre wetland in the southeast/central portion of the project study area in a low depressional area with rushes and sedges.

D-1 is an ephemeral drainage that is associated with a culvert that goes under the entrance road to the site and drains into Llama Creek. This is a small 2-foot wide drainage and is approximately 35 feet long for a total of 0.0016 acres.

D-2 is the ephemeral drainage in the northeastern portion of the site. Both D-1 and D-2 appear to constructed drainages as they occur along fences. They are likely hydrologically connected but the portion between these two sections becomes undefined with no ordinary high water mark (OHMW) so was not mapped. D-2 is 2-feet wide by 280 feet long for a total of 0.0126 acres.

Llama Creek crosses the project study bound in the southwest and southeast corners. In the southwest the creek is approximately 10-feet wide at the OHWM with a total of 0.0326 acres. In the southeast corner the creek is approximately 15-feet wide with a total of 0.0672 acres.

**Delineation of Waters of the U.S., including Wetlands, for  
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**SECTION 5 – REFERENCES CITED**

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**Appendix A -  
Wetland Data Sheets**

## WETLAND DETERMINATION DATA FORM

Project/Site: 1030 & 1040 Borrette Lane City/County: Napa Sampling Date: May 20, 2019  
 Applicant/Owner: Western Meadows Subdivision State: CA Sampling Point: /  
 Investigator(s): Valerius Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cole silt loam, 0 to 2 percent slopes, MLRA 14 NWI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?  no Are "Normal Circumstances" present? Yes  No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?  (no) (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <p style="text-align: center; font-style: italic;">Data point in drainage swale along west side of property no defined OHWM</p>	

### VEGETATION

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Quercus agrifolia</u>	10	N	UPL	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
10 = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>5 ft radius</u> )				Hydrophytic Vegetation Indicators:
1. <u>Phalaris aquatica</u>	65	Y	FACU	<input type="checkbox"/> Dominance Test is >50%
2. <u>Cyperus eragrostis</u>	10	N	FACW	<input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>
3. <u>Rhynchospora purpurea</u>	5	N	FAC	<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. <u>Carex densa</u>	10	N	OBL	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
90 = Total Cover				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present?
1. _____				Yes _____ No <input checked="" type="checkbox"/>
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>10</u> % Cover of Biotic Crust _____				
Remarks:				

**SOIL**

Sampling Point: 1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/2	95	7.5YR 4/6	5	C	m	loam	weak mottles/diffuse

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):** none  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**  
 mottles were diffuse

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (any one indicator is sufficient)</b>	<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

**Field Observations:**

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

### WETLAND DETERMINATION DATA FORM

Project/Site: 1030 & 1040 Borrette Lane City/County: Napa Sampling Date: May 20, 2019  
 Applicant/Owner: Western Meadows Subdivision State: CA Sampling Point: 2  
 Investigator(s): Valerius Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): planar Slope (%): 5%  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cole silt loam, 0 to 2 percent slopes, MLRA 14 NWI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? no Are "Normal Circumstances" present? Yes  No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? no (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: _____ _____ _____	

**VEGETATION**

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species <u>90</u> x 3 = <u>270</u>
5. _____	_____	_____	_____	FACU species <u>5</u> x 4 = <u>20</u>
= Total Cover				UPL species <u>5</u> x 5 = <u>25</u>
				Column Totals: <u>100</u> (A) <u>315</u> (B)
				Prevalence Index = B/A = <u>3.15</u>
Herb Stratum (Plot size: <u>5 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Elymus distichoides</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. <u>Rubus armeniacus</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>
3. <u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. <u>Helminthotheca echioides</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. <u>Vicia sativa</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
6. <u>Geranium dissectum</u>	<u>5</u>	<u>N</u>	<u>UPL</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <input checked="" type="checkbox"/> % Cover of Biotic Crust _____				
Remarks: _____ _____ _____				

**SOIL**

Sampling Point: 2

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	2.5YR 3/2	100					loam	no redox

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<b>Indicators for Problematic Hydric Soils<sup>2</sup>:</b>
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>2</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):** none  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_ No

Remarks:

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (2 or more required)</b>
<b>Primary Indicators (any one indicator is sufficient)</b>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

**Field Observations:**

Surface Water Present?	Yes ___ No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes ___ No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present?	Yes ___ No <input checked="" type="checkbox"/>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Soils moist but not saturated & heavy recourses prior to visit.

## WETLAND DETERMINATION DATA FORM

Project/Site: 1030 & 1040 Borrette Lane City/County: Napa Sampling Date: May 20, 2019  
 Applicant/Owner: Western Meadows Subdivision State: CA Sampling Point: 3  
 Investigator(s): Valerius Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): planar Slope (%): 5  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cole silt loam, 0 to 2 percent slopes, MLRA 14 NWI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?  no  Are "Normal Circumstances" present? Yes  No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?  no  (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: _____ _____ _____	

### VEGETATION

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				
_____ = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				<b>Prevalence Index worksheet:</b>
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
<b>Herb Stratum (Plot size: <u>5 ft radius</u>)</b>				Column Totals: _____ (A) _____ (B)
1. <u>Rubus c. meniscus</u>	<u>80</u>	<u>Y</u>	<u>FAC</u>	Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
<u>80</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b>
<b>Woody Vine Stratum (Plot size: _____)</b>				<input checked="" type="checkbox"/> Dominance Test is >50%
1. _____				<input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>
2. _____				<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
_____ = Total Cover				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
<b>% Bare Ground in Herb Stratum <u>20</u> % Cover of Biotic Crust _____</b>				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
Remarks: _____				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



**SOIL**

Sampling Point: 3

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	7.5YR 3/2	100					CL	
8-12	7.5YR 3/2	95	7.5YR 5/8	5	C	m	CL	Redox at ~ 8"

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):** none  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (any one indicator is sufficient)</b>		<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>1</u>	
Saturation Present?	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>8</u>	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

### WETLAND DETERMINATION DATA FORM

Project/Site: 1030 & 1040 Borrette Lane City/County: Napa Sampling Date: May 20, 2019  
 Applicant/Owner: Western Meadows Subdivision State: CA Sampling Point: 4  
 Investigator(s): Valerius Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): slope Slope (%): 5  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cole silt loam, 0 to 2 percent slopes, MLRA 14 NWI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? no Are "Normal Circumstances" present? Yes X No \_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? no (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks:	

**VEGETATION**

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. <u>Rubus armeniacus</u>	<u>35</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Epilobium brachycarpum</u>	<u>10</u>	<u>N</u>	<u>NL</u>	
3. <u>Geranium dissectum</u>	<u>5</u>	<u>N</u>	<u>NL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>50</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>50</u> % Cover of Biotic Crust _____				
Remarks:				

**SOIL**

Sampling Point: 4

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/3	100					CL	Mixed soils "fill" from slope No redox

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present): none**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (any one indicator is sufficient)</b>		<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

## WETLAND DETERMINATION DATA FORM

Project/Site: 1030 & 1040 Borrette Lane City/County: Napa Sampling Date: May 20, 2019  
 Applicant/Owner: Western Meadows Subdivision State: CA Sampling Point: 5  
 Investigator(s): Valerius Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Slope / plateau Slope (%): 5  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cole silt loam, 0 to 2 percent slopes, MLRA 14 NWI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? no Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? no (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: _____	

### VEGETATION

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
_____ = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0' <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft radius</u>)</b>				<input type="checkbox"/> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Carex densa</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Briza minor</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
3. <u>Helmintholobos echinoides</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
4. <u>Phalaris aquatica</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
5. <u>Vicia sativa</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
6. <u>Rubus armeniacus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
7. <u>Medicago polymorpha</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
8. <u>Dipsosaurus filiformis</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
<u>100</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust _____		
Remarks: _____				

**SOIL**

Sampling Point: 5

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/2	100					CL	No redox

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present): none**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
<b>Primary Indicators (any one indicator is sufficient)</b>		<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

## WETLAND DETERMINATION DATA FORM

Project/Site: 1030 & 1040 Borrette Lane City/County: Napa Sampling Date: May 20, 2019  
 Applicant/Owner: Western Meadows Subdivision State: CA Sampling Point: 6  
 Investigator(s): Valerius Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): fence Local relief (concave, convex, none): convex Slope (%): 5  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cole silt loam, 0 to 2 percent slopes, MLRA 14 NWI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? no Are "Normal Circumstances" present? Yes X No \_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? no (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks:	

**VEGETATION**

Tree Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Quercus agrifolia - small sapling</u>	<u>25</u>		<u>UPL</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
4. _____				
<u>25</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Rosa sp.</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Rubus americanus</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	OBL species _____ x 1 = _____
3. <u>Toxicodendron diversilobum</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
<u>40</u> = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>5 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. _____				___ Dominance Test is >50%
2. _____				___ Prevalence Index is ≤3.0 <sup>1</sup>
3. _____				___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. _____				___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes _____ No <u>X</u>
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>60</u> % Cover of Biotic Crust _____				
Remarks:				

**SOIL**

Sampling Point: 6

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-12	10YR3/2	100				CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):** none  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_ No

Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
<b>Primary Indicators (any one indicator is sufficient)</b>		<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes ___ No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes ___ No <input checked="" type="checkbox"/>
Water Table Present?	Yes ___ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present?	Yes ___ No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

## WETLAND DETERMINATION DATA FORM

Project/Site: 1030 & 1040 Borrette Lane City/County: Napa Sampling Date: May 20, 2019  
 Applicant/Owner: Western Meadows Subdivision State: CA Sampling Point: 7  
 Investigator(s): Valerius Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cole silt loam, 0 to 2 percent slopes, MLRA 14 NWI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? (no) Are "Normal Circumstances" present? Yes  No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (no) (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: <p style="text-align: center; font-style: italic;">In "waters" / drainage ditch 0 2</p>	

### VEGETATION

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 <sup>1</sup> ___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
1. <u>Phalaris aquatica</u>	<u>85</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Hemodorum sibiricum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
3. <u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
<u>100</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				



**SOIL**

Sampling Point: 7

**Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-12	10YR5/2	100				CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):** none  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (any one indicator is sufficient)</b>	<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

**Field Observations:**

Surface Water Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>1"</u>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____
Water Table Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>1"</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>0</u>	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 water present on this drainage date.

## WETLAND DETERMINATION DATA FORM

Project/Site: 1030 & 1040 Borrette Lane City/County: Napa Sampling Date: May 20, 2019  
 Applicant/Owner: Western Meadows Subdivision State: CA Sampling Point: 8  
 Investigator(s): Valerius Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cole silt loam, 0 to 2 percent slopes, MLRA 14 NWI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?  Are "Normal Circumstances" present? Yes  No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?  (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: _____	

### VEGETATION

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
= Total Cover				
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft radius</u>)</b>				
1. <u>Juncus patens</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Phalaris aquatica</u>	<u>80</u>	<u>Y</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>100</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____		<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: _____				

**SOIL**

Sampling Point: 8

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR3/2	100					CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):** none

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

Remarks:

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (2 or more required)</b>
<b>Primary Indicators (any one indicator is sufficient)</b>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

### WETLAND DETERMINATION DATA FORM

Project/Site: 1030 & 1040 Borrette Lane City/County: Napa Sampling Date: May 20, 2019  
 Applicant/Owner: Western Meadows Subdivision State: CA Sampling Point: 9  
 Investigator(s): Valerius Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cole silt loam, 0 to 2 percent slopes, MLRA 14 NWI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? no Are "Normal Circumstances" present? Yes X No \_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? no (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks:	

**VEGETATION**

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)
4. _____	_____	_____	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>5 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Juncus patens</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. <u>Carex densa</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>
3. <u>Phalaris aquatica</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes <input checked="" type="checkbox"/> No _____
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____		
Remarks:				

**SOIL**

Sampling Point: 9

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/2	95	10YR 4/8	5	C	M	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):** none  
 Type: \_\_\_\_\_  
 Depth (Inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<b>Primary Indicators (any one indicator is sufficient)</b>		<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
*In low area / swale*

### WETLAND DETERMINATION DATA FORM

Project/Site: 1030 & 1040 Borrette Lane City/County: Napa Sampling Date: May 20, 2019  
 Applicant/Owner: Western Meadows Subdivision State: CA Sampling Point: 10  
 Investigator(s): Valerius Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): planar Slope (%): 2  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cole silt loam, 0 to 2 percent slopes, MLRA 14 NWI classification: none  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? (no) Are "Normal Circumstances" present? Yes X No \_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (no) (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> Hydric Soil Present? Yes _____ No <u>✓</u> Wetland Hydrology Present? Yes _____ No <u>✓</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u>
Remarks: _____ _____ _____	

**VEGETATION**

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>5 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Phalaris aquatica</u>	<u>100</u>	<u>Y</u>	<u>FACU</u>	___ Dominance Test is >50%
2. _____	_____	_____	_____	___ Prevalence Index is ≤3.0 <sup>1</sup>
3. _____	_____	_____	_____	___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Footnote:
1. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>
Remarks: _____ _____ _____				

**SOIL**

Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/2	100					CL	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> 1 cm Muck (A9) (LRR C)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> 2 cm Muck (A10) (LRR B)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Stratified Layers (A5) (LRR C)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Depressions (F8)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Vernal Pools (F9)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)								
Restrictive Layer (if present): none								
Type: _____								
Depth (inches): _____						Hydric Soil Present?    Yes ___ No <input checked="" type="checkbox"/>		
Remarks:								

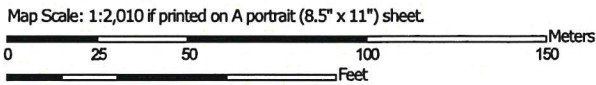
**HYDROLOGY**

Wetland Hydrology Indicators:				Secondary Indicators (2 or more required)				
Primary Indicators (any one indicator is sufficient)								
<input type="checkbox"/> Surface Water (A1)			<input type="checkbox"/> Salt Crust (B11)			<input type="checkbox"/> Water Marks (B1) (Riverine)		
<input type="checkbox"/> High Water Table (A2)			<input type="checkbox"/> Biotic Crust (B12)			<input type="checkbox"/> Sediment Deposits (B2) (Riverine)		
<input type="checkbox"/> Saturation (A3)			<input type="checkbox"/> Aquatic Invertebrates (B13)			<input type="checkbox"/> Drift Deposits (B3) (Riverine)		
<input type="checkbox"/> Water Marks (B1) (Nonriverine)			<input type="checkbox"/> Hydrogen Sulfide Odor (C1)			<input type="checkbox"/> Drainage Patterns (B10)		
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)			<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)			<input type="checkbox"/> Dry-Season Water Table (C2)		
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)			<input type="checkbox"/> Presence of Reduced Iron (C4)			<input type="checkbox"/> Thin Muck Surface (C7)		
<input type="checkbox"/> Surface Soil Cracks (B6)			<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)			<input type="checkbox"/> Crayfish Burrows (C8)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			<input type="checkbox"/> Thin Muck Surface (C7)			<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)		
<input type="checkbox"/> Water-Stained Leaves (B9)			<input type="checkbox"/> Other (Explain in Remarks)			<input type="checkbox"/> Shallow Aquitard (D3)		
						<input type="checkbox"/> FAC-Neutral Test (D5)		
Field Observations:								
Surface Water Present?	Yes ___	No <input checked="" type="checkbox"/>	Depth (inches):	_____				
Water Table Present?	Yes ___	No <input checked="" type="checkbox"/>	Depth (inches):	_____				
Saturation Present?	Yes ___	No <input checked="" type="checkbox"/>	Depth (inches):	_____				
(includes capillary fringe)						Wetland Hydrology Present?    Yes ___ No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:								

## **Appendix B - Soils Information**



Soil Map—Napa County, California



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84







































Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

5/20/2019  
Page 1 of 3

Soil Map—Napa County, California

**MAP LEGEND**

<b>Area of Interest (AOI)</b>		 Spoil Area
 Area of Interest (AOI)		 Stony Spot
<b>Soils</b>		 Very Stony Spot
 Soil Map Unit Polygons		 Wet Spot
 Soil Map Unit Lines		 Other
 Soil Map Unit Points		 Special Line Features
<b>Special Point Features</b>		<b>Water Features</b>
 Blowout		 Streams and Canals
 Borrow Pit		<b>Transportation</b>
 Clay Spot		 Rails
 Closed Depression		 Interstate Highways
 Gravel Pit		 US Routes
 Gravelly Spot		 Major Roads
 Landfill		 Local Roads
 Lava Flow		<b>Background</b>
 Marsh or swamp		 Aerial Photography
 Mine or Quarry		
 Miscellaneous Water		
 Perennial Water		
 Rock Outcrop		
 Saline Spot		
 Sandy Spot		
 Severely Eroded Spot		
 Sinkhole		
 Slide or Slip		
 Sodic Spot		

**MAP INFORMATION**

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.  
 Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Napa County, California  
 Survey Area Data: Version 11, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 31, 2017

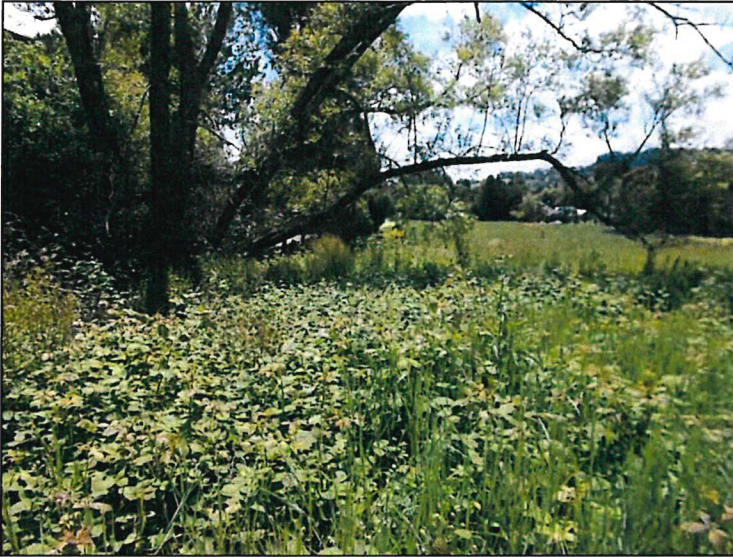
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
113	Bressa-Dibble complex, 15 to 30 percent slopes	0.3	4.5%
118	Cole silt loam, 0 to 2 percent slopes, MLRA 14	6.0	95.5%
<b>Totals for Area of Interest</b>		<b>6.2</b>	<b>100.0%</b>

## **Appendix C - Site Photographs**

**SITE PHOTOGRAPHS TAKEN ON April 22, and May 20, 2019**



**Photo 1: Looking north at area of drainage swale near DP-1.  
Photo taken on May 20, 2019.**



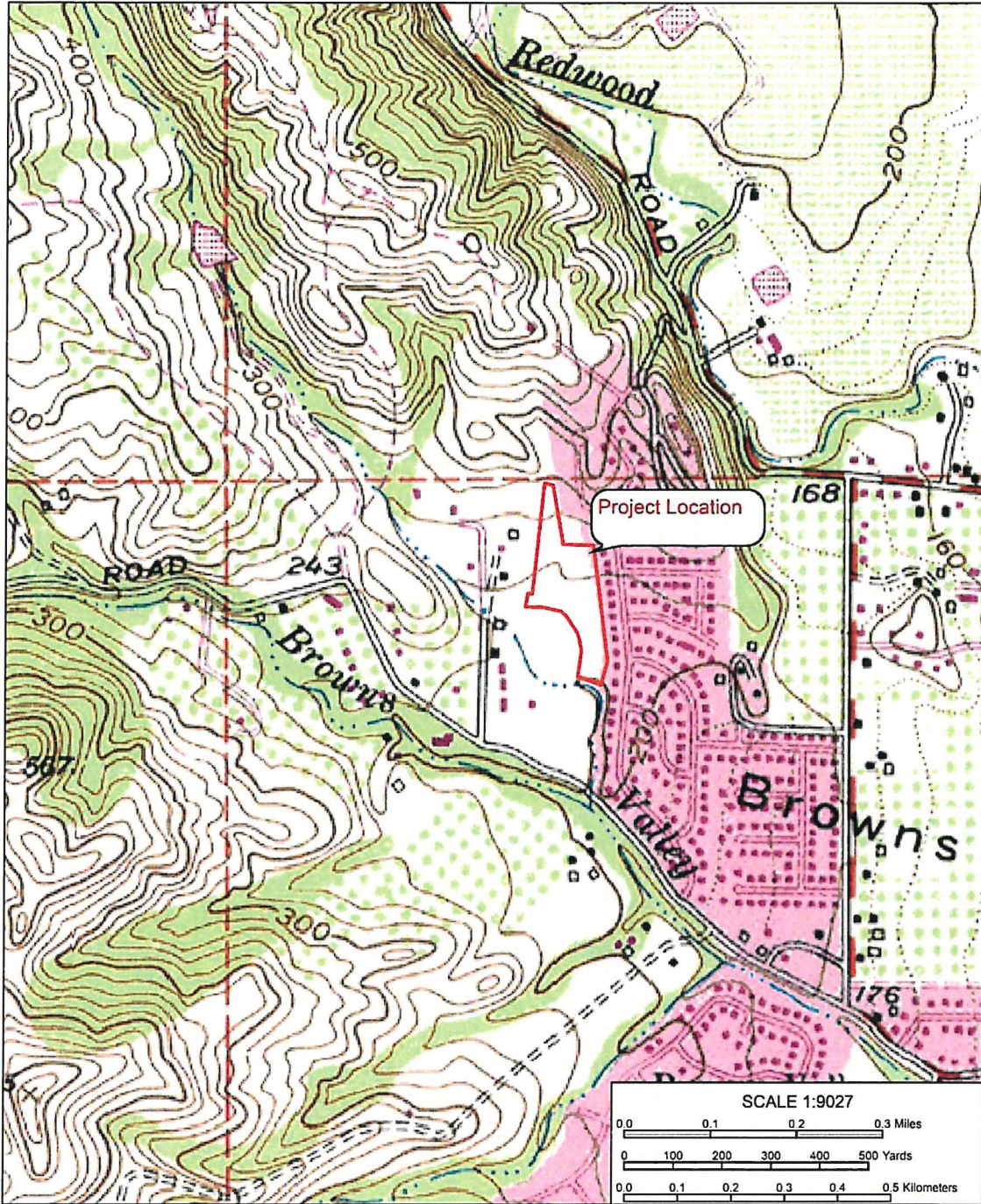
**Photo 2: Ephemeral drainage on right side with wetland W-1 with data points 2, 3 and 4.  
Photo taken on April 22, 2019.**



Photo 3. Looking north with ephemeral drainage D-2 and DP-7.  
Photo taken on May 20, 2019.

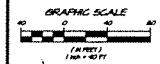
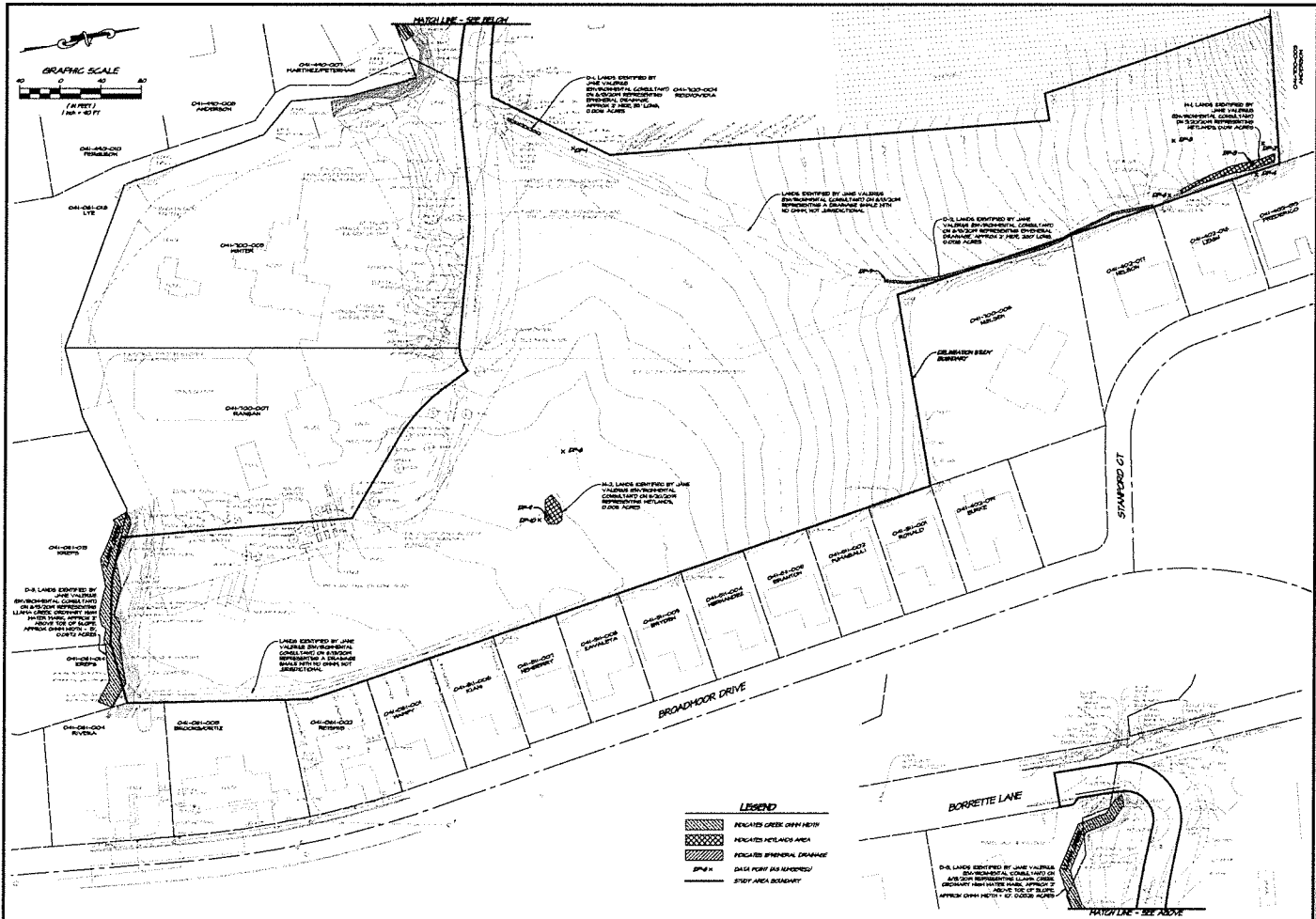


Photo 4: Wetland W-2 shown as pink flags with data points 9 and 10.



Name: NAPA  
 Date: 07/19/18  
 Scale: 1 inch = 752 ft.

Location: 10 0556960 E, 4240766 N  
 Figure 1: Project Location.



- LEGEND**
- REGULATED CREEK OPEN WATER
  - REGULATED WETLAND AREA
  - REGULATED SPECIAL DRAINAGE
  - DATA POINT (SP-#)
  - STUDY AREA BOUNDARY

WESTERN MEADOWS SUBDIVISION, 1030 & 1040 BORRETTE LANE  
 DELINEATION OF WATERS OF THE U.S., INCLUDING WETLANDS  
 INDIAN WELLS, CALIFORNIA  
 PREPARED BY  
**RSA**  
 REGISTERED PROFESSIONAL SURVEYOR  
 LICENSE NO. 10000  
 1 OF 1 SHEET

PRELIMINARY - NOT FOR CONSTRUCTION



# Habitat Assessment

1030 & 1040 BORRETTE LANE  
NAPA, NAPA COUNTY, CA

August 20, 2018

**Revised June 24, 2019**

**Revised July 1, 2019**

Revised June 15, 2020

Revised March 15, 2021

*Prepared for*

KD Development

c/o Randy Gularte

780 Trancas Street

Napa ,CA 94558

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1119 Burbank Avenue

Santa Rosa, CA 95407

*And*

Jane Valerius Environmental Consulting

2893A Scotts Right of Way

Sebastopol, CA 95472

**1030 & 1040 Borrette Lane, Napa  
Habitat Assessment**

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EXHIBIT A: Delineation Map

## SUMMARY

The 1030 & 1040 Borrette Lane property (APN 041-700-005 & 041-700-007), located west of Highway 29 and on the north side of Browns Valley Road, in the City of Napa, Napa County, California (Figure 1), is proposed for a subdivision into 13 lots. The applicant, KD Development in care of Randy Gularte, requested approval of a Tentative Parcel Map to subdivide two (2) existing five-acre parcels, each containing an existing single-family home, into three (3) parcels. The parcel map created one 1.33-acre parcel that contains one of the homes, one 1.11-acre parcel that contains the other home, and one 7.56-acre vacant parcel to provide for future development. The proposed development is to subdivide the 7.56-acre vacant parcel into 12 new lots.

This Habitat Assessment presents the findings of our literature review (including scientific literature and previous reports detailing studies conducted in the area) and the California Department of Fish and Wildlife's (CDFW) Natural Diversity Data Base (CNDDDB) for reported occurrences of special status vegetation communities, plants and animals.

Based on our site visit, three vegetation communities, comprising four wildlife habitat types, occur within the entire study area. The vegetation communities are *Phalaris aquatica* Semi-Natural Herbaceous Stands or Harding grass swards, which is a non-native grassland type; potential seasonal wetland associated with the drainage ditch in the north; and *Umbellularia californica* Forest Alliance or California bay Riparian Forest that occurs along the Llama Creek, a tributary to Browns Valley Creek that runs along the southern boundary of the study area.

As part of this Habitat Assessment, we also evaluated the potential for occurrence of 37 special status plant species, and 34 special status wildlife species, including bats, as well as the potential for foothill yellow-legged frog and California red-legged frog to occur on the parcel. No focused surveys for any special status animal species were conducted as part of this assessment. **A bat habitat assessment was conducted in July 2019.**

To reduce impacts to special status biological resources, we recommend the following:

- Nesting bird survey within one week of the removal of nesting habitat
- Consultation with the federal agencies regarding special status amphibians

## INTRODUCTION

KD Development, in care of Mr. Randy Gularte, contracted with Jane Valerius Environmental Consulting and Wildlife Research Associates to prepare a Habitat Assessment of the 1030 & 1040 Borrette Lane property (APN 041-700-005 & 041-700-007), located west of Highway 29 and on the north side of Browns Valley Road, in the City of Napa, Napa County, California. At this time, the 7.56- acre parcel is proposed to be subdivided into 12 new lots.

This Habitat Assessment was conducted to determine the potential for special status plant and animal species to occur within the parcel boundary and to identify the limitations to potential development, such as construction of individual residences per lot.

Based on this review and limitations of the present surveys, the following are action items to be addressed prior to ground breaking:

- Nesting bird survey within one week of the removal of nesting habitat
- Consultation with the federal and State agencies regarding special status amphibians

### Site Location

The polygon-shaped parcel is located north of Browns Valley Road and is bounded by residential development on the north, east, south, and southwest, with vineyards on the northwest. The project area is situated in the unsectioned portion of Napa Valley, on the west side of Browns Valley, in the central portion of the Napa 7.5-minute topographic quadrangle, within Township 5N and Range 4W (Figure 1).

### Project Description

The project applicant proposes to develop a 12-lot subdivision. Access to the site is from the existing private road that serves the two existing homes. Based on the Borrette Lane Estates CC8B Conceptual Plan provided by RSA dated August 27, 2017, the existing access road would be extended to the north and have an cul-de-sac to allow access to lots to be built on the west and east sides. The lots north of the cul-de-sac would be accessed by a 20-foot access easement for Lots 11 and 12. There would also be a 20-foot access easement for Lot 2 and 13. The development of the 12-lot subdivision would be reviewed for compliance with the Napa County RS-20 development standards to include minimum setbacks from the property lines and relationship of proposed new buildings to neighboring property. The proposed development parcel has an existing well and cistern on the property and is adjacent to a vineyard and other residential homes.

There is a proposed new pipe outfall to the unnamed tributary to Browns Valley Creek in the southeastern corner of the proposed development. A formal design for this has not yet been provided. Based on the site visit with Jeremy Sill with RSA Consulting Civil Engineers, the pipe will likely be placed at top of bank with a rock dissipater.

## METHODS

Information on special status plant species was compiled through a review of the California Natural Diversity Data Base (CNDDDB 2018) for the Napa and Sonoma 7.5-minute topographic quadrangles, the California Department of Fish and Wildlife's (CDFW) Special Animals List (CDFW 2018), State and Federally Listed Endangered and Threatened Animals of California (CDFW 2018), the California Native Plant Society's on-line electronic inventory of rare and endangered plants of California, and the USFWS Information on Planning and Conservation (IPaC) list (USFWS 2018).

Botanical nomenclature used in this report conforms to Baldwin, et al. (2012) for plants and to Sawyer, et al. (2009) for vegetation communities. Nomenclature for special status animal species conforms to CDFW (2018).

*Site Survey:* Trish Tatarian, Wildlife Research Associates, and Jane Valerius, Jane Valerius Environmental Consulting, conducted a survey of the parcel on June 28, 2018. The weather was warm (~75° Fahrenheit) and clear.

As required by CDFW protocols, the entire site was walked and all plant species identifiable at the time of the site visit were recorded by Jane. Trish evaluated the parcel for small mammal burrows, and surveyed for suitable potential habitat for nesting birds and roosting bat habitat using 8 x 42 roof-prism binoculars, noting presence of cavities, old bird nests and squirrel nests in trees. The reconnaissance-level site visit was intended only as an evaluation of on-site and adjacent habitat types, and no special status animal species surveys were conducted as part of this effort. Appendix C provides a list of plants species observed and Appendix D provides a list of wildlife species observed.

Jane Valerius, botanist, conducted seasonal and protocol-level surveys for special status plants in 2019. Surveys were conducted on April 22, May 20, and June 13, 2019. As required by CDFW guidelines, the surveys were floristic with every plant identifiable at the time of the surveys recorded. All plants were identified to a level that allowed for determination of the rarity status. The entire site was walked using random transects across the project area.

On May 20, 2019 Jane Valerius also conducted a delineation of waters of the U.S. and state, including wetlands, for the property. A separate delineation report is being prepared and will be send the U. S. Army Corps of Engineers for their review and verification. The delineation was conducted according to the 1987 Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (U.S. Army Corps of Engineers (2008), and U.S. Army Corps of Engineers, San Francisco District (2007) guidelines.

**Greg Tatarian, Wildlife Research Associates, conducted a bat habitat assessment of the trees on the parcel on July 1, 2019. Based on the Western Meadows Project, Borrette Lane, Napa (Pramuk, Trees and Associates, 2018) arborist report, a total of 25 trees were evaluated for suitable potential bat roosting habitat.**

**The trees were surveyed for presence of suitable potential roosting habitat features for colonial species such as pallid bat (*Antrozous pallidus*) or other species including *Myotis* sp., consisting of cavities, crevices and exfoliating bark that could support colonies. Tree canopies were surveyed for foliage habitat with density suitable for solitary, obligate tree-roosting bat species, such as western red bat (*Lasiurus blossevillii*) or hoary bat (*Lasiurus cinereus*).**

**The habitat assessment and visual survey of trees was conducted using 10 x 42 roof-prism binoculars and a 715-Lumen spotlight to illuminate any potential roost features.**

## **EXISTING CONDITIONS**

The project area is located within the North Coast Province (CDFW 2015). This province is located along the Pacific coast from the California-Oregon border to the San Francisco Bay watershed in the south (CDFW 2015). The eastern boundary includes the Cascade Range along the northern portion of the province and the transition to the Sacramento Valley along the southern portion. The coastal mountain ranges within the province are aligned somewhat parallel and rise from low to moderate elevation (i.e., up to about 7,500 feet) (CDFW 2015). The climate varies considerably across the province, with high precipitation levels and moderate temperatures in many coastal areas, and dry conditions with rain shadow effects and more extreme temperatures in some inland valleys. Overall, the province has a fairly wet climate and receives more rainfall than any other part of the state, feeding more than ten river systems (CDFW 2015).

The North Coast Province vegetation consists predominantly of conifer and mixed-conifer forests dissected by chaparral stands, riparian forests, and wetlands (CDFW 2015). Valley and foothill grassland and woodland communities emerge along the central and southern eastern border of the province, while coastal

wetlands and marshes appear along the coastline (CDFW 2015). Specifically, Douglas-fir, mixed-evergreen, western hardwoods, and chaparral-mountain shrub dominate the province (CDFW 2015).

The polygon-shaped 7.56-acre parcel ranges in elevation between 77 meters (255 feet) in the north and 67 meters (200 feet) in the northeast, and is situated on a south-facing slope. Brown Valley Creek, located 640 feet south of the site, flows from northwest to southeast. Several wetlands and seeps occur on the northern portion of the property. On the southern boundary of the parcel is Llama Creek, a tributary to Browns Valley Creek, which is identified as a blue line creek on the topographic map. A reservoir is located upstream on the tributary, approximately 3,465 feet away. Surrounding land uses consist of mainly of residential development and vineyards.

### **Vegetation Communities**

A total of three vegetation communities occur on the 7.56- acre parcel. A description of each community is presented below.

*Phalaris aquatica* Semi-Natural Herbaceous Stands or Harding grass swards: The Harding grass sward vegetation type is a non-native grassland type. The dominant species is Harding grass (*Phalaris aquatica*). Other non-native grasses noted include wild oats (*Avena barbata*), bromes (*Bromus diandrus*, *B. hordaceus*, *B. catharticus*), ryegrass (*Festuca perennis*), and Mediterranean canary grass (*Phalaris minor*). Non-native forbs species noted include Italian thistle (*Carduus pycnocephalus*), rough cat's-ear (*Hypochaeris radicata*), English plantain (*Plantago lanceolata*), prickly lettuce (*Lactuca serriola*), and bristly ox-tongue (*Helminthotheca echioides*). Native species observed include centaury (*Zeltnera* sp.), goosefoot (*Chenopodium* sp.) and man root (*Marah* sp.) (Figures 2 and 3).

*California bay (Umbellularia californica) woodland.* The California bay woodland occurs along Llama Creek located along the southern boundary line (Fig. 4). California bay is the dominant tree canopy with an understory of non-native grassland. Other tree species noted include willows (*Salix laevigata*, *S. lasiolepis*), coast live oak (*Quercus agrifolia*), and California buckeye (*Aesculus californica*). Understory vegetation included non-native and invasive species such as English ivy (*Hedera helix*), periwinkle (*Vinca major*), Italian thistle and Himalayan blackberry (*Rubus armeniacus*). One native species, bedstraw (*Galium aparine*) was also observed.

*Potential seasonal wetland.* A formal wetland delineation was conducted for the site on May 20, 2019. The routine on-site delineation method was used for the site based on the USACE manuals and guidelines. Two small seasonal wetlands have been mapped for the site. A 0.014 acre wetland labeled as W-1 was mapped in the extreme northeastern corner and this wetland is associated with a drainage ditch (Exhibit A). This area was identified in the previous 2018 report as a potential wetland area. Another 0.008 wetland area was mapped as part of the delineation, labeled as W-2, and is located in the southeasterly portion of the site in a slight depression. Wetland plants associated with these two area include Himalayan blackberry, tall flat sedge (*Cyperus eragrostis*), dense sedge (*Carex densa*), spreading rush (*Juncus patens*), and fiddle dock (*Rumex pulcher*). The total of seasonal wetlands on site is 0.022 acres.

A portion of the drainage ditch that occurs in the northern portion of the project area (Exhibit A and Fig. 5 and 6) has been mapped as "waters of the U.S." as this portion of the ditch has an identifiable ordinary high water mark (OHWM) but lacks wetland vegetation (labeled as D-2). This ditch flattens out and goes across the field toward the southwestern. This area has been mapped as a drainage swale but because there is no identifiable OHWM it is considered to be not jurisdictional. Another small portion of the same drainage at the extreme southwestern end (labeled as D-1) associated with the culvert under the entrance road is also mapped as a waters of the U.S. as this area also has an OHWM.

A drainage swale occurs along the eastern fence line. This area has also been mapped as a non-jurisdictional feature since it lacks an OHWM. Llama Creek (also labeled as D-3) qualifies as a waters of the U.S. and

state and the OHWM is approximately 10 feet wide in the southwest corner and widens to 15-feet wide in the southeast corner.

### **Waters of the U.S. and State**

Llama Creek, a tributary to Browns Valley Creek, qualifies as waters of the U.S. and state and would be under the jurisdiction of the U.S. Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB). This drainage shows up as blue-line drainage on the USGS topographic quadrangle, and will also be under the jurisdiction of the CDFW. Llama Creek is approximately 10-feet wide at the OHWM at the southwestern corner and approximately 15-feet wide at the northeastern corner of the project site (Exhibit A).

A portion of the drainage swale that has an identifiable OHWM that runs from the northeastern corner to the southwestern corner has also been mapped as a waters of the U.S. and state. The drainage labeled as D-1 and D-2 is approximately 2 feet wide at the OHWM.

Two potential seasonal wetland areas (W-1 and W-2) have been mapped within the project study area that potentially qualify as jurisdictional wetlands and would also be under the jurisdiction of the USACE and RWQCB based on the formal delineation that was conducted for the site on May 20, 2019. The delineation is considered to be preliminary until it has been verified by the USACE.

### **Wildlife Habitats**

The value of a site to wildlife is influenced by a combination of the physical and biological features of the immediate environment. Species diversity is a function of diversity of abiotic and biotic conditions and is greatly affected by human use of the land. The wildlife habitat quality of an area, therefore, is ultimately determined by the type, size, and diversity of vegetation communities present and their degree of disturbance. Wildlife habitats are typically distinguished by vegetation type, with varying combinations of plant species providing different resources for use by wildlife. The following is a discussion of the wildlife species supported by the on-site habitats, as described by *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988). The California Wildlife Habitat Relationship (CWHR) habitat classification scheme was developed by the CDFW to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. A description of the species supported in each habitat is presented below.

*Annual grasslands:* Non-native grasslands typically provide foraging, hunting and nesting habitat for a wide variety of wildlife species. Small species using this habitat as primary habitat include reptiles and amphibians, such as southern alligator lizard (*Gerrhonotus multicarinatus*), western fence lizard and Pacific slender salamander (*Batrachoseps attenuatus*), which feed on invertebrates found within and beneath vegetation and rocks within the vegetation community. The grasslands on the site are typical of cattle grazed non-native grasslands and provide habitat for small mammals, such as meadow vole (*Microtis californicus*), and Botta's pocket gopher (*Thomomys bottae*), the evidence of which was observed primarily on the west side of the parcel. Other species potentially occurring on the site include opportunistic small mammals, such as western harvest mice (*Reithrodontomys megalotis*) and house mice (*Mus musculus*), which are attracted to nearby anthropogenic structures. Ground nesting passerines (perching birds), such as California quail (*Lophortyx californicus*), mourning dove (*Zenaidura macroura*), and meadowlark (*Sturnella neglecta*) are a few seed-eaters that nest and forage in grasslands, if feral cats are not in high numbers. Avian species inured to human habitation, such as California towhee (*Pipilo crissalis*), Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), American kestrel (*Falco sparverius*), and western scrub-jay (*Aphelocoma californica*) forage and hunt in the grasslands but may nests in the trees, were observed on the property and likely nest on the parcel.

*Bay Woodland:* This habitat type contains food for species such as chestnut-backed chickadee (*Poecile rufescens*), Stellar's jay (*Cyanocitta stelleri*), white-breasted nuthatch (*Sitta carolinensis*) and warbling vireo (*Vireo gilvus*). These species are bark gleaners, eating insects that are in the bark of trees, as well as catching

insects in flight. The spotted towhee (*Pipilo maculatus*) and brown towhee (*Pipilo fuscus*) glean insects from the foliage on the ground, such as under leaf litter and plants. Anna's hummingbirds (*Calypte anna*) use vines growing around trees for nectar and for insects that are attracted to the nectar. Other species, such as the great horned owl (*Bubo virginianus*) and Cooper's hawk (*Accipiter cooperii*), use the tall trees as roosting and foraging sights during the day. The western gray squirrel (*Sciurus griseus*) and gray fox (*Urocyon cinereoargenteus*) both feed on truffles, mushrooms, fruits, and nuts within the forest. Several of the trees were of a diameter large enough to support roosting bats species, such as long-eared myotis (*Myotis evotis*), long-legged myotis (*Myotis volans*), Yuma myotis (*Myotis yumanensis*), California myotis (*Myotis californicus*), big brown bat (*Eptesicus fuscus*), silver-haired bat (*Lasionycteris noctivagans*) and pallid bat (*Antrozous pallidus*), a California Species of Special Concern (SSC).

*Fresh Emergent Wetland:* None of the wetlands supported ponding water. Rather they provided an above-ground moisture that is important to amphibians as they move across a landscape. Amphibian species potentially using the fresh emergent wetland include the Pacific chorus frog (*Pseudacris regilla*) and western toad (*Bufo boreas*). Vertebrate species that may opportunistically forage within the fresh emergent wetland within the study area include great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), and raccoon (*Procyon lotor*), among others, feeding on amphibians. Aerial foraging species that hunt over marshy areas that supported winged insects include various swallow species, such as tree swallow (*Tachycineta bicolor*), and bat species, such as myotis (*Myotis* sp.).

*Individual Trees.* Individual trees are foraging and nesting habitat for passerines, and roosting habitat for bats. Smaller passerines, such as chestnut-backed chickadee (*Poecile rufescens*), bushtit (*Psaltriparus minimus*), plain titmouse (*Baeolophus inornatus*) and acorn woodpecker (*Melanerpes formicivorus*) may nest and forage in the larger trees, feeding on insects on the bark. No large cavities that may support the larger raptors, such as great horned owl (*Bubo virginianus*), were observed in any of the trees. Cavities in the bay trees may provide potential nesting habitat for tree swallows (*Tachycineta bicolor*) and white-breasted nuthatch (*Sitta carolinensis*) (Fig. 7).

Bats that use trees fall into three categories: 1) solitary, obligate tree-roosting bats that roost in the foliage or bark such as Western red-bat (*Lasiurus blossevillii*), or hoary bat (*Lasiurus cinereus*); 2) colonial tree-roosting bats that form groups of varying size in tree cavities or beneath exfoliating bark, such as silver-haired bats (*Lasionycteris noctivagans*), and 3) more versatile bat species that will use a wide variety of roosts from buildings to bridges to trees, such as various *Myotis* species, pallid bat (*Antrozous pallidus*), and others.

Solitary-roosting bats consist either of females either alone or with young, or solitary males. Colonial-roosting bats may form maternity colonies in tree cavities or crevices, caves, mines, bridges, or other man-made structures. During the day, these roosts provide shelter and protection for adult females and their young, which remain in the roost while females forage at night, returning to nurse and care for their young. Greater impacts to bats can occur as a result of removal of trees that support cavity-roosting bat species than those that provide habitat for solitary foliage-roosting species.

### **Movement Corridors**

Wildlife movement includes migration (i.e., usually one way per season), inter-population movement (i.e., long-term genetic flow) and small travel pathways (i.e., daily movement corridors within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene flow among populations.

These linkages among habitat types can extend for miles between primary habitat areas and occur on a large scale throughout California. Habitat linkages facilitate movement among populations located in discrete areas and populations located within larger habitat areas. The mosaic of habitats found within a large-scale landscape results in wildlife populations that consist of discrete sub-populations comprising a large single



population, which is often referred to as a meta-population. Even where patches of pristine habitat are fragmented, such as occurs with coastal scrub, the movement between wildlife populations is facilitated through habitat linkages, migration corridors and movement corridors. Depending on the condition of the corridor, genetic flow between populations may be high in frequency, thus allowing high genetic diversity within the population, or may be low in frequency. Potentially low frequency genetic flow may lead to complete isolation, and if pressures are strong, potential extinction (McCullough 1996; Whittaker 1998).

As described in the *California Essential Connectivity Project* (Spencer, et al. 2010), the study area is located in North Coast Ecoregion (Spencer et al. 2010). The natural drainages in the area (e.g., Browns Valley Creek) flow east into the Napa River, south into the Carquinez Straits, west into San Pablo Bay and San Francisco Bay and ultimately into the Pacific Ocean. The Study Area is not within a Natural Landscape Block (defined as relatively natural habitat blocks that support native biodiversity). The study area is not located in an Essential Connectivity Area (defined as areas that are essential for ecological connectivity between blocks) (Spencer et al. 2010).

Movement corridors for large and small mammals occur between this parcel and potentially occupied parcels to the north and south. The parcel is in direct line between the undeveloped areas of west of the site and Browns Valley Creek, which is located approximately 640 feet south of the project area.

There are no barriers to movement between this site and other undeveloped lands. Several man-made ponds occur in the vicinity of the site, with the closest being 3,464 feet upstream of the unnamed tributary, north-northwest of the site. Although the upland habitat will be fully developed the tributary to Browns Valley Creek will not and will provide a movement corridor for wildlife.

## **SPECIAL STATUS BIOLOGICAL RESOURCES**

Certain vegetation communities, and plant and animal species are designated as having special status based on their overall rarity, endangerment, restricted distribution, and/or unique habitat requirements. In general, special status is a combination of these factors that leads to the designation of a species as sensitive. The Federal Endangered Species Act (FESA) outlines the procedures whereby species are listed as endangered or threatened and established a program for the conservation of such species and the habitats in which they occur. The California Endangered Species Act (CESA) amends the California Fish and Wildlife Code to protect species deemed to be locally endangered and essentially expands the number of species protected under the FESA.

### **Special Status Vegetation Communities**

No special status vegetation communities have been reported in the CNDDDB for the two topographic quadrangles Napa and Sonoma (CNDDDB 2018). The California Bay woodland riparian did not show up on the CNDDDB but CDFW considers this to be a sensitive natural community and it shows up on the Natural Communities List (CDFW 2010). In addition, one small area of native creeping wildrye grass was observed but this area is not large enough to qualify as a separate vegetation type. The potential seasonal wetlands mapped for the site would also be considered a sensitive natural community and require mitigation if impacted. Drainages and their associated riparian woodland communities will be mostly avoided by establishing creek setbacks in accordance with the County's rules and regulations. However, the project will have one creek outfall that will occur at top of bank. A Streambed Alteration Agreement form the CDFW will be obtained for this structure.

### **Special Status Plant Species**

The CDFW has compiled a list of "Special Plants" (CDFW 2018), which include California Special Concern species. These designations are given to those plant species whose vegetation communities are seriously threatened. Although these species may be abundant elsewhere they are considered to be at some risk of extinction in California. Although Special Concern species are afforded no official legal status under FESA

or CESA, they may receive special consideration during the planning stages of certain development projects and adverse impacts may be deemed significant under the California Environmental Quality Act (CEQA).

A total of 37 special status plant species have been reported occurring on the two topographic quadrangles (CNDDDB 2018). See Appendix B for a list of the species evaluated.

The following set of criteria has been used to determine each species' potential for occurrence on the site in Appendix A:

- **Present:** Species is known to occur on the site, based on CNDDDB records, and/or was observed onsite during the field survey(s).
- **High:** Species is known to occur on or near the site (based on CNDDDB records within 5 miles, and/or based on professional experience) and there is suitable habitat onsite.
- **Moderate/Low:** Species is known to occur in the vicinity of the site, but there is only marginal habitat onsite -OR- species is not known to occur in the vicinity of the site, however, the site is within the species' range and there is suitable habitat onsite.
- **None:** There is no suitable habitat for the species onsite -OR- species was surveyed for during the appropriate season with negative results.

The majority of these species are not expected to occur within the project study area due to lack of habitat. The site does not have any serpentine, rhyolitic, sandy or alkaline soils and there is no coastal scrub, coastal prairie, closed-cone coniferous forest, North Coast coniferous forest, lower montane coniferous forest, chaparral, meadows and seeps or marshes and swamps within the proposed development area.

The grassland habitat and the potential seasonal wetlands on the site provide potential habitat for four special status plants. Seasonal surveys for special status plants were conducted on April 22, May 20, and June 13, 2019 for the project study area. The surveys were timed to correspond the flowering period for all special status plants with the potential to occur based on the presence of potential habitat. The 2018-2019 rainfall season was one of above average rainfall and for some plants the flowering season was delayed but by the April 22 and May 20, 2019 site visits all of the early season plants would have been identifiable. The June 2018 and 2019 surveys covered the later flowering plants.

No special status plants were observed during the 2018 and 2019 surveys and none are expected to occur. The site is dominated by non-native grasses, specifically Harding grass, which is an aggressive and noxious species, and which is likely to exclude establishment of native plants. Some common herbaceous native plants were observed, such as dense sedge, spreading rush, creeping wildrye, man root (*Marah fabaceus*), miner's lettuce (*Claytonia perfoliata*), and centaury (*Zeltnera muehlenbergii*). Although present on the site they represent a small portion of the overall herbaceous plant cover. No further studies are required.

### **Special Status Animal Species**

Special status animal species include those listed by the USFWS (2018) and the CDFW (2018). The USFWS officially lists species as either Threatened or Endangered, and as candidates for listing. Additional species receive federal protection under the Bald Eagle Protection Act (*e.g.*, bald eagle, golden eagle), the Migratory Bird Treaty Act (MBTA), and state protection under CEQA Section 15380(d). Under FESA, the term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct and includes significant habitat modification or degradation that results in significantly impairing essential behavioral patterns including breeding, feeding, or sheltering.

In addition, many other species are considered by the CDFW to be Species of Special Concern; these are listed in Shuford and Gardali (2008), Williams (1986), and Thomson et al. (2016). Although such species are afforded no official legal status under the California Endangered Species Act, they are on a watch for conservation planning and management as it pertains to the California Environmental Quality Act and as such, they may receive special consideration during the planning and CEQA review stages of certain development projects. The CDFW further classifies some species under the following categories: "fully

protected", "protected fur-bearer", "protected amphibian", and "protected reptile". The designation "protected" indicates that a species may not be taken or possessed except under special permit from the CDFW; "fully protected" indicates that a species can be taken for scientific purposes by permit only. Take under CESA is defined as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

Of the 19 special status animal species identified as potentially occurring in the vicinity of the project area, including within a 3-mile radius (CNDDDB 2018), several additional species were evaluated for their potential to occur within the study area, based on: 1) review of the Information for Planning and Conservation (IPaC) for the study area (USFWS 2018), 2) the "Special Animals" list (CDFW 2018) that includes those wildlife species whose breeding populations are in serious decline, and 3) the habitat present on site. For those species with no suitable potential habitat on the site (i.e. saltmarsh), no further analysis was conducted. See Appendix C for a list of the 34 species evaluated. Several of these species have a high potential for occurrence at the project site and are discussed below. Species that have no likelihood to occur on site but are prominent in today's regulatory environment (e.g., California red-legged frog) are also discussed below.

Insects: Obscure bumble bee and Western bumble bee

*Status*: CNDDDB watch list

*General Ecology and Distribution*: The western bumble bees are solitary, ground nesting bees and have only one generation per year, like their pollen host plants (Thorp and Leong 1998). Most of the annual life cycle of the bees is spent underground as immatures in the brood cell, feeding and growing as larvae in spring, resting through the summer followed by a brief spurt of pupation in early autumn, and finally resting overwinter as adults in their natal cells (Thorp and Leong 1998). As adults, activities (i.e., mating, nest construction, foraging, brood cell provisioning, and egg laying) are limited primarily to the bloom period of their pollen host plants (Thorp and Leong 1998). These bees are "inhabitants" and not merely "passers through". They are totally dependent on the pollen from their specific host plant genera for the production of their progeny and thus for their survival (Thorp and Leong 1998).

*Project Area Occurrence*: No specie specific surveys were conducted for this habitat assessment. These insects are closely tied to the native plants on the site. Measures to retain native plants on the site will protect the bees. See Impacts and Mitigation Measures for recommendations to further enhance habitat for native bees.

Foothill Yellow-legged Frog (*Rana boylei*) (FYF)

*Status*: CDFW Candidate Threatened

*General Ecology and Distribution*: This species typically inhabits rocky streams, preferring streams with cobble sized substrates (Hayes and Jennings 1988). Occupied drainages range from sea level to 2,040 meters (6,700 feet) (Hayes and Jennings 1988). Streams in woodland, chaparral or forest with little to no bank vegetation cover are also preferred (Stebbins 2003). *R. boylei* prefers small to moderate sized streams with at least some cobble-sized substrate (Thomson et al. 2016). Breeding occurs from mid-March to May, depending on rains, with tadpoles metamorphosing in June or July, which then move into the nearby tributaries from the mainstem creeks and rivers.

*Project Area Occurrence*: No surveys were conducted for this species as part of this habitat assessment. This species has not been reported within 1 miles of the proposed project area (CNDDDB 2018). Although the tributary has cobblestone, there were no pools present at the time of the June survey to support adult or metamorph foothill yellow-legged frog. In addition, the canopy cover is approximately 100%. There is a low potential that the tributary is used by foothill yellow-legged frog to move through from Browns Valley Creek to the upper portion of the tributary. However, there are no reported sightings in the area. No suitable breeding aquatic habitat occurs on the site. Therefore, no further action is required.

California Red-legged Frog (*Rana draytonii*) (CRF)

*Status*. USFWS Threatened with Critical Habitat, CDFW Species of Special Concern.

*General Ecology and Distribution*. California red-legged frogs breed primarily in ponds, but will also breed in slow moving streams, or deep pools in intermittent streams. Inhabited ponds are typically permanent, at least 2 feet (0.6 meters) in depth, and contain emergent and shoreline vegetation. Sufficient pond depth and shoreline cover are both critical, because they provide means of escape from predators of the frogs (Stebbins 2003, Tatarian 2008). Non-breeding CRF have been found in both aquatic and upland habitats. Although the majority of individuals prefer dense, shrubby or emergent vegetation, closely associated with deep (>0.7 meters) still, or slow moving water, some individuals use habitats that are removed from aquatic habitats (Tatarian 2008).

*Project Area Occurrence*. No surveys were conducted for this species as part of this habitat assessment. The proposed project is within the species range. However, a review of occurrences within a one-mile radius, as required by the *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (USFWS 2005), reveals no occurrences of California red-legged frog. The closest reported occurrence is 2.87 linear miles north-northwest in Redwood Canyon (CNDDDB 2018).

In 2002, surveys of existing reservoirs in Browns Valley were conducted according to the 1997 *Interim Guidance on Site Assessment and Field Surveys for California Red-Legged Frog* (USFWS 1997). A total of 6 ponds and reservoirs were surveyed between July and August and included two daytime surveys (with a dipnetting component) and two nocturnal surveys. The ponds, all man-made stock ponds, ranged in elevation between 425 feet and 650 feet above mean sea level (Wildlife Research Associates 2002) and varied in size between 8 meters in diameter and 60 meters in diameter. During the 2002 surveys, no California red-legged frog larvae, metamorphs or adults were observed on site (Wildlife Research Associates 2002). Amphibian species observed included bullfrog (*Lithobates catesbeianus*), as well as larvae of Pacific tree frog (*Hyla regilla*), western toad (*Bufo boreas*) and California newt (*Taricha torosa*). Based on these negative findings, the potential for California red-legged frog to use the drainage is low.

Western Pond Turtle (*Emys marmorata*) (WPT)

*Status*: CDFW Species of Special Concern

*General Ecology and Distribution*: This medium sized turtle ranges in size to just over 8 inches (21cm) with a low carapace that is generally olive, brownish or blackish (Stebbins 2003, Thomson et al. 2016). Primary habits include permanent water sources such as ponds, streams and rivers. It is often seen basking on logs, mud banks or mats of vegetation, although wild populations are wary and individuals will often plunge for cover after detecting movement from a considerable distance. Although it is an aquatic species with webbed feet, it can move across land in response to fluctuating water level, an apparent adaptation to the variable rainfall and unpredictable flows that occur in many coastal California drainage basins (Rathbun, et al. 1993). In addition, it can over-winter on land or in water or remain active in the winter, depending on environmental conditions (Rathbun, et al. 1993; Thomson et al. 2016). Females travel from aquatic sites into open, grassy areas to lay eggs in a shallow nest (Holland 1992; Rathbun, et al. 1993). Nests have been reported from 2-400 meters or more away from water bodies (Thomson et al. 2016).

*Project Area Occurrence*: No surveys were conducted for this species as part of this habitat assessment. This species is expected to occur in reservoirs located off-site. This species has been reported in a tributary to Carneros Creek to the southwest (CNDDDB 2018). There is no suitable aquatic habitat on the site. No further action is required.

Nesting Passerines – including oak titmouse, spotted towhee and song sparrow, among others

*Status*: USFWS Migratory Bird Treaty Act and CDFW Code 3503.

*General Ecology and Distribution:* As early as February, passerines begin courtship and once paired, they begin nest building, often around the beginning of March. Nest structures vary in shapes, sizes and composition and can include stick nests, mud nests, matted reeds and cavity nests. For example, black phoebes may build a stick nest under the eaves of a building. Depending on environmental conditions, young birds may fledge from the nest as early as May and, if the prey base is large, the adults may lay a second clutch of eggs.

*Project Area Occurrence:* No surveys were conducted for these species as part of this habitat assessment. Several passerine (perching birds) species may nest on the site in the various habitats, including, but not limited to, song sparrow in the grasslands and blackberry bushes, and white-breasted nuthatch in the trees. A nesting bird survey shall be conducted before removal of any of these habitats, and seasonal restrictions put into place for occupied habitats, to ensure no take of individuals will occur. See below for further details.

Nesting Raptors – red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), Cooper’s hawk (*Accipiter cooperi*)

*Status:* USFWS Migratory Bird Treaty Act and CDFW 3503.5

*General Ecology and Distribution:* Raptors nest in a variety of substrates including, cavities, ledges and stick nests. For example, Cooper's hawks are small bird hunters, hunting on the edges of forests in broken forest and grassland habitats where passerines forage for seeds and insects. Nests occur in heavily forested areas near a water source. Research sites on nesting Cooper's hawks rarely show the nests more than a quarter of a mile away from water, whether it is a cattle tank, stream or seep (Snyder and Snyder 1975). Trees typically used by Cooper's hawks include coast live oaks, cottonwoods, and black oaks (Call 1978), as well as second growth conifer stands or deciduous riparian areas. Most raptors build stick nests, except for American kestrels that nest in cavities. In general, the breeding season for raptors occurs in late March through June, depending on the climate, with young fledging by early August

*Project Area Occurrence:* No Surveys were conducted for these species as part of this habitat assessment. Foraging habitat for raptors, such as white-tailed kite and red-shouldered hawk, among others, occurs throughout the project area. The oak trees provide suitable nesting habitat for American kestrels. See below for further details.

Roosting bats – including Townsend’s big-eared bat (*Corynorhinus townsendii*), pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillii*) and hoary bat (*Lasiurus cinereus*).

*Status:* CDFW Species of Special Concern (SSC), as well as Fish and Wildlife Code Sections 86, 2000, 2014, 3007, Title 14, Sections 15380, 15382

Within California, 25 bats species occur, of which 11 are classified as SSC (CDFW 2018). One SSC bat species that often roosts in structures or suitable trees in those areas where they occur is the pallid bat (*Antrozous pallidus*). Removal of occupied roosts without prior humane eviction or other actions approved by the CDFW would result in “take”, defined under the CESA as “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill”.

In addition to the SSC bat species above, non-SSC species are also afforded consideration under the California Environmental Quality Act (CEQA), primarily when significant local breeding populations may be impacted. This includes two more common and widely-distributed bat species, Yuma myotis (*Myotis yumanensis*) and Brazilian free-tailed bat (*Tadarida brasiliensis*), which can form very large colonies, often in features such as those found in buildings.

*General Ecology and Distribution:* Bats in this region of California are not active year-round and their activity periods can be split into two distinct seasons, the maternity season and the winter season. During the maternity season, non-volant young (those not capable of flight) of colonial bats remain in the roost until late summer (end of August), after which they may disperse from the natal roost or remain into or throughout the

winter. During the winter season, bats typically enter torpor, rousing only occasionally to drink water or opportunistically feed on insects. The onset of torpor is dependent upon environmental conditions, primarily temperature and rainfall.

California bats include colonial and solitary roosting species. Colonial bats are those that roost in groups of dozens to many thousands. *C. townsendii* roosts colonially, and often in the types of structures that occur within the local area. Pallid bats, an SSC species, are eclectic in their roosting habitat selection, and to some extent distribution, and can be found in crevices and small cavities in rock outcrops, tree hollows, mines, caves, and a wide variety of man-made structures such as buildings, bridges and culverts, generally in lower to mid-elevation sites. This species forms maternity colonies, composed of dozens to sometimes hundreds of females and their young, and smaller bachelor colonies composed of males and not-yet reproductive females. Non-SSC species, include Brazilian free-tailed bats (*Tadarida brasiliensis*), Yuma myotis (*Myotis yumanensis*), big brown bat (*Eptesicus fuscus*), and other *Myotis* species. These species may form significant local breeding populations, which usually occur in buildings, bridges or culverts, as well as tree cavities.

Obligate tree-roosting bats include another SSC species that could occur in the project area; western red bat (*Lasiurus blossevillii*). An obligate tree-roosting species, *L. blossevillii* uses tree foliage, typically of large-leaved trees such as cottonwood (*Populus fremontii*) and others, but is also associated with orchards where suitable canopy density occurs. *L. blossevillii* females roost singly and with 2-6 pups during maternity season, and there is evidence that *L. blossevillii* is often faithful to selected trees. Suitable potential tree canopy habitat is present within the alignment for this species, as well as for a non-SSC tree-roosting species, hoary bat (*Lasiurus cinereus*). Obligate tree-roosting bat species, and to some extent, colonial bats, may switch tree roosts frequently, particularly after young are volant, but are sometimes faithful for longer periods (weeks).

**Potential for Occurrence:** Dense canopy that provides suitable potential roost habitat for *L. blossevillii* and *L. cinereus* within the western portion of the project site. **Of the 25 trees evaluated for their suitability for roosting bats, a total of six trees have potentially suitable habitat for canopy-roosting, obligate tree bats. Those trees are presented in the table below.**

**Table 1: Trees with Suitable Potential Bat Roost Habitat – Borrette Lane, Napa**

Tree Tag #	Tree Species	Potential Roosting Habitat Type
1	White alder	Canopy habitat suitable for obligate tree-roosting bats
8	plum	Canopy habitat suitable for obligate tree-roosting bats
9	Colorado spruce	Adjacent to canopy habitat for obligate tree-roosting bats
7	Coast live oak	Canopy habitat suitable for obligate tree-roosting bats
10	Coast live oak	Canopy habitat suitable for obligate tree-roosting bats
21	Bay laurel	Canopy habitat suitable for obligate tree-roosting bats

**In addition, two snags are present along Llama Creek to the north of #20, a big leaf maple in the meadow. Although these two snags do not provide suitable potential roost habitat, they are adjacent to a coast live oak tree with potentially suitable canopy and cavity habitat for roosting bats.**

**These two snags also occur within 50 feet of several bays and oaks along the creek that contain suitable canopy roost habitat for obligate tree-roosting species as well as roost features which are suitable for colonial SSC bat species including pallid bats, as well as non-SSC species. None of these trees are proposed for removal at this time; however, they are within the disturbance zone of tree removal and the outfall placement.**

Please refer to the Impacts and Mitigation Measures for details on avoidance measures of roosting bats in trees on this site.

## **IMPACTS AND MITIGATION MEASURES**

This section summarizes the potential biological impacts within the study area. The analysis of these impacts is based on a single reconnaissance-level survey of the study area, a review of existing databases and literature, and personal professional experience with biological resources of the region. Potential impacts to special status biotic resources are identified as resulting from development of individual residences. Mitigations for these biological impacts are provided below.

This section summarizes the potential temporary biological impacts from construction activities within the study area. The analysis of these impacts is based on a single reconnaissance-level survey of the study area, a review of existing databases and literature, and personal professional experience with biological resources of the region.

CEQA Guidelines Sections 15206 and 15380 were used to determine impact significance. Impacts are generally considered less than significant if the habitats and species affected are common and widespread in the region and the state.

A species may be treated as rare or endangered even if it has not been listed under CESA or FESA. Species are designated endangered when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, disease or other factors.

For the purposes of this report, three principal components in the evaluation were considered:

- Magnitude of the impact (e.g., substantial/not substantial)
- Uniqueness of the affected resource (rarity)
- Susceptibility of the affected resource to disturbance (sensitivity)

The evaluation of significance must consider the interrelationship of these three components. For example, a relatively small-magnitude impact (e.g., disturbing a nest) to a state or federally listed species would be considered significant because the species is at low population levels and is presumed to be susceptible to disturbance. Conversely, a common habitat such as non-native grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact (e.g., removal of extensive vegetation) would be required for it to be considered a significant impact.

### **Wetlands and Waters of the U.S. and State:**

*Project Direct Impact:* All of seasonal wetland (W-1) will be avoided and a 10-foot setback from the ditch will be maintained. Approximately 20 linear feet of D-2 will be filled at the southern and the rest will be undisturbed. Approximately 6 linear feet of the D-1 ditch will also be culverted (see plans). The small seasonal wetland, W-2, located in Lot 3, cannot not be avoided and will be filled.

A new outfall is proposed for Llama Creek, a tributary to Browns Valley Creek, in the southeastern corner. The outfall will be placed above the OHWM of the creek so will be outside of the jurisdiction of the USACE but not CDFW and the RWQCB.

*Mitigation:* A Section 404 nationwide permit will need to be obtained from the USACE along with a 401 water quality certification from the RWQCB for placement of fill for the 0.008 wetland area in Lot 3 and for the new culvert at D-1 and fill of 20 linear feet at the southern portion of D-2. For the loss of 0.008 acres of wetlands, the applicant is proposing to do on-site mitigation by expanding the existing wetland W-1 and creating 813 square feet or 0.018 acres for a 2:1 mitigation to loss ratio. The non-native and invasive blackberry and other weeds will be removed and native wetland plants will be seeded and/or planted in the newly created wetland area. The area will be excavated slightly to match the elevation of the existing wetland and water will be allowed to pond creating the necessary hydrology to sustain the wetland plants.

Approximately 6 linear feet of ephemeral drainage labeled as D-1 and the approximately +/- 20 linear feet of the D-2 ditch that will be developed, will be mitigated by expanding the northern portion of D-1 an adding 30 linear feet for a total of 60 square feet which is a greater than 1:1 mitigation to loss ratio.

A formal mitigation plan will be prepared as part of the permit applications for the USACE and RWQCB. Mitigation will be at a 2:1 ratio so that 0.018 acres of wetland will be created on site to compensate for the loss of 0.008 acres of wetlands in Lot 3. There will a minimum of a ratio of 1:1 mitigation to loss for linear feet of drainage equaling approximately 60 square feet or 0.0014 acres as compensation for the loss of 6 linear feet at D-1 and 20 linear feet of D-2. All mitigation will be on site. If mitigation cannot be completed on site then other options for mitigation include the purchase of credits in an approved wetland mitigation bank, in-lieu fees, or off-site creation.

The new outfall for Llama Creek in the southeastern corner of the site will require a Streambed Alteration Agreement from CDFW and a 401 water quality certification from the RWQCB. At this time it is assumed that the outfall will not impact any USACE jurisdiction. A riparian habitat mitigation plan for impacts to any riparian vegetation along the creek may be required to compensate for the loss of any riparian habitat as a result of the construction of the new outfall. Mitigation would be in the form of planting of native trees and shrubs in degraded areas of the creek along with removal of invasive non-native species as part of a habitat restoration and mitigation plan. The plan would have a 5-year monitoring period and establish criteria for determining successful mitigation.

### **Special Status Plants**

No special status plants were observed in the project area during seasonal, protocol level surveys that were conduct in April, May and June 2019 and June 2018. None are expected to occur. There will be no impacts to special status plants.

### **Special Status Vegetation Community**

The California bay riparian forest along the unnamed tributary to Browns Valley Creek is considered a sensitive natural community and any wetlands would also fall into this category. Please refer to the Drainages and Seasonal Wetlands section above.

### **Wildlife Movement Corridors**

The open grasslands on the parcel allows for unimpeded movement. The proposed *subdivision* development will not impede movement by aquatic or terrestrial species.

### **Invertebrates**

Although two native bees pollinators are on the watch list for the CDFW, there is a moderate potential for them to occur on the site, based on the habitats present. Based on the proposed design, a sufficient amount of habitat will likely occur in the vegetative plantings for the development and in the remaining habitat along the tributary that will not cause a decrease in the number of individual native bees in this portion of Napa County.

#### *Recommendation*

Planting of native vegetation will benefit native bees. Species to be used include blue elderberry (*Sambucus nigra*) and Western redbud (*Cercis occidentalis*) along riparian corridors, and California fuchsia (*Epilobium canum*) and coyote bush (*Baccharis pilularis*), among others, in the upland habitats (Vaughan, et al. 2015). The native manzanitas, madrones and toyon are also bee food.

### **Vertebrates**

*Project Direct Impact.* California red-legged frogs may occur within the vicinity of the study area and may use the unnamed tributary to move between water bodies. A discharge pipe placed within the riparian corridor may impact **individual California red-legged frogs**. Consultation with the USFWS is recommended several months in advance of construction and may involve focused surveys by a qualified biologist to determine occupancy of the site. If focused surveys are conducted and no California red-legged



frogs are observed no further action is required. However, if individuals are observed the following Mitigation Measures are recommended.

*Project Mitigation:* The project proponent shall implement the following measures to minimize and avoid take of individual CRF, measures that would additionally benefit western pond turtle, if present.

- Immediately prior to the start of work, a pre-construction survey will be conducted in the construction area for CRF by a USFWS –approved biologist. If CRF are found the USFWS shall be notified, the project work shall stop and the relocation of the individual shall be completed with approval by the USFWS.
- A USFWS-approved biologist shall conduct an Employee Education Program for all construction personnel. At a minimum, the training will include a description of the CRF and their habitat, the importance of the species and their habitats, and the general measures that are being implemented to protect the CRF as they relate to the project. Instruction shall include the appropriate protocol to follow in the event CRF are found onsite.
- The number of access routes, number and size of staging areas and the total area of activity shall be limited to the minimum necessary to achieve the project goal. The Service-approved biological monitor will identify the boundaries of the work and staging area and ensure that that contractor does not disturb any ground outside the designated construction area. The contractor shall obtain approval from the monitor to go outside designated areas.
- A USFWS-approved biologist shall be present during initial grading activities. Thereafter, an onsite person shall be designated to monitor onsite compliance with all minimization measures. The USFWS-approved biologist shall ensure that this individual receives training consistent with that outlined in the Biological Opinion.
- Best Management Practices will be implemented during construction to prevent any construction debris or sediment from impacting adjacent habitat.
- During all phases of project operations, all trash that may attract CRF predators shall be properly contained and removed from the site.
- The fueling and maintenance of vehicles and other equipment shall occur at least 20 meters from any riparian habitat or water body.

**Significance after Mitigation:** Less than Significant.

*Project Direct Impacts:* **Passerines and raptors nesting** in the riparian trees and the lowlands within the project area could be impacted if construction occurs during the nesting season (March through August).

*Project Mitigation:* The following mitigation measures should be followed in order to avoid or minimize impacts to passerines and raptors that may potentially nest in the trees:

- 1) Grading or removal of nesting trees should be conducted outside the nesting season, which occurs between approximately February 1 and August 31.
- 2) If grading between August 31 and February 1 is infeasible and groundbreaking must occur within the nesting season, a pre-construction nesting bird (both passerine and raptor) survey of the grasslands and adjacent trees shall be performed by a qualified biologist within 7 days of ground breaking. If no nesting birds are observed no further action is required and grading shall occur within one week of the survey to prevent “take” of individual birds that could begin nesting after the survey.
- 3) If active bird nests (either passerine and/or raptor) are observed during the pre-construction survey, a disturbance-free buffer zone shall be established around the nest tree(s) until the young have fledged, as determined by a qualified biologist.
- 4) The radius of the required buffer zone can vary depending on the species, (i.e., 75-100 feet for passerines and 200-300 feet for raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist in consultation with CDFW.

- 5) To delineate the buffer zone around a nesting tree, orange construction fencing shall be placed at the specified radius from the base of the tree within which no machinery or workers shall intrude.

After the fencing is in place there will be no restrictions on grading or construction activities outside the prescribed buffer zones.

**Significance after Mitigation:** Less than Significant

*Project Direct Impacts:* Removal of trees may cause **direct mortality of roosting bats**, if the trees provide suitable roosting habitat and are removed during seasonal periods of inactivity (maternity season or winter).

### **Preventing Take of Bats in Trees During Tree Removal – General Discussion**

As with other types of roosts such as caves, mines, buildings bridges, etc., colonial and solitary bat species that roost in trees in this region are seasonally inactive. Unlike these other types of roosts however, bats cannot readily be humanely evicted from trees. This is because many trees have numerous cavities, crevices, or large areas of exfoliating bark suitable for colonial species that cannot be fitted with one-way exits or cannot even be safely worked on due to poor condition. This is particularly true of snags due to their extremely poor condition; however, snags provide some of the most preferred and substantial bat tree roost habitat. Evicting solitary tree bat species from trees containing suitably dense foliage also poses significant challenges.

Conducting visual surveys of tree habitat features is generally highly problematic due to difficulties with access to the entire tree, number of trees, inability to survey entire cavities, or visual clutter from foliage.

Emergence surveys of potential roost trees is only feasible where a few habitat trees occur, because only 1-2 trees can be surveyed each night per observer. Importantly, because bats tend to switch tree roosts more frequently than more stable roosts such as caves, mines, rock outcrops, buildings, bridges, or culverts, negative results have extremely limited temporal validity (24-48 hours), which would result in multiple mobilizations by tree cutters in order to remove trees immediately after a negative survey. In the event a tree is found to be occupied, a method for safely getting the bats out of the tree will still be needed.

Because of these challenges when conducting focused surveys, we often recommend presuming presence of bats where suitable roost features occur, rather than conducting focused presence or absence surveys, then removing trees only during seasonal periods of bat activity using a two-step process *conducted over two consecutive days* that we have developed, as described below. Two-step removal is conducted only during seasonal periods of bat activity because it relies on the ability of bats to fly, precluding seasonal periods when non-volant young or overwintering adults are present. This method provides the most reasonable and feasible opportunity for bats that could be present to abandon the roost tree prior to cutting and has been acceptable to CDFW for many previous tree removal projects on which we have previously worked.

Dates for parturition, weaning, flight, and self-sufficiency of bat pups varies widely by locale and species. The dates shown below are based on our observations of these variations in this region.

**Unless surveys determine no bats are present in trees containing suitable potential roost habitat, two- step removal of habitat trees must only occur between March 1 (or after evening temperatures rise above 45F and/or no more than 1/2" of rainfall within 24 hours occurs), and April 15, or between September 1 and October 15 (or before evening temperatures fall below 45F and/or more than 1/2" of rainfall within 24 hours occurs).**

Two-step habitat tree removal is conducted over two consecutive days, and relies on creating noise and vibration by first cutting adjacent non-habitat trees, followed by non-habitat branches and limbs from habitat trees first (Day 1) by using chainsaws only (no excavators or other heavy machinery). The noise and vibration disturbance, together with the visible alteration of the tree, is very effective in causing bats that emerge nightly to feed, to not return to the roost that night. The remainder of the habitat tree is removed the following day (Day 2).

A bat biologist qualified in two-step tree removal is required on Day 1 to supervise and instruct the tree-cutters who will be on the site conducting the work for a time sufficient to train all tree cutters who will conduct two-step removal of habitat trees. The bat biologist is generally not required on Day 2, unless a very large cavity is present and a large colony is suspected, or multiple tree cutting crews will be working on several different days.

In some situations, tree conditions may make visual surveys conducted from a ladder, man lift or boom truck feasible and possible. This can occur when roost features such as cavities, crevices or exfoliating bark can be completely surveyed, or when all areas of foliage can be viewed at eye-level. If these visual surveys can be conducted and results are negative, the trees can be removed outside of seasonal periods of bat activity.

To reduce potential direct mortality of solitary foliage-roosting bats such as *L. blossevillii* and *L. cinereus*, removal of understory and non-habitat trees should precede removal of habitat trees, to produce noise disturbance that will help to cause bats to abandon roost trees. This is not effective when non-volant young are present during maternity season, because females may not be able to carry all young as they develop in size, prior to volancy.

#### **Preventing Potential Take of Bats Resulting from Disturbance (Not Removal) of Roost Trees**

With many projects, trees with suitable potential bat roost habitat will not be removed but may occur within an area that will be disturbed by construction activities. Direct mortality could result if non-volant young are abandoned by mothers during maternity season, or if bats abandon the tree during daytime hours, making them subject to predation by birds, raptors, or other predators.

It is difficult to generalize about or quantify the level of disturbance required to cause roost abandonment, because there are many factors, such as duration and intensity of noise or other disturbance (e.g. visual), tolerance of bat species using the roost, distance from roost to disturbance, intervening structures or trees, or elevational differences that could mitigate the effects of noise, etc.

In situations where night emergence surveys or daytime visual surveys of roost features are possible and feasible, and results are negative, no impacts would be expected to occur. However, it may be necessary to presume presence, and then establish a suitable no-disturbance buffer around habitat trees. Alternatively, wherever possible, construction activities could be scheduled to begin outside maternity season or winter torpor months. Other strategies could include beginning work in areas with little or no suitable potential habitat or beginning work close to the end of maternity season (mid-August), when young bats would be volant, even if they are not yet completely self-sufficient.

**Project Mitigation: The bat habitat assessment conducted on July 1, 2019 identified 6 tagged trees within the project boundary that contain suitable potential habitat features. Table 2 below provides specific recommendations. Because the habitat assessment was conducted in 2019 and work will not be conducted until 2022, tree conditions may have changed, so an updated bat habitat assessment will be required. Trees identified as potential bat habitat, providing canopy, cavity, crevice, or exfoliating bark roosting habitat, should be field located and marked prior to tree removal.**

1. Conduct tree removal only:
  - a. Under instruction and initial direct supervision of a qualified bat biologist experienced with two-step tree removal procedures and;
  - b. During seasonal periods of bat activity: only between March 1 (or after evening temperatures rise above 45F and/or no more than 1/2" of rainfall within 24 hours occurs), and April 15, or between September 1 and October 15 (or before evening temperatures fall below 45F and/or more than 1/2" of rainfall within 24 hours occurs) and;
  - c. Within 24 hours of removal of non-bat habitat trees.
2. Habitat trees are to be removed over two consecutive days by first cutting non-habitat branches and limbs from habitat trees as shown in Table 2 below on Day 1 using chainsaws only (no excavators or other heavy machinery). The remainder of the habitat tree is removed the following day (Day 2).

**Table 2: Recommendations for Trees With Suitable Potential Bat Roost Habitat**

Tree Tag #	Tree Species	Potential Roosting Habitat Type	Recommendation
1	White alder	Canopy habitat	<ol style="list-style-type: none"> <li>1) Remove only during seasonal periods of bat activity (see text);</li> <li>2) 1-2 days prior to removing bat habitat trees, remove all non-habitat trees and other vegetation;</li> <li>3) Chip all cut trees on-site to provide noise disturbance;</li> <li>4) Begin removal of bat habitat tree by cutting lower limbs first, moving up into canopy, then cutting main stem to fall tree.</li> </ol>
8	plum	Canopy habitat	<ol style="list-style-type: none"> <li>1) Remove only during seasonal periods of bat activity (see text);</li> <li>2) 1-2 days prior to removing bat habitat trees, remove all non-habitat trees and other vegetation;</li> <li>3) Chip all cut trees on-site to provide noise disturbance;</li> <li>4) Begin removal of bat habitat tree by cutting lower limbs first, moving up into canopy, then cutting main stem to fall tree.</li> </ol>
9	Colorado spruce	Adjacent to canopy habitat	<ol style="list-style-type: none"> <li>1) Remove only during seasonal periods of bat activity (see text);</li> <li>2) 1-2 days prior to removing bat habitat trees, remove this and all other non-habitat trees and other vegetation;</li> <li>3) Chip on-site to provide noise disturbance.</li> </ol>
7	Coast live oak	Canopy habitat	<ol style="list-style-type: none"> <li>1) Remove only during seasonal periods of bat activity (see text);</li> <li>2) 1-2 days prior to removing bat habitat trees, remove all non-habitat trees and other vegetation;</li> <li>3) Chip all cut trees on-site to provide noise disturbance;</li> <li>4) Begin removal of bat habitat tree by cutting lower limbs first, moving up into canopy, then cutting main stem to fall tree.</li> </ol>
10	Coast live oak	Canopy habitat	<ol style="list-style-type: none"> <li>1) Remove only during seasonal periods of bat activity (see text);</li> </ol>

Tree Tag #	Tree Species	Potential Roosting Habitat Type	Recommendation
			<ul style="list-style-type: none"> <li>2) 1-2 days prior to removing bat habitat trees, remove all non-habitat trees and other vegetation;</li> <li>3) Chip all cut trees on-site to provide noise disturbance;</li> <li>4) Begin removal of bat habitat tree by cutting lower limbs first, moving up into canopy, then cutting main stem to fall tree.</li> </ul>
21	Bay laurel	Canopy habitat	<ul style="list-style-type: none"> <li>1) Remove only during seasonal periods of bat activity (see text);</li> <li>2) 1-2 days prior to removing bat habitat trees, remove all non-habitat trees and other vegetation;</li> <li>3) Chip all cut trees on-site to provide noise disturbance;</li> <li>4) Begin removal of bat habitat tree by cutting lower limbs first, moving up into canopy, then cutting main stem to fall tree.</li> </ul>

In addition to trees within the project boundary, there are also trees along Llama Creek, located outside the project boundary but within a disturbance area of the outfall area, that will not be removed, but contain suitable potential habitat features including dense canopy and cavities, crevices and exfoliating bark. These trees were not marked or flagged during the habitat assessment because they will not be removed. Table 3 provides specific recommendations for these trees.

**Table 3: Recommendations for Trees along Llama Creek with Suitable Potential Bat Roost Habitat**

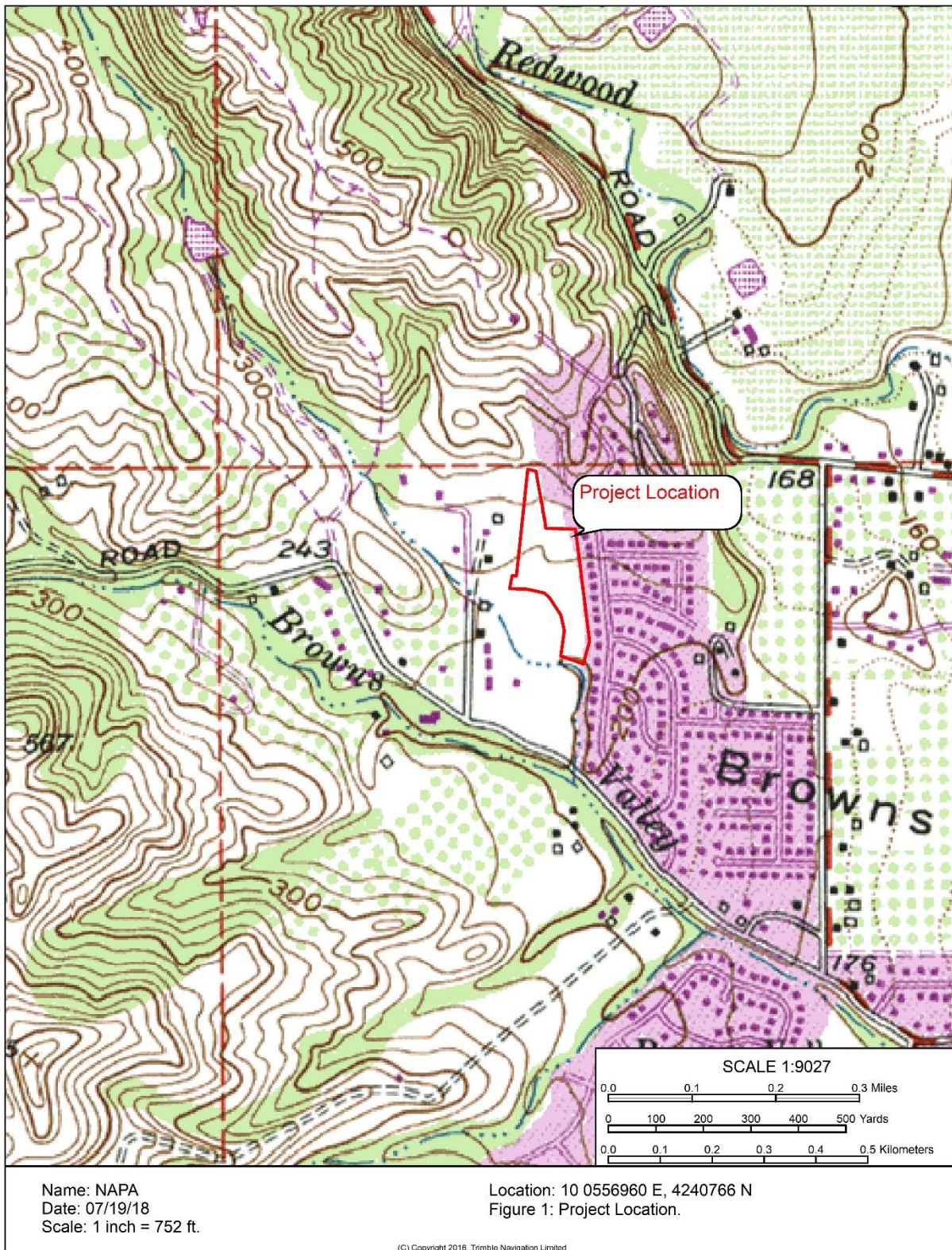
Tree locations	Potential Roosting Habitat Type	Recommendation
Llama Creek	Canopy and cavity	<ul style="list-style-type: none"> <li>1) Conduct removal of trees within the project boundary only during seasonal periods of bat activity (see text).</li> <li>2) Do not trim, remove, or damage any trees outside the project boundary.</li> </ul>

In addition to trees within the project boundary and those along Llama Creek, there are trees along the western fenceline that are located on an adjacent property, several of which are growing over the fenceline onto the proposed project area. These trees contain only minimally-suitable canopy habitat; no additional restrictions apply to these trees.

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**FIGURE 1: LOCATION MAP**





Figure 2. Non-native grasslands looking north.



Figure 3. Non-native grasslands looking southeast.



Figure 4. Drainage along southern boundary.

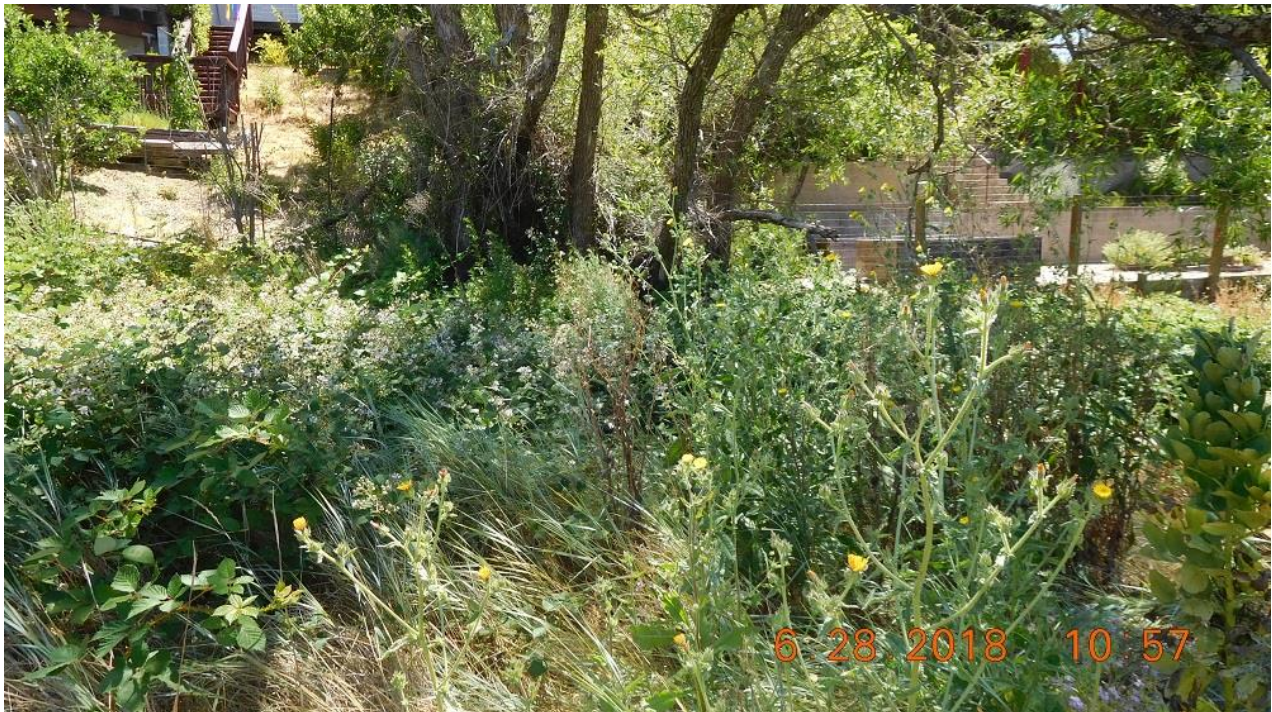


Figure 5. Blackberries in seasonal drainage on north side of parcel.



Figure 6: Potential waters of the U.S. that will be avoided.

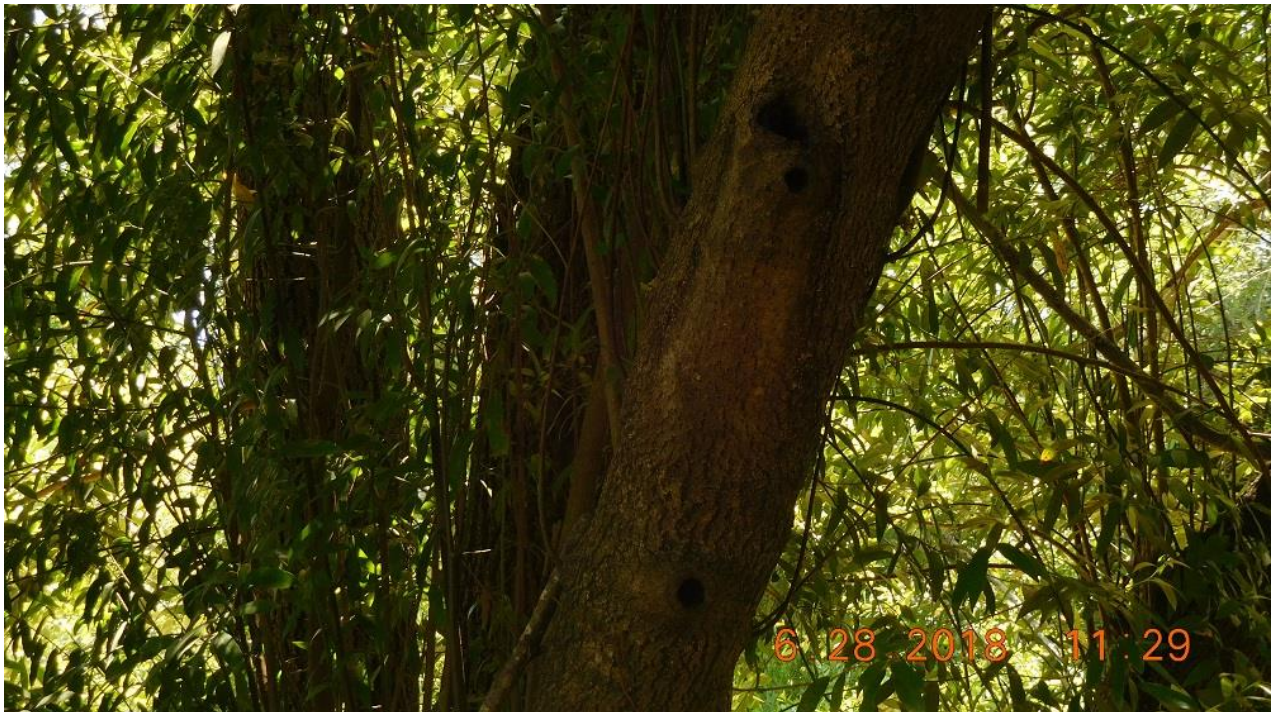


Figure 7: Bay tree on southern drainage with cavities.

## APPENDIX A: FEDERAL, STATE AND LOCAL PLANS, POLICIES, REGULATIONS AND ORDINANCES

### **Federal Endangered Species Act (FESA) - U.S. Fish and Wildlife Service**

Pursuant to ESA, the U.S. Fish and Wildlife Service (USFWS) has regulatory authority over federally listed species. Under ESA, a permit to “take” a listed species is required for any federal action that may harm an individual of that species. Take is defined under Section 9 of ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Under federal regulation, take is further defined to include habitat modification or degradation where it would be expected to result in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Section 7 of ESA requires all federal agencies to consult with USFWS to ensure that their actions are not likely to “jeopardize the continued existence” of any listed species or “result in the destruction or adverse modification” of designated critical habitat. No federal approvals or other actions are anticipated as being required to implement the project at this time. Therefore, consultation under Section 7 of ESA is not expected. However, if USACE determines that wetlands and/or other waters of the United States on the project site are subject to protection under Section 404 of the CWA, or any other federal action becomes necessary, consultation under Section 7 of ESA would be required.

For projects where federal action is not involved and take of a listed species may occur, the project proponent may seek to obtain a permit for incidental take under Section 10(a) of ESA. Section 10(a) of ESA allows USFWS to permit the incidental take of listed species if such take is accompanied by a habitat conservation plan (HCP) that includes components to minimize and mitigate impacts associated with the take. The permit is known as an incidental take permit. The project proponent must obtain a permit before conducting any otherwise-lawful activities that would result in the incidental take of a federally listed species.

### **Clean Water Act Sections 404 and 401 - U.S. Army Corps of Engineers**

USACE regulates the discharge of dredged or fill material into waters of the United States under Section 404 of the CWA. Waters of the United States are defined as waters where use, degradation, or destruction could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are somehow connected to any of these waters or their tributaries. Wetlands are defined as areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands falling under USACE jurisdiction must demonstrate the presence of three specific wetland parameters: hydric soils, hydrophytic vegetation, and sufficient wetland hydrology. Generally, wetlands include swamps, marshes, bogs, and similar areas. Lakes, rivers, and streams are defined as “other waters.” Jurisdictional limits of these features are typically noted by the ordinary high-water mark (OHWM). The OHWM is the line on the shore or bank that is established by the fluctuations of water and indicated by physical characteristics, such as a clear, natural line impressed on the bank, shelving, changes in soils, lack of woody or terrestrial vegetation, the presence of litter or debris, or other characteristics of the surrounding areas.

Isolated ponds or seasonal depressions had been previously regulated as waters of the United States. However, in *Solid Waste Agency of Northwestern Cook County (SWANCC) v. United States Army Corps of Engineers et al.* (January 8, 2001), the U.S. Supreme Court ruled that certain “isolated” wetlands (e.g., non-navigable, isolated, and intrastate) do not fall under the jurisdiction of the CWA and are no longer under USACE jurisdiction (although isolated wetlands are regulated by the State of California under the Porter-Cologne Water Quality Control Act—see discussion below). Some circuit courts (e.g., *U.S. v. Deaton*, 2003; *U.S. v. Rapanos*, 2003; *Northern California River Watch v. City of Healdsburg*, 2006), however, have ruled that the SWANCC opinion does not prevent CWA jurisdiction if a “significant nexus” such as a hydrologic connection exists, whether it be human-made (e.g., roadside ditch) or natural tributary to navigable waters, or direct seepage from the wetland to the navigable water, a surface or underground hydraulic connection, an ecological connection (e.g., the same bird, mammal, and fish populations are supported by both the wetland and the navigable water), and changes to chemical concentrations in the navigable water due to water from the wetland.

Section 404 prohibits the discharge of dredged or fill material into waters of the United States (including wetlands) without a permit from USACE. With respect to the proposed project, the discharge of dredged or fill material includes the following activities:

- placement of fill that is necessary for the construction of any structure or infrastructure in a water of the United States;
- the building of any structure, infrastructure, or impoundment requiring rock, sand, dirt, or other material for its construction;
- site-development fills for recreational, industrial, commercial, residential, or other uses; and
- construction of causeways or road fills.

The regulations and policies of USACE, the U.S. Environmental Protection Agency (EPA), and USFWS mandate that the filling of wetlands be avoided unless it can be demonstrated that no practicable alternatives (to filling wetlands) exist. If the placement of fill into waters of the U.S., including wetlands, meets certain criteria the project be permitted under one of the Nation Wide Permits (NWP), which is an expedited permit process.

Section 401 of the CWA requires an applicant for any federal permit that may result in a discharge into waters of the United States to obtain a certification from the state that the discharge will comply with provisions of the CWA. The regional water quality control boards (RWQCBs) administer this program. Any condition of water quality certification would be incorporated into the USACE permit. The state has a policy of no net loss of wetlands and typically requires mitigation for impacts on wetlands before it will issue a water quality certification.

#### **Essential Fish Habitat - National Marine Fisheries Service**

Essential Fish Habitat (EFH) is regulated through the National Marine Fisheries Service (NMFS), a division of the National Oceanic and Atmospheric Administration (NOAA). Protection of EFH is mandated through changes implemented in 1996 to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to protect the loss of habitat necessary to maintain sustainable fisheries in the United States. The Magnuson-Stevens Act defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S.C. 1802(10)). NMFS further defines essential fish habitat as areas that "contain habitat essential to the long-term survival and health of our nation's fisheries" (NMFS 2007). EFH can include the water column, bottom substrate types such as gravels suitable in size for salmonid spawning, and vegetation and woody structures that provided habitat for rearing. Under regulatory guidelines issued by NMFS, any federal agency that authorizes, funds, or undertakes action that may affect EFH is required to consult with NMFS (50 CFR 600.920).

#### **California Environmental Quality Act (CEQA)**

CEQA is a California statute passed in 1970, shortly after the United States federal government passed NEPA, to institute a statewide policy of environmental protection. CEQA does not directly regulate land uses, but instead requires state and local agencies within California to follow a protocol of analysis and public disclosure of environmental impacts of proposed projects and adopt all feasible measures to mitigate those impacts.

The CEQA statute, California Public Resources Code § 21000 et seq., codifies a statewide policy of environmental protection. According to CEQA, all state and local agencies must give major consideration to environmental protection in regulating public and private activities, and should not approve projects for which there exist feasible and environmentally superior mitigation measures or alternatives.

#### **California Endangered Species Act (CESA) – California Department of Fish and Wildlife**

The California Endangered Species Act (CESA) (FGC §§ 2050–2116) is administered by the California Department of Fish and Wildlife. The CESA prohibits the “taking” of listed species except as otherwise

provided in state law. The CESA includes FGC Sections 2050–2116, and policy of the state to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat. The CESA requires mitigation measures or alternatives to a proposed project to address impacts to any State listed endangered, threatened or candidate species, or if a project would jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy. Section 86 of the FGC defines take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Unlike the ESA, CESA applies the take prohibitions to species under petition for listing (state candidates) in addition to listed species. Section 2081 of the FGC expressly allows DFW to authorize the incidental take of endangered, threatened, and candidate species if all of the following conditions are met:

- The take is incidental to an otherwise lawful activity.
- The impacts of the authorized take are minimized and fully mitigated.
- Issuance of the permit will not jeopardize the continued existence of the species.
- The permit is consistent with any regulations adopted in accordance with §§ 2112 and 2114 (legislature-funded recovery strategy pilot programs in the affected area).
- The applicant ensures that adequate funding is provided for implementing mitigation measures and monitoring compliance with these measures and their effectiveness.

The CESA provides that if a person obtains an incidental take permit under specified provisions of the ESA for species also listed under the CESA, no further authorization is necessary under CESA if the federal permit satisfies all the requirements of CESA and the person follows specified steps (FGC § 2080.1).

### **Species Protection under California Department of Fish and Wildlife**

The CDFW is established under the Fish and Game Code (FGC) (FGC § 700) and states that the fish and wildlife resources of the state are held in trust for the people of the state by and through CDFW (FGC § 711.7(a)). All licenses, permits, tag reservations and other entitlements for the take of fish and game authorized by FGC are prepared and issued by CDFW (FGC § 1050 (a)).

Provisions of the FGC provide special protection to certain enumerated species such as:

- § 3503 protects eggs and nests of all birds.
- § 3503.5 protects birds of prey and their nests.
- § 3511 lists fully protected birds.
- § 3513 protects all birds covered under the federal Migratory Bird Treaty Act.
- § 3800 defines nongame birds.
- § 4150 defines nongame mammals.
- § 4700 lists fully protected mammals.
- § 5050 lists fully protected amphibians and reptiles.
- § 5515 lists fully protected fish species.

In addition, the Native Plant Protection Act (NPPA), directs the CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." As a result, the NPPA allows the California Fish and Game Commission to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants.

### **Waters of the State - California Regional Water Quality Control Board**

The term “Waters of the State” is defined by the Porter-Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope, but has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes “isolated” wetlands and waters that may not be regulated by the USACE under Section 404. “Waters of the State” are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to

impact “Waters of the State,” are required to comply with the terms of the Water Quality Certification determination.

If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to “Waters of the State,” the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

### **Streams, Lakes, and Riparian Habitat - California Department of Fish and Wildlife**

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of the State Fish and Wildlife Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG ESD 1994). Riparian is defined as, “on, or pertaining to, the banks of a stream;” therefore, riparian vegetation is defined as, “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG ESD 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

### **California Native Plant Society (CNPS)**

The California Native Plant Society (CNPS) is a statewide non-profit organization dedicated to the monitoring and protection of sensitive species in California. The CNPS publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California, focusing on geographic distribution and qualitative characterization of rare, threatened, or endangered vascular plant species of California. The list serves as the candidate list for listing as threatened and endangered by the CDFG. The Inventory assigns plants to the following categories:

- A. Presumed Extinct in California
- B. Rare or endangered in California and elsewhere
- Rare or endangered in California, more common elsewhere
- Plants for which more information is needed
- Plants of limited distribution.

Additional rarity, endangerment, and distribution codes are assigned to each taxa.

Plants on Ranks 1A, 1B, and 2 of the CNPS Inventory consist of plants that may qualify for listing, and the Department recommends they be addressed in CEQA projects (CEQA Guidelines Section 15380). However, a plant need not be in the Inventory to be considered a rare, threatened, or endangered species under CEQA. In addition, the DFG recommends, and local governments may require, protection of plants which are regionally significant, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Ranks 3 and 4.

**Appendix B: Potentially Occurring Special Status Plant Species in the Study Area**

<b>Scientific Name Common Name</b>	<b>Status USFWS/ CDFW/ CNPS rank</b>	<b>Habitat Affinities and Blooming Period/Life Form</b>	<b>Potential for Occurrence</b>
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	-/-/1B	Cismontane woodland, valley and foothill grassland on clay, volcanic soils; often on serpentinite. Blooms May to June. Elevation 52-300m.	None. Typical habitat not present in study area. Not observed during survey.
<i>Amorpha californica</i> var. <i>napensis</i> Napa false indigo	-/-/1B	Broadleafed upland forest (openings), chaparral, cismontane woodland. Blooms April-July. Elevation: 120-2000m.	None. No habitat in study area.
<i>Antirrhinum virga</i> Twig-like snapdragon	-/-/4	Chaparral, lower montane coniferous forest in rocky openings often on serpentinite. Blooms June to July. Elevation: 100-2015m.	None. No habitat in study area.
<i>Arctostaphylos bakeri</i> ssp. <i>bakeri</i> Baker's manzanita	-/-/1B	Broadleafed upland forest, chaparral – often on serpentinite. Blooms February to April.	None. No habitat in study area.
<i>Astragalus tener</i> var. <i>tener</i> Alkali milk-vetch	-/-/1B	Playas, grassland (adode clay), vernal pools (alkaline). Blooms March-June. Elevation: 1-60m.	None. Typical habitat not present in study area. No alkaline soils. Not observed during June survey.
<i>Balsamorhiza macrolepis</i> Big-scale balsamroot	-/-/1B	Chaparral, cismontane woodland, valley and foothill grassland/sometimes serpentinite. Blooms March to June. Elevation 90-1555m.	None. Typical habitat not present in study area. Not observed during survey.
<i>Blennosperma bakeri</i> Sonoma sunshine	FE/CE/1B	Valley and foothill grassland (mesic), vernal pools. Blooms March to May. Elevation: 10-110m.	None. Typical habitat not present in study area.
<i>Brodiaea leptandra</i> Narrow-anthered brodiaea	-/-/1B	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland on volcanic soils. Blooms May to July. Elevation: 110-915m.	None. Typical habitat not present in study area. Not observed during survey.
<i>Calandrinia breweri</i> Brewer's calandrinia	-/-/4	Chaparral and coastal scrub on sandy or loam soils and in disturbed sites and burns. Blooms March to June. Elevation: 10-1220m.	None. No habitat in study area.
<i>Ceanothus confusus</i> Rincon Ridge ceanothus	-/-/1B	Closed-cone coniferous forest, chaparral, cismontane woodland on volcanic or serpentinite. Blooms February to June. Elevation: 75-1065m.	None. No habitat in study area.



<b>Scientific Name Common Name</b>	<b>Status USFWS/ CDFW/ CNPS rank</b>	<b>Habitat Affinities and Blooming Period/Life Form</b>	<b>Potential for Occurrence</b>
<i>Ceanothus sonomensis</i> Sonoma ceanothus	-/-/1B	Chaparral on sandy, serpentinite or volcanic soils. Blooms February to April. Elevation: 215-800m.	None. No habitat in study area.
<i>Chorizanthe valida</i> Sonoma spineflower	-/-/1B	Coastal prairie, sandy. Blooms June to August. Elevation: 10-305m.	None. No habitat in study area.
<i>Clarkia gracilis</i> ssp. <i>tracyi</i> Tracy's clarkia	-/-/4	Chaparral, openings, usually on serpentinite. Blooms April to July. Elevation: 65-650m.	None. Typical habitat not present in study area. Not observed during survey.
<i>Downingia pusilla</i> Dwarf downingia	-/-/2B	Valley and foothill grassland (mesic), vernal pools. Blooms March to May. Elevation: 1-445m.	<b>None.</b> Not observed during 2019 surveys. Typical habitat not present on site.
<i>Erigeron biolettii</i> Streamside daisy	-/-/3	Broadleafed upland forest, cismontane woodland, North Coast coniferous forest on rocky and mesic sites. Blooms June-October. Elevation 30-1100m.	None. No habitat in study area.
<i>Erigeron greenei</i> Greene's narrow-leaved daisy	-/-/1B	Chaparral on serpentinite or volcanic soils. Blooms May to September. Elevation: 80-1005m.	None. No habitat in study area.
<i>Etriplex joaquinana</i> San Joaquin spearscale	-/-/1B	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland in alkaline soils. Blooms April to October. Elevation: 1-835m.	None. No habitat in study area. No alkaline soils. Not observed during June survey.
<i>Hemizonia congesta</i> ssp. <i>congesta</i> Congested-headed hayfield tarplant	-/-/1B	Valley and foothill grassland, sometimes roadsides. Blooms April to November. Elevation: 20-560m.	None. Potential habitat in study area. Not observed during June survey.
<i>Horkelia tenuiloba</i> Thin-lobed horkelia	-/-/1B	Broadleafed upland forest, chaparral, valley and foothill grassland/mesic openings, sandy. Blooms May to July (August). Elevation: 50-500m.	None. Potential grassland habitat present. Not observed during June survey.
<i>Juglans hindsii</i> Northern California black walnut	-/-/1B	Riparian forest, riparian woodland. Blooms April to May. Elevation: 0-440m.	None. Not observed during survey.
<i>Lasthenia conjugens</i> Contra Costa goldfields	FE/-/1B	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools/ mesic. Blooms March-June. Elevation: 0-470m.	None. Typical habitat not present in study area. No alkaline soils. Not observed during survey.

<b>Scientific Name Common Name</b>	<b>Status USFWS/ CDFW/ CNPS rank</b>	<b>Habitat Affinities and Blooming Period/Life Form</b>	<b>Potential for Occurrence</b>
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	-/-/1B	Freshwater and brackish marshes and swamps. Blooms May to September. Elevation: 0-5m.	None. No habitat in study area.
<i>Leptosiphon acicularis</i> Bristly leptosiphon	-/-/4	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Blooms April to July. Elevation: 55-1500m.	<b>None.</b> Potential grassland habitat present. Not observed during surveys.
<i>Leptosiphon jepsonii</i> Jepson's leptosiphon	-/-/1B	Chaparral, cismontane woodland, usually volcanic. Blooms March to May. Elevation: 100-500m.	None. No habitat present in study area.
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	-/-/1B	Brackish or freshwater marshes and swamps, riparian scrub. Blooms April to November. Elevation: 0-10m.	None. No habitat present in study area.
<i>Lilium rubescens</i> Redwood lily	-/-/4	Broadleafed upland forest, chaparral, lower montane coniferous forest, North Coast coniferous forest, upper montane coniferous forest, sometimes serpentine, sometimes roadsides. Blooms April to September. Elevation: 30-1910m.	None. No habitat present in study area.
<i>Lomatium repostum</i> Napa lomatium	-/-/4	Chaparral, cismontane woodland on serpentine. Blooms March-June. Elevation: 90-830m.	None. No habitat present in study area.
<i>Lupinus sericatus</i> Cobb Mountain lupine	-/-/1B	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest. Blooms March-June. Elevation: 275-1525m.	None. No habitat present in study area.
<i>Micropus amphibolus</i> Mt. Diablo Cottonweed	-/-/3	Broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland in rocky areas. Blooms March to May. Elevation: 45-825 m.	<b>None.</b> Potential grassland habitat present. Not observed during surveys.
<i>Monardella viridis</i> Green monardella	-/-/4	Broadleafed upland forest, chaparral, cismontane woodland. June-September. Elevation: 100-1010m.	None. No habitat present in study area.
<i>Ranunculus lobbii</i> Lobb's aquatic buttercup	-/-/4	Cismontane woodland, North Coast coniferous forest, valley and foothill grassland and vernal pools in mesic sites. Blooms February to May. Elevation: 15-470m.	<b>None.</b> Potential grassland habitat present. Not observed during surveys.

<b>Scientific Name Common Name</b>	<b>Status USFWS/ CDFW/ CNPS rank</b>	<b>Habitat Affinities and Blooming Period/Life Form</b>	<b>Potential for Occurrence</b>
<i>Symphotrichum lentum</i> Suisun Marsh aster	-/-1B	Brackish and freshwater marshes and swamps. Blooms April to November. Elevation: 0-3m.	None. No habitat present in study area.
<i>Trichostema ruygtii</i> Napa bluecurls	-/-1B	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, vernal pools. Blooms June to October. Elevation: 30-680m.	None. Not observed during June survey.
<i>Trifolium amoenum</i> Two-fork clover	/-/1B	Coastal bluff scrub, valley and foothill grassland, sometimes on serpentinite. Blooms April to June. Elevation: 5-415m	None. Typical habitat not present in study area. Not observed during June survey.
<i>Trifolium hydrophilum</i> Saline clover	-/-1B	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Blooms April to June. Elevation: 0-300m.	None. Typical habitat not present in study area. Not observed during June survey.
<i>Triteleia lugens</i> Dark-mouthed triteleia	-/-4	Broadleaved upland forest, chaparral, coastal scrub, lower montane coniferous forest. Blooms: April to June. Elevation: 100-1000 m.	None. No habitat present in study area.
<i>Viburnum ellipticum</i> Oval-leaved viburnum	-/-2B	Chaparral, cismontane woodland, lower montane coniferous forest. Blooms May to June. Elevation: 215-1400m.	None. No habitat present in study area.
<b>SPECIAL NATURAL COMMUNITIES</b>			
California Bay Riparian Forest			<b>Present</b>

NOTES:

**U.S. FISH AND WILDLIFE SERVICE**

- FE = federally listed Endangered
- FT = federally listed Threatened

**CALIFORNIA DEPT. OF FISH AND WILDLIFE**

- CE = California listed Endangered
- CR = California listed as Rare
- CT = California listed as Threatened

**CALIFORNIA NATIVE PLANT SOCIETY -**

- Rank 1B: Plants rare and endangered in California and elsewhere
- Rank 2B: Plants rare and endangered in California but more common elsewhere
- Rank 4: Plant of limited distribution – a watch list.

**Appendix C: Potentially Occurring Special Status Animal Species in the Project Area**

<b>Common Name Scientific Name</b>	<b>Status USFWS CDFW</b>	<b>Habitat Affinities and Reported Localities in the Project Area</b>	<b>Potential for Occurrence</b>
<b>Invertebrates</b>			
<b>Obscure Bumble bee</b> <i>Bombus caliginosus</i>	-/-	Food plants include Baccharis, Cirsium, Lupinus, Lotus, Grindelia and Phacelia	Low: mowing reduces the flowering plants to occur in the grasslands.
<b>Western bumble bee</b> <i>Bombus occidentalis</i>	-/-	Bumblebees will visit a range of different plant species and are important generalist pollinators of a wide variety of flowering plants and crops.	Low: mowing reduces the flowering plants to occur in the grasslands.
<b>Conservancy fairy shrimp</b> <i>Branchinecta conservatio</i>	FE/-	Inhabits vernal pools in grasslands in the Central Valley, Coast Ranges and South Coast Mountains. Active between December and May.	None: No vernal pools present.
<b>California linderiella</b> <i>Linderiella occidentalis</i>	-/-	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	None: No vernal pools present.
<b>An isopod</b> <i>Callasellus californicus</i>	-/-	Requires freshwater springs.	Moderate: seep in northern parcel may provide habitat.
<b>California freshwater shrimp</b> <i>Syncaris pacifica</i>	FE/CE	Endemic to Marin, Napa and Sonoma counties in low elevation and low gradient streams with moderate to heavy riparian cover.	None: no suitable habitat present
<b>Fish</b>			
<b>steelhead - Central California Coast DPS</b> <i>Onchorhynchus mykiss</i>	FT/SSC	Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen.	None: no suitable habitat present
<b>Delta smelt</b> <i>Hypomesus transpacificus</i>	FT/-	Sacramento-San Joaquin delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay. Seldom found at salinities > 10ppt. Most often at salinities <2ppt.	None: no suitable habitat present
<b>longfin smelt</b> <i>Spirinchus thaleichthys</i>	FC/ST	Pacific coast of North America from Sacramento-San Joaquin estuary and (extirpated?). Well documented declines in California. Spawns in sandy-gravel, rock, or aquatic plants, Dec. – Feb. in CA, in coastal waters near shore, bays, estuaries, and rivers. Some populations anadromous close to ocean.	None: no suitable habitat present
<b>Amphibians</b>			
<b>California giant salamander</b> <i>Dicamptodon ensatus</i>	-/SSC	Known from wet coastal forests near streams and seeps. Larvae found in cold, clear streams and adults known from wet forests under rocks and logs near streams and lakes.	None: no suitable habitat present
<b>foothill yellow-legged frog</b> <i>Rana boylei</i>	-/SSC	Prefers permanent stream pools, and creeks with emergent and/or riparian vegetation.	None: no suitable habitat present.

Common Name Scientific Name	Status USFWS CDFW	Habitat Affinities and Reported Localities in the Project Area	Potential for Occurrence
<b>California red-legged frog</b> <i>Rana draytonii</i>	FT/-	Prefers semi-permanent and permanent stream pools, ponds and creeks with emergent and/or riparian vegetation. Occupies upland habitat especially during the wet winter months.	Moderate: suitable potential dispersal habitat present.
<b>Red-bellied newt</b> <i>Taricha rivularis</i>	-/SSC	Spends dry season underground within root channels. Requires rapid streams with temps between 15°C and 26° C and rocky substrate for breeding and egg-laying.	None: no suitable habitat present.
<b>Reptiles</b>			
<b>Western pond turtle</b> <i>Emys marmorata</i>	SC/SPT	Prefers permanent, slow-moving creeks, streams, ponds, rivers, marshes and irrigation ditches with basking sites and a vegetated shoreline. Requires upland sites for egg-laying.	None: no suitable habitat present.
<b>Birds</b>			
<b>Cooper's hawk</b> <i>Accipiter cooperi</i>	MB/ SSC	Nests primarily in deciduous riparian forests. May also occupy dense canopied forests from gray pine-oak woodland to ponderosa pine. Forages in open woodlands.	<b>Moderate:</b> Suitable nesting habitat present.
<b>golden eagle</b> <i>Aquila chrysaetos</i>	/ CFP	Forages in a variety of habitats including grasslands, chaparral and oak woodland supporting abundant mammals. Nests on cliffs and escarpments and tall trees.	None: no suitable habitat present.
<b>Oak titmouse</b> <i>Baeolophus inornatus</i>	BCC/ SSC	Breeds in cavities in oak woodlands, gleaning insects from the bark. Occurs from southern Oregon to northern Mexico along the Central Valley and xeric coastal foothills.	<b>High:</b> suitable nesting habitat present
<b>Swainson's hawk</b> <i>Buteo swainsoni</i>	BCC/ST	Nests in scattered trees in open areas, with nests usually high in the tree. Nests are reused annually and are made of sticks, with a diameter of 21-28 inches.	None: no suitable habitat present.
<b>Wrentit</b> <i>Chamaea fasciata</i>	BCC	Nests in coastal scrub and chaparral.	None: no suitable habitat present.
<b>black swift</b> <i>Cypseloides niger</i>	BCC/SSC	Nests made of moss bound with mud or simply a cushion of grass or bare mud, are often built on small ledges with overhanging moss or grass near seashore and waterfalls.	None: no suitable habitat present.
<b>Song sparrow</b> <i>Melospiza melodia</i>	BCC/-	Primarily breeds in riparian habitat or wetlands, or coastal scrub along the fog belt where the lack of standing or running water is compensated by moisture from fog.	<b>Moderate:</b> suitable nesting habitat present
<b>Black-crowned night heron</b> <i>Nycticorax nycticorax</i>	/-	Nests in saltmarshes, freshwater marshes, swamps, streams, rivers, lakes, ponds, lagoons, tidal mudflats, canals, reservoirs, and wet agricultural fields. Nests situated in trees or in cattails in colonial nest tree.	None: no suitable habitat present.
<b>Nuttall's woodpecker</b> <i>Picoides nuttallii</i>	BCC/-	Found primarily in oak woodlands and riparian woods. Cavity nester.	<b>High:</b> suitable nesting habitat present
<b>Spotted towhee</b> <i>Pipilo maculatus clementae</i>	BCC	Nests in shrubs and trees.	<b>High:</b> suitable nesting habitat present

Common Name Scientific Name	Status USFWS CDFW	Habitat Affinities and Reported Localities in the Project Area	Potential for Occurrence
<b>bank swallow</b> <i>Riparia riparia</i>	-/ST	Nests in banks along rivers, excavating holes in sides of the banks.	None: no suitable habitat present.
<b>rufous hummingbird</b> <i>Selasphorus rufus</i>	BCC/-	Nests in chaparral, coniferous forest, scrub habitats and riparian habitats in Canada and winters in Mexico. Nests are placed on a downward drooping structure.	None: no suitable habitat present.
<b>Allen's hummingbird</b> <i>Selasphorus sasin</i>	BCC/-	Nests in wooded areas, meadows, or thickets along shaded streams, on a branch low down on stem, although placement height varies between 10 inches and 90 feet.	None: no suitable habitat present.
<b>northern spotted owl</b> <i>Strix occidentalis caurina</i>	FT, BCC/CT	Dense coniferous and hardwood forest, shaded, steep sided canyons.	None: no suitable habitat present.
<b>Mammals</b>			
<b>Pallid bat</b> <i>Antrozous pallidus</i>	-/SSC	Day roosts in crevices and cavities in rock outcrops, mines, caves, buildings, bridges, properly-designed bat houses, as well as hollows and cavities in a wide variety of tree species. May roost alone, in small groups (2 to 20 bats), or in 100s in maternity roosts, with males and non-reproductive subadults in other, smaller roosts.	<b>Moderate:</b> suitable roosting habitat present.
<b>Western red bat</b> <i>Lasiurus blossevillii</i>	-/SSC, WBWG:H	Solitary roosting, except when females are with young (from 2 to 6 are born). Roosts almost exclusively in foliage, under overhanging leaves, in woodland borders, rivers, agricultural areas including orchards, and urban areas with mature trees. Typically found in large cottonwoods, sycamores, walnuts and willows associated with riparian habitats. Forages over mature orchards, oak woodland, low elevation conifer forests, riparian corridors, non-native trees in urban and rural residential areas, and around strong lighting.	<b>High:</b> suitable potential roosting habitat occurs in the oak woodlands on site.
<b>Hoary bat</b> <i>Lasiurus cinereus</i>	-/-, WBWG:M	Roosts singly except when females are with young (from 2 to 4 are born) in dense foliage of medium to large coniferous and deciduous trees. Highly migratory, occurs from sea level to tree line in Sierra Nevada. Summer records predominantly male. Forages along stream and river corridors, open water bodies, meadows, and open forest above canopy.	<b>High:</b> suitable potential roosting habitat occurs in the oak woodlands on site.
<b>California myotis</b> <i>Myotis californicus</i>	-/-	Females give birth to one young. Typically roosts alone or in small groups in almost every habitat from desert to mountains, but most abundant at lower to mid-elevations. Roosts in crevices in rocks, slabs, hollow trees, exfoliating bark, buildings, mines. In trees may exhibit low roost fidelity, switching frequently. Emerges early in evening, forages along tree margins, canopy edge, over water, along trails and higher above ground in open habitat. Typically hibernates.	<b>High:</b> suitable potential roosting habitat occurs in the oak woodlands on site.

Common Name <i>Scientific Name</i>	Status USFWS CDFW	Habitat Affinities and Reported Localities in the Project Area	Potential for Occurrence
<b>Yuma myotis</b> <i>Myotis yumanensis</i>	-/-, WBWG:M	Forms often large maternity colonies, females giving birth to one young. Generally confined to lower elevations from sea level to up to 1,300 m in central Sierra Nevada and 2,000 m in southern Sierra Nevada. Males roost singly. Primarily a crevice roosting species in natural habitat, forms large maternity colonies in large spaces in man-made roosts, e.g. buildings. Also uses bridges, caves, mines, tree cavities, bat houses, abandoned swallow nests, exfoliating bark. Emerges early and forages almost exclusively over quiet water – ponds, pools, reservoirs, swimming pools. Appears to migrate, may hibernate in colder portions of their range.	<b>High:</b> suitable potential roosting habitat occurs in the oak woodlands on site.
<b>American badger</b> <i>Taxidea taxus</i>	-/SSC, WBWG:H	Inhabits open grasslands, savannas and mountain meadows near timberline. Requires abundant burrowing mammals, their principal food source, and loose, friable soils.	None: No suitable denning habitat present; would have been observed.

#### U.S. FISH AND WILDLIFE SERVICE (USFWS)

- FE = federally listed Endangered
- FT = federally listed Threatened
- FC = federal candidate for listing
- BCC = Bird of Conservation Concern
- MBTA = Migratory Bird Treaty Act.

#### CALIFORNIA DEPT. OF FISH AND WILDLIFE (CDFW)

- CE = California listed Endangered
- CT = California listed as Threatened
- SSC = California Special Concern species

#### WESTERN BAT WORK GROUP (WBWG)- PRIORITY

California includes multiple regions where a species may have different WBWG Priority ranks, therefore the CNNDDB includes categories for Medium-High, and Low-Medium Priority.

**Appendix D: Plant species observed on June 28, 2018 and April 22, May 20 and June 13, 2019.**

<b>Scientific Name</b>	<b>Common Name</b>
<i>Aesculus californica</i>	California buckeye
<i>Avena barbata</i>	Wild oats*
<i>Baccharis pilularis</i>	Coyote brush
<i>Bromus catharticus</i>	Rescue grass*
<i>Bromus diandrus</i>	Ripgut brome*
<i>Bromus hordaeceus</i>	Soft chess*
<i>Carduus pycnocephalus</i>	Italian thistle*
<i>Chenopodium</i> sp.	Goosefoot
<i>Cirsium vulgare</i>	Bull thistle*
<i>Convolvulus arvensis</i>	Bindweed*
<i>Cortaderia jubata</i>	Pampas grass*
<i>Cyperus eragrostis</i>	Tall flat sedge
<i>Dipsacus fullonum</i>	Teasel*
<i>Elymus triticoides</i>	Creeping wildrye
<i>Festuca perennis</i>	Ryegrass*
<i>Galium aparine</i>	Bedstraw
<i>Hedera helix</i>	English ivy*
<i>Helminthotheca echioides</i>	Bristly ox-tongue*
<i>Hypochaeris radicata</i>	Rough cat's-ear*
<i>Lactuca serriola</i>	Prickly lettuce*
<i>Marah fabaceus</i>	Man root
<i>Phalaris aquatica</i>	Harding grass*
<i>Phalaris minor</i>	Mediterranean canary grass*
<i>Plantago lanceolata</i>	English plantain*
<i>Populus alba</i>	White poplar*
<i>Quercus agrifolia</i>	Coast live oak
<i>Raphanus sativus</i>	Wild radish*
<i>Rosa</i> sp.	Rose
<i>Rubus armeniacus</i>	Himalayan blackberry*
<i>Rumex crispus</i>	Curly dock*
<i>Salix laevigata</i>	Red willow
<i>Umbellularia californica</i>	California bay laurel
<i>Vinca major</i>	Periwinkle*
<i>Zeltnera muehlenbergii</i>	Muehlenberg's centaury
Added in 2019:	
<i>Alnus rhombifolia</i>	White alder
<i>Briza minor</i>	Small quaking grass*
<i>Calendula arvensis</i>	Calendula*
<i>Carex densa</i>	Dense sedge
<i>Claytonia perfoliata</i>	Miner's lettuce
<i>Eleocharis macrostachya</i>	Spike rush
<i>Festuca arundinacea</i>	Tall fescue*
<i>Festuca myuros</i>	Rattail fescue*
<i>Geranium dissectum</i>	Cut-leaf geranium*



<b>Scientific Name</b>	<b>Common Name</b>
<i>Geranium robertianum</i>	Robert's geranium*
<i>Hedypnois cretica</i>	Crete weed*
<i>Juncus bufonius</i>	Toad rush
<i>Juncus patens</i>	Spreading rush
<i>Juncus xiphioides</i>	Iris-leaved rush
<i>Lagerstroemia s.</i>	Crepe myrtle*
<i>Lamium purpureum</i>	Purple dead nettle*
<i>Lysimachia arvensis</i>	Scarlet pimpernel*
<i>Lythrum hyssopifolia</i>	Hyssop loosestrife*
<i>Medicago polymorpha</i>	Bur clover*
<i>Picea</i> sp.	Spruce tree- planted*
<i>Pinus</i> sp.	Pine tree –planted*
<i>Prunus</i> sp.	Plum tree*
<i>Pyrus</i> sp.	Pear tree*
<i>Quercus lobata</i>	Valley oak
<i>Ranunculus muricatus</i>	Spiny-fruited buttercup*
<i>Rumex pulcher</i>	Fiddle dock*
<i>Salix babylonica</i>	Weeping willow*
<i>Sonchus asper</i>	Spiny sowthistle*
<i>Sonchus oleraceus</i>	Common sowthistle*
<i>Tragopogon porrifolius</i>	Salsify*
<i>Trifolium hirtum</i>	Rose clover*
<i>Trifolium subterraneum</i>	Subterranean clover*
<i>Vicia sativa</i>	Spring vetch*

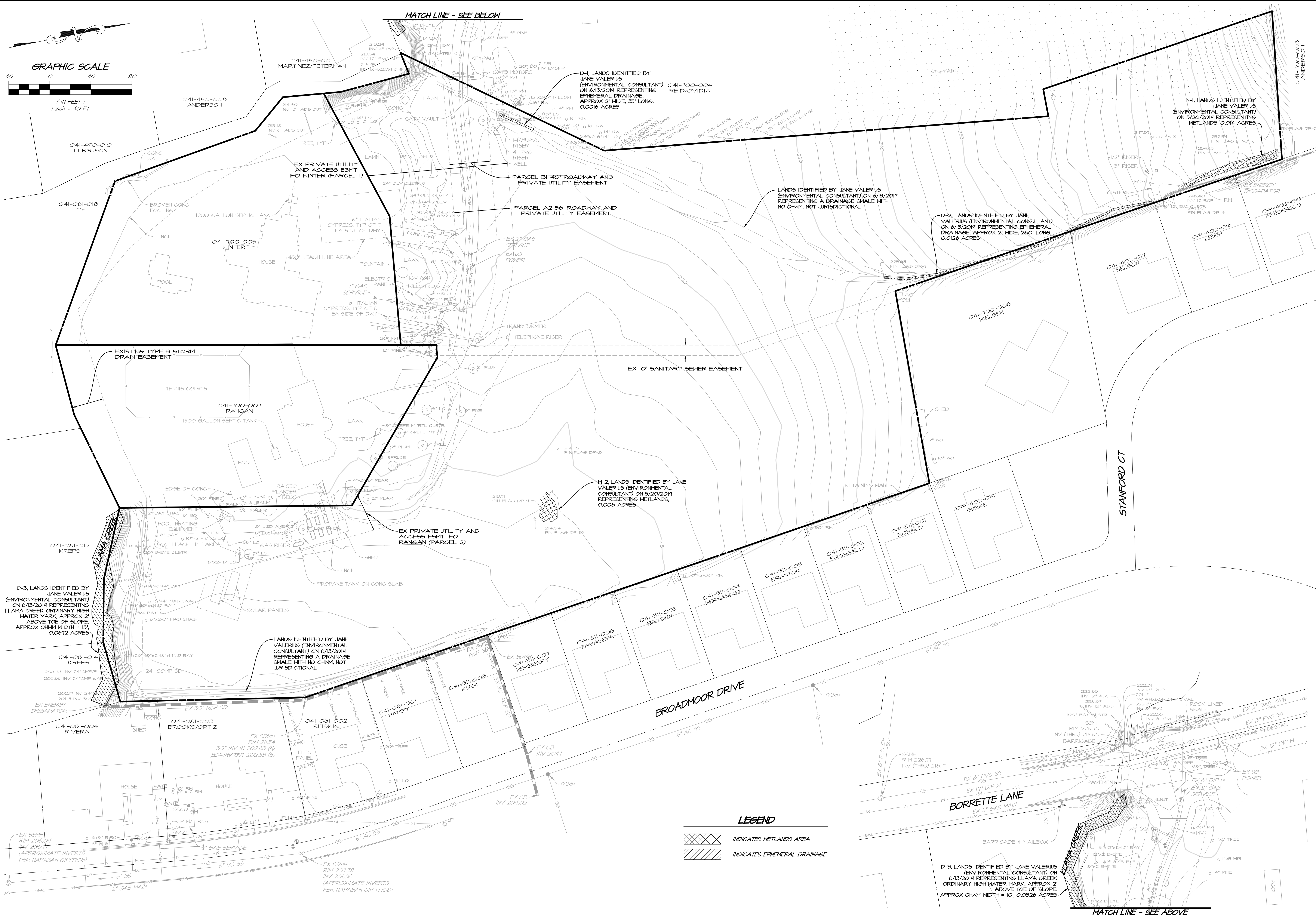
Species with an \* are non-native.

**Appendix E: Wildlife species observed on June 28, 2018.**

<i>Scientific Name</i>	Common Name	NNG	Bay Woodland
<i>Aphelocoma californica</i>	Western Scrub-Jay		X
<i>Tachycineta bicolor</i>	Tree swallow		X
<i>Sayornis nigricans</i>	Black phoebe		X
<i>Haemorhous mexicanus</i>	House finch	X	
<i>Cathartes aura</i>	Turkey Vulture	X	
<i>Calypte anna</i>	Anna's hummingbird		X
<i>Pipilo crissalis</i>	California towhee		X
<i>Psaltriparus minimus</i>	Bushtit		X
<i>Odocoileus hemionus californicus</i>	Black-tailed deer	X	
<i>Urocyon cinereoargenteus</i>	Gray fox (scat)	X	
<i>Mephitis mephitis</i>	Striped skunk	X	

**EXHIBIT A**

**DELINEATION MAP**



NO.	DATE	REVISIONS	BY	APPD

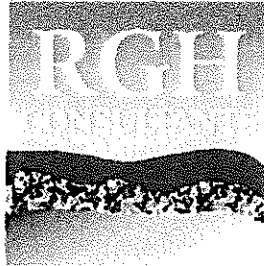
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**WESTERN MEADOWS SUBDIVISION  
 HABITAT ASSESSMENT DELINEATION MAP**  
 NAPA  
 CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER  
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 CIVIL ENGINEER

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CHECKED	JNS
JOB NO.	418010.0
SHEET NO.	1
1 OF 1 SHEETS	



*Experience is the difference*

## GEOTECHNICAL STUDY REPORT

**BORRETTE LANE ESTATES SUBDIVISION  
BORRETTE LANE  
NAPA, CALIFORNIA**

**Project Number:**

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**Prepared For:**

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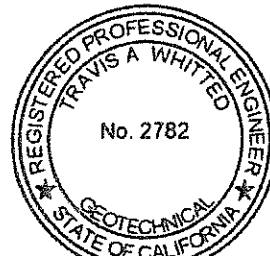
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## INTRODUCTION

This report presents the results of our geotechnical study for the Borrette Lane Estates Subdivision to be constructed off of Borrette Lane in Napa, California. The property extends over gently sloping to generally level terrain which is currently occupied by vineyards at its northern extent and undeveloped and grass covered at its southern extent. The site location is shown on Plate 1, Appendix A.

We understand the property will be subdivided into 16 single-family residential lots. We anticipate that one- and two-story, wood-frame structures with attached/detached garages will be constructed on the individual lots. Structurally supported wood floors or concrete slab-on-grade floors will be used in the living areas. Slab-on-grade will be used in the garages. Auto access will be provided by new streets.

Actual foundation loads are not known at this time. We anticipate the loads will be typical for the light to moderately heavy type of construction planned and that wall loads will range from about  $\frac{3}{4}$  to  $1\frac{1}{2}$  kips per lineal foot.

Grading plans are not available, but we anticipate that the planned grading will be the minimum amount needed to construct level building pads and provide the building sites and paved areas with positive drainage, and could include cuts and fills up to 5 feet in the upper portions of the property.

Utility plans are not available, but we have assumed for this study that the project utilities will extend no deeper than 5 feet below the existing ground surface. If project utilities extend deeper, supplemental exploration may be required to evaluate the soil and bedrock conditions within and below the utility excavations.

## SCOPE

The purpose of our study, as outlined in our Professional Service Agreement dated August 31, 2016, was to generate geotechnical information for the design and construction of the project. Our scope of services included reviewing selected published geologic data pertinent to the site; evaluating the subsurface conditions with borings and laboratory tests; analyzing the field and laboratory data; and presenting this report with the following geotechnical information:

1. A brief description of the soil, bedrock and groundwater conditions observed during our study;
2. A discussion of seismic hazards that may affect the proposed development; and
3. Conclusions and recommendations regarding:
  - a. Primary geotechnical engineering concerns and mitigating measures, as applicable;
  - b. Site preparation and grading including remedial grading of weak, porous, compressible and/or expansive surface soils;
  - c. Foundation type(s), design criteria, and estimated settlement behavior;



- d. Lateral loads for retaining wall design;
- e. Support of concrete slabs-on-grade;
- f. Preliminary pavement thickness based on our experience with similar soils and projects and the results of an R-value test on the anticipated subgrade soils;
- g. Utility trench backfill;
- h. Geotechnical engineering drainage improvements; and
- i. Supplemental geotechnical engineering services.

## STUDY

### Site Exploration

We reviewed our previous geotechnical studies in the vicinity and selected geologic references pertinent to the site. The geologic literature reviewed is listed in Appendix B. On September 8, 2016, we performed a geotechnical reconnaissance of the site and explored the subsurface conditions by drilling 6 borings to depths ranging from about 10 to 30½ feet. The borings were drilled with a truck-mounted drill rig equipped with 8-inch diameter, hollow stem augers at the approximate locations shown on the Exploration Plan, Plate 2. The boring locations were determined approximately by pacing their distance from features shown on the Exploration Plan and should be considered accurate only to the degree implied by the method used. Our project geologist located and logged the borings and obtained samples of the materials encountered for visual examination, classification and laboratory testing.

Relatively undisturbed samples were obtained from the borings at selected intervals by driving a 2.43-inch inside diameter, split spoon sampler, containing 6-inch long brass liners, using a 140-pound hammer dropping approximately 30 inches. The sampler was driven 12 to 18 inches. The blows required to drive each 6-inch increment were recorded and the blows required to drive the last 12 inches, or portion thereof, were converted to equivalent Standard Penetration Test (SPT) blow counts using a conversion factor of 0.65 (Burmister, 1948) for correlation with empirical data. Disturbed samples were also obtained at selected depths by driving a 1.375-inch inside diameter (2-inch outside diameter) SPT sampler, without liners or rings, using a 140-pound hammer dropping approximately 30 inches. The sampler was driven 12 to 18 inches, the blows to drive each 6-inch increment were recorded, and the blows required to drive the final 12 inches, or portion thereof, are provided on the boring logs. Disturbed "bulk" samples were also obtained from the anticipated subgrade soils and placed in buckets.

The logs of the borings showing the materials encountered, groundwater conditions, converted blow counts and sample depths are presented on Plates 3 through 8. The soils are described in accordance with the Unified Soil Classification System, outlined on Plate 9. Bedrock is described in accordance with Engineering Geology Rock Terms, shown on Plate 10.

The boring logs show our interpretation of the subsurface soil, groundwater, and bedrock conditions on the date and at the locations indicated. Subsurface conditions may vary at other locations and times. Our interpretation is based on visual inspection of soil and bedrock samples, laboratory test results, and interpretation of drilling and sampling resistance. The location of the soil and bedrock boundaries should be considered approximate. The transition between soil and bedrock types may be gradual.

### **Laboratory Testing**

The samples obtained from the borings were transported to our office and re-examined to verify soil classifications, evaluate characteristics, and assign tests pertinent to our analysis. Selected samples were laboratory tested to determine their water content, dry density, classification (Atterberg Limits, percent of silt and clay), unconfined compressive strength, expansion potential (Expansion Index - EI) and R-value. The test results are presented on the boring logs. Results of the tests are presented on Plates 11, 12 and 13.

## **SITE CONDITIONS**

### **General**

Napa County is located within the California Coast Range geomorphic province. This province is a geologically complex and seismically active region characterized by sub-parallel northwest-trending faults, mountain ranges and valleys. The oldest bedrock units are the Jurassic-Cretaceous Franciscan Complex and Great Valley sequence sediments originally deposited in a marine environment. Subsequently, younger rocks such as the Tertiary-age Sonoma Volcanics group, the Plio-Pleistocene-age Clear Lake Volcanics and sedimentary rocks such as the Guinda, Domengine, Petaluma, Wilson Grove, Cache, Huichica and Glen Ellen formations were deposited throughout the province. Extensive folding and thrust faulting during late Cretaceous through early Tertiary geologic time created complex geologic conditions that underlie the highly varied topography of today. In valleys, the bedrock is covered by thick alluvial soils.

### **Geology**

Published geologic maps (Clahan et al. 2004) indicate the property is underlain by Holocene aged alluvial fan deposits. These deposits consist of moderately to poorly sorted sands, gravels, silts and clays. Early Cretaceous to Late Jurassic bedrock of the Great Valley Sequence are mapped to the north and west of the project site. These deposits are described as consisting of sandstone, siltstone and shale deposits.

### **Landslides**

Published landslide maps (Dwyer, 1976) do not indicate large-scale slope instability at the site, and we did not observe active landslides at the site during our study.

## **Surface**

The property extends primarily over generally level to moderately south sloping terrain. The vegetation consists primarily of grasslands with few riparian trees observed along the southern perimeter of the project site. In general, the ground surface is soft and spongy. This is a condition generally associated with weak, porous and compressible surface soils. Soils in the area that appear hard and strong when dry will typically lose strength rapidly and settle under the loads of fills, foundations and slabs as their moisture content increases and approaches saturation. Natural drainage consists of sheet flow over the ground surface that concentrates in man-made surface drainage elements such as roadside ditches, canals and gutters, and natural drainage elements such as swales, ravines, and creeks.

## **Subsurface**

Our borings and laboratory tests indicate that the portion of the site we studied is blanketed by 2 to 2½ feet of weak, porous, compressible, clayey soils. Porous soils appear hard and strong when dry but become weak and compressible as their moisture content increases towards saturation. These soils exhibit low to medium plasticity (LL 47-27; PI = 10-25) and low to medium expansion potential (EI = 43-87). These deposits extended to the maximum depths explored in borings B-4 through B-7, and were underlain by bedrock of the Great Valley Sequence in boring B-1 through B-3. Underlying the near surface soils and overlying the bedrock in B-3, our exploration encountered a layer of high plasticity and potentially expansive clays which extended from 7 to 10 feet below the surface.

In borings B-1 through B-3, the bedrock extends from beneath the surface materials to the maximum depths explored (30.5 feet). The bedrock generally consisted of sheared shale and sandstone which appeared soft to firm, plastic to friable weak, and highly weathered. A detailed description of the subsurface conditions found in our borings is given on Plates 3 through 8, Appendix A. Based on Table 20.3-1 of American Society of Civil Engineers (ASCE) Standard 7-10, titled "Minimum Design Loads for Buildings and Other Structures" (2010), we have determined a Site Class of D should be used for the site.

## **Corrosion Potential**

Mapping by the Natural Resources Conservation Service (2016) indicates that the corrosion potential of the near surface soil is high for uncoated steel and low for concrete. Performing corrosivity tests to verify these values was not part of our requested and/or proposed scope of work. Should the need arise, we would be pleased to provide a proposal to evaluate these characteristics.

## **Groundwater**

Free groundwater was not observed in our borings. In the project area, rainwater typically percolates through the porous surface materials and migrates downslope in the form of seepage at the interface of the surface materials and bedrock, and through fractures in the bedrock. Fluctuations in the seepage rates typically occur due to variations in rainfall intensity, duration and other factors such as periodic irrigation.

## **DISCUSSION AND CONCLUSIONS**

### **Seismic Hazards**

#### **General**

We did not observe subsurface conditions within the portion of the property we studied that would suggest the presence of materials that may be susceptible to seismically induced densification, liquefaction, or lurching. Therefore, we judge the potential for the occurrence of these phenomena at the site to be low.

#### **Seismicity**

Data presented by the Working Group on California Earthquake Probabilities (2007) estimates the chance of one or more large earthquakes (Magnitude 6.7 or greater) in the San Francisco Bay region within the next 30 years to be approximately 63 percent. Therefore, future seismic shaking should be anticipated at the site. It will be necessary to design and construct the proposed improvements in strict adherence with current standards for earthquake-resistant construction.

#### **Faulting**

We did not observe landforms within the area that would indicate the presence of active faults and the site is not within a current Alquist-Priolo Earthquake Fault Zone (Bryant and Hart, 2007). Therefore, we believe the risk of fault rupture at the site is low. However, the site is within an area affected by strong seismic activity. Several northwest-trending Earthquake Fault Zones exist in close proximity to and within several miles of the site (Bortugno, 1982). The shortest distances from the site to the mapped surface expression of these faults are presented in the table below.

Potential surface expressions which may be related to the West Napa Fault have been mapped between 475 and 900 feet east of the project site. These expressions were identified by remote sensing techniques and have not been field checked.

<b>ACTIVE FAULT PROXIMITY</b>		
<b>Fault</b>	<b>Direction</b>	<b>Distance-Miles</b>
San Andreas	SW	30
Healdsburg-Rodgers Creek	SW	10
Concord-Green Valley	NE	8
Cordelia	SE	12
West Napa	SE	6½ *
Maacama	NW	27
Konocti	NW	43
Hunting Creek	N	30

\* As currently designated

**Geotechnical Issues**

**General**

Based on our study, we judge the proposed development can be built as planned, provided the recommendations presented in this report are incorporated into its design and construction. The primary geotechnical concerns during design and construction of the project are:

1. The presence of 2 to 2½ feet of weak, porous and compressible clayey surface soils with moderate expansion potential;
2. The detrimental effects of uncontrolled surface runoff and groundwater seepage on the long-term satisfactory performance of developments given the erosion potential and porous nature of the surface soils; and
3. The strong ground shaking predicted to impact the site during the life of the project.

**Weak, Porous Surface Soils**

Weak, porous surface soils, such as those found at the site, appear hard and strong when dry but will lose strength rapidly and settle under the load of fills, foundations, slabs, and pavements as their moisture content increases and approaches saturation. The moisture content of these soils can increase as the result of rainfall, periodic irrigation or when the natural upward migration of water vapor through the soils is impeded by, and condenses under fills, foundations, slabs, and pavements. The detrimental effects of such movements can be reduced by strengthening the soils during grading. This can be achieved by excavating the weak soils

and replacing them as properly compacted (engineered) fill. Alternatively, satisfactory foundation support could be obtained below the weak surface soils.

**Expansive Soil** - In addition, the surface soils are expansive. Expansive surface soils shrink and swell as they lose and gain moisture throughout the yearly weather cycle. Near the surface, the resulting movements can heave and crack lightly loaded shallow foundations (spread footings) and slabs and pavements. The zone of significant moisture variation (active layer) is dependent on the expansion potential of the soil and the extent of the dry season. In the project area, the active layer is generally considered to range in thickness from about 2 to 3 feet. The detrimental effects of the above-described movements can be reduced by pre-swelling the expansive soils and covering them with a moisture fixing and confining blanket of properly compacted select fill, as subsequently defined. In building areas, the blanket thickness required depends on the expansion potential of the soils and the anticipated performance of the foundations and slabs. In order to effectively reduce foundation and slab heave given the expansion potential of the site's soils, a blanket thickness of 24 inches will be needed. As an alternative, where raised wood floors are used, foundation support can be obtained beneath the active layer. In exterior slab and paved areas, the select fill blanket need only be 12 inches thick.

**Foundation, Slab and Pavement Support** - After remedial grading, satisfactory foundation support for the proposed structures can be obtained from spread footings bottomed on the select engineered fill. Interior slab-on-grade floors, exterior slabs and pavements can also be satisfactorily supported on the select engineered fill.

As an alternative to the extensive grading required to strengthen the weak surface soils, satisfactory foundation support for the structures can be obtained from deep spread footings or drilled pier foundation system that gains support below the weak surface materials and active layer. With this alternative, it will not be necessary to remove and recompact the weak surface materials within living areas provided that:

1. Wood floors supported on joist above grade are used in living areas; and
2. The weak and expansive soils are removed and replaced with non-expansive engineered fill for a depth of at least 12 inches in garage, exterior concrete slab-on-grade and paved areas.

#### Exterior Slabs and Pavements

Exterior slabs and pavements will heave and crack as the expansive soils shrink and swell through the yearly weather cycle. Slab and pavement cracking and distress are typically concentrated along edges where moisture content variation is more prevalent within subgrade soils. Slab and pavement performance and the incidence of repair can be reduced, but not eliminated, by covering the pre-swelled expansive soils with at least 12 inches of select fill (see "On-Site Soil Quality" section) prior to constructing the slab or pavement required to carry the anticipated traffic.

### On-Site Soil Quality

All fill materials used in the upper 24 inches of the building area and the upper 12 inches of garage and/or exterior slab and pavement subgrade must be select, as subsequently described in "Recommendations." We anticipate that, with the exception of organic matter and of rocks or lumps larger than 6 inches in diameter, some of the excavated material may be suitable for re-use as general and select fill. However, expansive near surface soils were encountered during our study which are not suitable for the support of shallow foundations, interior or exterior slabs or pavements. This material is suitable for use as general fill, but not as select fill. In addition, if retaining wall or planned cut excavations encounter this material, they will need to be constructed according to the expansive soil recommendations included within this report. Low expansion potential near surface soils were encountered which are suitable for use as general and select fill, however, it is our experience that selective excavation of fill in a site which has variable soil conditions is difficult, costly and often ineffective. If the onsite low expansion potential soils are used as select fill they must be approved by the geotechnical engineer in the field on a site specific basis and their expansion potential verified by laboratory testing prior to placement as engineered fill.

### Select Fill

The select fill can consist of approved on-site soils or import materials with a low expansion potential. The geotechnical engineer must approve the use of on-site soils as select fill during grading.

### Settlement

If remedial grading is performed and the spread footings and/or drilled piers are installed in accordance with the recommendations presented in this report, we estimate that post-construction differential settlements across the building will be about ½ inch.

### Surface Drainage

Because of topography and location, the site will be impacted by surface runoff from the upgradient slopes. Surface runoff typically sheet flows over the ground surface but can be concentrated by the planned site grading, landscaping, and drainage. The surface runoff can pond against structures and seep into the crawl space and/or slab rock. Therefore, strict control of surface runoff is necessary to provide long-term satisfactory performance of projects constructed on or near hillsides. It will be necessary to divert surface runoff around slopes and improvements, provide positive drainage away from structures, and install energy dissipaters at discharge points of concentrated runoff. This can be achieved by constructing the building pad several inches above the surrounding area and conveying the runoff into man made drainage elements or natural swales that lead downgradient of the site.

### Groundwater

We anticipate that rainwater will percolate through the porous topsoil and migrate downslope at the interface of the topsoil and bedrock and through fractures in the bedrock and/or perch on the stiff clay subsoil and seep into the crawl space and/or slab rock. Therefore, it will be necessary to intercept, collect and divert groundwater outside of the proposed improvements. This can be accomplished by installing perimeter foundation drains and/or slab underdrains as recommended herein.

## RECOMMENDATIONS

### Seismic Design

Seismic design parameters presented below are based on Section 1613 titled "Earthquake Loads" of the 2013 California Building Code (CBC). Based on Table 20.3-1 of American Society of Civil Engineers (ASCE) Standard 7-10, titled "Minimum Design Loads for Buildings and Other Structures" (2010), we have determined a Site Class of D should be used for the site. Using a site latitude and longitude of 38.3129°N and 122.3476°W, respectively, and the U.S. Seismic Design Maps from the United States Geological Survey (USGS) website (<http://earthquake.usgs.gov/designmaps/us/application.php>), we recommend that the following seismic design criteria be used for structures at the site.

2013 CBC Seismic Criteria	
Spectral Response Parameter	Acceleration (g)
S <sub>s</sub> (0.2 second period)	1.886
S <sub>1</sub> (1 second period)	0.685
S <sub>MS</sub> (0.2 second period)	1.886
S <sub>M1</sub> (1 second period)	1.028
S <sub>DS</sub> (0.2 second period)	1.257
S <sub>D1</sub> (1 second period)	0.685

### Grading

#### Site Preparation

Areas to be developed should be cleared of vegetation and debris. Trees and shrubs that will not be part of the proposed development should be removed and their primary root systems grubbed. Cleared and grubbed material should be removed from the site and disposed of in accordance with County Health Department guidelines. We did not observe septic tanks, leach lines or underground fuel tanks during our study. Any such appurtenances found during grading should be capped and sealed and/or excavated and removed from the site, respectively, in accordance with established guidelines and requirements of the County Health Department. Voids created during clearing should be backfilled with engineered fill as recommended herein.



### Stripping

Areas to be graded should be stripped of the upper few inches of soil containing organic matter. Soil containing more than two percent by weight of organic matter should be considered organic. Actual stripping depth should be determined by a representative of the geotechnical engineer in the field at the time of stripping. The strippings should be removed from the site, or if suitable, stockpiled for re-use as topsoil in landscaping.

### Excavations

Following initial site preparation, excavation should be performed as recommended herein. Excavations extending below the proposed finished grade should be backfilled with suitable materials compacted to the requirements given below.

Within building areas, where spread footings bottomed at minimum depth are chosen for foundation support, and within fill and interior slab-on-grade areas, the weak, porous, compressible and expansive surface soils should be excavated to within 6 inches of their entire depth (about 2½ feet in our borings). Additional excavation should be performed, as necessary, to allow space for the installation of a blanket of select fill, at least 24 inches thick, beneath the building pad subgrade (not counting slab rock). The excavation of weak, compressible and expansive soils should also extend at least 12 inches below exterior slab and pavement subgrade to allow space for the installation of the select fill blanket discussed in the conclusions section of this report.

The excavation of weak, porous, compressible and expansive surface materials should extend at least 5 feet beyond the outside edge of the exterior footings of the proposed buildings and 3 feet beyond the edge of exterior slabs and pavements and three feet beyond the toe of new fills that are not supported by keyways. The excavated materials should be stockpiled for later use as compacted fill, or removed from the site, as applicable.

At all times, temporary construction excavations should conform to the regulations of the State of California, Department of Industrial Relations, Division of Industrial Safety or other stricter governing regulations. The stability of temporary cut slopes, such as those constructed during the installation of underground utilities, should be the responsibility of the contractor. Depending on the time of year when grading is performed, and the surface conditions exposed, temporary cut slopes may need to be excavated to 1½:1, or flatter. The tops of the temporary cut slopes should be rounded back to 2:1 in weak soil zones.

### Subsurface Drainage

A subdrain should be installed where evidence of seepage is observed. The subdrain should consist of a 4-inch diameter (minimum) perforated plastic pipe with SDR 35 or better embedded in Class 2 permeable material. The permeable material should be at least 12 inches thick and extend at least 12 inches above and below the seepage zone.

The depth and extent of subdrains should be determined and approved by the geotechnical engineer in the field during construction. In addition, subdrains should be installed at a minimum slope of 1 percent and should have cleanouts located at their ends and at turning points.

"Sweep" type elbows and wyes should be used at all turning points and cleanouts, respectively. Subdrain outlets and riser cleanouts should be fabricated of the same material as the subdrain pipe as specified herein. Outlet and riser pipe fittings should not be perforated. A licensed land surveyor or civil engineer should provide "record drawings" depicting the locations of subdrains and cleanouts.

**Fill Quality**

All fill materials should be free of perishable matter and rocks or lumps over 6 inches in diameter and must be approved by the geotechnical engineer prior to use. If shallow spread footings and/or interior slab-on-grade floors are used, then the upper 24 inches of fill beneath and within 5 feet of the building area should be select fill. The upper 12 inches of fill beneath and within 3 feet of exterior slabs and/or pavement edges should be select fill. We judge some of the on-site soils are generally suitable for use as general and select fill, however expansive material was encountered within the near surface soils which are not suitable for use as select fill. The suitability of the on-site soils for use as select fill should be verified during grading.

**Select Fill**

Select fill should be free of organic matter, have a low expansion potential, and conform in general to the following requirements:

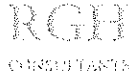
SIEVE SIZE	PERCENT PASSING (by dry weight)
6 inch	100
4 inch	90 – 100
No. 200	10 – 60

Liquid Limit – 40 Percent Maximum  
Plasticity Index – 15 Percent Maximum

In general, imported fill, if needed, should be select. Material not conforming to these requirements may be suitable for use as import fill; however, it shall be the contractor's responsibility to demonstrate that the proposed material will perform in an equivalent manner. The geotechnical engineer should approve imported materials prior to use as compacted fill. The grading contractor is responsible for submitting, at least 72 hours (3 days) in advance of its intended use, samples of the proposed import materials for laboratory testing and approval by the soils engineer.

**Fill Placement**

The surface exposed by stripping and removal of weak, compressible and expansive surface soils should be scarified to a depth of at least 6 inches, uniformly moisture-conditioned to near optimum and compacted to at least 90 percent of the maximum dry density of the materials as determined by ASTM Test Method D-1557. In expansive soil areas, moisture conditioning should be sufficient to completely close all shrinkage cracks for their full depth within pavement, exterior slab and building areas. If grading is performed during the dry season, the shrinkage cracks may extend to a few feet below the surface. Therefore, it may be necessary to excavate



a portion of the cracked soils to obtain the proper moisture condition and degree of compaction. Approved fill material should then be spread in thin lifts, uniformly moisture-conditioned to near optimum and properly compacted. All structural fills, including those placed to establish site surface drainage, should be compacted to at least 90 percent relative compaction. Only approved select materials should be used for fill within the upper 24 inches of interior slab subgrades and within the upper 12 inches of exterior slabs and/or pavement subgrades.

### SUMMARY OF COMPACTION RECOMMENDATIONS

Area	Compaction Recommendation (ASTM D-1557)
Preparation for areas to receive fill	After preparation in accordance with this report, compact upper 6 inches to a minimum of 90 percent relative compaction.
General fill (native or import)	Compact to a minimum of 90 percent relative compaction.
Structural fill beneath buildings, extending outward to 5' beyond building perimeter	Compact to a minimum of 90 percent relative compaction. Compact to a minimum of 95 percent where building pad transitions between firm native soils and fill.
Structural fill beneath building pads that transition between firm native soils and fills less than 3 feet thick	Compact to a minimum of 95 percent relative compaction.
Trenches	Compact to a minimum of 90 percent relative compaction. Compact the top 6 inches below vehicle pavement subgrade to a minimum of 95 percent relative compaction.
Retaining wall backfill	Compact to a minimum of 90 percent relative compaction, but not more than 95 percent.
Pavements, extending outward to 3' beyond edge of pavement	Compact upper 6 inches of subgrade to a minimum of 95 percent relative compaction.

Concrete flatwork and exterior slabs, extending outward to 3' beyond edge of slab

Compact subgrade to a minimum of 90 percent relative compaction. Where subject to vehicle traffic, compact upper 6 inches of subgrade to at least 95 percent relative compaction.

Aggregate Base

Compact aggregate base to at least 95 percent relative compaction.

### Permanent Cut and Fill Slopes

In general, cut and fill slopes should be designed and constructed at slope gradients of 2:1 (horizontal to vertical) or flatter, unless otherwise approved by the geotechnical engineer in specified areas. In expansive soil areas cut and fill slopes should be no steeper than 3:1. Where steeper slopes are required, retaining walls should be used. Fill slopes should be constructed by overfilling and cutting the slope to final grade. "Track walking" of a slope to achieve slope compaction is not an acceptable procedure for slope construction. Permanent cut slopes should be observed in the field by the geotechnical engineer to verify that the exposed soil and/or bedrock conditions are as anticipated. The geotechnical engineer is not responsible for measuring the angles of these slopes. Denuded slopes should be planted with fast-growing, deep-rooted groundcover to reduce sloughing or erosion.

### Wet Weather Grading

Generally, grading is performed more economically during the summer months when on-site soils are usually dry of optimum moisture content. Delays should be anticipated in site grading performed during the rainy season or early spring due to excessive moisture in on-site soils. Special and relatively expensive construction procedures, including dewatering of excavations and importing granular soils, should be anticipated if grading must be completed during the winter and early spring or if localized areas of soft saturated soils are found during grading in the summer and fall.

Open excavations also tend to be more unstable during wet weather as groundwater seeps towards the exposed cut slope. Severe sloughing and occasional slope failures should be anticipated. The occurrence of these events will require extensive clean up and the installation of slope protection measures, thus delaying projects. The general contractor is responsible for the performance, maintenance and repair of temporary cut slopes.

### Foundation Support

Depending on the planned remedial grading or the interior-area floor system chosen, the structures can be supported on either spread footings or drilled, cast-in-place, reinforced concrete friction piers. Specific recommendations for each alternative are given in the following sections of the report.

### Spread Footings

If remedial grading is performed to remove and/or strengthen the weak, porous, compressible and/or expansive near surface soils, then shallow spread footings may be used which bear upon firm native soils and/or engineered fill. If remedial grading is not performed, the proposed structures may be supported on a deepened spread footing system which bears upon firm native soils below the zone of significant moisture variation (2 feet below the nearest adjacent grade).

Spread footings should be at least 12 inches wide and should bottom on firm, natural soils or select engineered fill, as applicable, at least 12 inches below pad subgrade. If grading is not performed to remediate expansive soil, footings should be at least 24 inches deep. Additional embedment or width may be needed to satisfy code and/or structural requirements. On ungraded sloping terrain, the footings should be stepped as necessary to produce level tops and bottoms. Footings should be deepened as necessary to provide at least 7 feet of horizontal confinement between the footing bottoms and the face of the nearest slope.

The bottoms of all footing excavations should be thoroughly cleaned out or wetted and compacted using hand-operated tamping equipment prior to placing steel and concrete. This will remove the soils disturbed during footing excavations, or restore their adequate bearing capacity, and reduce post-construction settlements. Footing excavations should not be allowed to dry before placing concrete. If shrinkage cracks appear in soils exposed in the footing excavations, the soil should be thoroughly moistened to close all cracks prior to concrete placement. The moisture condition of the foundation excavations should be checked by the geotechnical engineer no more than 24 hours prior to placing concrete.

Bearing Pressures - Footings installed in accordance with these recommendations may be designed using allowable bearing pressures of 2,000, 3,000 and 4,000 pounds per square foot (psf), for dead loads, dead plus code live loads, and total loads (including wind and seismic), respectively.

Lateral Pressures - The portion of spread footing foundations extending into firm natural soil or select engineered fill may impose a passive equivalent fluid pressure and a friction factor of 350 pcf and 0.35, respectively, to resist sliding. Passive pressure on ungraded weak surface soil should be reduced to 150 pcf. Passive pressure should be neglected within the upper 6 inches, unless the soils are confined by concrete slabs or pavements.

### Drilled Piers

Drilled, cast-in-place, reinforced concrete piers should be used for foundation support where grading is not used strengthen the weak, compressible surface soils or remediate the expansive soils. Drilled piers should extend at least 8 feet into firm native soils (located between 2 and 2½ feet below the existing ground surface). Larger piers and deeper embedment may be needed to resist the lateral forces imposed by earthquakes per the 2013 California Building Code. Piers should be spaced no closer than 3 pier diameters, center to center.

**Skin Friction** - The portion of the piers extending below the weak surface soils may be designed using an allowable skin friction of 500 psf for dead load plus long term live loads. This value can be increased by  $\frac{1}{3}$  for total loads, including downward vertical wind or seismic forces. A skin friction value of 350 psf should be used to resist uplift forces. End bearing should be neglected because of the difficulty of cleaning out small diameter pier holes, and the uncertainty of mobilizing end bearing and skin friction simultaneously.

**Lateral Forces** - Lateral loads on piers will be resisted by passive pressure on the soil. An equivalent fluid pressure of 350 pcf acting on 2 pier diameters should be used. Confinement for passive pressure may be assumed from  $2\frac{1}{2}$  feet below the lowest adjacent finished ground surface.

The piers should be interconnected with grade beams to support building loads and to redistribute stresses imposed by wind or earthquakes. The grade beams should be designed to span between the piers in accordance with structural requirements. The steel from the piers should extend sufficient distance into the grade beams to develop its full bond strength.

**Uplift Forces** - The piers and grade beams should be designed to resist uplift pressures imposed by expansive soils. The uplift pressure should be assumed to be 1,500 psf of grade beam surface contact.

**Pier Drilling** - We did not encounter groundwater and/or caving-prone soils within the planned pier depth during our study. If groundwater is encountered during drilling, it may be necessary to de-water the holes and/or place the concrete by the tremie method. If caving soils are encountered, it may be necessary to case the holes. Difficult drilling may be required to achieve the required penetration. The drilling subcontractor should review this report, become familiar with site conditions as they pertain to his operation and draw his own conclusions regarding drilling difficulty, suitable drill rigs and the need for casing and dewatering prior to bidding.

**Concrete** - Concrete mix design and placement should be done in accordance with the current ADSC and/or ACI specifications. Concrete should not be allowed to mushroom at the top of the piers or below the bottom of grade beams.

### **Retaining Walls**

Retaining walls constructed at the site must be designed to resist lateral earth pressures plus additional lateral pressures that may be caused by surcharge loads applied at the ground surface behind the walls. Retaining walls free to rotate (yielding greater than 0.1 percent of the wall height at the top of the backfill) should be designed for active lateral earth pressures. If walls are restrained by rigid elements to prevent rotation, they should be designed for "at rest" lateral earth pressures. In the absence of backdrains, the retaining walls should be designed to resist full hydrostatic pressure.

Retaining walls should be designed to resist the following earth equivalent fluid pressures (triangular distribution):

<b>EARTH EQUIVALENT FLUID PRESSURES</b>		
<b>Loading Condition</b>	<b>Pressure (pcf)</b>	<b>Additional Seismic Pressure (pcf)*</b>
Active - Level Backfill	42	14
Active - Sloping Backfill 3:1 or Flatter	53	33
At Rest - Level Backfill	63	35

\* If required

These pressures do not consider additional loads resulting from adjacent foundations or other loads. If these additional surcharge loadings are anticipated, we can assist in evaluating their effects. Where retaining wall backfill is subject to vehicular traffic, the walls should be designed to resist an additional surcharge pressure equivalent to two feet of additional backfill.

Retaining walls will yield slightly during backfilling. Therefore, walls should be backfilled prior to building on, or adjacent to, the walls. Backfill against retaining walls should be compacted to at least 90 and not more than 95 percent relative compaction. Over-compaction or the use of large compaction equipment should be avoided because increased compactive effort can result in lateral pressures higher than those recommended above.

**Foundation Support**

Retaining walls should be supported on spread footings or drilled piers, as applicable, designed in accordance with the recommendations presented in this report. Retaining wall foundations should be designed by the project civil or structural engineer to resist the lateral forces set forth in this section.

**Wall Drainage and Backfill**

Retaining walls should be backdrained as shown on Plate 14, Appendix A. The backdrains should consist of 4-inch diameter, rigid perforated pipe embedded in Class 2 permeable material. The pipe should be PVC Schedule 40 or ABS with SDR 35 or better, and the pipe should be sloped to drain to outlets by gravity. The top of the pipe should be at least 8 inches below lowest adjacent grade. The Class 2 permeable material should extend to within 1½ feet of the surface. The upper 1½ feet should be backfilled with compacted soil to exclude surface water. Expansive soils should not be used for wall backfill. Where expansive soils are present in the excavation made to install the retaining wall, the excavation should be sloped back 1:1 from the back of the footing or grade beam. The ground surface behind retaining walls should be sloped to drain. Where migration of moisture through retaining walls would be detrimental, retaining walls should be waterproofed.

### **Slab-On-Grade**

Provided grading is performed in accordance with the recommendations presented herein, interior, exterior, and garage slabs should be underlain by non-expansive firm, natural soils and/or select engineered fill.

Slab-on-grade subgrade should be rolled to produce a dense, uniform surface. The future expansion potential of the subgrade soils should be reduced by thoroughly presoaking the slab subgrade prior to concrete placement. The moisture condition of the subgrade soils should be checked by the geotechnical engineer no more than 24 hours prior to placing the capillary moisture break. The slabs should be underlain with a capillary moisture break consisting of at least 4 inches of clean, free-draining crushed rock or gravel (excluding pea gravel) at least ¼-inch and no larger than ¾-inch in size. Interior slabs subject to vehicular traffic may be underlain by Class 2 aggregate base. The use of Class 2 aggregate base should be reviewed on a case by case basis. Class 2 aggregate base can be used for slab rock under exterior slabs. Outlets should be provided for the interior slab rock to drain through foundation walls into a perimeter subdrain. Interior area slabs should be provided with an underdrain system. The installation of this subdrain system is discussed in the "Geotechnical Drainage" section.

Slabs should be designed by the project civil or structural engineer to support the anticipated loads, reduce cracking and provide protection against the infiltration of moisture vapor. A vapor barrier should be placed under all slabs-on-grade that are likely to receive an impermeable floor finish or be used for any purpose where the passage of water vapor through the floor is undesirable. RGH does not practice in the field of moisture vapor transmission evaluation or mitigation. Therefore, we recommend that a qualified person be consulted to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction. This person should provide recommendations for mitigation of the potential adverse impact of moisture vapor transmission on various components of the structure as deemed appropriate.

### **Utility Trenches**

The shoring and safety of trench excavations is solely the responsibility of the contractor. Attention is drawn to the State of California Safety Orders dealing with "Excavations and Trenches."

Unless otherwise specified by the County of Napa, on-site, inorganic soil may be used as general utility trench backfill. Where utility trenches support pavements, slabs and foundations, trench backfill should consist of aggregate baserock. The baserock should comply with the minimum requirements in Caltrans Standard Specifications, Section 26 for Class 2 Aggregate Base. Trench backfill should be moisture-conditioned as necessary, and placed in horizontal layers not exceeding 8 inches in thickness, before compaction. Each layer should be compacted to at least 90 percent relative compaction as determined by ASTM Test Method D-1557. The top 6 inches of trench backfill below vehicle pavement subgrades should be moisture-conditioned as necessary and compacted to at least 95 percent relative compaction. Jetting or ponding of trench backfill to aid in achieving the recommended degree of compaction should not be attempted.



**Pavements**

As recommended herein, in areas underlain by on-site soil of moderate expansion potential, site grading should be performed to remediate soil heave and the uppermost 12 inches of pavement subgrade should consist of imported select fill material with a minimum R-value of 20. Alternatively, on-site soils with a low expansion potential may be used as subgrade provided they are prepared according to the specifications of this report.

Based on our study, we believe on-site soils will have a low supporting capacity, after proper compaction, when used as a pavement subgrade. An R-value of 8 was measured on a bulk sample of near-surface soils. Because of potential variation in the on-site soils, we selected an R-value of 5 for use in pavement design calculations.

Based on the selected R-Values and our experience with similar projects and soils, we recommend that the pavement sections listed in the table below be used. The assumed Traffic Indices (TI) are not based on actual truck traffic counts or predictions of counts. Actual truck traffic counts may require revision of these traffic indices.

Based on the selected R-values, we have computed pavement sections for Traffic Indices (TI) ranging from 5.0 to 7.0 in the table below. The project engineer, in consultation with County officials, should choose the pertinent (TI) for this project.

<b>PAVEMENT SECTIONS WITH IMPORTED SELECT FILL SUBGRADE</b>			
<b>TI</b>	<b>ASPHALT CONCRETE (feet)</b>	<b>CLASS 2 AGGREGATE BASE (feet)</b>	<b>IMPORTED SELECT FILL* (feet)</b>
7.0	0.30	1.15	1.0
6.0	0.25	1.05	1.0
5.0	0.20	0.90	1.0

\* R-value ≥ 20

<b>PAVEMENT SECTIONS WITH ON-SITE SELECT FILL</b>			
<b>TI</b>	<b>ASPHALT CONCRETE (feet)</b>	<b>CLASS 2 AGGREGATE BASE (feet)</b>	<b>ON-SITE SELECT FILL (feet)</b>
7.0	0.35	1.25	1.0
6.0	0.25	1.15	1.0
5.0	0.20	0.90	1.0

\*R-value ≥ 5

Pavement thicknesses were computed using Caltrans CalFP v1.5 design software and are based on a pavement life of 20 years. These recommendations are intended to provide support for traffic represented by the indicated Traffic Indices. They are not intended to provide pavement sections for heavy concentrated construction storage or wheel loads such as forklifts, parked truck-trailers and concrete trucks.

Because of the expansion potential of the soil and bedrock at the site and the difficulty in controlling seasonal moisture variation beneath and adjacent to the driveway, significant cracking may develop in the pavement even if 12-inches of select fill is installed. Increasing the thickness of select fill or installing moisture cutoffs may reduce but not eliminate the potential for cracks to develop. It should be understood that pavements will likely require regular maintenance including crack sealing and the aesthetics may not be desirable.

In areas where heavy construction storage and wheel loads are anticipated, the pavements should be designed to support these loads. Support could be provided by increasing pavement sections or by providing reinforced concrete slabs. Alternatively, paving can be deferred until heavy construction storage and wheel loads are no longer present.

Prior to placement of aggregate base, the upper 6 inches of the pavement subgrade soils should be scarified, uniformly moisture-conditioned to near optimum, and compacted to at least 95 percent relative compaction to form a firm, non-yielding surface.

Aggregate base materials should be spread in thin layers, uniformly moisture-conditioned, and compacted to at least 95 percent relative compaction to form a firm, non-yielding surface. The materials and methods used should conform to the requirements of the County of Napa and the current edition of the Caltrans Standard Specifications, except that compaction requirements should be based on ASTM Test Method D-1557. Aggregate used for the base course should comply with the minimum requirements specified in Caltrans Standard Specifications, Section 26 for Class 2 Aggregate Base.

#### Wet Weather Paving

In general, the pavements should be constructed during the dry season to avoid the saturation of the subgrade and base materials, which often occurs during the wet winter months. If pavements are constructed during the winter, a cost increase relative to drier weather construction should be anticipated. Unstable areas may have to be overexcavated to remove soft soils. The excavations will probably require backfilling with imported crushed (ballast) rock. The geotechnical engineer should be consulted for recommendations at the time of construction.

#### Geotechnical Drainage

This section presents recommendations for surface and subsurface drainage. For the discussion of subsurface drainage related to grading, especially on hillsides, refer to the "Subsurface Drainage" section.

## Surface

Surface water should be diverted away from slopes, foundations and edges of pavements. Surface drainage gradients should slope away from building foundations in accordance with the requirements of the CBC or local governing agency. Where a gradient flatter than 2 percent for paved areas and 4 percent for unpaved areas is required to satisfy design constraints, area drains should be installed with a spacing no greater than about 20 feet. Roofs should be provided with gutters and the downspouts should (empty onto splash blocks that discharge directly onto paved areas or be connected to closed (glued Schedule 40 PVC or ABS with SDR of 35 or better) conduits discharging well away from foundations, onto paved areas or erosion resistant natural drainages, or into the site's surface drainage system. Roof downspouts and surface drains must be maintained entirely separate from the slab underdrains recommended hereinafter.

Water seepage or the spread of extensive root systems into the soil subgrade of footings, slabs or pavements could cause differential movements and consequent distress in these structural elements. Landscaping should be planned with consideration for these potential problems.

## Perimeter Foundation Drains

Where interior crawl spaces are lower than adjacent exterior grade, subdrains should be installed adjacent to perimeter foundations, except on the downhill side, to prevent surface runoff from entering the crawl space. Foundation drains should consist of trenches that are at least 10 inches below the crawl space surface and are sloped to drain by gravity. Four-inch diameter perforated pipe sloped to drain to outlets by gravity should be placed in the bottom of the trenches. The top of subdrain pipes should be at least 6 inches lower than the adjacent crawl space. The perimeter subdrain trenches should be backfilled to within 6 inches of the surface with Class 2 permeable material. The upper 6 inches should be backfilled with compacted soil to exclude surface water. An illustration of this system is shown on Plate 15. Where perimeter foundation drains are not used, water ponding in the crawl space should be anticipated. Where retaining walls are used for perimeter foundations, retaining wall backdrains may be used in lieu of foundation drains.

## Crawl Space Drains

Crawl spaces are inherently damp and humid. In addition, groundwater seepage is unpredictable and difficult to control and, regardless of the care used in installing perimeter foundation drains, can find its way into crawl spaces. The ground surface within the crawl space should be sloped to drain away from foundations and toward a 12 inch square drain trench that is excavated through the longitudinal axis of the crawl space. A 4-inch diameter perforated drain pipe (SDR 35 or better) should be embedded in Class 2 permeable materials near the bottom of the trench. The drain rock should extend to the surface of the crawl space (see Plate 15). Piped outlets should be provided to allow drainage of the collected water through foundations and discharge into the storm drain system. Additional protection against water seepage into crawl spaces can be obtained by compacting fill placed adjacent to perimeter walls to at least 90 percent relative compaction.

### Slab Underdrains

Where interior slab subgrades are less than 6 inches above adjacent exterior grade and where migration of moisture through the slab would be detrimental, slab underdrains should be installed to dispose of surface and/or groundwater that may seep and collect in the slab rock. Slab underdrains should consist of 6-inch wide trenches that extend at least 6 inches below the bottom of the slab rock and slope to drain by gravity. The slab underdrain trenches should be spaced no further than 15 feet, both ways. Additional drain trenches should be installed, as necessary, to drain all isolated under slab areas. Four-inch diameter perforated pipe (SDR 35 or better) sloped to drain to outlets by gravity should be placed in the bottom of the trenches. Slab underdrain trenches should be backfilled to subgrade level with clean, free draining slab rock. An illustration of this system is shown on Plate 15. If slab underdrains are not used, it should be anticipated that water will enter the slab rock, permeate through the concrete slab and ruin floor coverings.

### Maintenance

Periodic land maintenance will be required. Surface and subsurface drainage facilities should be checked frequently, and cleaned and maintained as necessary or at least annually. A dense growth of deep-rooted ground cover must be maintained on all slopes to reduce sloughing and erosion. Sloughing and erosion that occurs must be repaired promptly before it can enlarge.

### Supplemental Services

#### Pre-Bid Meeting

It has been our experience that contractors bidding on the project often contact us to discuss the geotechnical aspects. Informal contacts between RGH and an individual contractor could result in incomplete or misinterpreted information being provided to the contractor. Therefore, we recommend a pre-bid meeting be held to answer any questions about the report prior to submittal of bids. If this is not possible, questions or clarifications regarding this report should be directed to the project owner or their designated representative. After consultation with RGH, the project owner or their representative should provide clarifications or additional information to all contractors bidding the job.

#### Plan and Specifications Review

Coordination between the design team and the geotechnical engineer is recommended to assure that the design is compatible with the soil, geologic and groundwater conditions encountered during our study. RGH Consultants (RGH) recommends that we be retained to review the project plans and specifications to determine if they are consistent with our recommendations. In the event we are not retained to perform this recommended review, we will assume no responsibility for misinterpretation of our recommendations.

### **Construction Observation and Testing**

Prior to construction, a meeting should be held at the site that includes, but is not limited to, the owner or owner's representative, the general contractor, the grading contractor, the foundation contractor, the underground contractor, any specialty contractors, the project civil engineer, other members of the project design team and RGH. This meeting should serve as a time to discuss and answer questions regarding the recommendations presented herein and to establish the coordination procedure between the contractors and RGH.

In addition, we should be retained to monitor all soils related work during construction, including:

- Site stripping, over-excavation, grading, and compaction of near surface soils;
- Placement of all engineered fill and trench backfill with verification field and laboratory testing;
- Observation of all foundation excavations; and
- Observation of foundation and subdrain installations.

If, during construction, we observe subsurface conditions different from those encountered during the explorations, we should be allowed to amend our recommendations accordingly. If different conditions are observed by others, or appear to be present beneath excavations, RGH should be advised at once so that these conditions may be evaluated and our recommendations reviewed and updated, if warranted. The validity of recommendations made in this report is contingent upon our being notified and retained to review the changed conditions.

If more than 18 months have elapsed between the submission of this report and the start of work at the site, or if conditions have changed because of natural causes or construction operations at, or adjacent to, the site, the recommendations made in this report may no longer be valid or appropriate. In such case, we recommend that we be retained to review this report and verify the applicability of the conclusions and recommendations or modify the same considering the time lapsed or changed conditions. The validity of recommendations made in this report is contingent upon such review.

These supplemental services are performed on an as-requested basis and are in addition to this geotechnical study. We cannot accept responsibility for items that we are not notified to observe or for changed conditions we are not allowed to review.

### **LIMITATIONS**

This report has been prepared by RGH for the exclusive use of Michael Turk and his consultants as an aid in the design and construction of the proposed improvements described in this report.



The validity of the recommendations contained in this report depends upon an adequate testing and monitoring program during the construction phase. Unless the construction monitoring and testing program is provided by our firm, we will not be held responsible for compliance with design recommendations presented in this report and other addendum submitted as part of this report.

Our services consist of professional opinions and conclusions developed in accordance with generally accepted geotechnical engineering principles and practices. We provide no warranty, either expressed or implied. Our conclusions and recommendations are based on the information provided to us regarding the proposed construction, the results of our field exploration, laboratory testing program, and professional judgment. Verification of our conclusions and recommendations is subject to our review of the project plans and specifications, and our observation of construction.

The borings represent subsurface conditions at the locations and on the date indicated. It is not warranted that they are representative of such conditions elsewhere or at other times. Site conditions and cultural features described in the text of this report are those existing at the time of our field exploration on September 8, 2016, and may not necessarily be the same or comparable at other times.

The scope of our services did not include an environmental assessment or a study of the presence or absence of toxic mold and/or hazardous, toxic or corrosive materials in the soil, surface water, groundwater or air (on, below or around this site), nor did it include an evaluation or study for the presence or absence of wetlands. These studies should be conducted under separate cover, scope and fee and should be provided by a qualified expert in those fields.

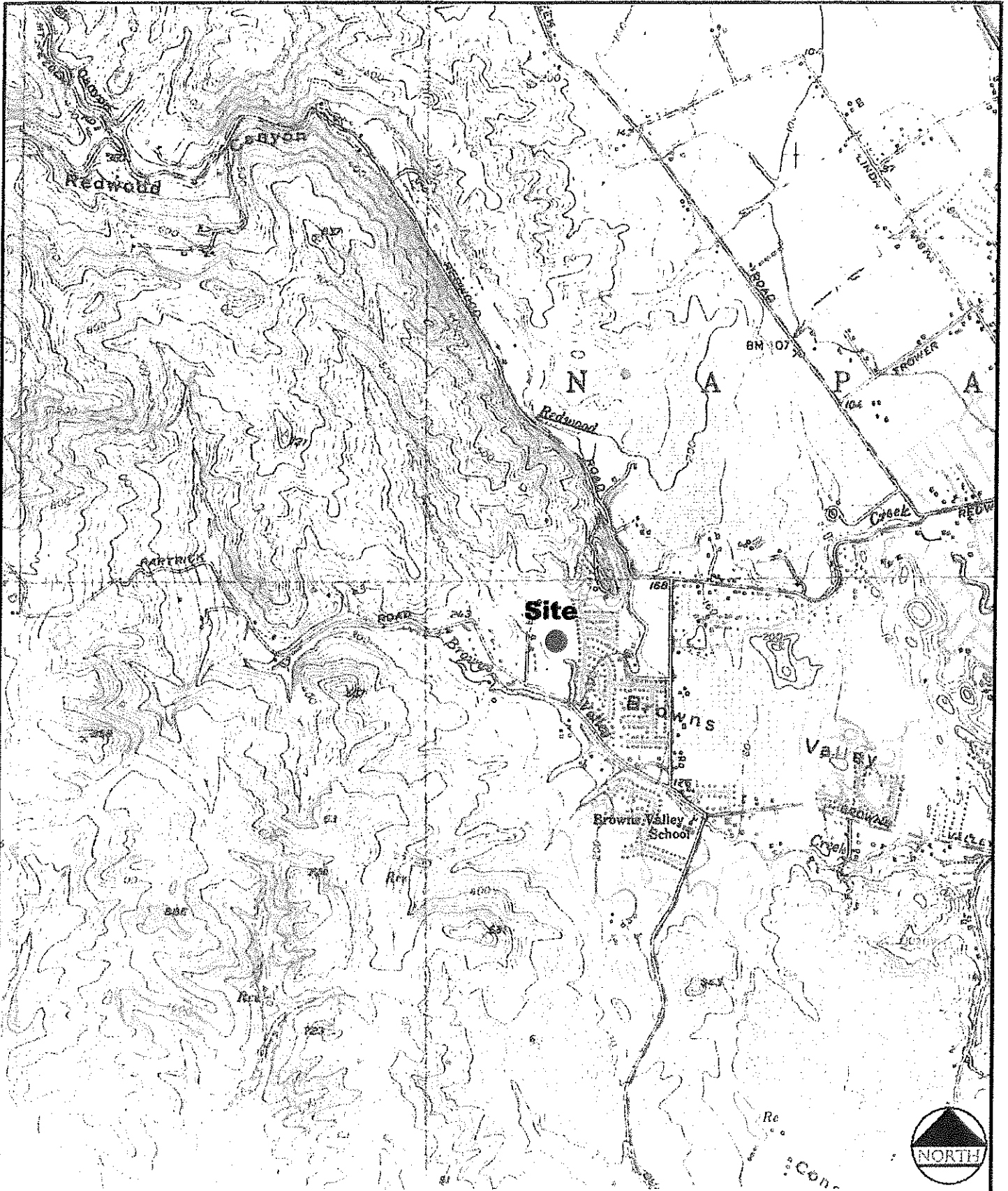


**APPENDIX A - PLATES**

**LIST OF PLATES**

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Plate 15	Typical Subdrain Details Illustration





Reference: Maptech Topoquad, Napa, California Quadrangle

Scale: 1" = 2000'

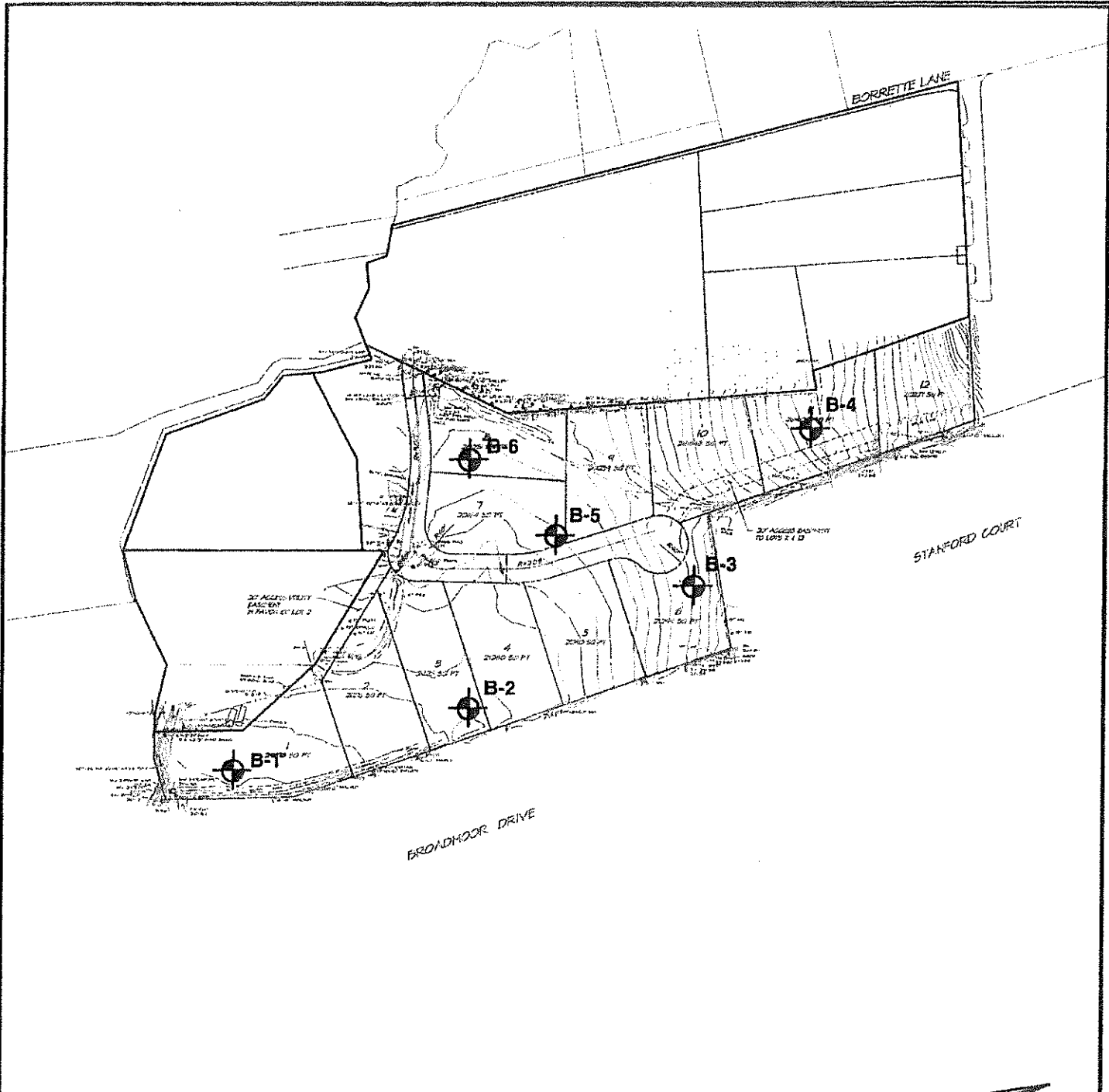


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Job No: 7003.01.04.2 | Date: OCT 2016

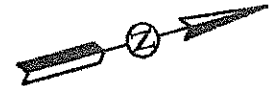
**SITE LOCATION MAP**  
Borrette Lane Estates Subdivision  
Napa, California

PLATE  
1



**EXPLANATION**

B-3  Approximate Boring Location and Number



Reference: "Conceptual Plan - Borrette Lane Estates CC5", Prepared by RSA+, Dated Sept, 1, 2016 Scale: 1" = 200'

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**EXPLORATION PLAN**  
Borrette Lane Estates Subdivision  
Napa, California

PLATE  
**2**

Date(s) Drilled <b>9/8/2016</b>	Logged By <b>JNK</b>	Checked By <b>GWR</b>
Drilling Method <b>Hollow Stem Auger</b>	Drill Bit Size/Type <b>8" O.D. H.S.A.</b>	Total Depth of Borehole <b>30-1/2 feet</b>
Drill Rig Type <b>Truck Mounted B-53</b>	Drilling Contractor <b>Pearson Drilling</b>	Approximate Surface Elevation <b>Existing Ground Surface</b>
Groundwater Level and Date Measured <b>NFWE</b>	Sampling Method(s) <b>Modified California</b>	Hammer Data <b>140 lb, 30-inch autotrip</b>



Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% <#200 Sieve	PI, %	LL, %	Expansion Index (EI)	UC, psf	REMARKS AND OTHER TESTS
	0				LIGHT BROWN SANDY CLAY (CL), medium stiff to stiff, dry to moist, roots and organics, weak and porous to 2-1/2 feet.								
	7												
	9												
	17												
	10		15		LIGHT BROWN AND MOTTLED ORANGE SANDY CLAY WITH GRAVEL (CL), stiff, moist, coarse rounded sands with black organics.								
	15		13										
					Increase in gravel content.								

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**LOG OF BORING B-1**  
Borrette Lane Estates Subdivision  
Napa, California

PLATE

**3**

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% <#200 Sieve	PI, %	LL, %	Expansion Index (EI)	UC, psf	REMARKS AND OTHER TESTS
	20		23		Increase in gravel content.								
	25		19										
	30		33		GRAY SHEARED SHALE, soft to firm, friable, highly weathered.								
	30-1/2				Boring terminated at 30-1/2 feet. No free water encountered.								
	35												

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**LOG OF BORING B-1**  
Borrette Lane Estates Subdivision  
Napa, California

PLATE  
**3a**

Date(s) Drilled <b>9/8/2016</b>	Logged By <b>JNK</b>	Checked By <b>GWR</b>
Drilling Method <b>Hollow Stem Auger</b>	Drill Bit Size/Type <b>8" O.D. H.S.A.</b>	Total Depth of Borehole <b>13-1/2 feet</b>
Drill Rig Type <b>Truck Mounted B-53</b>	Drilling Contractor <b>Pearson Drilling</b>	Approximate Surface Elevation <b>Existing Ground Surface</b>
Groundwater Level and Date Measured <b>NFWE</b>	Sampling Method(s) <b>Modified California</b>	Hammer Data <b>140 lb, 30-inch autotrip</b>

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% <#200 Sieve	Pl, %	LL, %	Expansion Index (Ei)	UC, psf	REMARKS AND OTHER TESTS
	0				LIGHT BROWN SANDY CLAY (CL), stiff, dry to moist, coarse sands, weak and porous to 2-1/2 feet.								
	13												
	5		20		Few gravels at 5 feet.								
	16												
	10												
	31/6'				YELLOW BROWN SANDSTONE/SHALE, firm, friable to weak, highly weathered.								
					Boring terminated at 13-1/2 feet. No free water encountered.								
	15												

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**LOG OF BORING B-2**  
Borrette Lane Estates Subdivision  
Napa, California

PLATE

4

Date(s) Drilled	9/8/2016	Logged By	JNK	Checked By	GWR
Drilling Method	Hollow Stem Auger	Drill Bit Size/Type	8" O.D. H.S.A.	Total Depth of Borehole	15 feet
Drill Rlg Type	Truck Mounted B-53	Drilling Contractor	Pearson Drilling	Approximate Surface Elevation	Existing Ground Surface
Groundwater Level and Date Measured	NFWE	Sampling Method(s)	Modified California, SPT	Hammer Data	140 lb, 30-inch autotrip

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% <#200 Sieve	PI, %	LL, %	Expansion Index (EI)	UC, psf	REMARKS AND OTHER TESTS
0	0				LIGHT BROWN SANDY CLAY (CL), stiff, dry, coarse sands, weak and porous to 2 feet.								
	11												
	43				Becomes mottled brown, hard.								
	5												
	15				GRAY BROWN SANDY CLAY (CH), stiff, moist, few gravels.								
	10				GRAY BROWN SHEARED SHALE, soft to firm, plastic to friable, highly weathered.								
	16												
	51												
	15				Boring terminated at 15 feet. No free water encountered.								

**RGH**  
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**LOG OF BORING B-3**  
Borrette Lane Estates Subdivision  
Napa, California

PLATE

5

Date(s) Drilled	9/8/2016	Logged By	JNK	Checked By	GWR
Drilling Method	Hollow Stem Auger	Drill Bit Size/Type	8" O.D. H.S.A.	Total Depth of Borehole	15 feet
Drill Rig Type	Truck Mounted B-53	Drilling Contractor	Pearson Drilling	Approximate Surface Elevation	Existing Ground Surface
Groundwater Level and Date Measured	NFWE	Sampling Method(s)	Modified California, SPT	Hammer Data	140 lb, 30-Inch autotrip

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% #200 Sieve	PI, %	LL, %	Expansion Index (EI)	UC, psf	REMARKS AND OTHER TESTS
0	0				BROWN SANDY CLAY (CL), very stiff to hard, moist, coarse sands, weak and porous to 2 feet.								
	21												
5	33												
10	24				Increasing sand content.								
15	15				Boring terminated at 15 feet. No free water encountered.								

	<b>LOG OF BORING B-4</b> Borrette Lane Estates Subdivision Napa, California	PLATE <b>6</b>
	Job No: 7003.01.04.2    Date: OCT 2016	

Date(s) Drilled <b>9/8/2016</b>	Logged By <b>JNK</b>	Checked By <b>GWR</b>
Drilling Method <b>Hollow Stem Auger</b>	Drill Bit Size/Type <b>8" O.D. H.S.A.</b>	Total Depth of Borehole <b>17 feet</b>
Drill Rig Type <b>Truck Mounted B-53</b>	Drilling Contractor <b>Pearson Drilling</b>	Approximate Surface Elevation <b>Existing Ground Surface</b>
Groundwater Level and Date Measured <b>NFWE</b>	Sampling Method(s) <b>Modified California</b>	Hammer Data <b>140 lb, 30-inch autotrip</b>

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% <#200 Sieve	PI, %	LL, %	Expansion Index (EI)	UC, psf	REMARKS AND OTHER TESTS
0					BROWN SANDY CLAY (CL), stiff to very stiff, dry to moist, few coarse sands, weak and porous with roots to 2-1/2 feet.								
	16												
5	28												
	17												
10	13												
15	13												
					Boring terminated at 17 feet. No free water encountered.								

**RGH**  
CONSULTANTS

Job No: 7003.01.04.2 | Date: OCT 2016

**LOG OF BORING B-5**  
Borrette Lane Estates Subdivision  
Napa, California

PLATE  
**7**



Date(s) Drilled	9/8/2016	Logged By	JNK	Checked By	GWR
Drilling Method	Hollow Stem Auger	Drill Bit Size/Type	8" O.D. H.S.A.	Total Depth of Borehole	10 feet
Drill Rig Type	Truck Mounted B-53	Drilling Contractor	Pearson Drilling	Approximate Surface Elevation	Existing Ground Surface
Groundwater Level and Date Measured	NFWE	Sampling Method(s)	Modified California	Hammer Data	140 lb, 30-inch autotrip


















Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% #200 Sieve	Pl, %	LL, %	Expansion Index (EI)	UC, psf	REMARKS AND OTHER TESTS
0					BROWN SANDY CLAY (CL), stiff to very stiff, dry to moist, few coarse sands, weak and porous with roots to 2 feet.								
	9												
	13												
	21												
	18												
	10				Boring terminated at 10 feet. No free water encountered.								
	15												

**RGH**  
CONSULTANTS

Job No: 7003.01.04.2 | Date: OCT 2016

**LOG OF BORING B-6**  
Borrette Lane Estates Subdivision  
Napa, California

PLATE  
**8**

Elevation (feet)	Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% <#200 Sieve	PI, %	LL, %	Expansion Index (EI)	UC, psf	REMARKS AND OTHER TESTS		
1	2	3	4	5	6	7	8	9	10	11	12	13	14		
<b>COLUMN DESCRIPTIONS</b>															
1	Elevation (feet): Elevation (MSL, feet).					9	% <#200 Sieve: % <#200 Sieve								
2	Depth (feet): Depth in feet below the ground surface.					10	PI, %: Plasticity Index, expressed as a water content.								
3	Sample Type: Type of soil sample collected at the depth interval shown.					11	LL, %: Liquid Limit, expressed as a water content.								
4	Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.					12	Expansion Index (EI): Expansion Index (EI)								
5	Graphic Log: Graphic depiction of the subsurface material encountered.					13	UC, psf: Unconfined compressive strength, in pounds per square foot.								
6	MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.					14	REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel.								
7	Dry Density (pcf): Dry density, in pcf.														
8	Water Content (%): Water content, percent.														
<b>FIELD AND LABORATORY TEST ABBREVIATIONS</b>															
CHEM: Chemical tests to assess corrosivity						PI: Plasticity Index, percent									
COMP: Compaction test						SA: Sieve analysis (percent passing No. 200 Sieve)									
CONS: One-dimensional consolidation test						UC: Unconfined compressive strength test, Qu, in psf									
LL: Liquid Limit, percent						WA: Wash sieve (percent passing No. 200 Sieve)									
<b>MATERIAL GRAPHIC SYMBOLS</b>															
 Fat CLAY, CLAY w/SAND, SANDY CLAY (CH)						 Lean CLAY, CLAY w/SAND, SANDY CLAY (CL)									
						 Shale									
<b>TYPICAL SAMPLER GRAPHIC SYMBOLS</b>															
 Auger sampler				 CME Sampler				 Pitcher Sample							
 Bulk Sample				 Grab Sample				 2-inch-OD unlined split spoon (SPT)							
 3-inch-OD California w/ brass rings				 2.5-inch-1D Modified California w/ brass liners				 Shelby Tube (Thin-walled, fixed head)							
<b>OTHER GRAPHIC SYMBOLS</b>															
						 Water level (at time of drilling, ATD)									
						 Water level (after waiting)									
						 Minor change in material properties within a stratum									
						 Inferred/gradational contact between strata									
						 Queried contact between strata									
<b>GENERAL NOTES</b>															
1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.															
2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.															

### LAYERING

MASSIVE	Greater than 6 feet
THICKLY BEDDED	2 to 6 feet
MEDIUM BEDDED	8 to 24 inches
THINLY BEDDED	2½ to 8 inches
VERY THINLY BEDDED	¾ to 2½ inches
CLOSELY LAMINATED	¼ to ¾ inches
VERY CLOSELY LAMINATED	Less than ¼ inch

### JOINT, FRACTURE, OR SHEAR SPACING

VERY WIDELY SPACED	Greater than 6 feet
WIDELY SPACED	2 to 6 feet
MODERATELY SPACED	8 to 24 inches
CLOSELY SPACED	2½ to 8 inches
VERY CLOSELY SPACED	¾ to 2½ inches
EXTREMELY CLOSELY SPACED	Less than ¼ inch

### HARDNESS

Soft - pliable; can be dug by hand

Firm - can be gouged deeply or carved with a pocket knife

Moderately Hard - can be readily scratched by a knife blade; scratch leaves heavy trace of dust and is readily visible after the powder has been blown away

Hard - can be scratched with difficulty; scratch produces little powder and is often faintly visible

Very Hard - cannot be scratched with pocket knife, leaves a metallic streak

### STRENGTH

Plastic - capable of being molded by hand

Friable - crumbles by rubbing with fingers

Weak - an unfractured specimen of such material will crumble under light hammer blows

Moderately Strong - specimen will withstand a few heavy hammer blows before breaking

Strong - specimen will withstand a few heavy ringing hammer blows and usually yields large fragments

Very Strong - rock will resist heavy ringing hammer blows and will yield with difficulty only dust and small flying fragments

### DEGREE OF WEATHERING

Highly Weathered - abundant fractures coated with oxides, carbonates, sulphates, mud, etc., thorough discoloration, rock disintegration, mineral decomposition

Moderately Weathered - some fracture coating, moderate or localized discoloration, little to no effect on cementation, slight mineral decomposition

Slightly Weathered - a few stained fractures, slight discoloration, little or no effect on cementation, no mineral composition

Fresh - unaffected by weathering agents; no appreciable change with depth

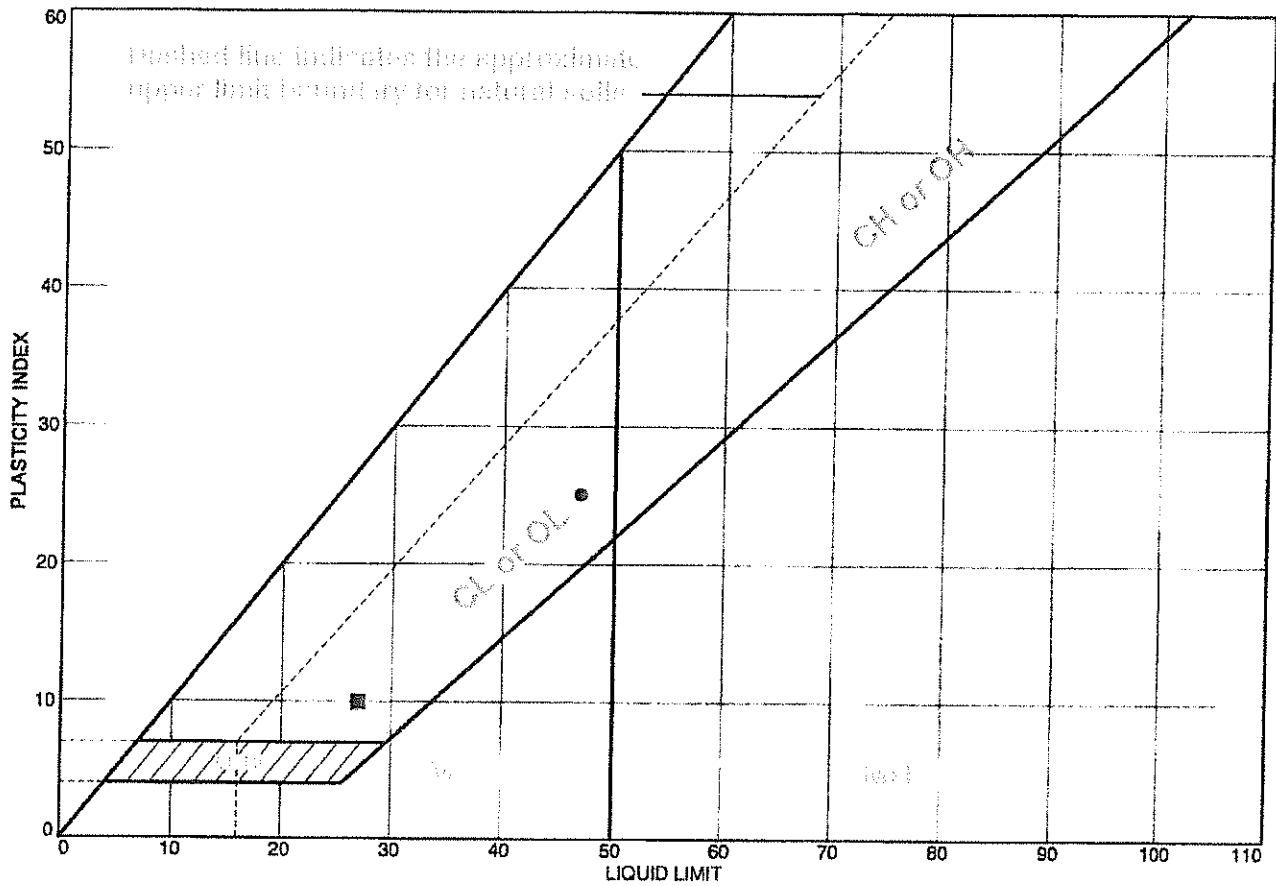
**RGH**  
CONSULTANTS

**ENGINEERING GEOLOGY ROCK TERMS**  
Borrette Lane Estates Subdivision  
Napa, California

PLATE

10

# LIQUID AND PLASTIC LIMITS TEST REPORT



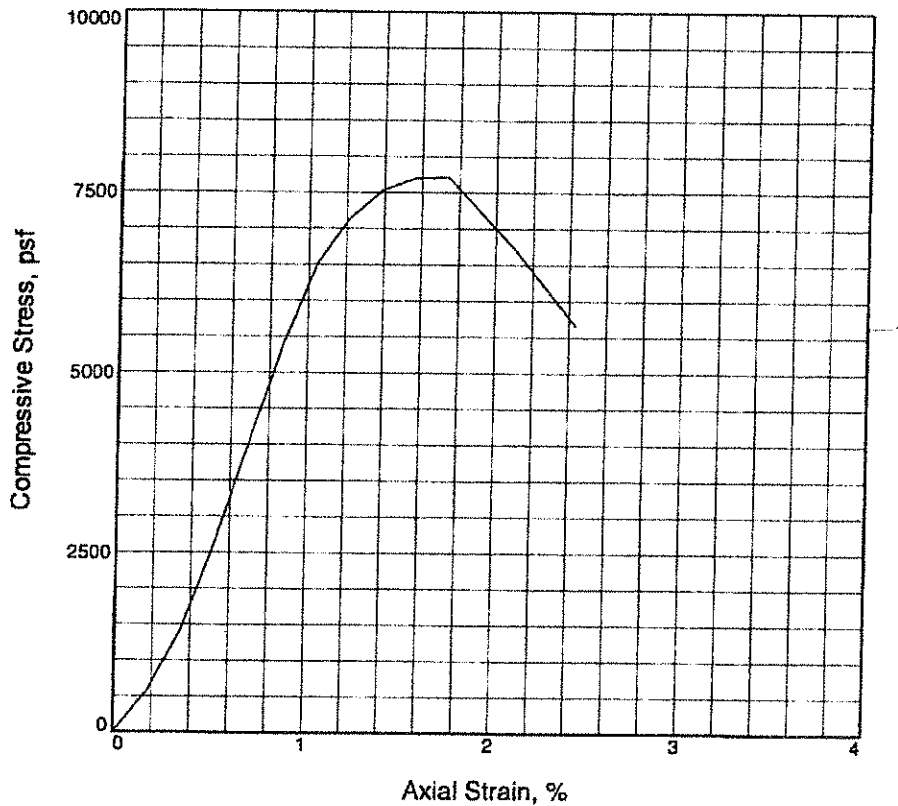
	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Bm Clay W/ Sand (CL)	47	22	25		77.9	CL
■	Bm Clay W/ Sand (CL)	27	17	10		75.4	CL

Project No. 7003.01.04.2 Client: RGH Consultants  
 Project: Borrette Lane Estates Subdivision

● Source of Sample: BH-1 Depth: 1.5' & 2.0' Sample Number: Composite  
 ■ Source of Sample: BH-3 Depth: 1.5' & 2.0' Sample Number: Composite

Remarks:  
 ● Expansion Index=87  
 ■ Expansion Index=43

# UNCONFINED COMPRESSION TEST



Sample No.	1		
Unconfined strength, psf	7714		
Undrained shear strength, psf	3857		
Failure strain, %	1.7		
Strain rate, in./min.	0.06		
Water content, %	12.5		
Wet density, pcf	116.3		
Dry density, pcf	103.3		
Saturation, %	53.6		
Void ratio	0.6316		
Specimen diameter, in.	2.41		
Specimen height, in.	5.75		
Height/diameter ratio	2.39		

**Description:** Bm Clay W/ Sand (CL)

LL =      PL =      PI =      GS= 2.70      Type: Undisturbed

Project No.: 7003.01.04.2

Client: RGH Consultants

Date Sampled:

Project: Borrette Lane Estates Subdivision

Remarks:

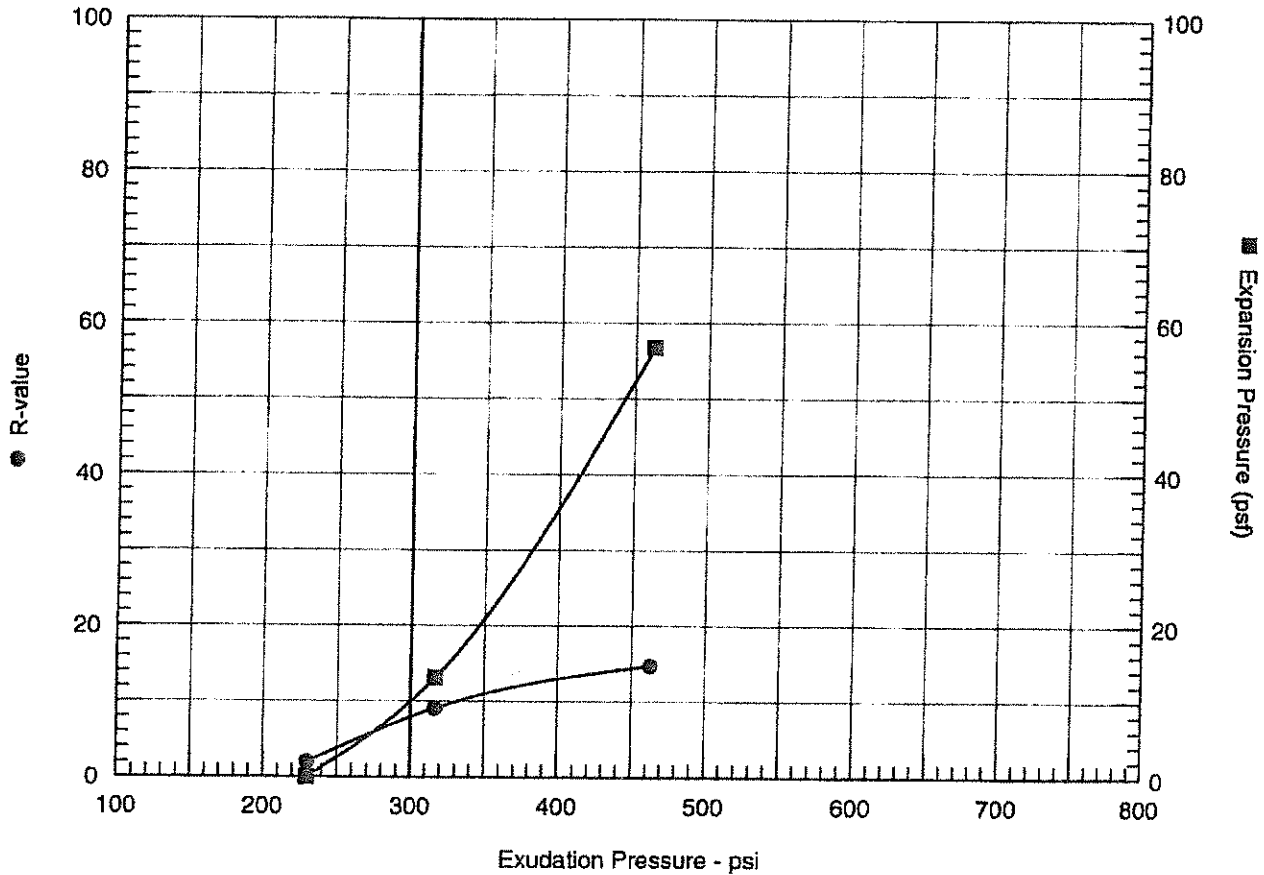
Source of Sample: BH-5      Depth: 3.0'

**RGH**  
CONSULTANTS

**UNCONFINED COMPRESSION TEST DATA**  
Borrette Lane Estates Subdivision  
Napa, California

PLATE  
**12**

# R-VALUE TEST REPORT

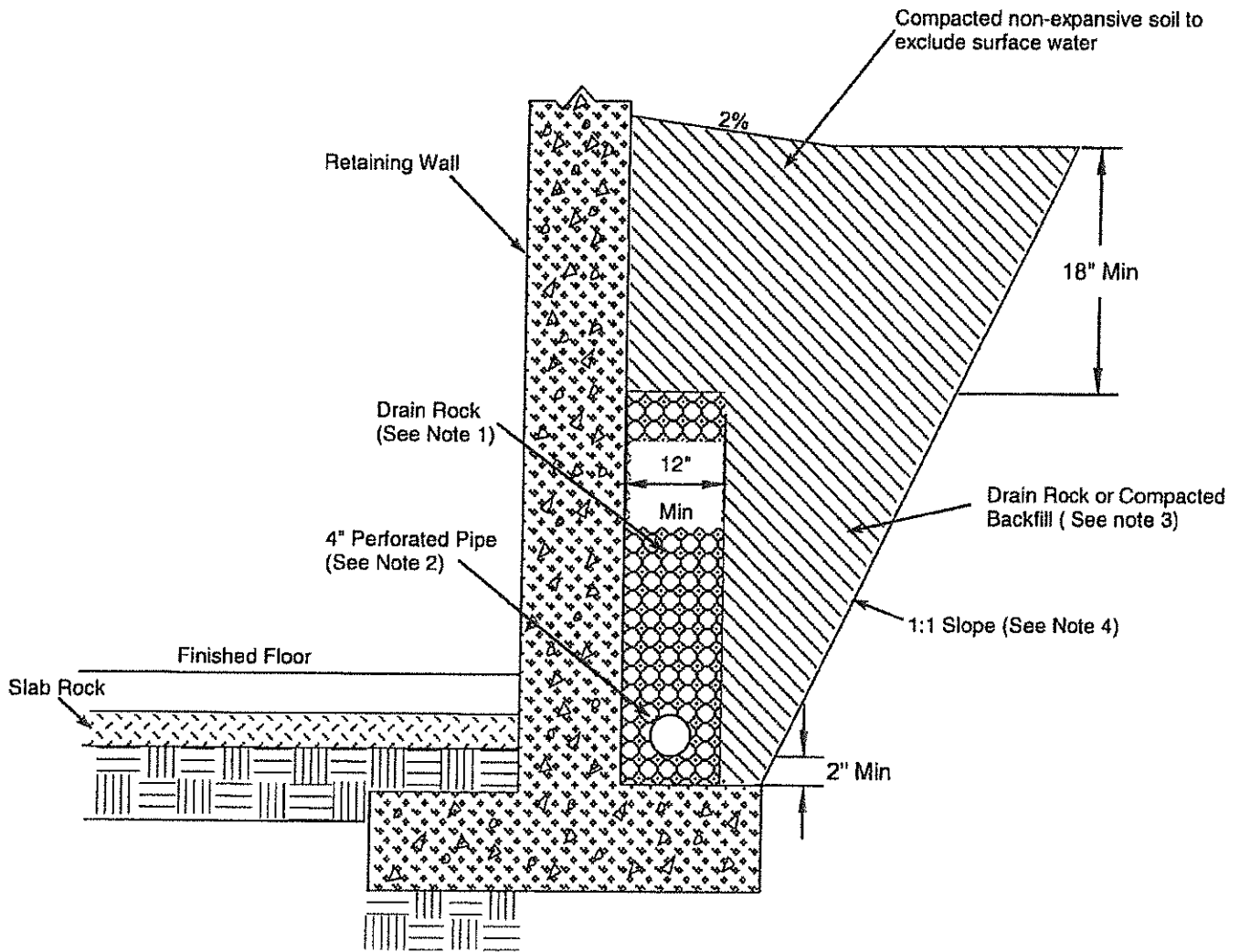


**Resistance R-Value and Expansion Pressure - ASTM D2844**

No.	Compact Pressure psi	Density pcf	Moist. %	Expansion Pressure psf	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	205	108.5	19.9	57	125	2.55	463	15	15
2	95	102.2	22.2	13	137	2.53	317	9	9
3	65	97.8	25.2	0	154	2.54	230	2	2

Test Results	Material Description
R-value at 300 psi exudation pressure = 8 Exp. pressure at 300 psi exudation pressure = 10 psf	Brn Clay W/ Sand (CL)
Project No.: 7003.01.04.2 Project: Borrette Lane Estates Subdivision Source of Sample: BH-1 thru BH-5      Depth: 1.0'-3.0' Sample Number: Composite Bulk Date: 9/27/2016	Tested by: SEF Checked by: GEF Remarks:

	<b>R-VALUE TEST</b> Borrette Lane Estates Subdivision Napa, California	PLATE <b>13</b>
Job No: 7003.01.04.2	Date: OCT 2016	



**Notes:**

1. Drain rock should meet the requirements for Class 2 Permeable Material, Section 68, State of California "Caltrans" Standard Specification, latest edition. Drain rock should be placed to approximately three-quarters the height of the retaining wall.
2. Pipe should conform to the requirements of Section 68 of State of California "Caltrans" Standards, perforations placed down, sloped at 1% for gravity flow to outlet or sump with automatic pump. The pipe invert should be located at least 8 inches below the lowest adjacent finished surface.
3. During construction the contractor should use appropriate methods such as temporary bracing and/or light compaction equipment to avoid overstressing the walls. Non-expansive soils to be used as backfill.
4. Slope excavation back at a 1:1 gradient from the back of footing where expansive materials are exposed.

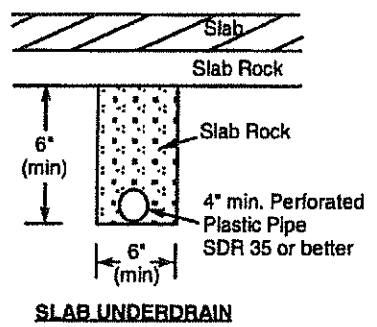
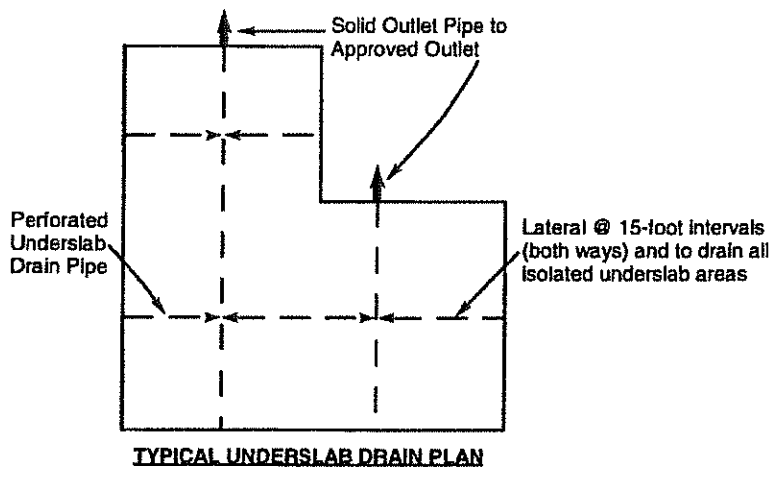
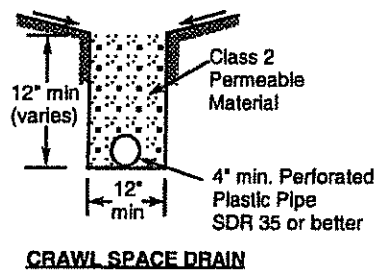
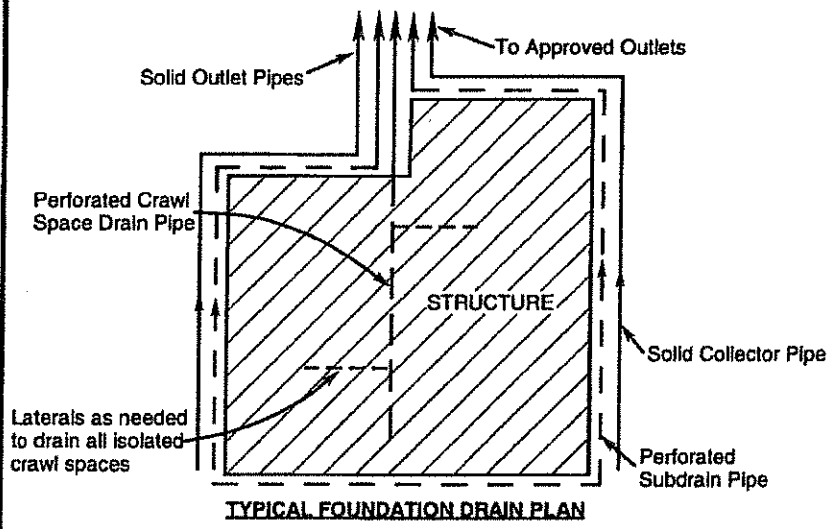
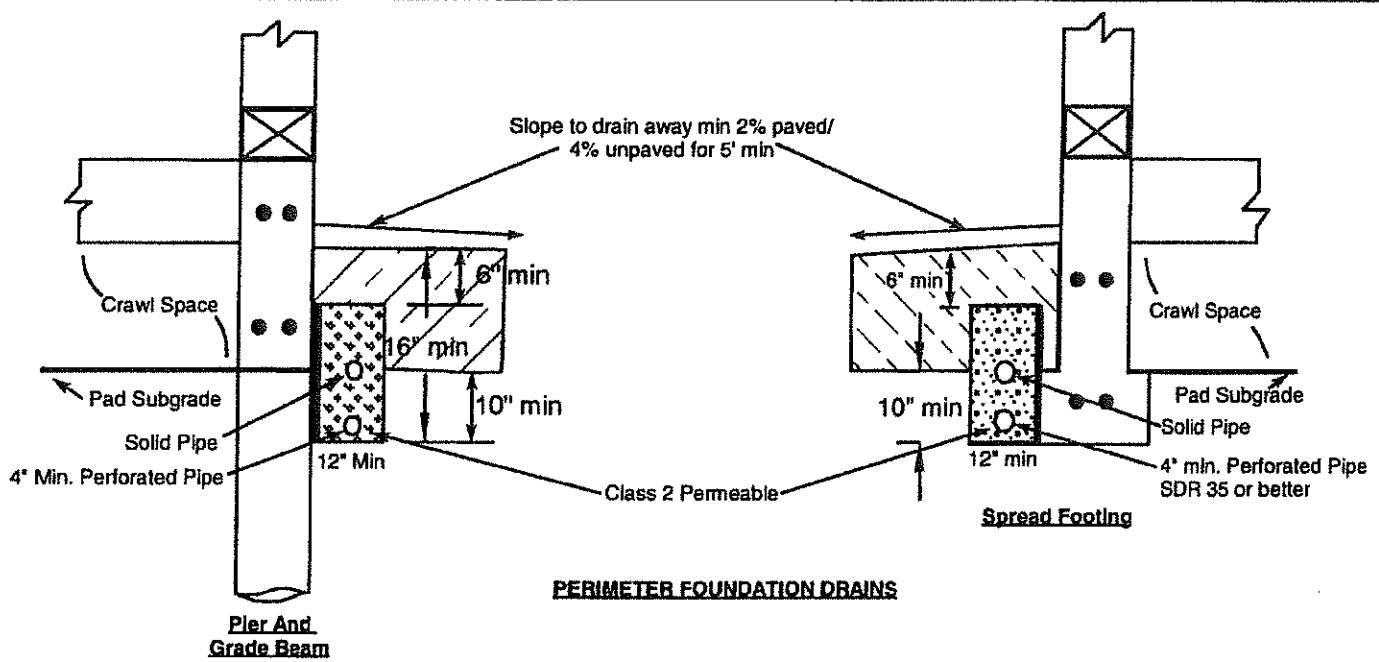
Not to Scale

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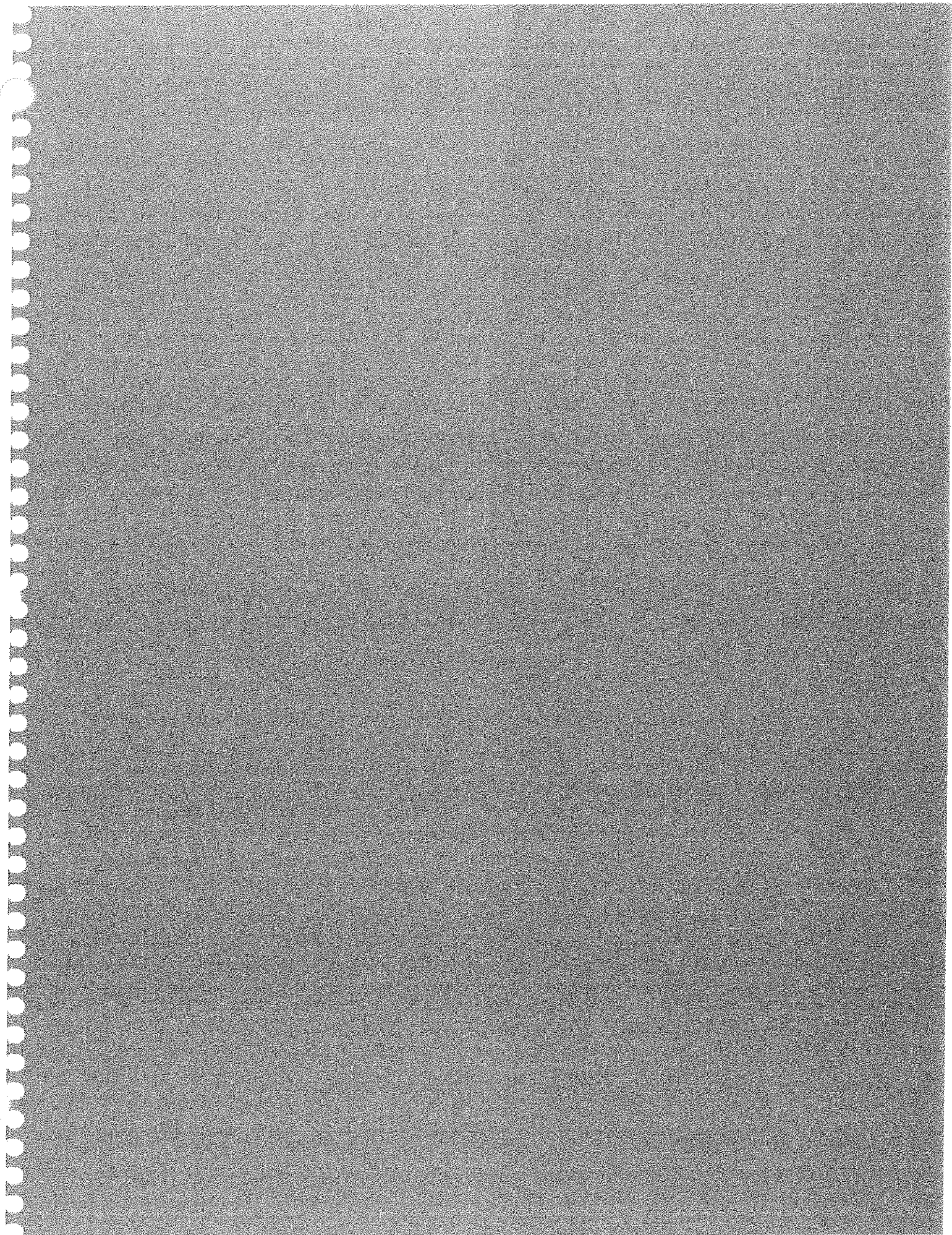
**RETAINING WALL BACKDRAIN ILLUSTRATION**  
Borrette Lane Estates Subdivision  
Napa, California

PLATE

14







## **APPENDIX B - REFERENCES**

- American Society of Civil Engineers, 2010, Minimum Design Loads for Buildings and Other Structures, ASCE Standard ASCE/SEI 7-10.
- Bortugno, E.J., 1982, Map Showing Recency of Faulting, Santa Rosa Quadrangle in Wagner and Bortugno, Geologic Map of the Santa Rosa Quadrangle: California Division of Mines and Geology, Regional Geologic Map Series, Map No. 2A, Santa Rosa Quadrangle, Scale 1:250,000.
- Bryant, W.A., and Hart, E.W., Interim Revision 2007, Fault-Rupture Zones in California; California Geological Survey, Special Publication 42, p. 21 with Appendices A through F.
- Clahan et al., 2004, Preliminary Geologic Map of the Napa 7.5' Quadrangle, Napa and Sonoma Counties, California: A Digital Database, California Geological Survey.
- California Building Code, 2013, California Building Standard Commission.
- Dwyer, M.J., Noguchi, N., and O'Rourke, J., 1976, Reconnaissance Photo-Interpretation Map of Landslides in 24 Selected 7.5-Minute Quadrangles in Lake, Napa, Solano, and Sonoma Counties, California: U.S. Geological Survey OFR 76-74, 25 Plates, Scale 1:24,000.
- Natural Resources Conservation Service, United States Department of Agriculture, accessed July, 2016. Web Soil Survey, available online at <http://websoilsurvey.nrcs.usda.gov/>.
- Working Group on California Earthquake Probabilities, 2007, Uniform California Earthquake Rupture Forecast (UCERF): Notes on Southern California Earthquake Center (SCEC) Web Site (<http://www.scec.org/ucerf/>).

Project: 1001-72501700317003.01.04.2 borrette lane estates subdivision  
Revision: 01

10/11/16  
10/11/16

10/11/16  
10/11/16

### **APPENDIX C - DISTRIBUTION**

Michael Turk  
4641 Ingraham Street  
San Diego, CA 92109  
[lauren@kdtinc.com](mailto:lauren@kdtinc.com)

(3,1e)

GWR:TAW:JNK:jk:ew

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s:\project files\7001-72501700317003.01.04.2 borrette lane estates subdivision\igs report.doc

## Randy Gularte

---

**From:** Berube, Nathan <NBerube@trcsolutions.com>  
**Sent:** Monday, September 12, 2016 5:28 PM  
**To:** Randy Gularte  
**Subject:** Re: is the following Napa properties in the West Napa Fault zone and

That's great !

Sent from my iPhone

On Sep 12, 2016, at 5:21 PM, Randy Gularte <[RAGularte@heritagesir.com](mailto:RAGularte@heritagesir.com)> wrote:

City has indicated this will probably work for them  
Thanks  
Randy Gularte

**From:** Berube, Nathan [<mailto:NBerube@trcsolutions.com>]  
**Sent:** Friday, September 09, 2016 5:18 PM  
**To:** Randy Gularte  
**Subject:** RE: is the following Napa properties in the West Napa Fault zone and

Hi Randy

I took a look on Google's Geology site and it shows that the major portion of the West Napa fault is to the east of the site. The closest branch fault in the vicinity of Borette is approximately 950 feet east of Borette Lane. I'll consult my official geology maps this weekend and have them with me on Monday if you're interested.

Regards,

Nathan

**From:** Randy Gularte [<mailto:RAGularte@heritagesir.com>]  
**Sent:** Friday, September 09, 2016 3:38 PM  
**To:** Berube, Nathan <NBerube@trcsolutions.com>  
**Subject:** RE: is the following Napa properties in the West Napa Fault zone and

Nathan sorry I meant following Napa properties not falling Napa properties.  
Thanks  
Randy G

**From:** Randy Gularte  
**Sent:** Friday, September 09, 2016 10:59 AM  
**To:** [nberube@trcsolutions.com](mailto:nberube@trcsolutions.com)  
**Cc:** Randy Gularte  
**Subject:** is the falling Napa properties in the West Napa Fault zone and

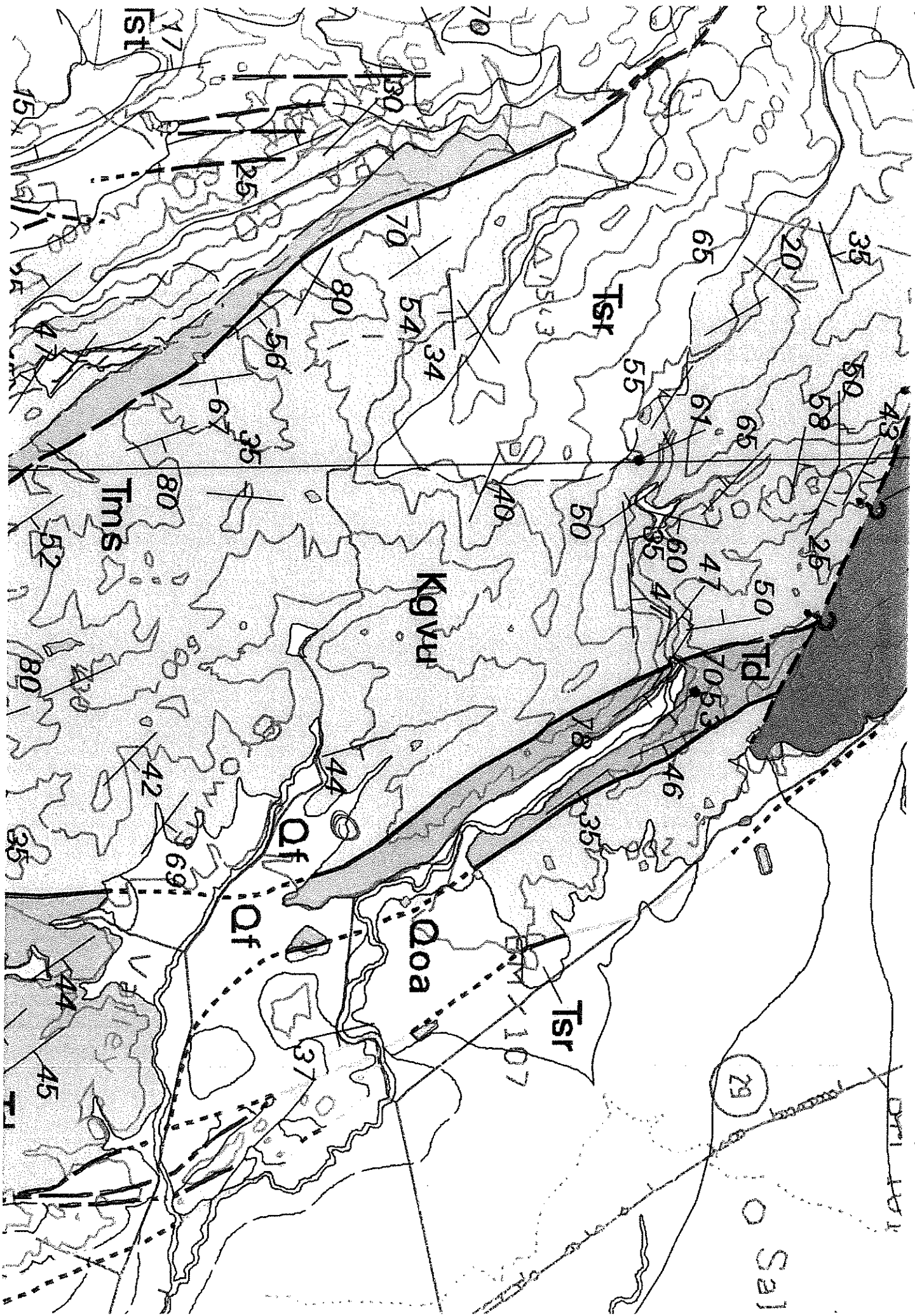
We are proposing a 14 lot subdivision SFR's on AP #'s 041-700-005 + 007  
Addresses are 1030 and 1040 Borette Lane, Napa.  
Currently 2 existing homes exist and will remain on the site as part of the 14 lots.  
If you are up here on Monday and need to walk these properties call me and I can meet you there.

Thanks

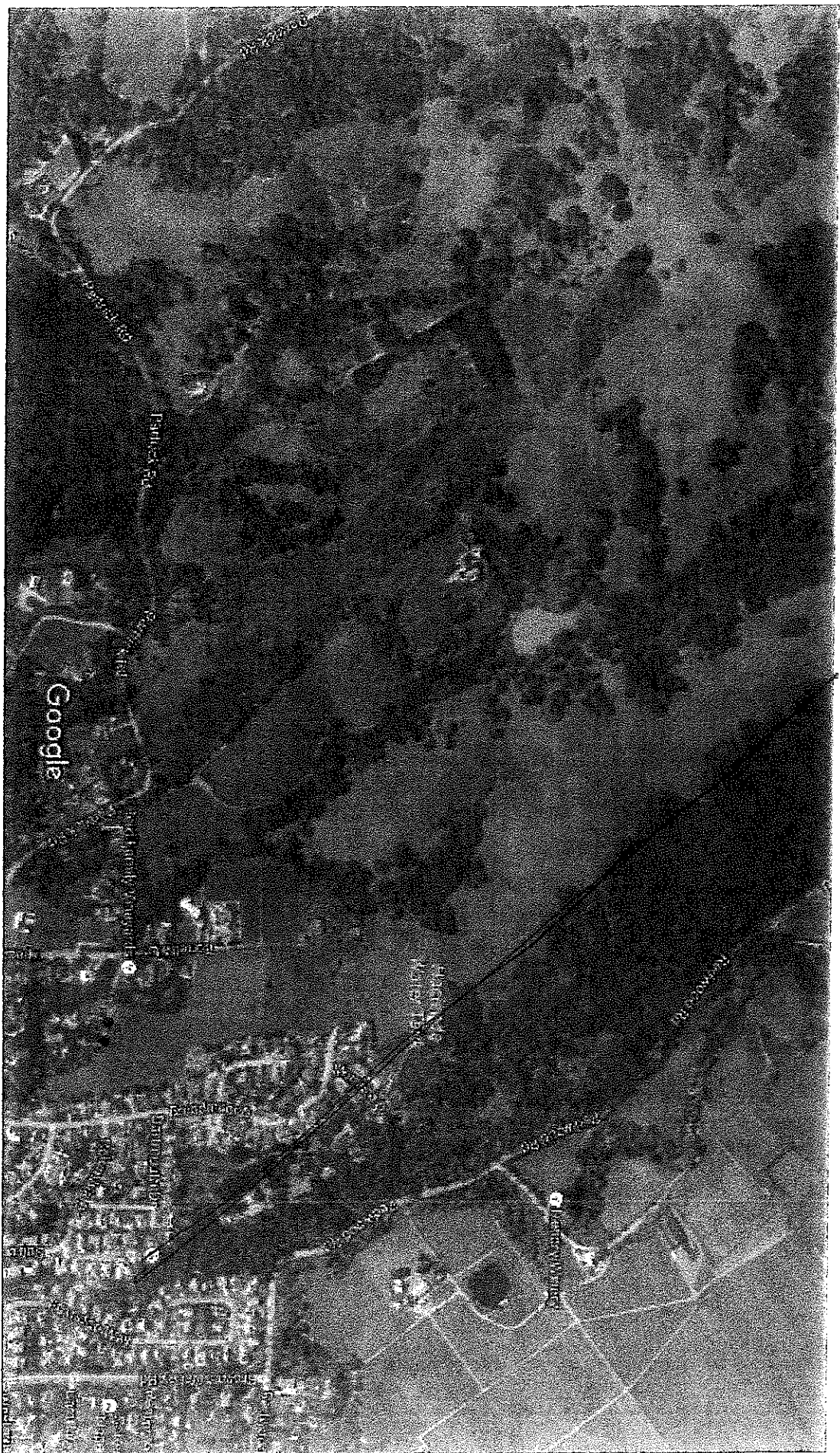
Randy A. Gularte  
Broker/Owner  
Heritage Sotheby's International Realty  
Crown Realty Property Management  
780 Trancas Street  
Napa, CA. 94558  
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CalBRE#00458347

RandyGularte.com  
HeritageSIR.com  
www.WineCountryHomes.TV  
http://www.youtube.com/user/HeritageSIR

Napa Valley Vacation Rental Program www.NapaVacationCondos.com



Bonnie Napa 9/2016



Google earth

miles  
km



102011040 Borwick Lane, Napier

440'

1" = 205.6'



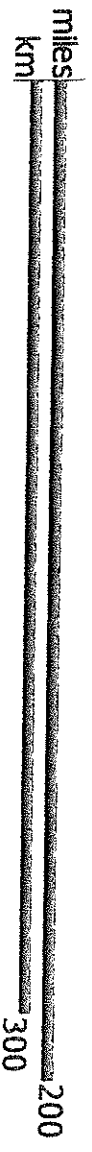




1850/1940 Barrett Ln, Mapa 366'



Google earth



USGS

Google earth

## Randy Gularte

---

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**Cc:** Randy Gularte  
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Thanks

Randy A. Gularte  
Broker/Owner  
Heritage Sotheby's International Realty  
Crown Realty Property Management  
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Fax: 707-224-4545  
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CalBRE#00458347

RandyGularte.com  
HeritageSIR.com  
www.WineCountryHomes.TV  
http://www.youtube.com/user/HeritageSIR

Napa Valley Vacation Rental Program www.NapaVacationCondos.com



Bill Pramuk, Consulting Arborist  
Pramuk, Trees and Associates, LLC

November 26, 2018

Randy Gularte  
Golden Gate, Sotheby's Intl. Realty  
780 Trancas St.  
Napa CA 94558

### **Arborist Report**

Re: Western Meadows Project, Borrette Lane, Napa

#### **Summary**

I performed a survey of trees on the site on October 25, 2018, including only the trees you indicated as affected by the project. After receiving a revised Preliminary Site Plan dated November 13, I returned to evaluate potential impacts to trees. The report includes 25 tree numbers; tree #2 includes thirteen Italian cypress trees.

I concluded Trees #1, 3, 8, 9, 11, 12, 13, 20, 21, 22 and 23 to be removals. Trees #20 and 21 are dead or fallen trees.

Protected Native Trees that need to be removed, unless plans can be changed to accommodate them include #7 and 10.

#2, which includes thirteen trees, and #4 (a single tree) would need to be moved or removed and replaced, depending on your preferred options.

A large coast redwood (#5) on the neighbor's property will need to be carefully protected because the new road will be about 14 feet from the trunk

Tree protection plans should be included in the site plans and construction contracts for trees #4, 5, 6, 14, 15, 16, 17, 18, 19 and "872" (previously tagged pepper tree on the neighbors property, near the road.) Trees #18 and 19 are Protected Native Oaks.

The trees are tagged with numbers corresponding to the attached *Tree Survey Map*.

## Assignment

You requested I review site plans for the project and provide a written report evaluating potential impacts to trees on the site.

## Methods and Limitations

We met and toured the site on October 3 when you showed me the trees. You provided a copy of a site plan: "*Conceptual Plan Borrette Lane Estates CC8B*"<sup>1</sup>. In November you provided a new site plan: *Site Plan Western Meadows*<sup>2</sup>. My evaluation of potential tree impacts is based on the latter plan.

I am including trees you indicated as trees of concern. I examined them from ground level and measured trunk diameters with a diameter scale tape measure. I did not climb to examine trees aloft, drill to assess decay, or perform any excavation to examine root collars or buttress roots.

I tagged the trees with numbered metal tags corresponding to the tree numbers in the report and on the attached site plan. Tree #872 was previously tagged by someone else.

The observations are my own. Conclusions are based on the documents you provided and on my personal experience as an arborist.

---

<sup>1</sup> Sheet 2 of 2, CC8B, RSA +, Aug. 24, 2017

<sup>2</sup> RSA+, November 13, 2018

## Observations

I examined, mapped and tagged the trees on October 25. Here re my observations:

**#1:** 20.5, +10.6 + 13" DBH<sup>3</sup> white alder (*Alnus rhombifolia*). This tree shows good vigor ad good structure. The site plan shows it on the edge of the planned entry road.

**Discussion:** Because of limited space, this tree will need to be removed. The species is a California native but is not listed as Protected in the Napa Municipal Code.

**Recommendation:** Remove.

**2.** (not tagged) 5" to 6" caliper<sup>4</sup> at base: Italian cypress (*Cupressus sempervirens* 'Fastigiata', 'Glauca' or 'Stricta'), 12 trees adjacent to the south side of the existing driveway. All show good vigor and structure. They have been consistently pruned to maintain a relatively small, formal shape and size. A planned sidewalk would be located closely adjacent to the bases of the trunks.

**Discussion:** Excavation for the sidewalk installation would require severe harm to the roots of the trees. Assuming the sidewalk cannot be installed at a safe distance from the trees, they would need to be removed or relocated. In my experience, the species is adaptable to transplanting. There appears to be adequate space for this in the existing lawn area immediately adjacent to the trees.

**Recommendation:**

**Option One:** Transplant the trees to a distance of at least three feet from the edge of the sidewalk. The root balls should be at least 36-inches in diameter.

**Option Two:** Remove and replace with specimen trees of the same species using 36" box nursery grown trees.

**(Skipped trees, not included in this assignment and apparently not at risk from construction**1: 18" willow (*Salix* species).

See site map.)

**3.** 8.3" purple leaf flowering plum (*Prunus cerasifera* 'Krauter Vesuvius'). This tree shows good vigor and good structure. The plans show it in the footprint of the new road.

**Recommendation:** Remove.

**4.** 5.3 caliper Italian cypress. This tree shows good vigor and good structure. It is about three feet from the footprint of the planned new road.

**Recommendation:** Protect.

---

<sup>3</sup> DBH: Diameter at Breast height, 4.5' above ground or just below the first limb.

<sup>4</sup> Caliper is trunk diameter near the base for trees under 12" DBH.

5. 30.5" DBH coast redwood (*Sequoia sempervirens*). This tree shows good vigor and good structure. It appears to be on the neighbor's property and it is located about fourteen feet from the edge of the planned road.

**Discussion:** This tree would require a root protection zone radius of at least 13-feet from the base of the trunk.

**Recommendation:** Establish a TPZ<sup>5</sup> at a radius of thirteen feet from the trunk

6. 12.2" DBH purple leaf flowering plum. This tree shows good vigor and fair structure. The planned new road will be approximately twenty feet from the trunk.

**Recommendation:** Protect.

7. 21.2" DBH coast live oak (*Quercus agrifolia*). This tree shows good vigor and good structure. It is in the footprint of the new road. It is a protected native tree under the City of Napa Code.

**Recommendation:** Request permission for removal. Mitigate as required by the City.

8. 10.9" DBH purple leaf flowering plum. This tree shows good vigor and fair structure. It is in the footprint of the planned new road.

**Recommendation:** Remove.

9. 12.7" DBH Colorado blue spruce (*Picea pungens 'Glauca'*). This tree shows good vigor and good structure. It is about two feet from the planned new road.

**Recommendation:** Remove.

10. 18.5" DBH coast live oak. This tree shows good vigor and good structure. It is in the footprint of the planned new road. It is a Protected Native Tree.

**Recommendation:** Request permission for removal. Mitigate as required by the City.

11. 10.5" DBH flowering pear (*Pyrus calleryana 'Aristocrat'*) This tree show poor vigor and poor structure. It shows dieback typical of fireblight. It is located about 6-feet from the edge of the planned new road.

**Discussion:** Fireblight does not typically kill 'Aristocrat' pears outright. Infection tends to increase over a period of years. It can be controlled to some degree, if treated on an annual basis with sprays and pruning.

**Recommendation:** Remove.

12. 12.3" 'Aristocrat' pear. This tree shows fair vigor and poor structure. It is in the footprint of the planned new road.

**Recommendation:** Remove.

---

<sup>5</sup> TPZ: Tree Protection Zone



13. 18" DBH 'Aristocrat' pear. This tree shows fair vigor and poor structure. It is about 5 feet from the edge of the planned new road. It is infected with fireblight.

**Recommendation** Remove.

14. 19.5" DBH Deodar cedar (*Cedrus deodara*). This tree shows good vigor and good structure. It appears to be well away from planned changes.

**Recommendation:** Protect.

15. 7.6" DBH *Liquidambar* (*L. styraciflua*). This tree shows good vigor and good structure. It appears to be well away from planned changes.

**Recommendation:** Protect.

16. 8.4" DBH *Liquidambar*. This tree shows good vigor and good structure. It appears to be well away from planned changes.

**Recommendation:** Protect.

17. 6.3" DBH *Liquidambar*. This tree shows good vigor and good structure. It appears to be well away from planned changes.

**Recommendation:** Protect.

18. 20.5" DBH coast live oak. This tree shows good vigor and fair structure. The canopy is relatively one-sided because of crowding with the adjacent tree and extends to a radius of about 25-feet with low, arching branches.

**Discussion:** The low arching extend within the building envelope of Lot 1.

**Recommendation:** Protect. Consider non-destructive pruning options with respect to plans for Lot 1.

19. 36.2" (diameter just below attachment of three trunks) coast live oak. This tree shows good vigor and fair structure.

**Recommendation:** Protect.

20. 12" approx. DBH bigleaf maple (*Acer macrophyllum*). Dead tree in the meadow near the creek.

**Recommendation:** Remove.

21. 19", 20" DBH California bay laurel (*Umbellularia californica*), two fallen trunks of a four-trunk tree on the creek bank. A third trunk has fallen across the creek and the fourth trunk remains standing on the creek bank.

**Recommendation:** Remove fallen trunks from the meadow. Discuss remaining trunks with California Department of Fish and Wildlife.

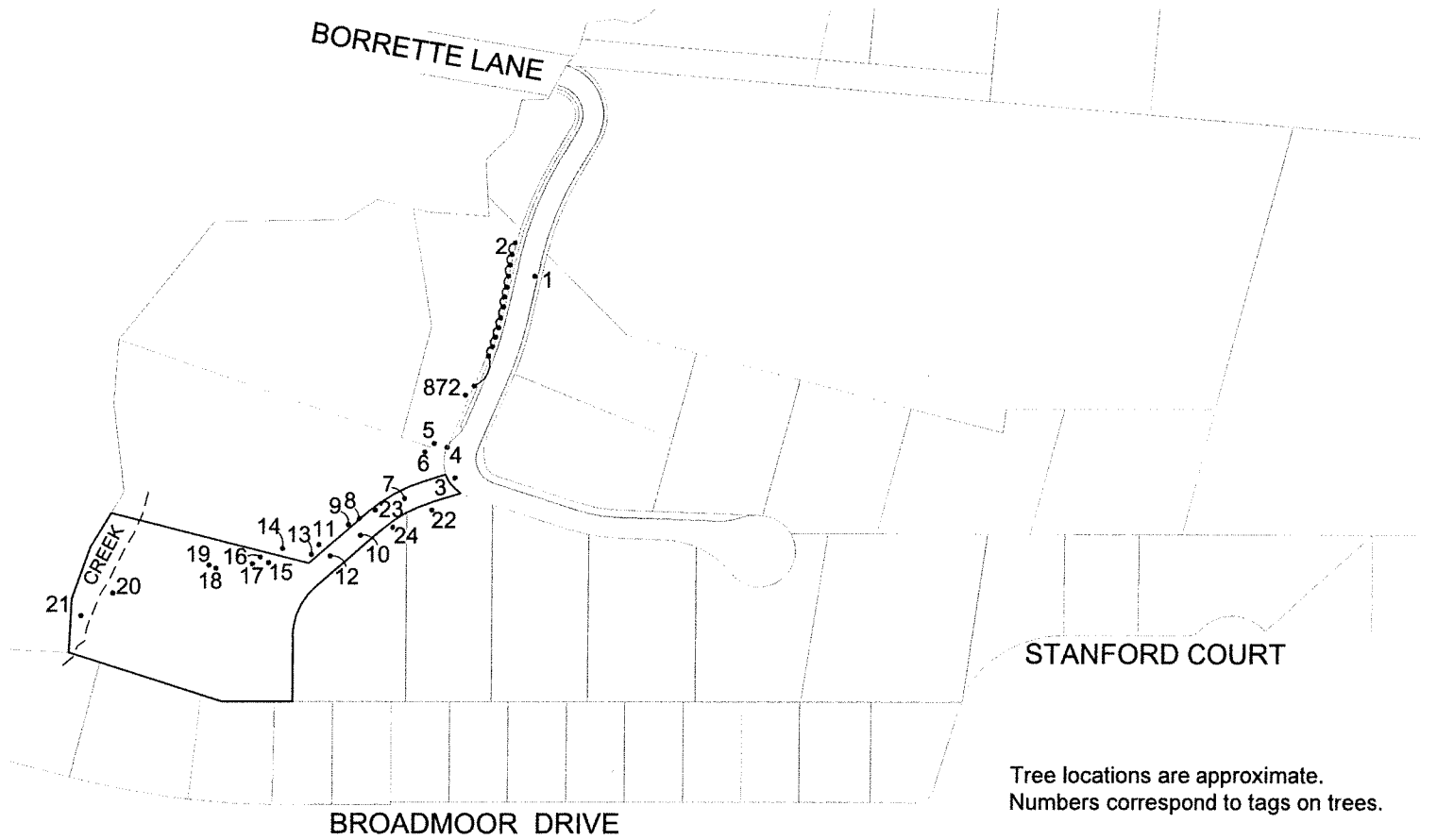
Prepared by:



Bill Pramuk, Consulting Arborist  
RCA #409 ISA WE-0610A  
Tree Risk Assessment Qualified

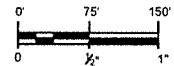
Attached: Tree Survey Map





Tree locations are approximate.  
 Numbers correspond to tags on trees.

Property lines are approximate.



**TREE SURVEY MAP**  
 Pramuk, Trees and Assoc, LLC

**Western Meadows Tree Survey**  
 October 2018

## NATIVE AMERICAN HERITAGE COMMISSION

March 29, 2021

Steven Rosen  
City of Napa

Via Email to: [srosen@cityofnapa.org](mailto:srosen@cityofnapa.org)

**Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Western Meadows Subdivision Project, Napa County**

Dear Ms. Rosen:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

*Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.*

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:



CHAIRPERSON  
**Laura Miranda**  
Luiseño

VICE CHAIRPERSON  
**Reginald Pagaling**  
Chumash

SECRETARY  
**Merri Lopez-Keifer**  
Luiseño

PARLIAMENTARIAN  
**Russell Attebery**  
Karuk

COMMISSIONER  
**William Mungary**  
Paiute/White Mountain  
Apache

COMMISSIONER  
**Julie Tumamait-Stenslie**  
Chumash

COMMISSIONER  
[Vacant]

COMMISSIONER  
[Vacant]

COMMISSIONER  
[Vacant]

EXECUTIVE SECRETARY  
**Christina Snider**  
Pomo

**NAHC HEADQUARTERS**  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
NAHC.ca.gov

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission. The request form can be found at <http://nahc.ca.gov/wp-content/uploads/2015/08/Local-Government-Tribal-Consultation-List-Request-Form-Update.pdf>

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: [Sarah.Fonseca@nahc.ac.gov](mailto:Sarah.Fonseca@nahc.ac.gov).

Sincerely,



Sarah Fonseca  
*Cultural Resources Analyst*

Attachment

**Native American Heritage Commission  
Tribal Consultation List  
Napa County  
3/29/2021**

**Cachil Dehe Band of Wintun  
Indians of the Colusa Indian  
Community**

Daniel Gomez, Chairman  
3730 Highway 45 Wintun  
Colusa, CA, 95932  
Phone: (530) 458 - 8231  
dgomez@colusa-nsn.gov

**Cortina Rancheria - Kletsel  
Dehe Band of Wintun Indians**

Charlie Wright, Chairperson  
P.O. Box 1630 Wintun  
Williams, CA, 95987  
Phone: (530) 473 - 3274  
Fax: (530) 473-3301

**Guidiville Indian Rancheria**

Donald Duncan, Chairperson  
P.O. Box 339 Pomo  
Talmage, CA, 95481  
Phone: (707) 462 - 3682  
Fax: (707) 462-9183  
admin@guidiville.net

**Middletown Rancheria of Pomo  
Indians**

Jose Simon, Chairperson  
P.O. Box 1035 Lake Miwok  
Middletown, CA, 95461 Pomo  
Phone: (707) 987 - 3670  
Fax: (707) 987-9091  
sshope@middletownrancheria.com

**Mishewal-Wappo Tribe of  
Alexander Valley**

Scott Gabaldon, Chairperson  
2275 Silk Road Wappo  
Windsor, CA, 95492  
Phone: (707) 494 - 9159  
scottg@mishewalwappotribe.com

**Pinoleville Pomo Nation**

Leona Willams, Chairperson  
500 B Pinoleville Drive Pomo  
Ukiah, CA, 95482  
Phone: (707) 463 - 1454  
Fax: (707) 463-6601

**Yocha Dehe Wintun Nation**

Anthony Roberts, Chairperson  
P.O. Box 18 Patwin  
Brooks, CA, 95606  
Phone: (530) 796 - 3400  
aroberts@yochadehe-nsn.gov

**Yocha Dehe Wintun Nation**

Leland Kinter, THPO  
P.O. Box 18 Patwin  
Brooks, CA, 95606  
Phone: (530) 796 - 3400  
thpo@yochadehe-nsn.gov

**Yocha Dehe Wintun Nation**

Isaac Bojorquez, Director of  
Cultural Resources  
PO Box 18 Brooks, CA 95606 Patwin  
Phone: (530) 796 - 0103  
ibojorquez@yochadehe-nsn.gov

**Yocha Dehe Wintun Nation**

Laverne Bill, Site Protection  
Manager  
P.O. Box 18 Patwin  
Brooks, CA, 95606  
Phone: (530) 796 - 3400  
lbill@yochadehe-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Western Meadows Subdivision Project, Napa County.



## Community Development

April 1, 2021

Sent Certified Mail # 70150640000768976688

Tribal Historic Preservation Officer  
Cachil Dehe Band of Wintun Indians of the Colusa Indian Community  
3730 Highway 45  
Colusa, CA 95932

Re: Notification Regarding Tribal Cultural Resources  
PL19-0048 - Western Meadows Subdivision -  
1030 and 1040 Borrette Lane (APNs: 041-700-005, -007)

Dear Tribal Historic Preservation Officer,

The City of Napa is the lead agency for the above referenced project which is subject to the California Environmental Quality Act (CEQA). The Planning Division is currently reviewing the project to determine its potential environmental effects. No environmental documents have been issued for this project.

### Project Description

Tentative Subdivision Map and Design Review to subdivide one 7.56-acre parcel into 12 single family lots and the construction of 12 homes. The subdivision will be served by a new private street. There will be modifications to an intermittent tributary to Napa Creek.

### Archaeological Information

The City of Napa's archaeological database identifies the subject property as having a medium-level of archaeological sensitivity and does not identify any recorded archaeological sites. It recommends that an archaeological evaluation should be undertaken prior to issuance of any permit for excavation or grading within the parcel.

### Standard Mitigation Measures

The City of Napa has adopted Policy Resolution 27 which imposes standard mitigation measures as conditions of approval regarding cultural resources.

### Notice

In accordance with Public Resources Code Section 21080.3.1.d, you have 30-days from the receipt of this letter to request consultation in writing for this project. If you do respond within 30 days indicating that you wish to engage in consultation, but you do not identify a

lead contact person, or you designate multiple people, the Planning Division will defer to the individual listed on the contact list maintained by the Native American Heritage Commission.

Lead Agency Contact

Please send your written request for consultation regarding this application to the following and reference the project number and project name indicated above:

Steven Rosen  
Associate Planner  
PO Box 660  
Napa, CA 94559  
srosen@cityofnapa.org  
707.257.9530

Sincerely,



Steven Rosen  
Associate Planner





## Community Development

April 1, 2021

Sent Certified Mail # 70150640000768976718

Tribal Historic Preservation Officer  
Cortina Rancheria - Kletsel Dehe Band of Wintun Indians  
PO Box 1630  
Williams, CA 95987

Re: Notification Regarding Tribal Cultural Resources  
PL19-0048 - Western Meadows Subdivision -  
1030 and 1040 Borrette Lane (APNs: 041-700-005, -007)

Dear Tribal Historic Preservation Officer,

The City of Napa is the lead agency for the above referenced project which is subject to the California Environmental Quality Act (CEQA). The Planning Division is currently reviewing the project to determine its potential environmental effects. No environmental documents have been issued for this project.

### Project Description

Tentative Subdivision Map and Design Review to subdivide one 7.56-acre parcel into 12 single family lots and the construction of 12 homes. The subdivision will be served by a new private street. There will be modifications to an intermittent tributary to Napa Creek.

### Archaeological Information

The City of Napa's archaeological database identifies the subject property as having a medium-level of archaeological sensitivity and does not identify any recorded archaeological sites. It recommends that an archaeological evaluation should be undertaken prior to issuance of any permit for excavation or grading within the parcel.

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lead contact person, or you designate multiple people, the Planning Division will defer to the individual listed on the contact list maintained by the Native American Heritage Commission.

Lead Agency Contact

Please send your written request for consultation regarding this application to the following and reference the project number and project name indicated above:

Steven Rosen  
Associate Planner  
PO Box 660  
Napa, CA 94559  
srosen@cityofnapa.org  
707.257.9530

Sincerely,



Steven Rosen  
Associate Planner



## Community Development

April 1, 2021

Sent Certified Mail # 70150640000768976695

Tribal Historic Preservation Officer  
Guidiville Indian Rancheria  
PO Box 339  
Talmage, CA 95481

Re: Notification Regarding Tribal Cultural Resources  
PL19-0048 - Western Meadows Subdivision -  
1030 and 1040 Borrette Lane (APNs: 041-700-005, -007)

Dear Tribal Historic Preservation Officer,

The City of Napa is the lead agency for the above referenced project which is subject to the California Environmental Quality Act (CEQA). The Planning Division is currently reviewing the project to determine its potential environmental effects. No environmental documents have been issued for this project.

### Project Description

Tentative Subdivision Map and Design Review to subdivide one 7.56-acre parcel into 12 single family lots and the construction of 12 homes. The subdivision will be served by a new private street. There will be modifications to an intermittent tributary to Napa Creek.

### Archaeological Information

The City of Napa's archaeological database identifies the subject property as having a medium-level of archaeological sensitivity and does not identify any recorded archaeological sites. It recommends that an archaeological evaluation should be undertaken prior to issuance of any permit for excavation or grading within the parcel.

### Standard Mitigation Measures

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lead contact person, or you designate multiple people, the Planning Division will defer to the individual listed on the contact list maintained by the Native American Heritage Commission.

Lead Agency Contact

Please send your written request for consultation regarding this application to the following and reference the project number and project name indicated above:

Steven Rosen  
Associate Planner  
PO Box 660  
Napa, CA 94559  
srosen@cityofnapa.org  
707.257.9530

Sincerely,



Steven Rosen  
Associate Planner



## Community Development

April 1, 2021

Sent Certified Mail # 70150640000768976701

Tribal Historic Preservation Officer  
Middletown Rancheria of Pomo Indians  
PO Box 1035  
Middletown, CA 95461

Re: Notification Regarding Tribal Cultural Resources  
PL19-0048 - Western Meadows Subdivision -  
1030 and 1040 Borrette Lane (APNs: 041-700-005, -007)

Dear Tribal Historic Preservation Officer,

The City of Napa is the lead agency for the above referenced project which is subject to the California Environmental Quality Act (CEQA). The Planning Division is currently reviewing the project to determine its potential environmental effects. No environmental documents have been issued for this project.

### Project Description

Tentative Subdivision Map and Design Review to subdivide one 7.56-acre parcel into 12 single family lots and the construction of 12 homes. The subdivision will be served by a new private street. There will be modifications to an intermittent tributary to Napa Creek.

### Archaeological Information

The City of Napa's archaeological database identifies the subject property as having a medium-level of archaeological sensitivity and does not identify any recorded archaeological sites. It recommends that an archaeological evaluation should be undertaken prior to issuance of any permit for excavation or grading within the parcel.

### Standard Mitigation Measures

The City of Napa has adopted Policy Resolution 27 which imposes standard mitigation measures as conditions of approval regarding cultural resources.

### Notice

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lead contact person, or you designate multiple people, the Planning Division will defer to the individual listed on the contact list maintained by the Native American Heritage Commission.

Lead Agency Contact

Please send your written request for consultation regarding this application to the following and reference the project number and project name indicated above:

Steven Rosen  
Associate Planner  
PO Box 660  
Napa, CA 94559  
srosen@cityofnapa.org  
707.257.9530

Sincerely,



Steven Rosen  
Associate Planner



## Community Development

April 1, 2020

Sent Certified Mail # 70150640000768976671

Mishewal-Wappo Tribe of Alexander Valley  
Scott Gabaldon, Chairperson *sent via e-mail to: scottg@mishewalwappotribe.com*  
2275 Silk Road  
Windsor, CA, 95492

Re: Notification Regarding Tribal Cultural Resources  
PL19-0048 - Western Meadows Subdivision -  
1030 and 1040 Borrette Lane (APNs: 041-700-005, -007)

Dear Tribal Historic Preservation Officer,

The City of Napa is the lead agency for the above referenced project which is subject to the California Environmental Quality Act (CEQA). The Planning Division is currently reviewing the project to determine its potential environmental effects. No environmental documents have been issued for this project.

### Project Description

Tentative Subdivision Map and Design Review to subdivide one 7.56-acre parcel into 12 single family lots and the construction of 12 homes. The subdivision will be served by a new private street. There will be modifications to an intermittent tributary to Napa Creek.

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### Notice

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lead contact person, or you designate multiple people, the Planning Division will defer to the individual listed on the contact list maintained by the Native American Heritage Commission.

Lead Agency Contact

Please send your written request for consultation regarding this application to the following and reference the project number and project name indicated above:

Steven Rosen  
Associate Planner  
PO Box 660  
Napa, CA 94559  
srosen@cityofnapa.org  
707.257.9530

Sincerely,



Steven Rosen  
Associate Planner





## Community Development

April 1, 2021

Sent Certified Mail # 70150640000768976725

Tribal Historic Preservation Officer  
Yocha Dehe Wintun Nation  
PO Box 18  
Brooks, CA 95606

Re: Notification Regarding Tribal Cultural Resources  
PL19-0048 - Western Meadows Subdivision -  
1030 and 1040 Borrette Lane (APNs: 041-700-005, -007)

Dear Tribal Historic Preservation Officer,

The City of Napa is the lead agency for the above referenced project which is subject to the California Environmental Quality Act (CEQA). The Planning Division is currently reviewing the project to determine its potential environmental effects. No environmental documents have been issued for this project.

### Project Description

Tentative Subdivision Map and Design Review to subdivide one 7.56-acre parcel into 12 single family lots and the construction of 12 homes. The subdivision will be served by a new private street. There will be modifications to an intermittent tributary to Napa Creek.

### Archaeological Information

The City of Napa's archaeological database identifies the subject property as having a medium-level of archaeological sensitivity and does not identify any recorded archaeological sites. It recommends that an archaeological evaluation should be undertaken prior to issuance of any permit for excavation or grading within the parcel.

### Standard Mitigation Measures

The City of Napa has adopted Policy Resolution 27 which imposes standard mitigation measures as conditions of approval regarding cultural resources.

### Notice

In accordance with Public Resources Code Section 21080.3.1.d, you have 30-days from the receipt of this letter to request consultation in writing for this project. If you do respond within 30 days indicating that you wish to engage in consultation, but you do not identify a

lead contact person, or you designate multiple people, the Planning Division will defer to the individual listed on the contact list maintained by the Native American Heritage Commission.

Lead Agency Contact

Please send your written request for consultation regarding this application to the following and reference the project number and project name indicated above:

Steven Rosen  
Associate Planner  
PO Box 660  
Napa, CA 94559  
srosen@cityofnapa.org  
707.257.9530

Sincerely,



Steven Rosen  
Associate Planner



YOCHA DEHE  
CULTURAL RESOURCES

April 21, 2021

City of Napa | Community Development  
Attn: Steven Rosen, Associate Planner  
PO Box 660  
Napa, CA 94559

RE: Western Meadows Subdivision 1030 1040 Borrette Lane Napa YD-04082021-01

Dear Mr. Rosen:

Thank you for your project notification letter dated, April 1, 2021, regarding cultural information on or near the proposed Western Meadows Subdivision 1030 1040 Borrette Lane Napa. We appreciate your effort to contact us.

The Cultural Resources Department has reviewed the project and concluded that it is not within the aboriginal territories of the Yocha Dehe Wintun Nation. Therefore, we respectfully decline any comment on this project. However, based on the information provided, please defer correspondence to the following:

Mishewal Wappo Tribe of Alexander Valley  
Attn: Scott Gadaldon  
2275 Silk Road  
Windsor, CA 95492

Please refer to identification number YD - 04082021-01 in any future correspondence with Yocha Dehe Wintun Nation concerning this project.

Thank you for providing us with this notice and the opportunity to comment.

Sincerely,

DocuSigned by:

*Laverne Bill*

F5E6AC2FFD52434...  
Laverne Bill

Interim Director of Cultural Resources

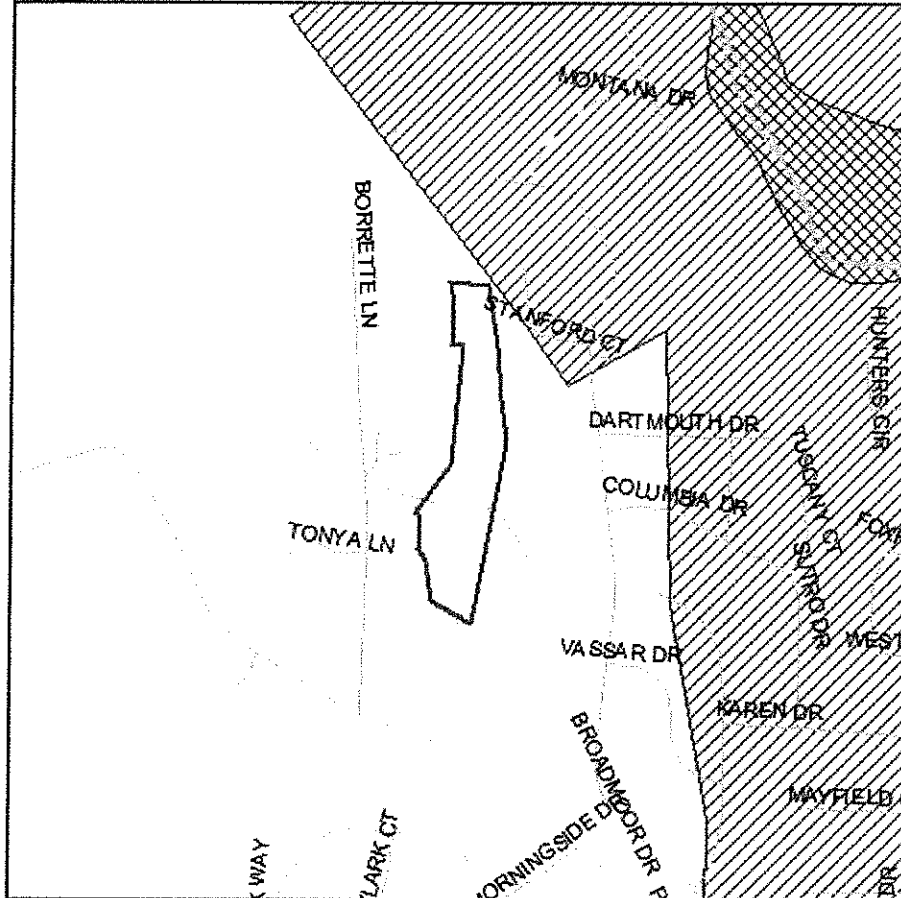
cc: Mishewal Wappo Tribe of Alexander Valley

**Map of Statutory Natural Hazards  
For NAPA County**

Property Address: 1030 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

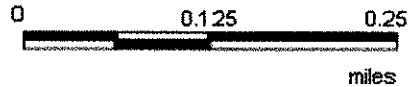
APN: 041-700-005-000  
Report Date: 01/29/2018  
Report Number: 2229237

**Map of Statutory Natural Hazard Zones**



□ Subject Property

	Special Flood Hazard Area
	Area of Potential Flooding, Dam Failure
	Very High Fire Hazard Severity Zone
	Wildland Area, Substantial Forest Fire Risk
	Earthquake Fault Zone
	Seismic Hazard Zone, Landslide
	Seismic Hazard Zone, Liquefaction



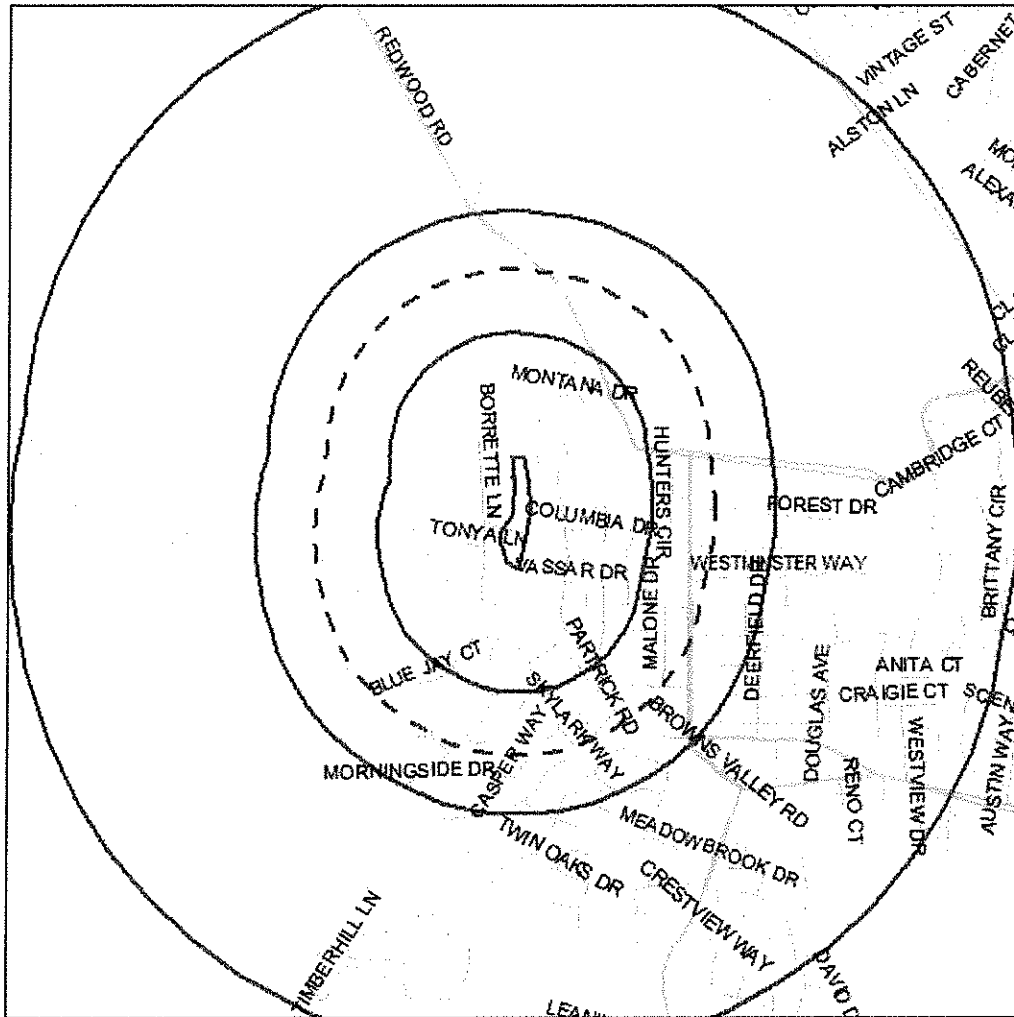
**This map is provided for convenience only to show the approximate location of the Property and is not based on a field survey.**

**JCP-LGS Residential Property Disclosure Reports**  
**Map of Environmental Hazard Sites**  
**For NAPA COUNTY**

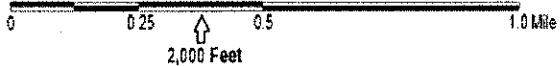
**Property Address:** 1030 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-005-000  
**Report Date:** 01/29/2018  
**Report Number:** 2229237

**Map of Environmental Hazard Sites**



□ Subject Property



**NOTE:** The foregoing map may show more sites than are reported in the listing below. The map shows all sites found within the square coverage area. The listing below reports only those sites found within the standard radius search distance for the database listed, which covers a smaller area. Sites outside of that standard radius search distance are not listed below. The standard radius search distances for point sources are defined by the U.S. Environmental Protection Agency's "All Appropriate Inquiries" (AAI) guidelines. The AAI standard search distance differs between database categories, depending upon degree of potential hazard. Pipeline search distance (2,000 feet, red dashed circle on map) complies with U.S. bill H.R. 22 (Speier). See section called "Explanation of Databases Used" for the actual standard search distance used for each database category.

	(NPL) Federal National Priorities List or "Superfund" Sites		(SWIS) Solid Waste Landfill Facilities
	(RCRA COR) Corrective Action Sites		(SLIC) Spills, Leaks, Investig. & Cleanup
	(LUST) Leaking Underground Storage Tanks		California EnviroStor State Response Sites
	Oil or Gas Well		Gas Transmission Pipelines (Approximate)
	Hazardous Liquid Pipelines (Approximate)		



JCP-LGS Residential Property Disclosure Reports
Natural Hazard Disclosure (NHD) Report
For NAPA County

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APN: 041-700-005-000
Report Date: 01/29/2018
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Statutory Natural Hazard Disclosure ("NHD") Statement
and Acknowledgment of Receipt

The transferor and his or her agent(s) or a third-party consultant disclose the following information with the knowledge that even though this is not a warranty, prospective transferees may rely on this information in deciding whether and on what terms to purchase the Property.

The following are representations made by the transferor and his or her agent(s) based on their knowledge and maps drawn by the State. This information is a disclosure and is not intended to be part of any contract between the transferee and the transferor.

A SPECIAL FLOOD HAZARD AREA (Any type Zone "A" or "V") designated by the Federal Emergency Management Agency
Yes \_\_\_ No X \_\_\_ Do not know and information not available from local jurisdiction \_\_\_

AN AREA OF POTENTIAL FLOODING shown on a dam failure inundation map pursuant to Section 8589.5 of the Government Code.
Yes \_\_\_ No X \_\_\_ Do not know and information not available from local jurisdiction \_\_\_

A VERY HIGH FIRE HAZARD SEVERITY ZONE pursuant to Section 51178 or 51179 of the Government Code. The owner of this Property is subject to the maintenance requirements of Section 51182 of the Government Code.
Yes \_\_\_ No X \_\_\_

A WILDLAND AREA THAT MAY CONTAIN SUBSTANTIAL FOREST FIRE RISK AND HAZARDS pursuant to Section 4125 of the Public Resources Code. The owner of this Property is subject to the maintenance requirements of Section 4291 of the Public Resources Code.
Yes \_\_\_ No X \_\_\_

AN EARTHQUAKE FAULT ZONE pursuant to Section 2622 of the Public Resources Code.
Yes \_\_\_ No X \_\_\_

A SEISMIC HAZARD ZONE pursuant to Section 2696 of the Public Resources Code.
Yes (Landslide Zone) \_\_\_ Yes (Liquefaction Zone) \_\_\_
No \_\_\_ Map not yet released by state X \_\_\_

THESE HAZARDS MAY LIMIT YOUR ABILITY TO DEVELOP THE REAL PROPERTY, TO OBTAIN INSURANCE, OR TO RECEIVE ASSISTANCE AFTER A DISASTER. THE MAPS ON WHICH THESE DISCLOSURES ARE BASED ESTIMATE WHERE NATURAL HAZARDS EXIST. THEY ARE NOT DEFINITIVE INDICATORS OF WHETHER OR NOT A PROPERTY WILL BE AFFECTED BY A NATURAL DISASTER.

Signature of Transferor(s) Date Signature of Transferor(s) Date
Signature of Agent Date Signature of Agent Date

- Transferor(s) and their agent(s) represent that the information herein is true and correct to the best of their knowledge as of the date signed by the transferor(s) and agent(s).
[X] Transferor(s) and their agent(s) acknowledge that they have exercised good faith in the selection of a third-party report provider as required in Civil Code Section 1103.7, and that the representations made in this Natural Hazard Disclosure Statement are based upon information provided by the independent third-party disclosure provider as a substituted disclosure pursuant to Civil Code Section 1103.4.

Third-Party Disclosure Provider(s) FIRST AMERICAN PROFESSIONAL REAL ESTATE SERVICES, INC. OPERATING THROUGH ITS JCP-LGS DIVISION.
Date 29 January 2018

Transferee represents that he or she has read and understands this document. Pursuant to Civil Code Section 1103.8, the representations in this Natural Hazard Disclosure Statement do not constitute all of the transferor's or agent's disclosure obligations in this transaction.

Signature of Transferee(s) Date Signature of Transferee(s) Date

TRANSFEEE(S) REPRESENTS ABOVE HE/SHE HAS RECEIVED, READ AND UNDERSTANDS THE COMPLETE JCP-LGS DISCLOSURE REPORT DELIVERED WITH THIS SUMMARY:

- A. Additional Property-specific Statutory Disclosures: Former Military Ordnance Site, Commercial/Industrial Use Zone, Airport Influence Area, Airport Noise, San Francisco Bay Conservation and Development District Jurisdiction (in S.F. Bay counties only), California Energy Commission Duct Sealing Requirement, Notice of Statewide Right to Farm, Notice of Mining Operations, Sex Offender Database (Megan's Law), Gas and Hazardous Liquid Transmission Pipeline Database.
B. Additional County and City Regulatory Determinations as applicable: Airports, Avalanche, Blow Sand, Coastal Zone, Dam/Levee Failure Inundation, Debris Flow, Erosion, Flood, Fault Zone, Fire, Groundwater, Landslide, Liquefaction, Methane Gas, Mines, Naturally Occurring Asbestos, Redevelopment Area, Right to Farm, Runoff Area, Seiche, Seismic Shaking, Seismic Ground Failure, Slope Stability, Soil Stability, Subsidence, TRPA, Tsunami.
C. General advisories: Methamphetamine Contamination, Mold, Radon, Endangered Species Act, Abandoned Mines, Oil & Gas Wells, Tsunami Maps (coastal only), Wood-burning fireplaces.
D. Additional Reports - Enclosed if ordered: (1) PROPERTY TAX REPORT (includes state-required Notices of Mello-Roos and 1915 Bond Act Assessments, and Notice of Supplemental Property Tax Bill, (2) ENVIRONMENTAL SCREENING REPORT (discloses Transmission Pipelines, Contaminated Sites, and Oil & Gas Wells). Enclosed if applicable: Local Addenda.
E. Government Guides in Combined Booklet with Report. Refer to Booklet: (1) ENVIRONMENTAL HAZARDS: "A Guide for Homeowners, Buyers, Landlords and Tenants"; (2) EARTHQUAKE SAFETY: "The Homeowners Guide To Earthquake Safety" and included "RESIDENTIAL EARTHQUAKE HAZARDS REPORT FORM"; (3) LEAD-BASED PAINT: "Protect Your Family From Lead In Your Home"; (4) BRIEF GUIDE TO MOLD, MOISTURE AND YOUR HOME; (5) WHAT IS YOUR HOME ENERGY RATING? Government Guides are also available on the Company's "Electronic Bookshelf" at http://www.disclosures.com/.

**Contents  
For NAPA County**

**Property Address:** 1030 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-005-000  
**Report Date:** 01/29/2018  
**Report Number:** 2229237

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**JCP-LGS Residential Property Disclosure Reports  
Summary of Disclosure Determinations  
For NAPA County**

Property Address: 1030 BORRETTE LN  
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("Property")

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**PROPERTY DISCLOSURE SUMMARY - READ FULL REPORT**

Statutory NHD Determinations	IN	NOT IN	Map N/A*	Property Is:	NHD Report page:
Flood		X		NOT IN a Special Flood Hazard Area. The Property is IN a FEMA-designated Flood Zone(s) X.	7
Dam		X		NOT IN an area of potential dam inundation.	7
Very High Fire Hazard Severity		X		NOT IN a very high fire hazard severity zone.	8
Wildland Fire Area		X		NOT IN a state responsibility area.	8
Fault		X		NOT IN an earthquake fault zone designated pursuant to the Alquist-Priolo Act.	9
Landslide			X	Map Not Available	9
Liquefaction			X	Map Not Available	9

County-level NHD Determinations	IN	NOT IN	Map N/A*	Property Is:	NHD Report page:
Fault	X			IN a mapped fault zone or within one-eighth of one mile of a mapped fault trace	11
Landslide		X		NOT IN a mapped Landslide Area.	11
Liquefaction	X			IN a mapped area of Low Liquefaction Susceptibility.	11

City-level NHD Determinations	IN	NOT IN	Map N/A*	Property Is:	NHD Report page:
Dam Inundation		X		NOT IN a mapped Dam Failure Inundation Area.	12
Fire		X		NOT IN a mapped Wildland Urban Interface Fire Hazard Area.	12
Slope	X			IN a mapped area of Generalized Slope of 15 to 30 Percent.	12
Landslide	X			IN a mapped area of Generalized Relative Landslide Susceptibility categorized as Least.	12

Additional Statutory Disclosures	IN	NOT IN	Map N/A*	Property Is:	NHD Report page:
Former Military Ordnance		X		NOT WITHIN one mile of a formerly used ordnance site.	15
Commercial or Industrial	X			WITHIN one mile of a property zoned to allow commercial or industrial use.	15
Airport Influence Area		X		NOT IN an airport influence area.	16
Airport Noise Area for 65 Decibel		X		NOT IN a delineated 65 dB CNEL or greater aviation noise zone.	17
Bay Conservation and Development Commission		X		NOT IN an area that is within the jurisdiction of the San Francisco Bay Conservation and Development Commission.	18
California Energy Commission	X			IN a climate zone where properties are usually subject to duct sealing and testing requirements	19
Right to Farm Act	X			IN a one mile radius of designated important Farmland that requires a statutory "Notice of Right to Farm" be provided in this Report.	20
Notice of Mining Operations		X		NOT IN a one mile radius of a mapped mining operation that requires a statutory "Notice of Mining Operation" be provided in this Report.	21

General Advisories	Description	NHD Report page:
Registered Sex Offender Data Base (Megan's Law) Notice	Provides an advisory required pursuant to Section 290.46 of the Penal Code. Information about specified registered sex offenders is made available to the public.	22



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<b>General Advisories</b>	<b>Description</b>	<b>NHD Report page:</b>
Gas and Hazardous Liquid Transmission Pipeline Database Notice	Provides a notice required pursuant to Section 2079.10.5(a) of the Civil Code. Information about transmission pipeline location maps is made available to the public.	<u>23</u>
Methamphetamine Contamination	Provides an advisory that a disclosure may be required pursuant to the "Methamphetamine Contaminated Property Cleanup Act of 2005".	<u>24</u>
Mold	Provides an advisory that all prospective purchasers of residential and commercial property should thoroughly inspect the subject property for mold and sources for additional information on the origins of and the damage caused by mold.	<u>25</u>
Radon	Provides an advisory on the risk associated with Radon gas concentrations.	<u>26</u>
Endangered Species	Provides an advisory on resources to educate the public on locales of endangered or threatened species.	<u>26</u>
Abandoned Mines	Provides an advisory on resources to educate the public on the hazards posed by, and some of the general locales of, abandoned mines.	<u>27</u>
Oil and Gas Wells	Provides an advisory on the potential existence of oil and gas wells and sources for additional general and/or specific information.	<u>27</u>
Tsunami Map Advisory	Provides an advisory about maximum tsunami inundation maps issued for jurisdictional emergency planning.	<u>28</u>
Residential Fireplace Disclosure	Provides disclosure of restrictions on the use of wood-burning fireplaces imposed by the Bay Area Air Quality Management District.	<u>29</u>

<b>Property Tax Determinations</b>	<b>IS</b>	<b>IS NOT</b>	<b>Property is:</b>	<b>Tax Report page:</b>
Mello-Roos Districts		<b>X</b>	NOT SUBJECT TO a Mello-Roos Community Facilities District.	<u>31</u>
1915 Bond Act Districts		<b>X</b>	NOT SUBJECT TO a 1915 Bond Act District.	<u>31</u>
Other Direct Assessments	<b>X</b>		SUBJECT TO one or more other direct assessments.	<u>32</u>
SRA Fire Prevention Fee		<b>X</b>	NOT SUBJECT TO the State Responsibility Area Fire Prevention Fee (SRA Fee is suspended until 2031 by Assembly Bill 398 of 2017).	<u>38</u>

<b>Environmental Screening</b>	<b>IS</b>	<b>IS NOT</b>	<b>Property is:</b>	<b>Environmental Report page:</b>
Leaking Underground Storage Tanks		<b>X</b>	NOT WITHIN one-quarter mile of a known leaking underground storage tank.	<u>46</u>
Superfund or RCRA Corrective Action Site		<b>X</b>	NOT WITHIN one mile of a Superfund or RCRA Corrective Action site.	<u>45</u>
Other sites in databases screened		<b>X</b>	NOT WITHIN one-half mile of sites other than those above that are listed in the databases searched.	<u>45</u>
Oil and Gas Wells		<b>X</b>	NOT WITHIN one-quarter mile of a mapped oil or gas well(s).	<u>43</u>
Underground Transmission Pipelines		<b>X</b>	NOT WITHIN 2,000 feet of a gas transmission or hazardous liquid pipeline(s) depicted in the National Pipeline Mapping System.	<u>44</u>

Determined by First American Professional Real Estate Services, Inc.

For more detailed information as to the foregoing determinations, please read this entire Report.

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## Natural Hazard Disclosure Report

### Part 1. State Defined Natural Hazard Zones

#### Statutory Natural Hazard Disclosures

Section 1103 of the California Civil Code mandates the disclosure of six (6) natural hazard zones if the Property is located within any such zone. Those six "statutory" hazard zones, disclosed on the **Natural Hazard Disclosure Statement** ("NHDS") on Page one of this Report, are explained below. Note that the NHDS does not provide for informing buyers if a property is only partially within any of the delineated zones or provide additional flood zone information which could be very important to the process. The following summary is intended to give buyers additional information they may need to help them in the decision-making process and to place the information in perspective.

#### SPECIAL FLOOD HAZARD AREA

**DISCUSSION:** Property in a Special Flood Hazard Area (any type of Zone "A" or "V" as designated by the Federal Emergency Management Agency ("FEMA")) is subject to flooding in a "100-year rainstorm." Federally connected lenders require homeowners to maintain flood insurance for buildings in these zones. A 100-year flood occurs on average once every 100 years, but may not occur in 1,000 years or may occur in successive years. According to FEMA, a home located within a SFHA has a 26% chance of suffering flood damage during the term of a 30-year mortgage. Other types of flooding, such as dam failure, are not considered in developing these zones. Flood insurance for properties in Zones B, C, D, X, X500, and X500\_Levee is available but is not required.

**Zones A, AO, AE, AH, AR, A1-A30:** Area of "100-year" flooding - a 1% or greater chance of annual flooding.

**Zone A99:** An "adequate progress" determination for flood control system construction projects that, once completed, may significantly limit the area of a community that will be included in the Special Flood Hazard Area (SFHA). Such projects reduce but do not eliminate, the risk of flooding to people and structures in "levee-impacted" areas, and allow mandatory flood insurance to be available at a lower cost.

**Zones V, V1-V30:** Area of "100-year" flooding in coastal (shore front) areas subject to wave action.

**Zone B:** Area of moderate flood risk. These are areas between the "100" and "500" year flood-risk levels.

**Zones C, D:** NOT IN an area of "100-year" flooding. Area of minimal (Zone C) or undetermined (Zone D) flood hazard.

**Zones X:** An area of minimal flood risk. These are areas outside the "500" year flood-risk level.

**Zone X500:** An area of moderate flood risk. These are areas between the "100" and "500" year flood-risk levels.

**Zone X500 LEVEE:** An area of moderate flood risk that is protected from "100-year flood" by levee and that is subject to revision to high risk (Zone A) if levee is decertified by FEMA.

**Zone N:** Area Not Included, no flood zone designation has been assigned or not participating in the National Flood Insurance Program.

**Notice:** The Company is not always able to determine if the Property is subject to a FEMA Letter of Map Revision ("LOMR") or other FEMA letters of map change. If Seller is aware that the Property is subject to a LOMR or other letters of map change, the Seller shall disclose the map change and attach a copy of the FEMA letter(s) to the Report. Contact FEMA at <http://msc.fema.gov> for additional information.

For more information about flood zones, visit:

[http://www.floodsmart.gov/floodsmart/pages/flooding\\_flood\\_risks/defining\\_flood\\_risks.jsp](http://www.floodsmart.gov/floodsmart/pages/flooding_flood_risks/defining_flood_risks.jsp)

**PUBLIC RECORD:** Official Flood Insurance Rate Maps ("FIRM") compiled and issued by the Federal Emergency Management Agency ("FEMA") pursuant to 42 United States Code §4001, et seq.

#### AREA OF POTENTIAL FLOODING (DAM FAILURE)

**DISCUSSION:** Local governmental agencies, utilities, and owners of certain dams are required to prepare and submit inundation maps for review and approval by the California Office of Emergency Services ("OES"). A property within an Area of Potential Flooding Caused by Dam Failure is subject to potential flooding in the event of a sudden and total dam failure with a full reservoir. Such a failure could result in property damage and/or personal injury. However, dams rarely fail instantaneously and reservoirs are not always filled to capacity. Please note that not all dams (such as federally controlled dams) located within the state have been included within these dam inundation zones. Also these maps do not identify areas of potential flooding resulting from storms or other causes.

**PUBLIC RECORD:** Official dam inundation maps or digital data thereof made publicly available by the State of California Office of Emergency Services ("OES") pursuant to California Government Code §8589.5.

**JCP-LGS Residential Property Disclosure Reports**  
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**VERY HIGH FIRE HAZARD SEVERITY ZONE (VHFHSZ)**

**DISCUSSION:** VHFHSZs can be defined by the California Department of Forestry and Fire Protection ("Calfire") as well as by local fire authorities within "Local Responsibility Areas" where fire suppression is the responsibility of a local fire department. Properties located within VHFHS Zones may have a higher risk for fire damage and, therefore, may be subject to (i) additional construction requirements such as a "Class A" roof for new construction or replacement of existing roofs; and (ii) additional maintenance responsibilities such as adequate vegetation clearance near the structure, spark screens on chimneys and stovepipes, leaf removal from roofs, and other basic fire-safety practices. Contact the local fire department for a complete list of requirements and exceptions.

**PUBLIC RECORD:** Maps issued by Calfire pursuant to California Government Code § 51178 recommending VHFHSZs to be adopted by the local jurisdiction within its Local Responsibility Area, or VHFHSZs adopted by the local jurisdiction within the statutory 120-day period defined in California Government Code § 51179.

**WILDLAND FIRE AREA (STATE RESPONSIBILITY AREA)**

**DISCUSSION:** The State Board of Forestry classifies all lands within the State of California based on various factors such as ground cover, beneficial use of water from watersheds, probable damage from erosion, and fire risks. Fire prevention and suppression in all areas which are not within a Wildland - State Responsibility Area ("WSRA") is primarily the responsibility of the local or federal agencies, as applicable.

For property located within a WSRA, please note that (1) there may be substantial forest fire risks and hazards; (2) except for property located within a county which has assumed responsibility for prevention and suppression of all fires, it is NOT the state's responsibility to provide fire protection services to any building or structure located within a WSRA unless the Department has entered into a cooperative agreement with a local agency; and (3) the property owner may be is subject to (i) additional construction requirements such as a "Class A" roof for new construction or replacement of existing roofs; and (ii) additional maintenance responsibilities such as adequate vegetation clearance near the structure, spark screens on chimneys and stovepipes, leaf removal from roofs, and other basic fire-safety practices.

The existence of local agreements for fire service is not available in the Public Record and, therefore, is not included in this disclosure. For very isolated properties with no local fire services or only seasonal fire services there may be significant fire risk. If the Property is located within a WSRA, please contact the local fire department for more detailed information.

**PUBLIC RECORD:** Official maps issued by the California Department of Forestry and Fire Protection ("Calfire") pursuant to California Public Resources Code § 4125.

**SRA Fire Prevention Benefit Fee Advisory**

In 2011, the California Legislature and Governor enacted a "Fire Prevention Fee" on habitable structures in the State's wildland fire responsibility area. The yearly fee, levied on property owners, paid for various activities to prevent and suppress wildfires in the SRA, and was most recently at the rate of \$152.33 per habitable structure on the property.

**Effective July 1, 2017, as authorized by Assembly Bill 398 and signed by the Governor, that fire prevention fee is suspended until 2031.**

For more information, please refer to "Part 6. State Responsibility Area Fire Prevention Fee" in the JCP-LGS Property Tax Report.

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**EARTHQUAKE FAULT ZONE**

**DISCUSSION:** Earthquake Fault Zones are delineated and adopted by California as part of the Alquist-Priolo Earthquake Fault Zone Act of 1972. Property in an Earthquake Fault Zone ("EF Zone") does not necessarily have a fault trace existing on the site. EF Zones are areas or bands delineated on both sides of known active earthquake faults. EF Zones vary in width but average one-quarter (1/4) mile in width with the "typical" zone boundaries set back approximately 660 feet on either side of the fault trace. The potential for "fault rupture" damage (ground cracking along the fault trace) is relatively high only if a structure is located directly on a fault trace. If a structure is not on a fault trace, shaking will be the primary effect of an earthquake. During a major earthquake, shaking will be strong in the vicinity of the fault and may be strong at some distance from the fault depending on soil and bedrock conditions. It is generally accepted that properly constructed wood-frame houses are resistant to shaking damage.

**PUBLIC RECORD:** Official earthquake fault zone or special study zone maps approved by the State Geologist and issued by the California Department of Conservation, California Geological Survey pursuant to California Public Resources Code §2622.

**SEISMIC HAZARD MAPPING ACT ZONE**

**DISCUSSION:** Official Seismic Hazard Zone ("SH Zone") maps delineate Areas of Potential Liquefaction and Areas of Earthquake-Induced Landsliding. A property that lies partially or entirely within a designated SH Zone may be subject to requirements for site-specific geologic studies and mitigation before any new or additional construction may take place.

**Earthquake-Induced Landslide Hazard Zones** are areas where the potential for earthquake-induced landslides is relatively high. Areas most susceptible to these landslides are steep slopes in poorly cemented or highly fractured rocks, areas underlain by loose, weak soils, and areas on or adjacent to existing landslide deposits. The CGS cautions these maps do not capture all potential earthquake-induced landslide hazards and that earthquake-induced ground failures are not addressed by these maps. Furthermore, no effort has been made to map potential run-out areas of triggered landslides. It is possible that such run-out areas may extend beyond the zone boundaries. An earthquake capable of causing liquefaction or triggering a landslide may not uniformly affect all areas within a SH Zone.

**Liquefaction Hazard Zones** are areas where there is a potential for, or an historic occurrence of liquefaction. Liquefaction is a soil phenomenon that can occur when loose, water saturated granular sediment within 40 feet of the ground surface, are shaken in a significant earthquake. The soil temporarily becomes liquid-like and structures may settle unevenly. The Public Record is intended to identify areas with a relatively high potential for liquefaction but not to predict the amount or direction of liquefaction-related ground displacement, nor the amount of damage caused by liquefaction. The many factors that control ground failure resulting from liquefaction must be evaluated on a site specific basis.

**PUBLIC RECORD:** Official seismic hazard maps or digital data thereof approved by the State Geologist and issued by the California Department of Conservation, California Geological Survey pursuant to California Public Resources Code §2696.

**STATUTORY NATURAL HAZARD DISCLOSURE REPORTING STANDARD:** "IN" shall be reported if any portion of the Property is located within any of the above zones as delineated in the Public Record. "NOT IN" shall be reported if no portion of the Property is located within any of the above zones as delineated in the Public Record. Map Not Available shall be reported in areas not yet evaluated by the governing agency according to the Public Record. Please note that "MAP NOT AVAILABLE" will be applicable to most portions of the state. Official Seismic Hazard Zone ("SH Zone") maps delineate Areas of Potential Liquefaction and Areas of Earthquake-Induced Landsliding.

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## Part 2. County and City Defined Natural Hazard Zones

### HAZARD MAPS IN THE LOCAL GENERAL PLAN

**General Plan regulates property development.** There are currently over 530 incorporated cities and counties in California. The state Government Code (Sections 65000 et seq.) requires each of those jurisdictions to adopt a comprehensive, long-term "General Plan" for its physical development. That General Plan regulates land uses within the local jurisdiction in order to protect the public from hazards in the environment and conserve local natural resources. The General Plan is the official city or county policy regarding the location of housing, business, industry, roads, parks, and other land uses.

**Municipal hazard zones can affect the cost of ownership.** Each county and city adopts its own distinct General Plan according to that jurisdiction's unique vegetation, landscape, terrain, and other geographic and geologic conditions. The "Safety Element" (or Seismic Safety Element) of that General Plan identifies the constraints of earthquake fault, landslide, flood, fire and other natural hazards on local land use, and it delineates hazard zones within which private property improvements may be regulated through the building-permit approval process, which can affect the future cost of ownership. Those locally regulated hazard zones are in addition to the federal and state defined hazard zones associated with statutory disclosures in the preceding section.

**City and/or County natural hazard zones explained below.** Unless otherwise specified, only those officially adopted Safety Element or Seismic Safety Element maps (or digital data thereof) which are publicly available, are of a scale, resolution, and quality that readily enable parcel-specific hazard determinations, and are consistent in character with those statutory federal or state disclosures will be considered for eligible for use as the basis for county- or city-level disclosures set forth in this Report. Please also note:

- If an officially adopted Safety Element or Seismic Safety Element map relies on data which is redundant of that used for state-level disclosures, this Report will indicate so and advise Report recipients to refer to the state-level hazard discussion section for more information.
- If an officially adopted Safety Element or Seismic Safety Element cites underlying maps created by another agency, those maps may be regarded as incorporated by reference and may be used as the basis for parcel-specific determinations if those maps meet the criteria set forth in this section.
- Because county- and city-level maps are developed independently and do not necessarily define or delineate a given hazard the same way, the boundaries for the "same" hazard may be different.

If one or more maps contained in the Safety Element and/or Seismic Safety Element of an officially adopted General Plan are used as the basis for local disclosure, those maps will appear under the "Public Record(s) Searched" for that county or city.

#### REPORTING STANDARDS

A good faith effort has been made to disclose all hazard features on pertinent Safety Element and Seismic Safety Element maps with well-defined boundaries; however, those hazards with boundaries that are not delineated will be deemed not suitable for parcel-specific hazard determinations. Some map features, such as lines drawn to represent the location of a fault trace, may be buffered to create a zone to facilitate disclosure. Those map features which can not be readily distinguished from those representing hazards may be included to prevent an omission of a hazard feature. If the width of a hazard zone boundary is in question, "IN" will be reported if that boundary impacts any portion of a property. Further explanations concerning specific map features peculiar to a given county or city will appear under the "Reporting Standards" for that jurisdiction.

#### PUBLIC RECORDS VS. ON-SITE EVALUATIONS

Mapped hazard zones represent evaluations of generalized hazard information. Any specific site within a mapped zone could be at less or more relative risk than is indicated by the zone designation. A site-specific evaluation conducted by a geotechnical consultant or other qualified professional may provide more detailed and definitive information about the Property and any conditions which may or do affect it.

#### PROPERTY USE AND PERMITTING

No maps beyond those identified as "Public Record(s)" have been consulted for the purpose of these local disclosures. These disclosures are intended solely to make Report recipient(s) aware of the presence of mapped hazards. For this reason – and because local authorities may use on these or additional maps or data differently to determine property-specific land use and permitting approvals – Report recipients are advised to contact the appropriate local agency, usually Community Development, Planning, and/or Building, prior to the transaction to ascertain if these or any other conditions or related regulations may impact the Property use or improvement.

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Natural Hazard Disclosure (NHD) Report  
For NAPA COUNTY**

**Property Address:** 1030 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-005-000  
**Report Date:** 01/29/2018  
**Report Number:** 2229237

**NAPA COUNTY GEOLOGIC ZONES DISCUSSION**

**PUBLIC RECORD(S) SEARCHED:** The following Public Records, contained or referenced in the Safety Element of the General Plan as adopted by the County Board of Supervisors in June 2008, are utilized for those county-level disclosures below: Digital data of "Figure SAF-1: Earthquake Faults," "Figure SAF-4: Liquefaction Susceptibility," "Figure SAF-5: Napa Dam Inundation Areas," "Figure SAF-5: Napa Dam Inundation Areas" as well as "Map 1-8: Landslides" from the Napa County Baseline Data Report as incorporated by reference into the Safety Element of the General Plan.

**FAULT**

Three mapped faults within the County have been designated as "active" (showing sign of movement over the past 11,000 years) by the California Geological Survey ("CGS") and are regulated by the State as Alquist-Priolo fault zones:

- **West Napa fault:** The southern portion, from the Napa Airport to very near the Solano County border, has been designated active. The northern segment, which ends near Yountville, has not but may have been the source of the 2000 magnitude 5.2 earthquake west of Yountville in which the City of Napa experienced more damage than Yountville itself. (On General Plan Figure SAF-1 this fault is mislabeled as the "Green Valley Fault".)
- **Green Valley fault:** This fault extends northward 4 to 5 miles into the southeast part of the County and ends along the west edge of Wooden Valley. This fault is characterized by aseismic creep, a slow, gradual movement on a fault not associated with felt earthquakes.
- **Hunting Creek fault zone.** This fault zone extends from the vicinity of the Wilson Valley south-southeast to the Cedar Roughs area west of Lake Berryessa.

A fourth fault, the **Cordelia fault**, runs roughly parallel to and a few miles east of the Green Valley fault. This fault may also be active according to sources consulted by Napa County.

**Reporting Standards:** If any portion of the Property is within an Alquist-Priolo fault as adopted by the County or within one-eighth of one mile (660 feet) of a fault trace delineated in the Public Record, "WITHIN" shall be reported.

**LANDSLIDE AREAS**

Landsliding is generally considered the most potentially damaging cumulative geologic hazard in the County because of the widespread and frequent occurrence of damaging events. All major ridge and hills systems within the County have experienced landsliding to varying degrees. Even so, rapid slides, such as debris flows and debris avalanches, are much less prevalent in the County. It is important to recognize that landslide maps are not a substitute for detailed site-specific landslide investigations. They are useful, however, to indicate when such investigation may be required or desirable for a particular project and can be used to suggest the extent and detail of the investigation appropriate to the project.

**Reporting Standards:** If any portion of the Property is within a Landslide Area as delineated in the Public Record, "IN" shall be reported. Please note that individual "landslides" as mapped within and outside of "Landslide Areas" are not disclosed in this Report.

**LIQUEFACTION SUSCEPTIBILITY**

Liquefaction is the sudden loss of strength in water-saturated soils during strong earthquake shaking, due to increased water pressure within the pores between soil grains. As a result, building foundations on the ground surface can settle and fracture. Liquefied soils on sloping ground may flow in a semi-fluid or plastic state (a lateral spreading), disrupting the original ground surface and damaging pipelines, roadways and other improvements in their path. Even within prone areas, liquefaction potential varies from high to low due to various factors, including soil type, soil thickness and groundwater levels. Estuarine areas, and areas comprising nonengineered, saturated, cohesionless fill are often considered to have relatively high liquefaction potential. The largest contiguous area within the County where liquefaction failures could occur is within the loose saturated estuarine deposits along the Napa River, south of the City of Napa.

**Reporting Standards:** The most severe Liquefaction Susceptibility (Very High, High, Medium, Low, or Very Low) area as depicted in the Public Record in which the Property is located shall be reported.

**DAM INUNDATION**

Potential inundation areas for 16 of the 51 dams identified in the County by the California Department of Water Resources as of 2004 are identified in the Public Record.

**Reporting Standards:** Please refer to the Dam Inundation discussion contained in this Report as the potential inundation boundaries delineated in the Public Record are representative of those shown on official dam inundation maps made publicly available by the California Office of Emergency Services.

**OTHER HAZARDS**

Information on other geologic and seismic hazards impacting the County but not detailed in this Report (including, but not limited to, ground shaking, expansive soils, erosion, and subsidence) may be found in the Napa County Baseline Data Report online at [www.napawatersheds.org/app\\_pages/view/192](http://www.napawatersheds.org/app_pages/view/192).

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**CITY OF NAPA GEOLOGIC DISCUSSION**

**PUBLIC RECORD(S) SEARCHED:** The following Public Record(s), contained in the Health and Safety Element of the City of Napa General Plan as officially adopted in 1998 and amended in 2009, is used for the City-level disclosure(s) below: "Figure 8-3: Generalized Slope"; "Figure 8-4: Generalized Relative Landslide Susceptibility"; "Figure 8-7: Flood Water Inundation from Dam Failure"; and "Figure 8-8: Wildland Urban Interface (WUI) Fire Hazard Areas".

**LANDSLIDE SUSCEPTIBILITY**

Soil erosion is a naturally occurring process that can be worsened by human activities. Because the Napa River's watershed is a natural, relatively high producer of sediment, it is particularly sensitive to the effects of soil erosion. Soils are generally susceptible to erosion on steep slopes, particularly if vegetation is removed. Landslides are the most dramatic and obvious form of erosion. Landslides consist of rock, soil and/or debris that move downslope by sliding, flowing or falling. Movement ranges from very slow (earthflow) to very fast (debris flow). Landslides vary in size from large blocks of material and slumps to relatively small amounts of surface debris. Specific factors that affect slope instability include heavy local rainfall, earthquakes, surface materials that are loosely bound together ("unconsolidated"), and slope steepness. According to the Public Record the City requires geotechnical studies for projects proposed in areas susceptible to landslides categorized as "general" and "greatest" hazard level, and adherence to the recommendations of the studies.

**Reporting Standards:** "IN" shall be reported as will the more/most severe Relative Landslide Susceptibility category (Greatest, General, Marginal, or Least) affecting any portion of the Property as delineated in the Public Record within the City's Rural/Urban Limit ("RUL") Boundary.

**SLOPE**

The Public Record shows the steepness of slopes divided into three categories: less than 15 percent, 15 to 30 percent, and greater than 30 percent. Within the Rural/Urban Limit (RUL), the steepest slopes are found in the hilly areas west of Buhman Avenue and south of the Rollingwood subdivisions; north of Browns Valley Road and east of Pinewood Drive; both inside and outside the RUL from Browns Valley Road south to Highway 12/121; south of Hagen Road; and the eastern hills along Montecito Boulevard. According to the Public Record the City requires that an erosion control plan be prepared and approved for development on slopes of 15 percent or greater. The plan should include limitations on vegetation removal, revegetation, and installation of other erosion and sedimentation control measures.

**Reporting Standards:** "IN" shall be reported as will the more/most severe Generalized Slope category (slopes greater than 30 percent, slopes between 15 and 30 percent, and slopes less than 15 percent) affecting any portion of the Property as delineated in the Public Record within the City's Rural/Urban Limit ("RUL").

**DAM INUNDATION**

The City's dams are located at the Lake Hennessey, Milliken and Eastside Reservoirs; another dam is the State-owned Rector Reservoir. Failure of any one of these dams would subject the city of Napa to flood water inundation. In the case of the failure of any of the three dams located outside the city, inundation waters in a worst-case scenario would affect the same areas within the city (approximately 25 percent of the City's residences would be affected). Potential inundation areas from Conn and Milliken are delineated in the Public Record. Lake Hennessey is the City's primary water supply storage. The lake's dam, Conn Creek Dam, is earth fill with a concrete spillway which empties into Conn Creek. The crest height is 125 feet and the reservoir stores 31,000 acre-feet of water. Were Conn Creek Dam to fail, inundation waters would arrive at the north city limits in 4 ½ hours with a 16-foot maximum water depth at Trancas Street. According to an April 1986 Seismic Stability Evaluation of Conn Creek Dam by Harding Lawson Associates, the greatest potential for damage to the dam is from a seismic event on the Rogers Creek-Healdsburg Fault (15 miles to the west) or the Cedar Roughs Fault (8 miles to the east). However, the evaluation concluded that the dam "will perform adequately during a major earthquake" (i.e., magnitude 6.5 on the Cedar Roughs Fault) and dam failure is not anticipated. The Milliken Reservoir dam is radial arch reinforced concrete and empties into Milliken Creek. The crest height is 110 feet and the reservoir stores 2,000 acre-feet of water at the crest height. In 2008, the Public Works Department Water Division implemented the Milliken Dam Seismic-Related Modifications Project to lower the nominal water height behind the dam to an elevation 16 feet below the dam crest. The project cored four 18-inch holes and one 24-inch hole at the lower elevation to maintain the reduced water level. In accordance with the California State Water Resources Division of Safety of Dams, Milliken dam is deemed safe to withstand a maximum credible earthquake while storing water at the reduced elevation of the cored holes. The dam stores 1,390 acre-feet of water at the reduced elevation. Prior to implementation of the Milliken Seismic-Related Modifications Project, if the Milliken Reservoir dam were to fail, inundation waters would reach the northeast city limits in one hour with a 16-foot maximum water depth at Trancas Street. A revision to the reduced effects of the inundation waters is not available at this time. However, the State Department of Water Resources Division of Safety of Dams performs annual inspections of the dam and requires maintenance and improvements as needed. The dam is routinely inspected to record settlement or movement. No seismic or significant dam safety concerns have been identified and no significant improvements to the dam are planned for the near future.

**Reporting Standards:** "IN" shall be reported in any portion of the Property is situated within a mapped inundation boundary as delineated in the Public Record within the City's Rural/Urban Limit. "NOT IN" shall be reported in no portion of the Property is situated within a mapped inundation boundary as delineated in the Public Record the City's Rural/Urban Limit Boundary.

**FIRE**

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Napa is characterized by a narrow valley floor surrounded and intermingled with steep, hilly terrain that contains areas that are very susceptible to wildland fires. This in turn exposes areas of development within the city to an increased risk of fire. The most vulnerable structures are the homes in or adjacent to wildland urban interface areas. Wind is an important factor in the spread of fire, by carrying burning embers to adjacent areas. Napa has a characteristic southerly wind that originates from the San Francisco Bay. During the dry season, the city experiences an occasional north wind of significant velocity that can be a contributing factor in the spread of wildland fires. The major wildland fire hazard risks for residential development are in the city's hilly areas characterized by steep slopes, poor fire apparatus access, inadequate water pressure, and highly flammable vegetation. Recognizing that these areas differ from the typical urban fire to be served by city fire departments, there has been a move statewide to include built-in fire protection measures for development in and adjacent to these wildland urban interface areas. The cornerstone of wildland fire protection is the provision of defensible space around residential development in hazardous areas to protect residents and enable firefighting equipment and personnel to safely operate. The City requires that development in wildland urban interface areas provides adequate access roads, onsite fire protection systems, signage, ignition resistant building materials, and defensible space.

**Reporting Standards:** "IN" shall be reported in any portion of the Property is situated within a mapped "Fire Hazard Area" as delineated in the Public Record within the City's RUL (Rural/Urban Limit) Boundary. "NOT IN" shall be reported in no portion of the Property is situated with a mapped "Fire Hazard Area" as delineated in the Public Record within the City's Rural/Urban Limit Boundary.

#### **OTHER HAZARDS**

"Figure 8-1: Ground Shaking Intensity (West Napa Fault)" and "Figure 8-1B: Ground Shaking Intensity (Hayward Fault)" are Association of Bay Area Government (ABAG) ground shaking maps that depict shaking intensity resulting from only 2 seismic event scenarios. These and other shake maps for the City of Napa may be viewed online at <http://quake.abag.ca.gov/earthquakes/napa/>. As with most communities in the San Francisco Bay Area near active earthquake faults, much of the City would be susceptible to violent ground shaking. [NOTE: The Public Record when originally adopted predates the magnitude 5.2 earthquake on September 3, 2000. That earthquake occurred nine miles northwest of the City of Napa near the West Napa fault. It caused damage estimated at between \$15 and \$70 million, primarily in the Napa downtown area.] "Figure 8-2: Generalized Geology Map" identifies the type and distribution of geologic materials within the Napa area including those very susceptible to slope failure; however, areas of Generalized Slope and Relative Landslide Susceptibility that are subject to development requirements are already disclosed. The flood-related maps contained in the Health and Safety Element including, but not limited to "City of Napa 100 year floodplain for Napa River and Creeks" and "100-year Floodplain & Floodway Comparison □ Effective and LOMR Interim Conditions" are based on flood zones since superseded by more recent FEMA DFIRM data. For the most current FEMA flood zone information please refer to the state-level discussion and disclosure of Special Flood Hazard Area in the preceding section of this Report. The mapped Flood Evacuation Area pertains only to proposed residential developments resulting in more than four dwelling units on a parcel.

**The following natural hazards are discussed at length but not mapped in the City General Plan:**

#### **LIQUEFACTION**

Liquefaction occurs when water-saturated, cohesionless soil loses its strength and liquefies during intense and prolonged ground shaking. Areas which have the greatest potential for liquefaction are those areas where the water table is less than 50 feet below the surface and soils are predominantly clean, composed of relatively uniform sands, and are of loose-to-medium density. The poorly consolidated younger alluvium that occupies areas south of the city and along the Napa River are considered to have high to very high potential for liquefaction. The younger soils found on the valley floor in the western part of the city are also subject to moderate to high potential for liquefaction.

**Reporting Standards:** No determination is reported because the Public Record does not include a map which delineates the boundaries for this hazard within the City's Rural/Urban Limit Boundary.

#### **SOIL EROSION**

As noted above, soil erosion is a naturally occurring process that can be worsened by human activities. Because the Napa River's watershed is a natural, relatively high producer of sediment, it is particularly sensitive to the effects of soil erosion. Soil erosion is a naturally occurring process that can be worsened by human activities. Because the Napa River's watershed is a natural, relatively high producer of sediment, it is particularly sensitive to the effects of soil erosion. Soil erosion can take the form of sheet and rill erosion. In sheet erosion, a relatively uniform layer of soil is removed over a large area gradually over time. In rill erosion, streambank and gully erosion can occur from small concentrated water flows. Urban development activities are a significant contributor to streambank and gully erosion which is sensitive to changes in watershed hydrology, rainfall infiltration rates, the amount of hard surfaces, and surface flow diversions. Urban development, with its grading, construction and land alteration (particularly on hillsides), can cause excessive erosion and sedimentation if not regulated properly. Grading for building pads, roads, and land-scaping removes natural vegetation that protects topsoil from erosion. Recontouring of the land surface alters natural drainage patterns and can increase surface runoff if not properly designed. General construction activities such as equipment washing and site clearance also indirectly contribute to soil erosion.





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**Reporting Standards:** No determination is reported because the Public Record does not include a map which delineates the boundaries for this hazard within the City's Rural/Urban Limit Boundary.

**END OF LOCAL AREA DISCLOSURES AND DISCUSSIONS SECTION**

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### **Part 3. Additional Property Specific Disclosures**

#### **FORMER MILITARY ORDNANCE SITE DISCLOSURE**

**DISCUSSION:** Former Military Ordnance (FUD) sites can include sites with common industrial waste (such as fuels), ordnance or other warfare materiel, unsafe structures to be demolished, or debris for removal. California Civil Code Section 1102 requires disclosure of those sites containing unexploded ordnance. "Military ordnance" is any kind of munitions, explosive device/material or chemical agent used in military weapons. Unexploded ordnance are munitions that did not detonate. NOTE: **MOST** FUD sites do not contain unexploded ordnance. Only those FUD sites that the U.S. Army Corps of Engineers (USACE) has identified to contain Military Ordnance or have mitigation projects planned for them are disclosed in this Report. Additional sites may be added as military installations are released under the Federal Base Realignment and Closure (BRAC) Act. Active military sites are NOT included on the FUD site list.

**PUBLIC RECORD:** Data contained in Inventory Project Reports, Archives Search Reports, and related materials produced for, and made publicly available in conjunction with, the Defense Environmental Restoration Program for Formerly Used Defense Sites by the U.S. Army Corps of Engineers. Sites for which no map has been made publicly available shall not be disclosed.

**REPORTING STANDARD:** If one or more facility identified in the Public Record is situated within a one (1) mile radius of the Property, "**WITHIN**" shall be reported. The name of that facility or facilities shall also be reported.

#### **COMMERCIAL OR INDUSTRIAL ZONING DISCLOSURE**

**DISCUSSION:** The seller of real property who has actual knowledge that the property is affected by or zoned to allow commercial or industrial use described in Section 731a of the Code of Civil Procedure shall give written notice of that knowledge to purchasers as soon as practicable before transfer of title (California Civil Code Section 1102.17). The Code of Civil Procedure Section 731a defines industrial use as areas in which a city and/or county has established zones or districts under authority of law wherein certain manufacturing or commercial or airport uses are expressly permitted. The "Zoning Disclosure" made in this Report DOES NOT purport to determine whether the subject property is or is not affected by a commercial or industrial zone. As stated above, that determination is based solely upon ACTUAL KNOWLEDGE of the seller of the subject property.

In an effort to help determine areas where this may be applicable, this disclosure identifies if a property exists within one mile of the seller's property that is zoned to allow for commercial or industrial use. Very commonly, a home will have in its vicinity one or more properties that are zoned for commercial or industrial use such as restaurants, gasoline stations, convenience stores, golf courses, country club etc.

**PUBLIC RECORD:** Based on publicly-available hardcopy and/or digital zoning and land use records for California cities and counties.

**REPORTING STANDARD:** If one or more property identified in the Public Record as "commercial," "industrial," or "mixed use" is situated within a one (1) mile radius of the Property, "**WITHIN**" shall be reported. Please note that an airport facility that may be classified as public use facility in the Public Record will be reported as "commercial/industrial" in this disclosure.

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**AIRPORT INFLUENCE AREA DISCLOSURE**

**DISCUSSION:**

**Certain airports are not disclosed in this Report.** JCP-LGS has made a good faith effort to identify the airports covered under Section 1102.6a. Sources consulted include official land use maps and/or digital data made available by a governing Airport Land Use Commission (ALUC) or other designated government body. Most facilities for which an Airport Influence Area has been designated are included on the "California Airports List" maintained by the California Department of Transportation's Division of Aeronautics. Not disclosed in this Report are public use airports that are not in the "California Airports List", airports that are physically located outside California, heliports and seaplane bases that do not have regularly scheduled commercial service, and private airports or military air facilities unless specifically identified in the "California Airports List". **If the seller has actual knowledge of an airport in the vicinity of the subject property that is not disclosed in this Report, and that is material to the transaction, the seller should disclose this actual knowledge in writing to the buyer.**

Most facilities for which an Airport Influence Area has been designated are included on the "California Airports List" maintained by the California Department of Transportation's Division of Aeronautics. The inclusion of military and private airports varies by County, and heliports and seaplane bases are not included, therefore, airports in these categories may or may not be included in this disclosure.

**NOTE:** Proximity to an airport does not necessarily mean that the property is exposed to significant aviation noise levels. Alternatively, there may be properties exposed to aviation noise that are greater than two miles from an airport. Factors that affect the level of aviation noise include weather, aircraft type and size, frequency of aircraft operations, airport layout, flight patterns or nighttime operations. Buyer should be aware that aviation noise levels can vary seasonally or change if airport usage changes.

**PUBLIC RECORD:** Based on officially adopted land use maps and/or digital data made publicly available by the governing ALUC or other designated government body. If the ALUC or other designated government body has not made publicly available a current officially adopted airport influence area map, then California law states that "a written disclosure of an airport within two (2) statute miles shall be deemed to satisfy any city or county requirements for the disclosure of airports in connection with transfers of real property."

**REPORTING STANDARD:** "IN" shall be reported along with the facility name(s) and the "Notice of Airport in Vicinity" if any portion of the Property is situated within either (a) an Airport Influence Area as designated on officially adopted maps or digital data or (b) a two (2) mile radius of a qualifying facility for which an official Airport Influence Area map or digital data has not been made publicly available by the ALUC or other designated governing body. "NOT IN" shall be reported if no portion of the Property is within either area.

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### **AIRPORT NOISE DISCLOSURE**

**DISCUSSION:** California Civil Code §1102.17 requires the seller(s) of residential real property who has/have actual knowledge that the property in the transaction is affected by airport use must give written notice of that knowledge, as soon as practicable, before transfer of title.

Under the Federal Aviation Administration's *Airport Noise Compatibility Planning Program Part 150*, certain 65 decibel (dB) Community Noise Equivalent Level (CNEL) contour maps have been produced for some airports. Not all airports have produced noise exposure maps. A property may be near or at some distance from an airport and not be within a delineated noise exposure area, but still experience aviation noise. Unless 65dB CNEL contour maps are published, helipads and military sites are not included in this section of the Report.

The *Airport Noise Compatibility Planning Program* is voluntary and not all airports have elected to participate. Furthermore, not all property in the vicinity of an airport is exposed to 65dB CNEL or greater average aviation noise levels. Conversely a property may be at some distance from an airport and still experience aviation noise. Buyer should be aware that aviation noise levels can vary seasonally or change if airport usage changes after a map is published or after the Report Date. JCP-LGS uses the most seasonally conservative noise exposures provided.

Federal funding may be available to help airports implement noise reduction programs. Such programs vary and may include purchasing properties, rezoning, and insulating homes for sound within 65dB areas delineated on CNEL maps. Airport owners have also cooperated by imposing airport use restrictions that include curfews, modifying flight paths, and aircraft limitations.

**PUBLIC RECORD:** Certain 65 decibel (dB) Community Noise Equivalent Level (CNEL) contour maps produced under the Federal Aviation Administration's *Airport Noise Compatibility Planning Program Part 150*.

**REPORTING STANDARD:** "IN" shall be reported if any portion of the Property is situated within a 65 decibel Community Noise Equivalent Level contour identified in the Public Record. "NOT IN" shall be reported if no portion of the Property is situated within a 65 decibel Community Noise Equivalent Level contour identified in the Public Record.

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**SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT  
COMMISSION DISCLOSURE**

**DISCUSSION:** As of July 1, 2005, Civil Code §1103.4 mandates disclosure to buyers of certain real estate if the boundary of the property is determined to be (1) within 100 feet of the San Francisco Bay shoreline as mapped in 1997 by the National Ocean Survey (NOS), an agency of the National Oceanographic and Atmospheric Administration (NOAA); or (2) within another mapped zone established by the Bay Conservation and Development Commission (BCDC). The BCDC has regulatory jurisdiction within 100 feet inland from the point of "mean higher high water" as mapped by the NOS, and within other zones the agency has defined along the San Francisco Bay margin (BCDC Memo entitled "Guidance on Determining Commission Jurisdiction Pursuant to Senate Bill 1568").

Notice is required to prevent unknowing violations of the law by new owners who were unaware that certain activities on the real property are subject to the BCDC's permit requirements. The BCDC notes that the Bay is a highly dynamic environment and the shoreline changes over time (see Discussion below). In addition, there is inherent uncertainty in the shoreline position as mapped by the NOS or any agency. The BCDC advises the buyer and other interested parties to contact its office if a more authoritative jurisdictional determination is desired. The BCDC office is located at 50 California Street, Suite 2600, San Francisco, California 94111, and can be reached at (415) 352-3600, or by email to [info@bcdc.ca.gov](mailto:info@bcdc.ca.gov)

The BCDC has issued maps for some parts of its jurisdiction, including the San Francisco Bay Plan maps (California Code of Regulations, Title 14, Section 10121) and the Suisun Marsh Plan maps (Nejedly-Bagley-Z'berg Suisun Marsh Preservation Act of 1974). Official maps have not been issued for other parts of the BCDC jurisdiction (McAteer-Petris Act areas) because the Bay is a highly dynamic environment and the shoreline changes over time (in part because the sea level also changes over time). In those areas where official BCDC maps are not available or along the edges of the BCDC's mapped jurisdiction, to meet the disclosure requirements, this Report will indicate that the property "could be within" the BCDC's jurisdiction and that a location-specific jurisdictional determination should be made by consulting the BCDC. This determination of "could be within" the BCDC's jurisdiction was recommended by the BCDC in that certain Memo entitled "Guidance on Determining Commission Jurisdiction Pursuant to Senate Bill 1568" issued in February 2005 and posted on the BCDC website.

**PUBLIC RECORDS:** San Francisco Bay Plan maps (California Code of Regulations, Title 14, Section 10121) and the Suisun Marsh Plan maps (Nejedly-Bagley-Z'berg Suisun Marsh Preservation Act of 1974) made publicly available by BCDC and that certain Memo entitled "Guidance on Determining Commission Jurisdiction Pursuant to Senate Bill 1568" issued by BCDC in February 2005 and posted on the BCDC website ("BCDC Memo").

**REPORTING STANDARD:** "WITHIN" shall be reported if any portion of the Property is situated within an areas mapped by BCDC or is within the 100-foot shoreline band. "COULD BE WITHIN" shall be reported if any portion of the Property is situated within one-quarter (1/4) mile of either an area mapped by BCDC or the 100-foot shoreline band. "NOT WITHIN" shall be reported if no portion of the Property is situated within an area that would otherwise be reported as either "WITHIN" or "COULD BE WITHIN".

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**CALIFORNIA ENERGY COMMISSION DUCT SEALING & TESTING REQUIREMENT**

**DISCUSSION:** According to the California Energy Commission ("CEC") most California homes have improperly sealed central air conditioning and heating system ducts such that approximately 30 percent of the conditioned air actually leaks outside the home.

Effective July 1, 2014, in order to combat this waste of energy and money, the CEC updated its residential duct sealing and testing requirements in the 2013 Building Energy Efficiency Standards (Title 24). Previously, such duct sealing and testing was required only in certain CEC-designated climate zones when a central air conditioner or furnace is installed or replaced. **The revised standards now make duct sealing and testing mandatory in all California climate zones when such a system is installed or replaced.** Ducts found to leak more than 15 percent or more must be repaired. Once a contractor tests and fixes these ducts, you must have an approved third-party verifier determine that the ducts have been properly sealed. The CEC cautions homeowners that a contractor who fails to obtain a required building permit and fails to test and repair your ducts "is violating the law and exposing you to additional costs and liability." If you do not obtain a permit, you may be required to bring your home into compliance with code requirements for that work and may incur additional penalties and fines that have to be paid prior to selling your home. Remember that you have a duty to disclose whether you obtained required permits for work performed to prospective Buyers and appraisers. Local governments may mandate more stringent requirements.

Please note there are specific alternatives that allow high efficiency equipment and added duct insulation to be installed instead of fixing duct leaks. Please also be advised that there are separate regulations which govern duct insulation levels required by climate zone and HVAC system.

For more information please contact the California Energy Commission or visit the official CEC "2013 Building Energy Efficiency Standards" portal at: <http://www.energy.ca.gov/title24/2013standards/index.html>

**PUBLIC RECORD:** 2013 Building Energy Efficiency Standards (Title 24).

**REPORTING STANDARD:** "WITHIN" shall be reported regardless of CEC-designated climate zone pursuant to the revised Title 24 Standards.

**COOLING AND HEATING ENERGY-EFFICIENCY ADVISORY**

Effective January 1, 2015, new federal energy-efficiency standards apply to the repair and replacement of residential heating, ventilation and air conditioning ("HVAC") systems. The new standards raise the minimum efficiency requirements for air conditioning systems and certain types of heating systems. Energy efficiency is measured by the Seasonal Energy Efficiency Ratio ("SEER"), which compares the amount of cooling (or heating) output by an HVAC system to the amount of energy (electricity or gas) input over its operating season. The higher the system's SEER value, the more energy-efficient it is and the lower the unit cost of cooling (or heating) a home.

For the first time, federal minimum-efficiency standards will vary by region. Prior to 2015 one standard, called SEER 13, applied nationwide. Now, in California, Nevada, Arizona and New Mexico (the Southwestern Region), SEER 13 has been replaced by the more efficient SEER 14 standard. In the Southwestern Region the new rule allows repairs to existing SEER 13-compliant systems. However, in many cases a full system replacement (both the indoor and outdoor unit) will be necessary to make the system compatible, and replacement is allowed only with a SEER 14-compliant unit. The higher standard may increase the replacement cost to the property owner because the SEER 14 efficiency improvements require increased complexity of the new equipment, and the SEER 14 units may not fit in the existing space, requiring structural modifications at the owner's expense. In some cases the SEER 14 standard could double the cost of replacement over the earlier replacement cost. For applicable details and codes, see the California Energy Commission web page at: [http://www.energy.ca.gov/title24/2013standards/residential\\_manual.html](http://www.energy.ca.gov/title24/2013standards/residential_manual.html) (The new federal standards go into effect on January 1, 2015, which is six months after the July 1, 2014, effective date of the 2013 Standards.)

**JCP-LGS Residential Property Disclosure Reports  
Natural Hazard Disclosure (NHD) Report  
For NAPA County**

**Property Address:** 1030 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-005-000  
**Report Date:** 01/29/2018  
**Report Number:** 2229237

**STATEWIDE RIGHT TO FARM DISCLOSURE**

**DISCUSSION:**

If the property is presently located within one mile of a parcel of real property designated as "Prime Farmland," "Farmland of Statewide Importance," "Unique Farmland," "Farmland of Local Importance," or "Grazing Land" on the most current "Important Farmland Map" issued by the California Department of Conservation, Division of Land Resource Protection, the following notice is required:

**NOTICE OF RIGHT TO FARM**

This property is located within one mile of a farm or ranch land designated on the current county-level GIS "Important Farmland Map," issued by the California Department of Conservation, Division of Land Resource Protection. Accordingly, the property may be subject to inconveniences or discomforts resulting from agricultural operations that are a normal and necessary aspect of living in a community with a strong rural character and a healthy agricultural sector. Customary agricultural practices in farm operations may include, but are not limited to, noise, odors, dust, light, insects, the operation of pumps and machinery, the storage and disposal of manure, bee pollination, and the ground or aerial application of fertilizers, pesticides, and herbicides. These agricultural practices may occur at any time during the 24-hour day. Individual sensitivities to those practices can vary from person to person. You may wish to consider the impacts of such agricultural practices before you complete your purchase. Please be advised that you may be barred from obtaining legal remedies against agricultural practices conducted in a manner consistent with proper and accepted customs and standards pursuant to Section 3482.5 of the Civil Code or any pertinent local ordinance.

California has a "Right to Farm Act" (Civil Code Section 3482.5) to protect farming operations. When agricultural land within the State's agricultural areas is bought and sold, the purchasers are often not made aware of the fact that there are right-to-farm laws. This has led to confusion and a misunderstanding of the actual uses of the land or uses of the surrounding agricultural lands.

In 2008 the State of California enacted Assembly Bill 2881 to limit the exposure of farmers to nuisance lawsuits by homeowners in neighboring developments. The mechanism of this bill is a formal notification of the Buyer, through a "Notice of Right to Farm" in an expert disclosure report that advises the Buyer if the subject property is within one mile of farmland as defined in the bill.

**If the seller has actual knowledge of an agricultural operation in the vicinity of the subject property that is not disclosed in this Report, and that is material to the transaction, the seller should disclose this actual knowledge in writing to the Buyer.**

**PUBLIC RECORD:** Based on the most current available version of the "Important Farmland Map" issued by the California Department of Conservation, Division of Land Resource Protection, utilizing solely the county-level GIS map data, if any, available on the Division's Farmland Mapping and Monitoring Program website, pursuant to Section 11010 of the Business and Professions Code, and Section 1103.4 of the California Civil Code.

**REPORTING STANDARD:** "IN" shall be reported and the "Notice of Right to Farm" provided if any portion of the Property is situated within, or within one mile of, a parcel of real property designated as "Prime Farmland," "Farmland of Statewide Importance," "Unique Farmland," "Farmland of Local Importance," or "Grazing Land" in the public record. "NOT IN" shall be reported if no portion of the Property is within that area.

Some counties, or parts thereof, are not included in the Public Record because they have not been mapped for farmland parcels under this State program. Typically, this is because the county area is public land and not planned for incorporation, or, in the case of San Francisco, the county is entirely incorporated. In those instances, we report "Map Not Available" above, or "Map N/A" in the table of summary determinations at the beginning of this Report.

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**NOTICE OF MINING OPERATIONS DISCLOSURE**

If the Property has been determined to be located within one (1) mile of a reported mining operation(s), the following notice is provided as mandated by California law:

**NOTICE OF MINING OPERATIONS**

**This property is located within one mile of a mine operation for which the mine owner or operator has reported mine location data to the Department of Conservation pursuant to Section 2207 of the Public Resources Code. Accordingly, the property may be subject to inconveniences resulting from mining operations. You may wish to consider the impacts of these practices before you complete your transaction.**

**DISCUSSION:** Historically mining operations have been located in remote areas. However, increasing urbanization has resulted in some residential projects being developed near existing mining operations.

California Public Resources Code §2207 requires owners and operators of mining operations to provide annually specific information to the California Department of Conservation ("DOC"), including but not limited to, (i) ownership and contact information, and (ii) the latitude, longitude, and approximate boundaries of the mining operation marked on a specific United States Geological Survey map. The Office of Mining Reclamation ("OMR") is a division of the DOC. Using the mandatory data specified above, OMR provides map coordinate data that can be used by GIS systems to create points representing mine locations ("OMR Maps"). For more information please visit OMR's Mines OnLine Map Viewer (<http://maps.conservation.ca.gov/mol/index.html>).

Effective January 1, 2012, California Civil Code §1103.4 requires the seller of residential property to disclose to a Buyer if the residential property is located with one (1) mile of mining operations as specified on OMR Maps.

**Special Notes:**

1. This statutory disclosure does not rely on the OMR's "AB 3098 List," a list of mines regulated under the Surface Mining and Reclamation Act of 1975 ("SMARA") that meet provisions set forth under California Public Resources Code §2717(b). The AB 3098 List does not include map coordinate data as required under California Public Resources Code §2207 and may not include all mining operations subject to the "Notice of Mining Operations" disclosure.
2. This "Notice of Mining Operations" disclosure is not satisfied by disclosing abandoned mines. An abandoned mine is NOT an operating mine. California Civil Code §1103.4 is satisfied only by disclosing based on OMR Maps.

**PUBLIC RECORD:** Mining operations as provided on OMR Maps made publicly available by DOC pursuant to California law.

**REPORTING STANDARD:** "IN" is reported if any portion of the Property is located within a one (1) mile radius of one or more mining operation(s) identified in the Public Record for which map coordinate data is provided. If "IN", the name of the mining operation(s) as it appears in the Public Record is also reported. "NOT IN" is reported if no portion of the Property is located within a one (1) mile radius of a mining operation specified on OMR Maps.



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## Part 4. General Advisories

### REGISTERED SEX OFFENDER DATABASE DISCLOSURE REQUIREMENT ("MEGAN'S LAW")

**Notice:** Pursuant to Section 290.46 of the Penal Code, information about specified registered sex offenders is made available to the public via an Internet Web site maintained by the Department of Justice at [www.meganslaw.ca.gov](http://www.meganslaw.ca.gov). Depending on an offender's criminal history, this information will include either the address at which the offender resides or the community of residence and ZIP Code in which he or she resides.

**DISCUSSION:** California law (AB 488), signed by the Governor on September 24, 2004, provides the public with Internet access to detailed information on registered sex offenders. The Sex Offender Tracking Program of the California Department of Justice (DOJ) maintains the database of the locations of persons required to register pursuant to paragraph (1) of subdivision (a) of Section 290.46 of the Penal Code. The online database is updated with data provided by local sheriff and police agencies on an ongoing basis. It presents offender information in 13 languages; may be searched by a sex offender's specific name, zip code, or city/county; provides access to detailed personal profile information on each registrant; and includes a map of your neighborhood.

**California Department of Justice Information Sources:**

Megan's Law Sex Offender Locator Web Site: <http://www.meganslaw.ca.gov>

California Department of Justice Megan's Law Email Address: [meganslaw@doj.ca.gov](mailto:meganslaw@doj.ca.gov)

**Local Information Locations For The Property:**

All sheriffs departments and every police department in jurisdictions with a population of 200,000 or more are required to make a CD-ROM available free to the public for viewing. Although not required, many other law enforcement departments in smaller jurisdictions make the CD-ROM available as well. Please call the local law enforcement department to investigate availability.

***The following are the law enforcement departments in your county that are REQUIRED to make information available:***

**Napa County Sheriff's Department**

**(707) 253-4440**

**Explanation and How to Obtain Information**

For over 50 years, California has required certain sex offenders to register with their local law enforcement agencies. However, information on the whereabouts of the sex offenders was not available to the public until implementation of the Child Molester Identification Line in July 1995. The available information was expanded by California's "Megan's Law" in 1996 (Chapter 908, Stats. of 1996). Megan's Law provides certain information on the whereabouts of "serious" and "high-risk" sex offenders. The law specifically prohibits using the information to harass or commit any crime against the offender. The information on a registered sex offender includes: name and known aliases; age and sex; physical description, including scars, marks and tattoos; photograph, if available; crimes resulting in registration; county of residence; and zip code (from last registration). Accessing the online database requires agreement to the DOJ's terms of use on the web page.

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**GAS AND HAZARDOUS LIQUID TRANSMISSION PIPELINE  
DATABASE DISCLOSURE REQUIREMENT**

**DISCUSSION:** Following a number of pipeline disasters in the U.S., such as the 2010 San Bruno explosion in Northern California, there is an increased awareness of the potential dangers associated with underground transmission pipelines. As a result, the California Legislature unanimously passed Assembly Bill 1511 (Bradford), signed by Governor Jerry Brown on July 13, 2012. This law, which becomes effective January 1, 2013, is chaptered as California Civil Code Section 2079.10.5 and mandates the disclosure of the following notice to Buyers:

**NOTICE REGARDING GAS AND HAZARDOUS LIQUID  
TRANSMISSION PIPELINES**

This notice is being provided simply to inform you that information about the general location of gas and hazardous liquid transmission pipelines is available to the public via the National Pipeline Mapping System (NPMS) Internet Web site maintained by the United States Department of Transportation at <http://www.npms.phmsa.dot.gov/>. To seek further information about possible transmission pipelines near the property, you may contact your local gas utility or other pipeline operators in the area. Contact information for pipeline operators is searchable by ZIP Code and county on the NPMS Internet Web site. (California Civil Code Section 2079.10.5(a))

*Civil Code Section 2079.10.5(c) adds, "Nothing in this section shall alter any existing duty under any other statute or decisional law imposed upon the seller or broker, including, but not limited to, the duties of a seller or broker under this article, or the duties of a seller or broker under Article 1.5 (commencing with Section 1102) of Chapter 2 of Title 4 of Part 4 of Division 2."*

Such "existing duties" include the disclosure of actual knowledge about a potential hazard, such as may be created by the delivery of a letter from the local utility company informing the seller that a gas transmission pipeline exists within 2,000 feet of the Property.

Beginning on the law's January 1, 2013, effective date, except where such "existing duties" apply, "Upon delivery of the notice to the transferee of the real property, the seller or broker is not required to provide information in addition to that contained in the notice regarding gas and hazardous liquid transmission pipelines in subdivision (a). The information in the notice shall be deemed to be adequate to inform the transferee about the existence of a statewide database of the locations of gas and hazardous liquid transmission pipelines and information from the database regarding those locations." (California Civil Code Section 2079.10.5(b))

The disclosure of underground transmission pipelines helps the parties in a real estate transaction make an informed decision and is in the best interest of the public. Buyer should be aware that, according to the NPMS Internet Web site, gas and/or hazardous liquid transmission pipelines are known to exist in 49 of California's 58 counties, the exceptions being in rural mountainous parts of the state. Every home that utilizes natural gas is connected to a gas "distribution" pipeline, which is generally of smaller size and lower pressure than a transmission pipeline.

**For More Information**

To investigate whether any pipeline easement (right-of-way) exists on the Property, Buyer should review the Preliminary Title Report. Buyer should consult an attorney for interpretation of any law. This notice is for information purposes only and should not be construed as legal advice.



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**METHAMPHETAMINE CONTAMINATED PROPERTY DISCLOSURE ADVISORY**

**DISCUSSION:** According to the "Methamphetamine Contaminated Property Cleanup Act of 2005" a property owner must disclose in writing to a prospective buyer if local health officials have issued an order prohibiting the use or occupancy of a property contaminated by meth lab activity. The owner must also give a copy of the pending order to the buyer to acknowledge receipt in writing. Failure to comply with these requirements may subject an owner to, among other things, a civil penalty up to \$5,000. Aside from disclosure requirements, this new law also sets forth procedures for local authorities to deal with meth-contaminated properties, including the filing of a lien against a property until the owner cleans up the contamination or pays for the cleanup costs.

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**MOLD ADVISORY**

**DISCUSSION:** The Buyer is hereby advised that naturally occurring molds may exist both inside and outside of any home and may not be visible to casual inspection. Persons exposed to extensive mold levels can become sensitized and develop allergies to the mold or other health problems. Extensive mold growth can damage a structure and its contents. All prospective purchasers of residential and commercial property are advised to thoroughly inspect the Property for mold. Be sure to inspect the Property inside and out for sources of excess moisture, current water leaks and evidence of past water damage.

As part of a buyer's physical inspection of the condition of a property, the buyer should consider engaging an appropriate and qualified professional to inspect and test for the presence of harmful molds and to advise the buyer of any potential risk and options available. This advisory is not a disclosure of whether harmful mold conditions exist at a property or not. No testing or inspections of any kind have been performed by The Company. Any use of this form is acknowledgement and acceptance that The Company does not disclose, warrant or indemnify mold conditions at a property in any way and is not responsible in any way for mold conditions that may exist. Information is available from the California Department of Health Services Indoor Air Quality Section fact sheet entitled, "Mold in My Home: What Do I Do?" The fact sheet is available at <https://archive.cdph.ca.gov/programs/IAQ/Pages/IndoorMold.aspx> or by calling (510) 620-3620.

The Toxic Mold Protection Act of 2001 requires that information be developed regarding the potential issues surrounding naturally occurring molds within a home. Information was written by environmental authorities for inclusion in the *Residential Environmental Hazards: A Guide for Homeowners, Buyers, Landlords and Tenants* booklet developed by the California Environmental Protection Agency and the Department of Health Services. It is found in Chapter VII of that booklet, and includes references to sources for additional information.

**For local assistance, contact your county or city Department of Health, Housing, or Environmental Health.**

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**RADON ADVISORY**

**DISCUSSION:** For its Radon Advisory, JCP-LGS uses the updated assessment of radon exposure published in 1999 by the Lawrence Berkeley National Laboratory (LBNL) and Columbia University, under support from the U.S. Environmental Protection Agency (EPA), the National Science Foundation, and the US Department of Energy (published online at <http://www2.lbl.gov/Science-Articles/Archive/radon-risk-website.html>). Based on this recent assessment, JCP-LGS radon advisory is as follows:

**All of California's 58 counties have a predicted median annual-average living-area concentration of radon below 2.0 pCi/L (picocuries per liter of indoor air) – which is well below the EPA's guideline level of 4 pCi/L and equivalent to the lowest hazard zone (Zone 3) on the 1993 EPA Map of Radon Zones.**

The "median concentration" means that half of the homes in a county are expected to be below this value and half to be above it. All houses contain some radon, and a few houses will contain much more than the median concentration. The only way to accurately assess long-term exposure to radon in a specific house is through long-term testing (sampling the indoor air for a year or more). The EPA recommends that all homes be tested for radon. Columbia University's "Radon Project" website offers help to homeowners in assessing the cost vs. benefit of testing a specific house for radon or modifying it for radon reduction (see <http://www.stat.columbia.edu/~radon/>).

**NOTE:** JCP-LGS does not use the EPA's 1993 map for advisory purposes because that map shows "short-term" radon exposure averaged by county. It was based on "screening measurements" that were intentionally designed to sample the worst-case conditions for indoor air in US homes—using spot checks (sampling for just a few days), in the poorest air quality (with sealed doors and windows), at the worst time of the year (winter), in the worst part of the house (the basement, if one was available). These short-term, winter, basement measurements are both biased and variable compared to long-term radon concentrations (averaged over a year) in the living area of a house. Long-term concentrations are a more accurate way to judge the long-term health risk from radon. For the above reasons, the EPA expressly disclaims the use of its 1993 map for determining whether any house should be tested for radon, and authorizes no other use of its map for property-specific purposes. For additional information about EPA guidelines and radon testing, see "Chapter VII—Radon", in the California Department of Real Estate's *Residential Environmental Hazards: A Guide for Homeowners, Homebuyers, Landlords and Tenants*.

**ENDANGERED SPECIES ACT ADVISORY**

**DISCUSSION:** The Federal Endangered Species Act of 1973 ("ESA"), as amended, requires that plant and animal species identified and classified ("listed") by the Federal government as "threatened" or "endangered" be protected under U.S. law. Areas of habitat considered essential to the conservation of a listed species may be designated as "critical habitat" and may require special management considerations or protection. All threatened and endangered species – even if critical habitat is not designated for them – are equally afforded the full range of protections available under the ESA.

In California alone, over 300 species of plants and animals have been designated under the ESA as threatened or endangered, and over 80 species have critical habitats designated for them. Most California counties are host to a dozen or more protected species and, in many cases, 10 or more species have designated critical habitats within a county.

**ADVISORY:** An awareness of threatened and endangered species and/or critical habitats is not reasonably expected to be within the actual knowledge of a seller.

No federal or state law or regulation requires a seller or seller's agent to disclose threatened or endangered species or critical habitats, or to otherwise investigate their possible existence on real property. Therefore, Buyer is advised that, prior to purchasing a vacant land parcel or other real property, Buyer should consider investigating the existence of threatened or endangered species, or designated critical habitats, on or in the vicinity of the Property which could affect the use of the Property or the success of any proposed (re)development.

**FOR MORE INFORMATION:** Complete and current information about the threatened and endangered species in California that are Federally listed in each county – including all critical habitats designated there – is available on the website of the U.S. Fish & Wildlife Service, the Federal authority which has enforcement responsibility for the ESA.

**U.S. Fish & Wildlife Service Endangered Species Database (TESS)**  
[http://ecos.fws.gov/tess\\_public/](http://ecos.fws.gov/tess_public/)

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**ABANDONED MINES ADVISORY**

**DISCUSSION:** According to the California Department of Conservation, Office of Mine Reclamation, since the Gold Rush of 1849, tens of thousands of mines have been dug in California. Many were abandoned when they became unproductive or unprofitable. The result is that California's landscape contains many thousands of abandoned mines, which can pose health, safety, or environmental hazards on and around the mine property. Mines can present serious physical safety hazards, such as open shafts or adits (mine tunnel), and they may create the potential to contaminate surface water, groundwater, or air quality. Some abandoned mines are such massive problems as to earn a spot on the Federal Superfund environmental hazard list.

No California law requires the disclosure of abandoned mines in a real estate transaction, unless the existence of an abandoned mine is within the actual knowledge of the Seller and is deemed to be a fact material to the transaction.

The Office of Mine Reclamation (OMR) and the U.S. Geological Survey maintain a database of abandoned mines – however, it is known to be incomplete and based on maps that are often decades out of date. Many mines are not mapped because they are on private land. The OMR warns that, *"Many old and abandoned mines are not recorded in electronic databases, and when they are, the information may not be detailed enough to accurately define, differentiate or locate the mine feature, such as a potentially hazardous vertical shaft or horizontal adit or mine waste."* (See reference below.)

**Accordingly, this Report does not contain an abandoned mines disclosure from any government database or map or any other source, in order to protect the seller from liability for non-disclosure of unrecorded abandoned mines.**

Parties concerned about the possible existence or impact of abandoned mines in the vicinity of the Property are advised to retain a State-licensed geotechnical consultant to study the site and issue a report. Other sources of information include, but are not limited to, the State Office of Mine Reclamation at (916) 323-9198 (website: <http://www.conservation.ca.gov/OMR>), and the Engineering, Planning or Building Departments in the subject City and County.

**FOR MORE INFORMATION:** For more information visit the State Office of Mine Reclamation's website at: [http://www.conservation.ca.gov/omr/abandoned\\_mine\\_lands/Pages/index.aspx](http://www.conservation.ca.gov/omr/abandoned_mine_lands/Pages/index.aspx)

**OIL & GAS WELL ADVISORY**

California is currently ranked fourth in the nation among oil producing states. Surface oil production is concentrated mainly in the Los Angeles Basin and Kern County, and in districts elsewhere in the state. In recent decades, real estate development has rapidly encroached into areas where oil production has occurred. Because the state's oil production has been in decline since the 1980's, thousands of oil and gas wells have been shut down or abandoned, and many of those wells are in areas where residential neighborhoods now exist.

According to the California Department of Conservation ("DOC"), to date, about 230,000 oil and gas wells have been drilled in California and around 105,000 are still in use. The majority of remaining wells have been sealed ("capped") under the supervision of the DOC's Division of Oil, Gas and Geothermal Resources. A smaller number have been abandoned and have no known responsible operator – these are called "orphan" wells. The state has a special fund that pays the cost of safely capping orphan wells, however, that program is limited in its scope and progress.

**Buyer should be aware that, while the DOC database is the most comprehensive source available for California oil and gas well information, the DOC makes no warranties that the database is absolutely complete, or that reported well locations are known with absolute accuracy.**

**For More Information**

For a search of the state's databases of oil and gas wells and sites of known environmental contamination on or near the Property, please obtain the JCP-LGS Residential Environmental Report. For general information, visit the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources at <http://www.consrv.ca.gov/dog>.

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**TSUNAMI MAP ADVISORY**

**DISCUSSION:** The California Emergency Management Agency (CalEMA), the University of Southern California Tsunami Research Center (USC), and the California Geological Survey (CGS) have prepared maps that depict areas of maximum tsunami inundation for all populated areas at risk to tsunamis in California (20 coastal counties). The maps were publicly released in December 2009 with the stated purpose that the maps are to assist cities and counties in identifying their tsunami hazard and developing their coastal evacuation routes and emergency response plans only.

These maps specifically contain the following disclaimer:

**Map Disclaimer:** This tsunami inundation map was prepared to assist cities and counties in identifying their tsunami hazard. It is intended for local jurisdictional, coastal evacuation planning uses only. This map, and the information presented herein, **is not a legal document and does not meet disclosure requirements for real estate transactions nor for any other regulatory purpose.** The California Emergency Management Agency (CalEMA), the University of Southern California (USC), and the California Geological Survey (CGS) make no representation or warranties regarding the accuracy of this inundation map nor the data from which the map was derived. Neither the State of California nor USC shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

A tsunami is a series of ocean waves or surges most commonly caused by an earthquake beneath the sea floor. These maps show the maximum tsunami inundation line for each area expected from tsunamis generated by undersea earthquakes and landslides in the Pacific Ocean. Because tsunamis are rare events in the historical record, the maps provide no information about the probability of any tsunami affecting any area within a specific period of time.

Although these maps may not be used as a legal basis for real estate disclosure or any other regulatory purpose, the CGS has, however, provided diagrams of the maps online which the public can view. To see a maximum tsunami inundation map for a specific coastal community, or for additional information about the construction and/or intended use of the tsunami inundation maps, visit the websites below:

State of California Emergency Management Agency, Earthquake and Tsunami Program:  
<http://myhazards.calema.ca.gov/>

University of Southern California – Tsunami Research Center:  
<http://www.usc.edu/dept/tsunamis/2005/index.php>

State of California Geological Survey Tsunami Information:  
[http://www.conservation.ca.gov/cgs/geologic\\_hazards/Tsunami/index.htm](http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/index.htm)

National Oceanic and Atmospheric Agency Center for Tsunami Research (MOST model):  
<http://nctr.pmel.noaa.gov/time/background/models.html>

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**Report Date:** 01/29/2018  
**Report Number:** 2229237

**RESIDENTIAL FIREPLACE DISCLOSURE**

Residential wood burning is the leading source of wintertime air pollution in the Bay Area and studies have confirmed there are significant health impacts from exposure to fine particulate matter found in wood smoke. The Bay Area Air Quality Management District ("BAAQMD") established the Wood Burning Devices (Wood Smoke Rule), Regulation 6, Rule 3 to reduce wintertime smoke pollution and protect public health. The Wood Smoke Rule requires anyone selling, renting or leasing a property in the Bay Area to disclose the potential health impacts from air pollution caused from burning wood. Fine particulate matter, also known as PM2.5, can travel deep into the respiratory system, bypass the lungs and enter the blood stream. Exposure may cause short term and long term health effects, including eye, nose and throat irritation, reduced lung function, asthma, heart attacks, chronic bronchitis, cancer and premature deaths. Exposure to fine particulates can worsen existing respiratory conditions. High PM2.5 levels are associated with increased respiratory and cardiovascular hospital admissions, emergency department visits, and even deaths. Children, the elderly and those with pre-existing respiratory or heart conditions are most at risk from negative health effects of PM2.5 exposure. The Buyer should consult with a licensed professional to inspect, properly maintain, and operate a wood burning stove or fireplace insert according to manufacturer's specifications to help reduce wood smoke pollution. The Air District encourages the use of cleaner and more efficient, non-wood burning heating options such as gas-fueled or electric fireplace inserts to help reduce emissions and exposure to fine particulates.

When the BAAQMD issues a Winter Spare the Air Alert during the winter season from November 1 through the end of February, it is illegal to burn wood, manufactured fire logs, pellets or any solid fuels in fireplaces, wood stoves or outdoor fire pits. To check when a Winter Spare the Air Alert is issued and it is illegal to burn wood, please call 1-877-4NO-BURN or visit [www.baaqmd.gov](http://www.baaqmd.gov) or [www.sparetheair.org](http://www.sparetheair.org).

**END OF NATURAL HAZARD DISCLOSURE REPORT SECTION**  
**See Terms and Conditions at end of this Report.**



**JCP-LGS Residential Property Disclosure Reports**  
**Property Tax Disclosure Report**  
**For NAPA County**

**Property Address:** 1030 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-005-000  
**Report Date:** 01/29/2018  
**Report Number:** 2229237

**California Property Tax Disclosure Report**

The parties for whom this Report was prepared are the owner ("Seller") of the Residential Property ("Property") on the Report Date, the buyer ("Buyer") of the Residential Property from Seller as of the Report Date, and their respective licensed real estate agents ("Agents"). Seller, Buyer and the Agents are sometimes referred to herein as "Party" or "Parties."

**Part 1. Introduction and Summary**

This Tax Report section discusses the results of an electronic search of specified government lists ("Databases") containing real property tax information and geographic data concerning the Residential Property. To understand the information provided, please read this entire Report.

**Summary of Property Tax Determinations**

<b>The Residential Property:</b>	<b>IS</b>	<b>IS NOT</b>		
A.		<b>X</b>	NOT SUBJECT TO a Mello-Roos Community Facilities District.	<u>31</u>
B.		<b>X</b>	NOT SUBJECT TO a 1915 Bond Act District.	<u>31</u>
C.	<b>X</b>		SUBJECT TO one or more other direct assessments.	<u>32</u>
D.		<b>X</b>	NOT SUBJECT TO the State Responsibility Area Fire Prevention Fee (SRA Fee is suspended until 2031 by Assembly Bill 398 of 2017).	<u>38</u>

Determined by First American Professional Real Estate Services, Inc.

**THIS IS A DATABASE REPORT ONLY:** The tax information in this Report only provides data derived from County Tax Assessor's Databases ("Databases") identified in this Report. While JCP-LGS has made good faith efforts to report from the Databases as accurately as possible, the quality, accuracy, and currency ("Database Date") of the information contained in these Databases can vary greatly. For more information regarding a specific Database, please read Part 2 of this Report. By use of this Report, transferee agrees this is a Report product and not an insurance policy and is subject to the Terms and Conditions attached hereto and incorporated herein.

***This Report satisfies Seller's obligations to disclose (a) Mello-Roos and 1915 Act Bond Assessments applicable to the Residential Property as required by California Civil Code Section 1102.6b, and (b) Supplemental Taxes as required by California Civil Code Section 1102.6c.***

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## **Part 2. NOTICE OF SPECIAL TAX/ASSESSMENT**

Special assessments, also referred to as direct or fixed assessments, are charges that are not based on the value of the property. These charges are levied to provide funding for services or improvements that directly benefit the property. Mello Roos Community Facility Districts and 1915 Bond Districts are also classified as special assessments. Certain special assessments may be subject to accelerated foreclosure if allowed to go delinquent.

**TO THE PROSPECTIVE PURCHASER OF THE RESIDENTIAL PROPERTY AT THE ADDRESS REFERENCED ABOVE: THIS IS A NOTIFICATION TO BUYER PRIOR TO PURCHASING THE RESIDENTIAL PROPERTY.**

### **A. Mello-Roos Community Facilities Districts**

**This Residential Property is NOT SUBJECT to Mello-Roos Community Facilities Districts.**

**Database Date:** 2017-2018

### **B. 1915 Bond Act Assessment Districts**

**This Residential Property is NOT SUBJECT to 1915 Bond Assessment Districts.**

**Database Date:** 2017-2018

### **C. Accelerated Foreclosure Information**

Certain assessment or bond issues may contain accelerated foreclosure liens which have priority over other real property taxes and are a legal right included as part of the security for the obligation. The issuers of such bonds are often contractually required to monitor and collect delinquent assessments quickly. Accordingly these assessments are not subject to the five (5) year waiting period applicable to ad valorem real property taxes. If the real property is subject to such an assessment and the taxes are not paid promptly, the real property may be foreclosed upon and sold at public auction on an expedited basis. **Therefore, it is extremely important that the real property tax bill be paid on time to prevent the accelerated foreclosure.**

### **D. Notice of Property Assessed Clean Energy (PACE) Program**

Property assessed clean energy (PACE) programs allow property owners to finance energy efficiency, water efficiency and renewable energy projects on residential and commercial structures through a voluntary special tax assessment on the property. PACE programs are offered by many city, county and regional planning agencies, and have repayment periods ranging from 5 to 20 years however some may be longer.

**WHAT THIS MEANS:** If a property owner voluntarily enters into a PACE program, a contractual assessment lien is placed on the property. The lien is repaid through installments collected on the property owner's secured county property tax bill. In certain situations the program administrator may bill the property owner directly. If the property is sold and the contractual assessment is not repaid in full, the new owner may be responsible for future assessments contributing towards repayment of the PACE contract.

**DISCLOSURES AT RESALE:** A PACE lien runs with the land. This means that the responsibility to repay the PACE lien may fall to the new owner upon transfer of the property unless the lien is paid off before closing. This fact may be material to a buyer's decision to purchase or price offered for the property. In addition, the buyer's lender may require the lien to be paid in full before closing (for certain federally backed mortgages, for example). Therefore, the property seller and his or her real estate agent may have a duty to disclose the existence of a PACE lien on the sale property.

**DISCLAIMER:** This Property Tax Report only discloses PACE special taxes documented in the county's 2017-2018 property tax roll. The Report does not include PACE special taxes first assessed or recorded after JCP-LGS obtained this tax roll information. To discover a PACE lien on the Property executed more recently, the buyer should read the preliminary title report and obtain and read all exceptions listed therein. Note that, in the title report, lien exceptions are named as recorded with the county; therefore, a PACE lien may be listed under a name that is not obvious.

### **E. Approved Assessment Districts Which Have Been Formed and Authorized But Are Not Yet Funded**

Certain assessment districts may have been formed and authorized but have not yet been funded. Accordingly no assessment lien will appear in the County Assessor records. However, the information regarding such districts may appear on your preliminary report issued by a title company. If the assessment district has not been formed or funded, the improvements have also not been constructed. If the district is subsequently formed, the assessments may then appear on the property tax bill.

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**Part 3. Current Property Tax Bill Summary**

**A. Summary of 2017-2018 Property Tax Bill**

The following is a summary of Database information obtained from the NAPA COUNTY Secured Property Tax Roll for Tax Year 2017-2018 ("Database Date"). This summary is provided for informational purposes only. The summary includes Ad Valorem taxes which are based on the property's Assessed Value as well as other Non- Ad Valorem Direct or Special Assessments. Upon transfer of ownership, the Assessed Value may be reset to the Current Market Value or Sale Price which may result in a substantial change in the Ad Valorem taxes assessed. Please see Parts 4 and 5 of this Report for more information regarding Ad Valorem taxes and Supplemental taxes.

Total Assessed Value:	\$2,121,064.00
1st Installment Due 11/01/2017	\$12,165.92
2nd Installment Due 02/01/2018	\$12,165.92
Total Annual Tax Liability	\$24,331.84

**General Ad Valorem Taxes**

AGENCY	DESCRIPTION	AMOUNT	CONTACT PHONE
COUNTY GENERAL RATE	COUNTY GENERAL RATE	\$21,210.64	707-253-4466
CTY OF NAPA PARAMEDIC	EMERGENCY SERVICES	\$318.16	707-253-4466
NAPA COUNTY	NVUSD ELEC 2006 BOND COMBINED	\$918.42	707-253-4466
NVC BD COMBINED	GEN OBLIG BOND	\$504.82	707-253-4466
NVUSD 2002 BD COMBINED	SCHOOL BONDS	\$468.76	707-253-4466
NVUSD 2016 BOND	NVUSD 2016 BOND	\$782.68	707-253-4466
<b>TOTAL AD VALOREM TAXES</b>		<b>\$24,203.48</b>	

**Direct and/or Special Assessments**

AGENCY	DESCRIPTION	AMOUNT	CONTACT PHONE
AG COMM	GLASSY WINGED SHARP SHOOTER	\$28.00	(707) 251-1090
COUNTY PUBLIC WORKS	NAPA COUNTY FLOOD MAINTENANCE	\$33.86	(707) 259-8657
HOUSING AUTHORITY	COUNTY SERVICE AREA #4 - FARM HOUSING	\$35.00	(707) 251-1090
MOSQUITO ABATEMENT	MOSQUITO ABATEMENT (553-9610 SPRAYING)	\$19.50	(800) 273-5167
SF BAY RESTORATION AUTHORITY	SAN FRANCISCO BAY RESTORATION AUTHORITY PARCEL TAX	\$12.00	(888) 508-8157
<b>TOTAL DIRECT ASSESSMENTS</b>		<b>\$128.36</b>	

**B. Available Senior Citizen Exemptions**

Certain districts that levy special taxes or assessments may offer exemptions to Senior Citizens. These exemptions can result in substantial savings to qualified tax payers. The filing of an application along with annual renewal may be required. Below is the contact information for requesting details on filing exemptions for districts that may offer a Senior Citizen Exemption. Additional Direct Assessment Districts may offer exemptions. Therefore you may want to contact the districts to determine their policy on Senior Citizen Exemptions.



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No Senior Citizen Exemptions listed as of the most recent update from the County.  
See Part 4B for additional information on other exemptions that may be available to Buyer.

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**Part 4. Estimating Property Taxes After the Sale**

Instantly calculate estimated property taxes and supplemental taxes on our website (or manually calculate them below):  
<https://orderform.fanhd.com/Order/TaxCalcForm?guid=B31BCA6B14BE474AB8F307C5FEB8D9DF>

**A. Calculating Property Taxes After Sale (ESTIMATE ONLY)**

*PROPERTY TAX ESTIMATOR*

The following calculation method is provided to assist Buyer in estimating the approximate amount of property tax charges that the Residential Property may be subject to for the upcoming tax year based on the assessed valuation being equal to the sales price. The amount derived is only an estimate and is not a substitute for a tax bill from the County, nor does it anticipate new property tax charges, fees or other changes in the property tax rates for future tax years.

1	Estimated Sales Price.....	• 1	\$	_____
2	Estimated Ad Valorem Tax Rate.....	• 2		<u>0.0114100</u>
3	Multiply line 1 by line 2. This is your Estimated Ad Valorem Tax.....	• 3	\$	_____
4	Direct Assessments including Mello Roos Special Taxes and 1915 Bond Act Assessments if applicable.....	• 4	\$	<u>128.36</u>
5	Add lines 3 and 4. Total Estimated Annual Tax Amount After Sale.....	• 5	\$	_____

The information in this subparagraph A is an estimate only. The purpose of this "ESTIMATOR" is to assist Buyer in planning for property taxes which will be applicable after the Sale Date. This "ESTIMATOR" requires the Buyer's projection of the purchase price of the Residential Property. Please note that potential exemptions and exclusions are not reflected in this estimate. Additionally, undeveloped or recently developed properties may be subject to additional Direct Assessments not included in this estimate JCP-LGS is not responsible or liable for any losses, liabilities or damages resulting from use of this Property Tax Estimator.

**B. Exemptions & Exclusions to Ad Valorem Taxes**

California law provides certain exemptions from reassessments. The following is a list of common exemptions which may be available:

- Homeowner exemption (California Constitution Art XIII, §3 & R&T Code §218)
- Honorably discharged veterans (California Constitution Art XIII, §3 & R&T Code §205)
- Disabled veterans (California Constitution Art XIII, §4 & R&T Code §205)

California law also provides certain exclusions from reassessment. The following is a list of common exclusions which may be available:

- Persons over 55 years of age (R&T Code § 69.5)
- Severely and permanently disable persons (R&T Code § 69.5(a))
- Transfers between parents and children and grandparents and grandchildren (R&T Code § 63.1)
- Transfers into revocable trusts (R&T Code § 62)
- Interspousal transfers (R&T Code § 63)
- Improvements for seismic retrofitting (R&T Code § 74.5)
- Improvements for disabled access (R&T Code § 74.3)
- Replacement of property damaged or destroyed by disaster (R&T Code § 69)

In order to determine if Buyer may qualify for any exemptions or exclusions or to obtain a comprehensive list of available exemptions and exclusions, please contact the county tax assessor's office (707-253-4466) or visit the county website at <http://www.countyofnapa.org/Assessor/>. Additional information is also available on the website for the California Board of Equalization at [www.boe.ca.gov](http://www.boe.ca.gov)

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## **Part 5. Supplemental Property Tax Information**

### **A. General Information Regarding Supplemental Taxes**

California law mandates the county assessor to reappraise real property upon a change in ownership or completion of new construction. The assessor's office issues a supplemental assessment which reflects the difference between the prior assessed value and the new assessment. This value is prorated based on the number of months remaining in the fiscal tax year which ends June 30.

Notices of the supplemental assessment are mailed out to the property owners prior to the issuance of the supplemental tax bill or refund if the value is reduced. The taxes or refund based on the supplemental assessment are in addition to the regular annual tax bill.

The supplemental tax will be due from the current owner in addition to the regular tax assessment. Accordingly for the first year of ownership, Buyer should plan for this additional payment.

### **B. Supplemental Property Tax Disclosure**

The following notice is mandated by California Civil Code Section 1102.6c:

#### **NOTICE OF YOUR "SUPPLEMENTAL" PROPERTY TAX BILL**

**"California property tax law requires the Assessor to revalue real property at the time the ownership of the property changes. Because of this law, you may receive one or two supplemental tax bills, depending on when your loan closes.**

**The supplemental tax bills are not mailed to your lender. If you have arranged for your property tax payments to be paid through an impound account, the supplemental tax bills will not be paid by your lender. It is your responsibility to pay these supplemental bills directly to the Tax Collector.**

**If you have any question concerning this matter, please call your local Tax Assessor or Collector's Office."**

NAPA County Assessor  
Phone: 707-253-4466  
Website: <http://www.countyofnapa.org/Assessor/>

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**C. Calculating Supplemental Taxes After Sale (ESTIMATE ONLY)**

Instantly calculate estimated property taxes and supplemental taxes on our website (or manually calculate them below):  
<https://orderform.fanhd.com/Order/TaxCalcForm?guid=B31BCA6B14BE474AB8F307C5FEB8D9DF>.

**SUPPLEMENTAL TAX ESTIMATOR**

The following schedule is provided to estimate the potential amount of the supplemental taxes on a given property and does NOT include the amount of the regular annual ad valorem property tax. The following calculation provides an estimate of the supplemental property taxes that can be expected during the first year of ownership, and should be used for planning purposes only.

1	Estimated Sales Price.....	• 1	\$	_____
2	Estimated Current Assessed Value.....	• 2	\$	<u>2,121,064.00</u>
3	Subtract line 2 from line 1. Estimated Supplemental Assessed Value.....	• 3	\$	_____
4	Multiply line 3 by 0.0114100 (the Estimated Ad Valorem Tax Rate for the Residential Property). Estimated Full-Year <b>Supplemental</b> Tax Obligation.....	• 4	\$	_____

**If the Sale Date for the Residential Property falls during the months of January through May, Buyer will receive TWO supplemental tax bills: (a) one for the current partial tax year; and (b) one for the next full tax year. The supplemental taxes can be estimated by completing lines 5 through 8 below:**

5	Enter the Month-of-Sale Factor from TABLE 1 below.....	• 5	_____
6	Multiply line 4 by line 5. Estimated Supplemental Tax Bill # 1.....	• 6	\$ _____
7	Enter the amount on line 4. Estimated Supplemental Tax Bill # 2.....	• 7	\$ _____
8	Add lines 6 and 7. Total estimated Supplemental Tax Bill.....	• 8	\$ _____

**If the Sale Date for the Residential Property falls during the months of June through December, Buyer will receive ONE supplemental tax bill. The supplemental tax can be estimated by completing lines 9 and 10 below:**

9	Enter the Month-of-Sale Factor from TABLE 2 below.....	• 9	_____
10	Multiply line 4 by line 9. Total estimated Supplemental Tax Bill.....	• 10	\$ _____

**TABLE 1. Month-of-Sale Factor**

<b>Jan</b>	0.4167
<b>Feb</b>	0.3333
<b>Mar</b>	0.2500
<b>Apr</b>	0.1667
<b>May</b>	0.0833

**TABLE 2. Month-of-Sale Factor**

<b>Jun</b>	1.0000
<b>Jul</b>	0.9167
<b>Aug</b>	0.8333
<b>Sept</b>	0.7500
<b>Oct</b>	0.6667
<b>Nov</b>	0.5833
<b>Dec</b>	0.5000

The information in this subparagraph C is an estimate only. The purpose of this "ESTIMATOR" is to assist Buyer in planning for the supplemental taxes. The estimated supplemental tax is not a substitute for the supplemental bill and may not be relied upon as such. This "ESTIMATOR" requires the Buyer's projection of the purchase price of the Residential Property as well as month in which the transaction will be consummated. Please note that potential exemptions and exclusions are not reflected in these



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estimations JCP-LGS is not responsible or liable for any losses, liabilities or damages resulting from use of this Supplemental Tax Estimator.



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## **Part 6. State Responsibility Area Fire Prevention Fee**

In 2011, the California Legislature and Governor enacted a "Fire Prevention Fee" on habitable structures in the State's wildland fire responsibility area ("SRA"). The yearly fee, levied on property owners, paid for various activities to prevent and suppress wildfires in the SRA, and was most recently at the rate of \$152.33 per habitable structure on the property.

**Effective July 1, 2017, as authorized by Assembly Bill 398 and signed by the Governor, that fire prevention fee is suspended until 2031.**

The fire prevention activities supported by the fee will continue, but instead will be funded through a different State program – one aimed at curbing industrial emissions of carbon dioxide (also known as California's "cap-and-trade" program). For more information, please refer to the text of the Assembly bill at the following link:  
[http://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=201720180AB398](http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB398)

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## **Part 7. Private Transfer Fee Advisory**

**Private Transfer Fee.** This is a fee imposed by a private entity such as a property developer, home builder, or homeowner association, when a property within a certain type of subdivision is sold or transferred. (It is commonly known as a "Private Transfer Tax".) It is NOT the same as a city or county Documentary Transfer Tax. A Private Transfer Fee may apply in addition to government Documentary Transfer Taxes that are due upon sale or transfer of the Property.

**Transfer Fee Defined.** California Civil Code Section 1098 defines a "Transfer Fee".

**Effective January 1, 2008, if the payment of any Transfer Fee is required in the sale or transfer of the Property, Civil Code Section 1102.6e requires Seller to notify Buyer of the existence of the fee and to disclose certain specific information about the fee.**

**How to Determine the Existence of a Transfer Fee.** If a Transfer Fee does exist affecting the Property, the document creating the fee may be on file with the County Recorder as a notice recorded against the Property and should be disclosed in the preliminary (title) report on the Property. However, the preliminary (title) report will merely disclose the existence of the documents affecting title, not the content of the documents. The title of a document may also not be sufficient to disclose that a Transfer Fee is included in its terms. Accordingly Seller should (a) request the title company which issued the preliminary (title) report to provide copies of the documents shown as "exceptions," and (b) review each document to determine if it contains a Transfer Fee.

**Parties are advised that documents regarding any Transfer Fee should be obtained early in the sale process in order to avoid delays in the transaction process and to ensure full disclosure as required by law.**

**To determine if the Property is subject to a Transfer Fee, OBTAIN COPIES OF ALL OF THE EXCEPTIONS LISTED ON THE PRELIMINARY (TITLE) REPORT FROM THE TITLE COMPANY AND READ THEM TO DETERMINE IF ANY TRANSFER FEES ARE APPLICABLE.**

**END OF TAX DISCLOSURE REPORT SECTION**  
**See Terms and Conditions at end of this Report.**

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## Environmental Screening Report

### Part 1. Introduction and Summary

The parties to the Transaction to which this Report applies ("Parties") are the owner ("Seller") of the Residential Property ("Property") on the Report Date, the buyer ("Buyer") of the Residential Property under contract of sale as of the Report Date, and their respective licensed real estate agents ("Agents"). Seller, Buyer and the Agents are sometimes referred to herein as "Party" or "Parties." JCP-LGS and the Parties are the parties to the contract that is entered into by the purchase of this Report.

**This Report discloses the results of an electronic search of specified federal and state level environmental-hazard record systems ("Databases") that are known to include contamination sites ("Sites").**

The Databases are searched for hazard Sites at standard distances from the Property. The standard search distance is not the same for all Databases, but depends upon the nature of the environmental hazard represented in the Database. JCP-LGS uses search distances that comply with the U.S. Environmental Protection Agency (EPA) "All Appropriate Inquiry" (AAI) standard for government records search (40 CFR Part 312.26) under the U.S. Small Business Liability Relief and Revitalization Act ("the Brownfields Law")

#### POINT AND LINE SOURCE METHODOLOGY

This Report does not identify the precise areas actually contaminated by an environmental hazard; rather, as a reasonable approximation, it identifies "point sources" for contamination, such as a specific Site address where a leaking underground tank was recorded. The address does not precisely reflect the location of the source of contamination on the Site, nor will it indicate the potential spread of any contamination from that source. In addition, any point source that lies beyond the standard distance searched for each Database will not be reflected in this Report -- even if it is known to be the origin of a larger contaminated area. Point sources are included in this Report as of the time they are identified in the government Database consulted by the Company. Please note that the Gas Transmission and Hazardous Liquid Pipeline disclosure (in Part 4) is based on the Property's location with respect to "line sources" represented in that Database.

The perchlorate contamination plume that is known to have affected groundwater in parts of Morgan Hill, San Martin, and possibly Gilroy is an example of a hazard Study Area. The point source responsible for it, reported to be in Morgan Hill, has not yet been officially listed on a publicly-available government site list. For current information about that Study Area, please contact the Santa Clara Valley Water District Perchlorate Hotline at 1-888-Hey-Noah (1-888-439-6624).

**To understand the information provided, please read this entire Environmental Screening Report including Part 1 through Part 6. Information about a specific Database or standard search distance is provided in Part 5.**

### Part 2. Sites Identified in Environmental Records Search

A Site must have a complete address in order for its location to be known and its distance from the Property measured. Only Sites having a complete address in the Database searched are included in this section. Site "Distance" is the straight line distance in miles between the geocoded address (latitude and longitude) of the Site and the geocoded address of the Property. If the Public Record includes a Site that is within the standard distance searched for that Database category, then that Site is (1) listed as "Found" in the table below and at the beginning of this disclosure Report is (2) shown on the "Map of Sites Found" and (3) noted as "IN" in the "Summary of Environmental Screening Determinations" for the applicable Database category. JCP-LGS recommends further investigation of any Site(s) listed below.

Codes indicating the status of a Site are explained as follows:

**Open** = Site listed as undergoing clean-up, investigation, or referral to another agency; or as non-active, abandoned or absorbed but not closed or completed.

**Closed** = Site listed as clean-up completed, release secured, no further remedial action planned, case closed, or delisted.

**Active (or Inactive)** = Site facility listed as actively (or not actively) engaged in a type of activity regulated under RCRA.

**N/A** = Not Applicable - site listed as uncontaminated, or as using or storing hazardous substances.

**N/P** = Not Provided - site status not supplied on agency list used.

Found	None Found	Database Searched (with standard search distance)
	X	National Priorities List (Federal "Superfund" list) - 1 mile
	X	Federal Resource Conservation and Recovery Act (RCRA) - Corrective Actions List - 1 mile
	X	California State Response List (includes Active Annual Workplan, AWP, sites) - 1/2 mile

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X	California Spills, Leaks, Investigation and Cleanup (SLIC) List - 1/2 mile
X	California Solid Waste Landfill Sites (SWIS) List - 1/2 mile
X	California Leaking Underground Storage Tank (LUST) List (see status explanation below) - 1/4 mile

**CLOSED SITES REMAIN OFFICIALLY LISTED:** All Sites listed on the State's Leaking Underground Storage Tank Information System (LUSTIS) have been identified to have had a leaking storage tank. Many LUST Sites have been cleaned up and their cases "Closed", and this is noted above if applicable. Parties should be aware that LUST Sites remain in the LUSTIS database even after they have been closed, and are included in this Report if found by our search. Leaking underground storage tanks are the most common type of contamination.

Storage tank leaks are often less extensive than other types of contamination releases and usually do not extend beyond the real property on which the tank is located. **For specific information about a Site listed above, please see Part 5 of this Report and contact the agency responsible for maintaining that Database.**

**PART 3. Sites Missing Key Location Information**

Many environmental hazard Sites in the Databases searched have incomplete or inaccurate address information. Those Sites cannot be precisely or reliably located and could potentially be anywhere in the Property's city, county, or state. They are, therefore, considered "unlocatable".

A sample of unlocatable sites that may be in the vicinity is listed below. A full list of ALL unlocatable California sites that include a zip code is available at the web address below:

[http://www.firstampr.com/sites/default/files/Current\\_List\\_of\\_Unlocatable\\_Sites\\_by\\_Zip\\_Code.xlsx](http://www.firstampr.com/sites/default/files/Current_List_of_Unlocatable_Sites_by_Zip_Code.xlsx)

Status codes for the unlocatable Sites are the same as noted above for the Sites "Found".

No.	Site Name	Address	Case No.	Status	Database
1	La Joya Mercury Mine	n/a Oakville Grade Road Napa, CA 94558	T1000008099	Closed	CA_SLIC
2	MERRYVALE VINEYARDS LLC	1401 STANLY LANE NAPA, CA 94558	SL0605527591	Closed	CA_SLIC
3	NAPA RIVER FLOOD PROTECTION PROJECT	First Street First Street Napa, CA 94558	SL1822G924	Open	CA_SLIC
4	Napa State Hospital - California Department of Mental Health	2100 NAPA-VALLEJO-HIGHWAY Napa, CA 94558-6293	SL605592776	Open	CA_SLIC
5	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605524325	Closed	CA_SLIC
6	BARITELLE WINERY	1546 ST HELENA HWY NAPA, CA 94558	T0605500011	Closed	CA_LUST
7	BC STOCKING DISTRIBUTING	120 TOWER RD NAPA, CA 94558	T0605500012	Closed	CA_LUST
8	CALTRANS	1684 UNION LN NAPA, CA 94558	T0605500032	Closed	CA_LUST
9	CARGILL SALT	2983 GREEN ISLAND RD NAPA, CA 94558	T0605500082	Closed	CA_LUST
10	CARNEROS VALLEY INVESTORS	1451 STANLY LN NAPA, CA 94558	T0605500034	Closed	CA_LUST
11	GARFIELD LANE CONDOS	UNKNOWN GARFIELD LN NAPA, CA 94558	T0605500060	Closed	CA_LUST
12	HYDRO CONDUIT CORP	385 TOWER RD NAPA, CA 94558	T0605500067	Closed	CA_LUST
13	MONTGOMERY WARD	4000 BELAIRE PLAZA NAPA, CA 94558	T0605500089	Closed	CA_LUST
14	NAPA AMERICAN CANYON JOINT WASTE	UNKNOWN SOSCOL FERRY RD NAPA, CA 94558	T0605500103	Closed	CA_LUST
15	PACIFIC BELL	230 CAMINO ORUGA CT NAPA, CA 94558	T0605500119	Closed	CA_LUST
16	PLEASURE COVE RESORT	6100 HWY 128 NAPA, CA 94558	T0605500306	Closed	CA_LUST
17	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500056	Closed	CA_LUST
18	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500129	Closed	CA_LUST
19	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500105	Closed	CA_LUST
20	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500246	Closed	CA_LUST
21	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558-	T0605500278	Closed	CA_LUST
22	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500198	Closed	CA_LUST
23	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558-	T0609500001	Closed	CA_LUST
24	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500221	Closed	CA_LUST

**JCP-LGS Residential Property Disclosure Reports  
Environmental Screening Report  
For NAPA County**

**Property Address:** 1030 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-005-000  
**Report Date:** 01/29/2018  
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25	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500257	Closed	CA_LUST
26	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558-	T0605500270	Closed	CA_LUST
27	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558-	T0605500283	Closed	CA_LUST
28	TEXACO	UNKNOWN FREEWAY DR NAPA, CA 94558	T0605500152	Closed	CA_LUST
29	WALSH VINEYARDS	2440 DUHIG RD NAPA, CA 94558	T0605500014	Closed	CA_LUST
30	WEST NAPA PUMP STATION	UNKNOWN COOMBS ST NAPA, CA 94558	T0605500102	Closed	CA_LUST

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#### **PART 4. Oil & Gas Well Locations Within 1/4 Mile Of Property**

No oil or gas well locations were identified within a radius of one-fourth (1/4) of one (1) mile of the Residential Property, based on a search of valid geographic coordinates contained in the current Statewide All Wells Database maintained by the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) ("All Wells Database").

Buyer is advised that additional wells may exist in the area of the Property which are not contained in the All Wells Database. Wells that do not have valid geographic coordinates in the All Wells Database are not disclosed in this Report. The physical property boundaries of well locations and the Property are not factored into the calculation of the specified search radius.

**EXPLANATION:** The All Wells Database includes approximately 230,000 well location records. This database is searched for well locations within one-fourth (1/4) of one (1) mile around the geocoded point representing the Residential Property. Well locations, if any, within the specified parameters are listed in the table above.

Of the approximately 230,000 wells identified in the All Wells Database, 105,000 are classified as new, active, or idle in the latest Statewide All Wells Database release. The majority of remaining wells have been sealed under supervision of the DOGGR. A smaller number have been deserted and have no known responsible operator.

California has established laws with respect to well drilling, operation, maintenance, and abandonment to "prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil and gas deposits from infiltrating water and other causes; loss of oil, gas, or reservoir energy, and damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of, detrimental substances." (California Public Resources Code §3106).

The DOGGR is responsible for maintenance of orphaned wells. To defray the maintenance costs, oil companies pay the State 4.3 cents per barrel a year. A portion of this assessment funds the Orphan Well Plugging Fund ("Fund") with an annual \$1 million budget. Since its inception in the 1970's, the Fund has facilitated the plugging of wells by hired contractors. The selection process for wells to be plugged considers numerous factors including, but are not limited to, the proximity of wells to populated areas, the amount of pressure in well reservoirs, and other hazards.

For a complete listing and explanation of well status codes, visit the following DOGGR web page:  
<http://www.conservation.ca.gov/dog/maps/Pages/GISMapping2.aspx>

**FOR MORE INFORMATION:** Ownership information of oil, gas, mineral, geothermal and other subsurface rights regarding the Residential Property may be disclosed in a preliminary (title) report or title commitment. The DOGGR does not use the County Assessor Parcel Number or site address to locate wells or leases, and therefore, the APN and address cannot be used to determine if there is a well on a specific property. To help tell if there is a well on a property, oilfield maps may be available on the DOGGR website (<http://www.conservation.ca.gov/dog/maps/Pages/GISMapping2.aspx>). In addition, the DOGGR Online Mapping System (<http://maps.conservation.ca.gov/doms/doms-app.html>) allows users to search well locations by API Number, Property Address, Geographic Coordinates, or Field Name. For detailed information about a specific well, reference the unique "API Number" that the DOGGR has assigned to it. The DOGGR website provides an online well search by API number at <http://opi.consrv.ca.gov/opi/opi.dll>.

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## **Part 5. NPMS Gas Transmission and Hazardous Liquid Pipelines Within 2,000 Feet of the Residential Property**

Buyer is advised to carefully review the limitations of the Public Record noted below as to the important limitations regarding the National Pipeline Mapping System (NPMS) and the NPMS Public Map Viewer used for making this determination. For more information please visit the NPMS Public Map Viewer (<https://www.npms.phmsa.dot.gov/PublicViewer/>).

**EXPLANATION:** Proximity to a pipeline does not of itself indicate a safety risk. However, on September 9, 2010, a Pacific Gas and Electric (PG&E) natural gas transmission pipeline exploded in San Bruno, California, causing loss of life and extensive property damage. Following this incident much attention has focused on the presence of natural gas and hazardous liquid pipelines in the vicinity of residential neighborhoods. As a result, PG&E has notified residents and businesses within 2,000 feet of PG&E's natural gas transmission pipelines about their proximity.

This disclosure covers gas "transmission" and hazardous liquid pipelines only. It is important to note that every home that uses natural gas is connected to a gas "distribution" pipeline. Distribution pipelines are generally of smaller size and lower pressure than transmission pipelines. This disclosure does not include distribution pipelines nor is it meant to indicate there is no risk associated with distribution lines. While proximity to a pipeline does not of itself indicate a safety risk, excavation near a pipeline poses a definite hazard. For this reason, this disclosure includes an advisory about how to spot and avoid buried pipelines on and near a property.

The U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA) administers the national regulatory program to monitor the transportation of natural gas, liquefied natural gas (LNG), and hazardous liquids by pipeline. PHMSA and the U.S. Office of Pipeline Safety (OPS) maintain a database of pipeline information called the **National Pipeline Mapping System (NPMS)** in cooperation with other federal and state governmental agencies and the pipeline industry. The NPMS is created using data compiled from mandatory submissions to PHMSA made by operators of pipelines and LNG plants, and from voluntary submissions made by breakout tank operators. The data is processed by private contractors. Since 2002, transmission pipeline and LNG plant facility operators are required to update their submissions annually.

The PHMSA website provides a **Public Map Viewer** that allows the general public to view pipeline maps in one county at a time. The viewer displays maps and associated data identifying transmission pipelines, LNG plants, and breakout tanks stored in the NPMS database. The data include information about the pipeline commodity (e.g., natural gas or liquid fuel), pipeline operator, agency contact, etc. The Public Map Viewer can be accessed at the following address:  
<https://www.npms.phmsa.dot.gov/PublicViewer/>

This pipeline disclosure is based on a proximity search of the gas transmission pipelines and hazardous liquid pipelines depicted in NPMS Public Map Viewer at a scale of approximately 1:24,000. That map scale is the maximum resolution at which pipelines are displayed. At that map scale one inch on the map equals approximately 2,000 feet on the ground, which is the same scale as regulatory maps required for statutory natural hazard disclosure in California.

This pipeline disclosure is provided as an accommodation and is subject to the following **limitations in the Public Record:**

- Access to the original digital data in the NPMS database (on which the public maps are based) is restricted to federal, state, and local government agencies (including emergency responders). Pipeline operators are allowed access to their own pipeline data only.
- Pipeline locations in the NPMS database are accurate to plus or minus 500 feet.
- Neither the United States government nor any party involved in the creation and compilation of NPMS data and maps guarantees the accuracy or completeness of its product.
- Because the NPMS digital data are restricted from public access, any disclosure based on the NPMS Public Map Viewer may be subject to some positional inaccuracies in addition to those acknowledged by NPMS.
- Neither this disclosure nor NPMS data should ever be used as a substitute for calling "811" – the federally-mandated "Call Before You Dig" one-call center – prior to any digging project.

### **How to Spot a Pipeline Easement**

**Read the Preliminary Title Report** A pipeline right-of-way is a strip of land over and around pipelines where some of the property owner's legal rights have been granted to a pipeline company. A right-of-way agreement between the pipeline company and the property owner is also called an easement and is usually filed in the public records with property deeds. Rights-of-way and easements provide a permanent, limited interest in the land that enables the pipeline company to operate, test, inspect, repair, maintain, replace, and protect one or more pipelines on property owned by others. The agreement may vary the rights and widths of the right-of-way, but generally, the pipeline company's right-of-ways extend 25 feet from each side of a pipeline unless special conditions exist.

**To determine if the Property includes a pipeline right-of-way or easement, OBTAIN COPIES OF ALL OF THE EXCEPTIONS LISTED ON THE PRELIMINARY (TITLE) REPORT FROM THE TITLE COMPANY AND READ THEM.**

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**Call Before You Dig - Every Time!** In 2000, the U.S. Department of Transportation and the utility industry created the Common Ground Alliance (CGA), a trade association to work with all industry stakeholders in an effort to prevent damage to underground utility infrastructure and ensure public safety and environmental protection. The result is the "Call Before You Dig - 811 Service". Whether you are a homeowner or a professional excavator, every digging job requires a call to "811" - even small projects like planting trees or shrubs. If you hit an underground utility line while digging, you can harm yourself or those around you, disrupt service to an entire neighborhood and potentially be responsible for fines and repair costs. One call to 811 gets your underground utility lines marked for FREE.

**Signs of Buried Pipelines** Since pipelines are usually buried underground, line markers and warning signs like the ones shown here are used to indicate their approximate location along the pipeline route. The markers and signs are in high-visibility colors (yellow or orange) and are located at frequent intervals along the pipeline right-of-way. The markers can be found where a pipeline intersects a street, highway, railway, or waterway, and at other prominent points along the route. The markers display the material transported in the line, the name of the pipeline operator, and a telephone number where the operator can be reached in the event of an emergency. Pumping stations, tank farms, and cleared rights-of-way also help signal that a pipeline is located nearby.



Markers and warning signs only indicate the general location of a pipeline. They cannot be relied upon to indicate the exact position of the pipeline they mark. Also, the pipeline may not follow a straight course between markers. And, while markers are helpful in locating pipelines, they are limited in the information they provide. They provide no information, for example, about the depth or number of pipelines in the vicinity.

## EXPLANATION OF THE DATABASES USED IN THIS REPORT

This Report uses the following Databases as of the date specified:

### 1) NATIONAL PRIORITIES LIST ("NPL" - commonly called "Superfund" or "CERCLIS" site list) as of 12 Sep 2016

The National Priorities List is a U.S. Environmental Protection Agency ("USEPA") database which includes Sites where known releases or threatened releases of hazardous substances, pollutants, or contaminants have occurred. As a part of the Superfund cleanup program, the NPL helps the USEPA determine which Sites warrant further investigation to assess human health and environmental risks, identify what remedial actions may be appropriate, notify the public of Sites believed to warrant further investigation, and serve notice to potentially responsible parties that the USEPA may initiate remedial action. Some NPL Sites encompass relatively large areas. Search Distance: one (1.0) mile. Responsible Agency: USEPA

**Public Record:** Facilities located in California listed as NPL Status code "A" (Site is Part of NPL Site), "D" (Deleted from the Final NPL), "F" (Currently on the Final NPL), "P" (Proposed for NPL), "R" (Removed from Proposed NPL), or "W" (Withdrawn) in the Region IX Active CERCLIS database obtained from USEPA. Facilities assigned NPL Status code "N" (Not on the NPL) are not disclosed in this Report.

**For More Information:** Contact the Environmental Protection Agency Superfund Hotline at (800) 424-9346 to speak with a Superfund consultant to request information from the individual Site Fact Sheet. This help-line can also provide the telephone number of the local Community Relations Coordinator for the Site in question and the location of the local information repository for that Site. The USEPA's official Internet website address is:

<http://www.epa.gov/superfund/index.htm>

### 2) RESOURCE CONSERVATION & RECOVERY ACT--CORRECTIVE ACTION list ("RCRA-COR") as of 12 Sep 2016.

RCRA (pronounced "ric-ra") is a federal law enforced by the U.S. Environmental Protection Agency ("USEPA") that requires safeguards on the use and disposal of household, municipal, commercial and industrial refuse. The goals of the law are to protect human health and the environment from the potential hazards of waste disposal, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner. Under the Corrective Action program, the USEPA permits and monitors the cleanup of hazardous waste contamination. Search Distance: one (1.0) mile. Responsible Agency: USEPA

**Public Record:** "Subject to Corrective Action" facilities identified using USEPA's RCRAInfo Hazardous Waste Query Form for California.

**For More Information:** Contact the Environmental Protection Agency at (800) 424-9346 to speak with a consultant to request information from the individual Site Fact Sheet. The USEPA's official Internet website address is:

<http://www.epa.gov/enviro/html/rcris/index.html>

### 3) CALIFORNIA ENVIROSTOR STATE RESPONSE list as of 13 Sep 2016.



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The State Response list, a part of California's "Envirostor" database, identifies sites of confirmed hazardous materials releases where the Department of Toxic Substances Control ("DTSC") is involved in cleanup activities, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk, according to the DTSC. The State Response list includes the sites formerly contained in the "Active Annual Workplan (AWP)" list. Search Distance: 1/2 mile. Responsible Agency: State EPA/DTSC

**Public Record:** Sites listed as "State Response" under "Site\_Facility\_Type" in the EnviroStor Cleanup Sites database obtained from the Department of Toxic Substances Control. Please note that a given Site may have more than one record if the Site has more than one activity Status or EnviroStor ID assigned to it.

**For More Information:** Contact the State Environmental Protection Agency Department of Toxic Substances Control at: (916) 323-3400

**4) SPILLS, LEAKS, INVESTIGATION & CLEANUP list ("SLIC") as of 13 Sep 2016.**

The California SLIC Program oversees soil and water investigations, corrective actions, and assessments at Sites with current or historic unauthorized discharges and covers all types of pollutants (such as solvents, petroleum fuels, heavy metals, pesticides, etc.). As of January 1, 2005, all SLIC data is required to be submitted to the Geotracker database of the State Water Resources Control Board ("SWRCB"). Information on individual Sites may be available online at <http://geotracker.waterboards.ca.gov>. Please note that according to the SWRCB, "data is undergoing data cleanup and may contain errors". Search Distance: 1/2 mile. Responsible Agency: SWRCB

**Public Record:** Sites identified as "Cleanup Program Site" in the GeoTracker database obtained from the State Water Resources Control Board GeoTracker website.

**For More Information:** For details about a particular site, please visit GeoTracker at <http://geotracker.waterboards.ca.gov> Using the Identifier tool and clicking on the site on the graphic map interface, you can access a report that includes the case number and contact telephone number for the agency with more information on this site. If you know case number, you may access the record using Case Finder at <http://geotracker.waterboards.ca.gov/search.asp>.

**5) SOLID WASTE INFORMATION SYSTEM list ("SWIS") as of 13 Sep 2016.**

Solid waste landfill sites vary from state to state and may include active landfills, inactive landfills, incinerators, transfer stations, recycling facilities, and other facilities where solid waste is treated or stored. The California Integrated Waste Management Board ("CIWMB") tracks such Sites via its Solid Waste Information System database. SWIS contains information on facility type, regulatory and operational status, type of wastes received, and local enforcement actions. Please note that these Sites are simply regulated facilities and are not classified as being "contaminated" by the Board. Search Distance: 1/2 mile. Responsible Agency: CIWMB

**Public Record:** Sites listed in the "SwisGis.txt" database obtained from the California Integrated Waste Management Board Solid Waste Information System website.

**For More Information:** Contact the Board's "Solid Waste Information Center" at (916) 341 6320 and ask for the Associate Waste Management Specialist who should be able to answer some limited general questions. For more information, please contact the CIWMB in Sacramento or visit <http://www.calrecycle.ca.gov/SWFacilities/Directory/search.aspx> on the Internet.

**6) LEAKING UNDERGROUND STORAGE TANK list ("LUST") per GEIMS/GeoTracker Information Management System as of 13 Sep 2016.**

The LUST database is also known as the "LUFT" database because it includes records of leaking underground fuel tanks. LUSTs may be a significant source of soil and groundwater contamination. The State Water Resources Control Board ("SWRCB") maintains a database of LUSTs known as the Leaking Underground Storage Tank Information System ("LUSTIS") which was recently supplanted by the statewide GEIMS/GeoTracker information management system. LUSTIS contains the locations of all reported LUSTs, as well as the contents and status of the LUSTs. Search Distance: 1/4 mile. Responsible Agency: SWRCB

**Public Record:** Sites identified as "LUST Cleanup Site" in the GeoTracker database obtained from the State Water Resources Control Board GeoTracker website.

**For More Information:** For general questions, telephone the State Water Resources Control Board's Clean Water Desk in Sacramento at (866) 480-1028. Information on specific Sites is available at [www.swrcb.ca.gov](http://www.swrcb.ca.gov) or visit their official Internet site at <http://geotracker.waterboards.ca.gov>.

**7) CALIFORNIA STATEWIDE ALL WELLS DATABASE as of 07 Oct 2016.**

The California Division of Oil, Gas, and Geothermal Resources, California Department of Conservation ("DOC"), maintains a database of oil, gas and geothermal wells in the state. Of the approximately 230,000 wells identified in the All Wells Database, approximately 105,000 are still in use. The majority of remaining wells have been sealed under supervision of the DOGGR. A smaller number have been deserted and have no known responsible operator. Search Distance: 1/4 mile. Responsible Agency: State Department of Conservation

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**Public Record:** Well locations listed in the Statewide All Wells Database obtained from the Department of Conservation, Division of Oil, Gas and Geothermal Resources.

**For More Information:** Contact the State Department of Conservation, Division of Oil, Gas and Geothermal Resources at: (916) 445-9686.

**8) NATIONAL PIPELINE MAPPING SYSTEM (NPMS) GAS TRANSMISSION AND HAZARDOUS LIQUID PIPELINES as of 31 Oct 2016.**

The National Pipeline Mapping System (NPMS) is a geographic information system (GIS) created by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS) in cooperation with other federal and state governmental agencies and the pipeline industry. The NPMS is created using data compiled from mandatory submissions made by pipeline, LNG (Liquid Natural Gas) plant operators, and voluntary submissions made by breakout tank operators. The data is processed by private contractors. Neither the United States government nor any party involved in the creation and compilation of NPMS data and maps guarantees its accuracy or completeness. NPMS data should be considered no more accurate than +/- 500 feet and must never be used as a substitute for contacting the appropriate one-call center prior to digging. PHMSA restricts access to the NPMS to federal, state, and local government agencies (including emergency responders). Pipeline operators are allowed access to their own pipeline data only. NPMS Public Map Viewer (<https://www.npms.phmsa.dot.gov/PublicViewer/>) allows the general public to view available data one county at a time and at a limited zoom level in accordance with PHMSA's security policy. Search Distance: 2,000 feet. Responsible Agency: PHMSA

**Public Record:** Gas transmission pipelines and hazardous liquid pipelines as depicted on the NPMS Public Map Viewer at a scale of 1:24,000.

**For More Information:** To identify a specific pipeline owner/operator, please use the NPMS Public Map Viewer at the URL provided above. For policy and technical questions regarding NPMS, please contact PHMSA.

**WANT MORE INFORMATION?**

There is no single government agency that handles information for all contaminated Sites. Multiple agencies are responsible for organizing clean-up efforts at different types of Sites. Each generally maintains files on the Sites they oversee with information on the type and extent of contamination, clean-up efforts etc. There is also the possibility that the file may have no additional information. For general information, refer to the discussions in this Report. If your question isn't answered there, call us here at JCP-LGS. We will try and answer them for you.

In the list of databases above, there is the name and telephone number of the agency overseeing that site. Agencies are limited to answering general questions. **NOTE!** Additional information on a site may be limited and the government agency you contact will not venture opinions.

**How to Obtain Generalized Environmental Information**

Brochures published by the Environmental Protection Agency (EPA) are a good source of general information. County health departments may have a health and safety officer or a "hazmat" (hazardous materials) specialist that can answer general questions also. The telephone number for the local Department of Health should be listed in the telephone book.

- Environmental Protection Agency Drinking Water Hotline: **(800) 426-4791**
- Federal Environmental Protection Agency Public Information Office: **(866) 372-9378**
- California Environmental Protection Agency: **(916) 445-3846**

**BACKGROUND ABOUT ENVIRONMENTAL HAZARDS**

JCP-LGS provides a consumer guide titled, "Guide to Environmental Hazards", as a supplement to this environmental Report. This "plain-English" supplement discusses and explains environmental hazards and what they mean for residential property transactions. The guide may be freely downloaded (as a PDF document) and printed from our website at the following address:  
[http://www.firstamprs.com/sites/default/files/jcp-lgs\\_residential\\_environmental\\_hazards\\_guide.pdf](http://www.firstamprs.com/sites/default/files/jcp-lgs_residential_environmental_hazards_guide.pdf)

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## TERMS and CONDITIONS

### ACCEPTANCE OR USE OF THIS REPORT CONSTITUTES APPROVAL AND ACCEPTANCE OF THE TERMS, CONDITIONS, AND LIMITATIONS STATED HEREIN.

The Report ("Report") is subject to each of the following Terms and Conditions. Each Recipient (defined below) of the Report agrees that the Report is subject to the following Terms and Conditions, and each Recipient agrees to be bound by such. Use of this Report by any Recipient constitutes acceptance of the Terms and Conditions to the Report. The Terms and Conditions below are incorporated by this reference into the Report. **This Report is not an insurance policy.**

This Report is made for the real property specifically described in the Report (the "Property") and solely for the transaction for which it was originally purchased ("Transaction"). The Property shall not include any property beyond the boundaries of the real property described in the Report. The Property shall not include any structures (whether located on the Property, or not), easements, or any right, title, interest, estate, or easement in any abutting streets, roads, alleys, lanes, ways, or waterways.

**IMPORTANT NOTICE:** Transferor(s) and transferee(s) shall read the complete Report in its entirety before the close of escrow. A "Signature Page" or "Summary Pages" document may be included in the electronic delivery of this Report. Those documents do not replace the complete Report or remove the need to read the complete Report, and do not remove the requirement to disclose. The Signature Page and Summary Pages documents are subject to the Terms and Conditions of the complete Report.

- A. **No Third Party Reliance on This Report.** Only the transferor(s) and transferee(s), and their agents/brokers, if any, involved in the Transaction (collectively, the "Recipients") may use and rely on this Report and only after they have paid in full for the Report. While disclosures made on the Natural Hazard Disclosure Statement in the Report may indicate certain risks to the Property, the disclosures are only "...between the transferor, the transferor's agents, and the transferee, and shall not be used by any other party, including, but not limited to, insurance companies, lenders, or governmental agencies, for any purpose." Cal. Civil Code section 1103.2, subdivision (g).
- B. **Seller and Seller's Agent's Responsibility of Full Disclosure.** Recipients are obligated to make disclosures, and always disclose material facts, that are within their actual knowledge.
- C. **Scope of Report.** This Report is limited to determining whether the Property is in those specified natural hazard zones and property tax districts, and in proximity to those specified environmental sites (depending on the report product ordered), as defined in the Report. The Report is not a geologic report or a land survey and no site inspection has been made in producing the Report. JCP-LGS makes no determination, expresses no opinion or view, and assumes no responsibility in this Report concerning the right, entitlement, or ability to develop or improve the Property. JCP-LGS has no information concerning whether the Property can be developed or improved. No determination is made and no opinion is expressed, or intended, by this Report concerning structures or soils on or outside of the Property, including, without limitation, habitability of structures or the Property, suitability of the Property for construction or improvement, potential for soil settlement, drainage, soil subsidence, or other soil or site conditions. The Recipient(s) is advised to consult the local Planning Department to determine whether factors beyond the scope of this Report may limit the transferee(s) ability to use or improve the Property.
- The Report is not a title report, and no determination is made and no opinion is expressed, or intended, by this Report as to title to the Property or liens against the Property, recorded or otherwise, or whether the Property is comprised of legal lots in conformance with the California Subdivision Map Act or local ordinances. The Report is not a property inspection report, and no determination is made and no opinion is expressed, or intended, by this Report concerning architectural, structural, mechanical, engineering, or legal matters, or the marketability or value of the Property. JCP-LGS has not conducted any testing or physical or visual examination or inspection of the Property, nor is this Report a substitute for any such testing, physical or visual examination, or inspection.
- D. **Tax and Environmental Disclosures (if included in Report).** No determination is made and no opinion is expressed, or intended, by the Report concerning the existence of property tax liabilities, or the existence of hazardous or toxic materials or substances, or any other defects, on, under, or in proximity to the Property, unless specifically described in the Report. JCP-LGS's total liability for any error or omission in its disclosures relating to taxes and/or environmental matters shall be limited to actual proven damages not to exceed \$10,000.
- E. **JCP-LGS Database Updates.** Each database used in this Report is updated by the responsible agency at various intervals. Updates for a database are determined by the responsible agency and may be made at any time and without notice. JCP-LGS maintains an update schedule and makes reasonable efforts to use updated information. For these reasons, JCP-LGS reports information as of the date when the database was last updated by JCP-LGS. That date is specified as the "Database Date" for each database.
- F. **Statutory and Additional Disclosures, Advisories, and Local Addenda (if included in Report).** No determination is made and no opinion is expressed, or intended, by this Report concerning the need to purchase earthquake or flood insurance for the Property. In preparing the Report, JCP-LGS accurately reported on information contained in Government Records. JCP-LGS reviewed and relied upon those Government Records specifically identified and described in the Report. JCP-LGS has not reviewed or relied upon any Government Records that are not specifically identified in the Report. JCP-LGS also has not reviewed any plat maps, survey maps, surveyor maps, assessor maps, assessor parcel maps, developer maps, or engineering maps, whether or not such maps have been recorded. No determination is made and no opinion is expressed, or intended, by the Report concerning any matters identified in Government Records that were not reviewed by JCP-LGS. Local Addenda, where applicable, are included "AS IS" as an accommodation to the local real estate board that provided the content; JCP-LGS assumes no responsibility for the accuracy of any information included in the Local Addenda.
- G. **FEMA Flood Determination Certificate (if accompanying the Report).** No determination is made and no opinion is expressed, or intended, by the Report concerning the requirement for or cost of flood insurance on the Property. Recipient(s) understands that a lender may require flood insurance to secure its loan collateral independent of whether FEMA may require flood insurance under the National Flood Insurance Program on a federally backed mortgage. The FEMA Flood Determination Certificate ("Flood Certificate"), which may accompany the Report, is produced by a third-party expert certified by FEMA to provide Flood Certificates. JCP-LGS assumes no liability for errors in that third-party flood determination.

**Property Address:** 1030 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-005-000  
**Report Date:** 01/29/2018  
**Report Number:** 2229237

- H. Changes to Government Record after Report Date.** This Report is issued as of the Report Date identified in the Report. JCP-LGS shall have no obligation to advise any Recipient of any information learned or obtained after the Report Date even if such information would modify or otherwise affect the Report. Subsequent to JCP-LGS acquisition of Government Records, changes may be made to said Government Records and JCP-LGS is not responsible for advising the Recipients of any changes. JCP-LGS will update this Report upon request and at no charge during the transaction process for which this Report was issued, but not to exceed one year from the date of the Report. Likewise, JCP-LGS is not liable for any impact on the Property that any change to the Government Records may have.
- I. Government Record Sources.** JCP-LGS relies upon the Government Records specifically identified in the Report without conducting an independent investigation of their accuracy. JCP-LGS assumes no responsibility for the accuracy of the Government Records identified in the Report. JCP-LGS makes no warranty or representation of any kind, express or implied, with respect to the Report. JCP-LGS expressly disclaims and excludes any and all other express and implied warranties, including, without limitation, warranties of merchantability or fitness for a particular purpose. The JCP-LGS Report is "AS IS".
- J. Limitation of JCP-LGS's Liability**
- JCP-LGS is not responsible for:
    - Any inaccuracies or incompleteness of the information in the Public Records.
    - Inaccurate address information provided for the Property.
    - Any other information not contained in the Public Records as of the Report Date.
    - Any information which would be disclosed by a physical inspection of the Property.
    - Any information known by one of the Parties.
    - The health or risk to humans or animals that may be associated with any of the disclosed hazards.
    - The costs of investigating or remediating any of the disclosed hazards.
  - Except as otherwise expressly set forth in these Terms and Conditions, JCP-LGS's total liability and responsibility to all Recipients collectively for any and all liabilities, causes of action, claim or claims, including but not limited to claims for breach of contract or negligence, shall be for actual proven damages only caused directly by JCP-LGS's error. In no event shall JCP-LGS's total liability exceed the difference between the amount actually paid for the property and the fair market value on the date of the disclosure, as measured by a retrospective appraisal performed by a licensed professional appraiser under the Uniform Standards of Professional Appraisal Practice. JCP-LGS expressly disclaims any liability for Recipients' indirect, incidental and/or consequential damages, including, without limitation, lost profits, even if such damages are foreseeable, and Recipients hereby waive and release any right to assert a claim against JCP-LGS for such amounts. In the event of any error, omission or inaccuracy in the JCP-LGS Report for which JCP-LGS is liable, JCP-LGS shall have no duty to defend or pay any attorneys' fees, costs or expenses incurred by the Recipients, or any of them. The Recipients, and each of them, expressly waive the benefits of California Civil Code Section 2778 and 1542 and any other similar provisions. Section 1542 provides that "A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."
- K. Reporting of Risk Elements for Condominium Projects, Planned Unit Developments, and Other Properties with Common or Undivided Interests.** Because California's Residential Natural Hazard Disclosure Law requires disclosure if any portion of the Property is located within a specified natural hazard area/zone, the Report must indicate that the subject Property falls within the area/zone if any portion of such a condominium project, planned unit development, or common area is located within a specified hazard area/zone.
- L. Governing Law.** The Report shall be governed by, and construed in accordance with, the laws of the State of California.
- M. Small Claims or Arbitration.** This provision constitutes an agreement to arbitrate disputes on an individual basis. Any party may bring an individual action in small claims court instead of pursuing arbitration. All disputes and claims arising out of or relating to the Report must be resolved by binding arbitration. This Report to arbitrate includes, but is not limited to, all disputes and claims between JCP-LGS, transferor(s) and transferee(s) and claims that arose prior to purchase of the Report. This agreement to arbitrate applies to transferor(s) and transferee(s) successors in interest, assigns, heirs, spouses, and children. As noted above, a party may elect to bring an individual action in small claims court instead of arbitration, so long as the dispute falls within the jurisdictional requirements of small claims court.
- Any arbitration must take place on an individual basis, JCP-LGS, transferor(s) and transferee(s) agree that they are waiving any right to a jury trial and to bring or participate in a class, representative, or private attorney general action, and further agree that the arbitrator lacks the power to consider claims for injunctive or declaratory relief, or to grant relief effecting anyone other than the individual claimant.
- The arbitration is governed by the Commercial Arbitration Rules and the Supplementary Procedures for Consumer Related Disputes (the "AAA Rules") of the American Arbitration Association ("AAA"), as modified by this Agreement, and will be administered by the AAA. Company will pay all AAA filing, administration and arbitrator fees for any arbitration it initiates and for any arbitration initiated by another party for which the value of the claims is \$75,000 or less, unless an arbitrator determines that the claims have been brought in bad faith or for an improper purpose, in which case the payment of AAA fees will be governed by the AAA Rules. **A COPY OF THESE RULES IS AVAILABLE FROM THE AAA'S WEB SITE AT [WWW.ADR.ORG](http://WWW.ADR.ORG) OR ON REQUEST FROM THE COMPANY. THE ARBITRATION AWARD MAY INCLUDE ATTORNEY'S FEES IF ALLOWED BY FEDERAL, STATE, OR OTHER APPLICABLE LAW AND MAY BE ENTERED AS A JUDGMENT IN ANY COURT OF PROPER JURISDICTION.**
- The arbitration will take place in the same county in which the property covered by the Report is located. The Federal Arbitration Act will govern the interpretation, applicability and enforcement of this arbitration agreement. This arbitration agreement will survive the termination of this Report.
- N. Severability.** If any provision of the Terms and Conditions to this Report is determined to be invalid or unenforceable for any reason, then such provision shall be treated as severed from the remainder of the Terms and Conditions, and shall not affect the validity and enforceability of all of the other provisions of the Terms and Conditions.
- Other Agreements.** This Report constitutes the entire, integrated agreement between JCP-LGS and Recipients, and supersedes and replaces all prior statements, representations, negotiations, and agreements.

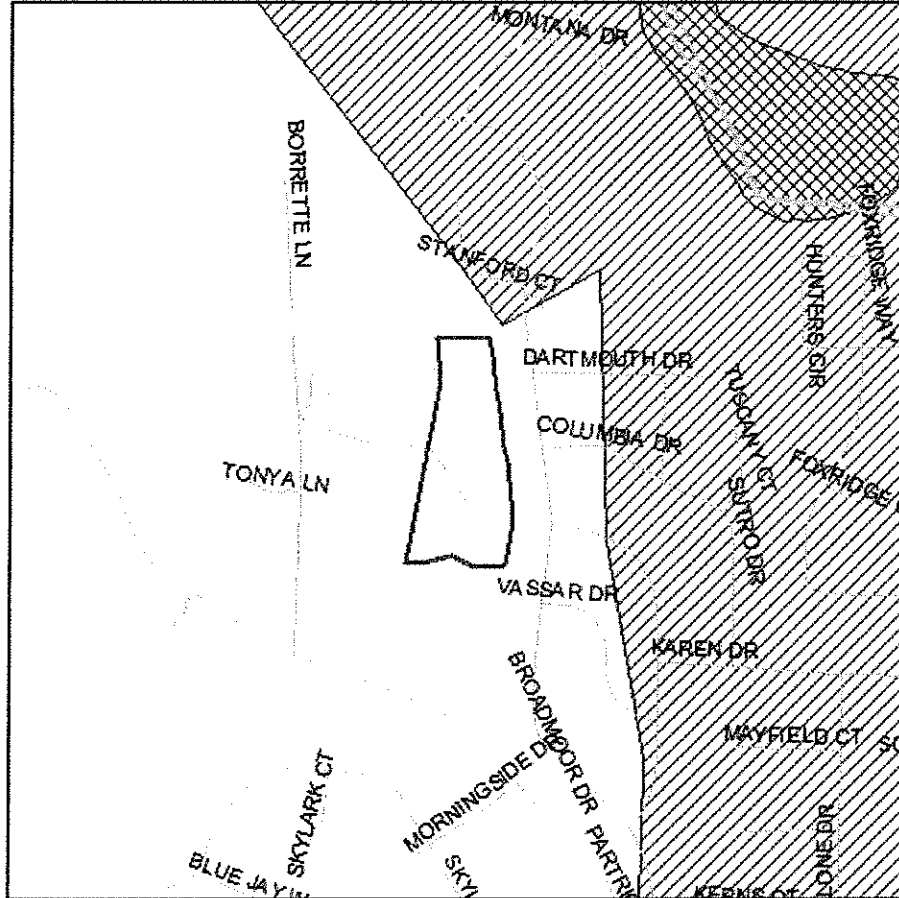
**END OF REPORT**

**Map of Statutory Natural Hazards  
For NAPA County**

Property Address: 1040 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

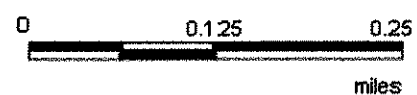
APN: 041-700-007-000  
Report Date: 01/29/2018  
Report Number: 2229240

**Map of Statutory Natural Hazard Zones**



□ Subject Property

	Special Flood Hazard Area
	Area of Potential Flooding, Dam Failure
	Very High Fire Hazard Severity Zone
	Wildland Area, Substantial Forest Fire Risk
	Earthquake Fault Zone
	Seismic Hazard Zone, Landslide
	Seismic Hazard Zone, Liquefaction



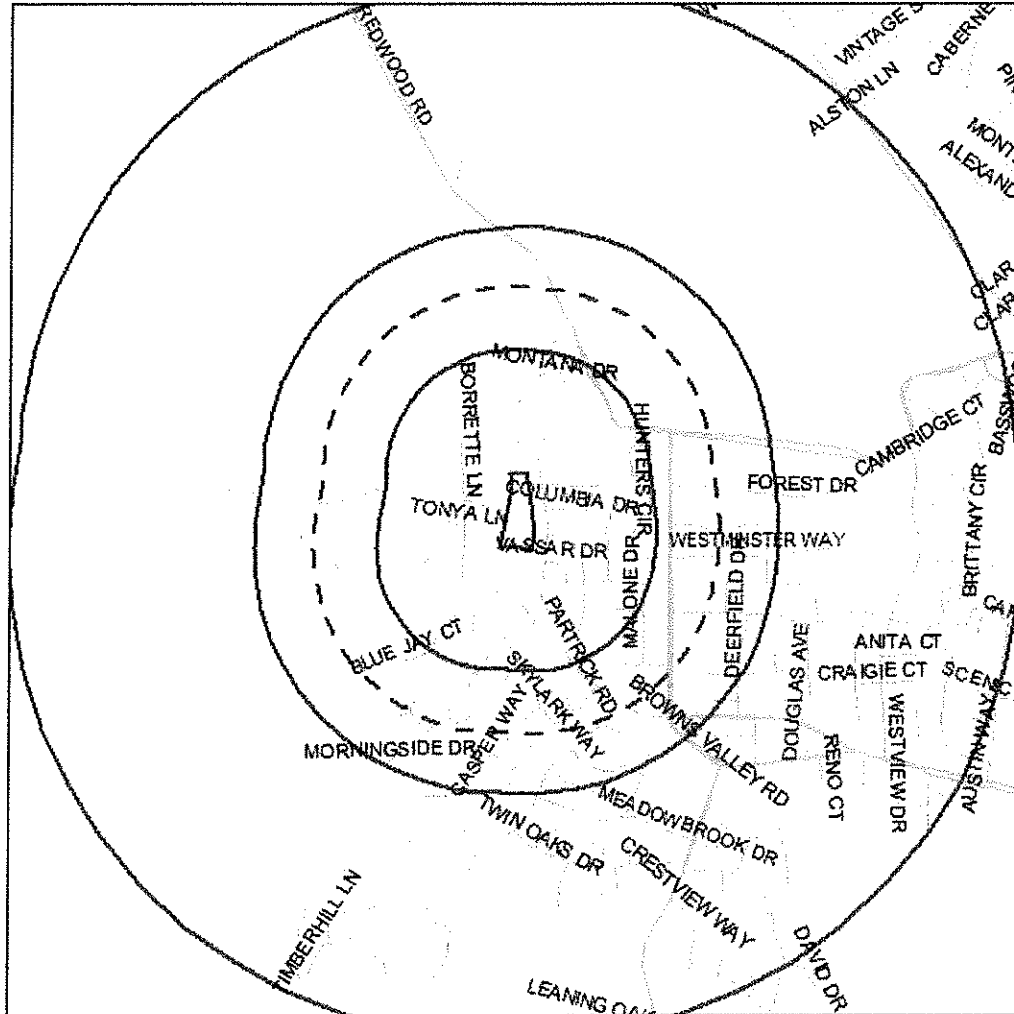
**This map is provided for convenience only to show the approximate location of the Property and is not based on a field survey.**

**Map of Environmental Hazard Sites  
For NAPA County**

**Property Address:** 1040 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-007-000  
**Report Date:** 01/29/2018  
**Report Number:** 2229240

**Map of Environmental Hazard Sites**



□ Subject Property



NOTE: The foregoing map may show more sites than are reported in the listing below. The map shows all sites found within the square coverage area. The listing below reports only those sites found within the standard radius search distance for the database listed, which covers a smaller area. Sites outside of that standard radius search distance are not listed below. The standard radius search distances for point sources are defined by the U.S. Environmental Protection Agency's "All Appropriate Inquiries" (AAI) guidelines. The AAI standard search distance differs between database categories, depending upon degree of potential hazard. Pipeline search distance (2,000 feet, red dashed circle on map) complies with U.S. bill H.R. 22 (Speier). See section called "Explanation of Databases Used" for the actual standard search distance used for each database category.

	(NPL) Federal National Priorities List or "Superfund" Sites		(SWIS) Solid Waste Landfill Facilities
	(RCRA COR) Corrective Action Sites		(SLIC) Spills, Leaks, Investig. & Cleanup
	(LUST) Leaking Underground Storage Tanks		California EnviroStor State Response Sites
	Oil or Gas Well		Gas Transmission Pipelines (Approximate)
	Hazardous Liquid Pipelines (Approximate)		

# JCP-LGS Residential Property Disclosure Reports Natural Hazard Disclosure (NHD) Report For NAPA County

Property Address: 1040 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

APN: 041-700-007-000  
Report Date: 01/29/2018  
Report Number: 2229240

## Statutory Natural Hazard Disclosure ("NHD") Statement and Acknowledgment of Receipt

The transferor and his or her agent(s) or a third-party consultant disclose the following information with the knowledge that even though this is not a warranty, prospective transferees may rely on this information in deciding whether and on what terms to purchase the Property. Transferor hereby authorizes any agent(s) representing any principal(s) in this action to provide a copy of this statement to any person or entity in connection with any actual or anticipated sale of the Property.

The following are representations made by the transferor and his or her agent(s) based on their knowledge and maps drawn by the State. This information is a disclosure and is not intended to be part of any contract between the transferee and the transferor. THIS REAL PROPERTY LIES WITHIN THE FOLLOWING HAZARDOUS AREA(S):

A SPECIAL FLOOD HAZARD AREA (Any type Zone "A" or "V") designated by the Federal Emergency Management Agency

Yes  No  Do not know and information not available from local jurisdiction

AN AREA OF POTENTIAL FLOODING shown on a dam failure inundation map pursuant to Section 8589.5 of the Government Code.

Yes  No  Do not know and information not available from local jurisdiction

A VERY HIGH FIRE HAZARD SEVERITY ZONE pursuant to Section 51178 or 51179 of the Government Code. The owner of this Property is subject to the maintenance requirements of Section 51182 of the Government Code.

Yes  No

A WILDLAND AREA THAT MAY CONTAIN SUBSTANTIAL FOREST FIRE RISK AND HAZARDS pursuant to Section 4125 of the Public Resources Code. The owner of this Property is subject to the maintenance requirements of Section 4291 of the Public Resources Code. Additionally, it is not the state's responsibility to provide fire protection services to any building or structure located within the wildlands unless the Department of Forestry and Fire Protection has entered into a cooperative agreement with a local agency for those purposes pursuant to Section 4142 of the Public Resources Code.

Yes  No

AN EARTHQUAKE FAULT ZONE pursuant to Section 2622 of the Public Resources Code.

Yes  No

A SEISMIC HAZARD ZONE pursuant to Section 2696 of the Public Resources Code.

Yes (Landslide Zone)  Yes (Liquefaction Zone)

No  Map not yet released by state

THESE HAZARDS MAY LIMIT YOUR ABILITY TO DEVELOP THE REAL PROPERTY, TO OBTAIN INSURANCE, OR TO RECEIVE ASSISTANCE AFTER A DISASTER. THE MAPS ON WHICH THESE DISCLOSURES ARE BASED ESTIMATE WHERE NATURAL HAZARDS EXIST. THEY ARE NOT DEFINITIVE INDICATORS OF WHETHER OR NOT A PROPERTY WILL BE AFFECTED BY A NATURAL DISASTER. TRANSFEREE(S) AND TRANSFEROR(S) MAY WISH TO OBTAIN PROFESSIONAL ADVICE REGARDING THOSE HAZARDS AND OTHER HAZARDS THAT MAY AFFECT THE PROPERTY.

Signature of Transferor(s) \_\_\_\_\_ Date \_\_\_\_\_ Signature of Transferor(s) \_\_\_\_\_ Date \_\_\_\_\_

Signature of Agent \_\_\_\_\_ Date \_\_\_\_\_ Signature of Agent \_\_\_\_\_ Date \_\_\_\_\_

Transferor(s) and their agent(s) represent that the information herein is true and correct to the best of their knowledge as of the date signed by the transferor(s) and agent(s).

Transferor(s) and their agent(s) acknowledge that they have exercised good faith in the selection of a third-party report provider as required in Civil Code Section 1103.7, and that the representations made in this Natural Hazard Disclosure Statement are based upon information provided by the independent third-party disclosure provider as a substituted disclosure pursuant to Civil Code Section 1103.4. Neither transferor(s) nor their agent(s) (1) has independently verified the information contained in this statement and Report or (2) is personally aware of any errors or inaccuracies in the information contained on the statement. This statement was prepared by the provider below:

Third-Party Disclosure Provider(s) FIRST AMERICAN PROFESSIONAL REAL ESTATE SERVICES, INC. OPERATING THROUGH ITS JCP-LGS DIVISION.  
Date 29 January 2018

Transferee represents that he or she has read and understands this document. Pursuant to Civil Code Section 1103.8, the representations in this Natural Hazard Disclosure Statement do not constitute all of the transferor's or agent's disclosure obligations in this transaction.

Signature of Transferee(s) \_\_\_\_\_ Date \_\_\_\_\_ Signature of Transferee(s) \_\_\_\_\_ Date \_\_\_\_\_

### TRANSFEE(S) REPRESENTS ABOVE HE/SHE HAS RECEIVED, READ AND UNDERSTANDS THE COMPLETE JCP-LGS DISCLOSURE REPORT DELIVERED WITH THIS SUMMARY:

- A. Additional Property-specific Statutory Disclosures: Former Military Ordnance Site, Commercial/Industrial Use Zone, Airport Influence Area, Airport Noise, San Francisco Bay Conservation and Development District Jurisdiction (in S.F. Bay counties only), California Energy Commission Duct Sealing Requirement, Notice of Statewide Right to Farm, Notice of Mining Operations, Sex Offender Database (Megan's Law), Gas and Hazardous Liquid Transmission Pipeline Database.
- B. Additional County and City Regulatory Determinations as applicable: Airports, Avalanche, Blow Sand, Coastal Zone, Dam/Levee Failure Inundation, Debris Flow, Erosion, Flood, Fault Zone, Fire, Groundwater, Landslide, Liquefaction, Methane Gas, Mines, Naturally Occurring Asbestos, Redevelopment Area, Right to Farm, Runoff Area, Seiche, Seismic Shaking, Seismic Ground Failure, Slope Stability, Soil Stability, Subsidence, TRPA, Tsunami.
- C. General advisories: Methamphetamine Contamination, Mold, Radon, Endangered Species Act, Abandoned Mines, Oil & Gas Wells, Tsunami Maps (coastal only), Wood-burning fireplaces.
- D. Additional Reports - Enclosed if ordered: (1) PROPERTY TAX REPORT (includes state-required Notices of Mello-Roos and 1915 Bond Act Assessments, and Notice of Supplemental Property Tax Bill, (2) ENVIRONMENTAL SCREENING REPORT (discloses Transmission Pipelines, Contaminated Sites, and Oil & Gas Wells). Enclosed if applicable: Local Addenda.
- E. Government Guides in Combined Booklet with Report. Refer to Booklet: (1) ENVIRONMENTAL HAZARDS: "A Guide for Homeowners, Buyers, Landlords and Tenants"; (2) EARTHQUAKE SAFETY: "The Homeowners Guide To Earthquake Safety" and included "RESIDENTIAL EARTHQUAKE HAZARDS REPORT FORM"; (3) LEAD-BASED PAINT: "Protect Your Family From Lead In Your Home"; (4) BRIEF GUIDE TO MOLD, MOISTURE AND YOUR HOME; (5) WHAT IS YOUR HOME ENERGY RATING? Government Guides are also available on the Company's "Electronic Bookshelf" at <http://www.disclosures.com/>.

**Contents  
For NAPA County**

**Property Address:** 1040 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-007-000  
**Report Date:** 01/29/2018  
**Report Number:** 2229240

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**JCP-LGS Residential Property Disclosure Reports  
Summary of Disclosure Determinations  
For NAPA County**

Property Address: 1040 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

APN: 041-700-007-000  
Report Date: 01/29/2018  
Report Number: 2229240

**PROPERTY DISCLOSURE SUMMARY - READ FULL REPORT**

Statutory NHD Determinations	IN	NOT IN	Map N/A*	Property is:	NHD Report page:
Flood		X		NOT IN a Special Flood Hazard Area. The Property is IN a FEMA-designated Flood Zone(s) X.	7
Dam		X		NOT IN an area of potential dam inundation.	7
Very High Fire Hazard Severity		X		NOT IN a very high fire hazard severity zone.	8
Wildland Fire Area		X		NOT IN a state responsibility area.	8
Fault		X		NOT IN an earthquake fault zone designated pursuant to the Alquist-Priolo Act.	9
Landslide			X	Map Not Available	9
Liquefaction			X	Map Not Available	9

County-level NHD Determinations	IN	NOT IN	Map N/A*	Property is:	NHD Report page:
Fault	X			IN a mapped fault zone or within one-eighth of one mile of a mapped fault trace	11
Landslide		X		NOT IN a mapped Landslide Area.	11
Liquefaction	X			IN a mapped area of Low Liquefaction Susceptibility.	11

City-level NHD Determinations	IN	NOT IN	Map N/A*	Property is:	NHD Report page:
Dam Inundation		X		NOT IN a mapped Dam Failure Inundation Area.	12
Fire		X		NOT IN a mapped Wildland Urban Interface Fire Hazard Area.	12
Slope	X			IN a mapped area of Generalized Slope of Less than 15 Percent.	12
Landslide	X			IN a mapped area of Generalized Relative Landslide Susceptibility categorized as Least.	12

Additional Statutory Disclosures	IN	NOT IN	Map N/A*	Property is:	NHD Report page:
Former Military Ordnance		X		NOT WITHIN one mile of a formerly used ordnance site.	15
Commercial or Industrial	X			WITHIN one mile of a property zoned to allow commercial or industrial use.	15
Airport Influence Area		X		NOT IN an airport influence area.	16
Airport Noise Area for 65 Decibel		X		NOT IN a delineated 65 dB CNEL or greater aviation noise zone.	17
Bay Conservation and Development Commission		X		NOT IN an area that is within the jurisdiction of the San Francisco Bay Conservation and Development Commission.	18
California Energy Commission	X			IN a climate zone where properties are usually subject to duct sealing and testing requirements	19
Right to Farm Act	X			IN a one mile radius of designated important Farmland that requires a statutory "Notice of Right to Farm" be provided in this Report.	20
Notice of Mining Operations		X		NOT IN a one mile radius of a mapped mining operation that requires a statutory "Notice of Mining Operation" be provided in this Report.	21

General Advisories	Description	NHD Report page:
Registered Sex Offender Data Base (Megan's Law) Notice	Provides an advisory required pursuant to Section 290.46 of the Penal Code. Information about specified registered sex offenders is made available to the public.	22

**JCP-LGS Residential Property Disclosure Reports  
Summary of Disclosure Determinations  
For NAPA County**

**Property Address:** 1040 BORRETTE LN  
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("Property")

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<b>General Advisories</b>	<b>Description</b>	<b>NHD Report page:</b>
Gas and Hazardous Liquid Transmission Pipeline Database Notice	Provides a notice required pursuant to Section 2079.10.5(a) of the Civil Code. Information about transmission pipeline location maps is made available to the public.	<u>23</u>
Methamphetamine Contamination	Provides an advisory that a disclosure may be required pursuant to the "Methamphetamine Contaminated Property Cleanup Act of 2005".	<u>24</u>
Mold	Provides an advisory that all prospective purchasers of residential and commercial property should thoroughly inspect the subject property for mold and sources for additional information on the origins of and the damage caused by mold.	<u>25</u>
Radon	Provides an advisory on the risk associated with Radon gas concentrations.	<u>26</u>
Endangered Species	Provides an advisory on resources to educate the public on locales of endangered or threatened species.	<u>26</u>
Abandoned Mines	Provides an advisory on resources to educate the public on the hazards posed by, and some of the general locales of, abandoned mines.	<u>27</u>
Oil and Gas Wells	Provides an advisory on the potential existence of oil and gas wells and sources for additional general and/or specific information.	<u>27</u>
Tsunami Map Advisory	Provides an advisory about maximum tsunami inundation maps issued for jurisdictional emergency planning.	<u>28</u>
Residential Fireplace Disclosure	Provides disclosure of restrictions on the use of wood-burning fireplaces imposed by the Bay Area Air Quality Management District.	<u>29</u>

<b>Property Tax Determinations</b>	<b>IS</b>	<b>IS NOT</b>	<b>Property is:</b>	<b>Tax Report page:</b>
Mello-Roos Districts		<b>X</b>	NOT SUBJECT TO a Mello-Roos Community Facilities District.	<u>31</u>
1915 Bond Act Districts		<b>X</b>	NOT SUBJECT TO a 1915 Bond Act District.	<u>31</u>
Other Direct Assessments	<b>X</b>		SUBJECT TO one or more other direct assessments.	<u>32</u>
SRA Fire Prevention Fee		<b>X</b>	NOT SUBJECT TO the State Responsibility Area Fire Prevention Fee (SRA Fee is suspended until 2031 by Assembly Bill 398 of 2017).	<u>37</u>

<b>Environmental Screening</b>	<b>IS</b>	<b>IS NOT</b>	<b>Property is:</b>	<b>Environmental Report page:</b>
Leaking Underground Storage Tanks		<b>X</b>	NOT WITHIN one-quarter mile of a known leaking underground storage tank.	<u>45</u>
Superfund or RCRA Corrective Action Site		<b>X</b>	NOT WITHIN one mile of a Superfund or RCRA Corrective Action site.	<u>44</u>
Other sites in databases screened		<b>X</b>	NOT WITHIN one-half mile of sites other than those above that are listed in the databases searched.	<u>44</u>
Oil and Gas Wells		<b>X</b>	NOT WITHIN one-quarter mile of a mapped oil or gas well(s).	<u>42</u>
Underground Transmission Pipelines		<b>X</b>	NOT WITHIN 2,000 feet of a gas transmission or hazardous liquid pipeline(s) depicted in the National Pipeline Mapping System.	<u>43</u>

Determined by First American Professional Real Estate Services, Inc.

For more detailed information as to the foregoing determinations, please read this entire Report.

**Property Address:** 1040 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-007-000  
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## Natural Hazard Disclosure Report

### Part 1. State Defined Natural Hazard Zones

#### Statutory Natural Hazard Disclosures

Section 1103 of the California Civil Code mandates the disclosure of six (6) natural hazard zones if the Property is located within any such zone. Those six "statutory" hazard zones, disclosed on the **Natural Hazard Disclosure Statement** ("NHDS") on Page one of this Report, are explained below. Note that the NHDS does not provide for informing buyers if a property is only partially within any of the delineated zones or provide additional flood zone information which could be very important to the process. The following summary is intended to give buyers additional information they may need to help them in the decision-making process and to place the information in perspective.

#### SPECIAL FLOOD HAZARD AREA

**DISCUSSION:** Property in a Special Flood Hazard Area (any type of Zone "A" or "V" as designated by the Federal Emergency Management Agency ("FEMA")) is subject to flooding in a "100-year rainstorm." Federally connected lenders require homeowners to maintain flood insurance for buildings in these zones. A 100-year flood occurs on average once every 100 years, but may not occur in 1,000 years or may occur in successive years. According to FEMA, a home located within a SFHA has a 26% chance of suffering flood damage during the term of a 30-year mortgage. Other types of flooding, such as dam failure, are not considered in developing these zones. Flood insurance for properties in Zones B, C, D, X, X500, and X500\_Levee is available but is not required.

**Zones A, AO, AE, AH, AR, A1-A30:** Area of "100-year" flooding - a 1% or greater chance of annual flooding.

**Zone A99:** An "adequate progress" determination for flood control system construction projects that, once completed, may significantly limit the area of a community that will be included in the Special Flood Hazard Area (SFHA). Such projects reduce but do not eliminate, the risk of flooding to people and structures in "levee-impacted" areas, and allow mandatory flood insurance to be available at a lower cost.

**Zones V, V1-V30:** Area of "100-year" flooding in coastal (shore front) areas subject to wave action.

**Zone B:** Area of moderate flood risk. These are areas between the "100" and "500" year flood-risk levels.

**Zones C, D:** NOT IN an area of "100-year" flooding. Area of minimal (Zone C) or undetermined (Zone D) flood hazard.

**Zones X:** An area of minimal flood risk. These are areas outside the "500" year flood-risk level.

**Zone X500:** An area of moderate flood risk. These are areas between the "100" and "500" year flood-risk levels.

**Zone X500\_LEVEE:** An area of moderate flood risk that is protected from "100-year flood" by levee and that is subject to revision to high risk (Zone A) if levee is decertified by FEMA.

**Zone N:** Area Not Included, no flood zone designation has been assigned or not participating in the National Flood Insurance Program.

**Notice:** The Company is not always able to determine if the Property is subject to a FEMA Letter of Map Revision ("LOMR") or other FEMA letters of map change. If Seller is aware that the Property is subject to a LOMR or other letters of map change, the Seller shall disclose the map change and attach a copy of the FEMA letter(s) to the Report. Contact FEMA at <http://msc.fema.gov> for additional information.

For more information about flood zones, visit:

[http://www.floodsmart.gov/floodsmart/pages/flooding\\_flood\\_risks/defining\\_flood\\_risks.jsp](http://www.floodsmart.gov/floodsmart/pages/flooding_flood_risks/defining_flood_risks.jsp)

**PUBLIC RECORD:** Official Flood Insurance Rate Maps ("FIRM") compiled and issued by the Federal Emergency Management Agency ("FEMA") pursuant to 42 United States Code §4001, et seq.

#### AREA OF POTENTIAL FLOODING (DAM FAILURE)

**DISCUSSION:** Local governmental agencies, utilities, and owners of certain dams are required to prepare and submit inundation maps for review and approval by the California Office of Emergency Services ("OES"). A property within an Area of Potential Flooding Caused by Dam Failure is subject to potential flooding in the event of a sudden and total dam failure with a full reservoir. Such a failure could result in property damage and/or personal injury. However, dams rarely fail instantaneously and reservoirs are not always filled to capacity. Please note that not all dams (such as federally controlled dams) located within the state have been included within these dam inundation zones. Also these maps do not identify areas of potential flooding resulting from storms or other causes.

**PUBLIC RECORD:** Official dam inundation maps or digital data thereof made publicly available by the State of California Office of Emergency Services ("OES") pursuant to California Government Code §8589.5.

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**For NAPA County**

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("Property")

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**VERY HIGH FIRE HAZARD SEVERITY ZONE (VHFHSZ)**

**DISCUSSION:** VHFHSZs can be defined by the California Department of Forestry and Fire Protection ("Calfire") as well as by local fire authorities within "Local Responsibility Areas" where fire suppression is the responsibility of a local fire department. Properties located within VHFHS Zones may have a higher risk for fire damage and, therefore, may be subject to (i) additional construction requirements such as a "Class A" roof for new construction or replacement of existing roofs; and (ii) additional maintenance responsibilities such as adequate vegetation clearance near the structure, spark screens on chimneys and stovepipes, leaf removal from roofs, and other basic fire-safety practices. Contact the local fire department for a complete list of requirements and exceptions.

**PUBLIC RECORD:** Maps issued by Calfire pursuant to California Government Code § 51178 recommending VHFHSZs to be adopted by the local jurisdiction within its Local Responsibility Area, or VHFHSZs adopted by the local jurisdiction within the statutory 120-day period defined in California Government Code § 51179.

**WILDLAND FIRE AREA (STATE RESPONSIBILITY AREA)**

**DISCUSSION:** The State Board of Forestry classifies all lands within the State of California based on various factors such as ground cover, beneficial use of water from watersheds, probable damage from erosion, and fire risks. Fire prevention and suppression in all areas which are not within a Wildland - State Responsibility Area ("WSRA") is primarily the responsibility of the local or federal agencies, as applicable.

For property located within a WSRA, please note that (1) there may be substantial forest fire risks and hazards; (2) except for property located within a county which has assumed responsibility for prevention and suppression of all fires, it is NOT the state's responsibility to provide fire protection services to any building or structure located within a WSRA unless the Department has entered into a cooperative agreement with a local agency; and (3) the property owner may be is subject to (i) additional construction requirements such as a "Class A" roof for new construction or replacement of existing roofs; and (ii) additional maintenance responsibilities such as adequate vegetation clearance near the structure, spark screens on chimneys and stovepipes, leaf removal from roofs, and other basic fire-safety practices.

The existence of local agreements for fire service is not available in the Public Record and, therefore, is not included in this disclosure. For very isolated properties with no local fire services or only seasonal fire services there may be significant fire risk. If the Property is located within a WSRA, please contact the local fire department for more detailed information.

**PUBLIC RECORD:** Official maps issued by the California Department of Forestry and Fire Protection ("Calfire") pursuant to California Public Resources Code § 4125.

**SRA Fire Prevention Benefit Fee Advisory**

In 2011, the California Legislature and Governor enacted a "Fire Prevention Fee" on habitable structures in the State's wildland fire responsibility area. The yearly fee, levied on property owners, paid for various activities to prevent and suppress wildfires in the SRA, and was most recently at the rate of \$152.33 per habitable structure on the property.

**Effective July 1, 2017, as authorized by Assembly Bill 398 and signed by the Governor, that fire prevention fee is suspended until 2031.**

For more information, please refer to "Part 6. State Responsibility Area Fire Prevention Fee" in the JCP-LGS Property Tax Report.

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**EARTHQUAKE FAULT ZONE**

**DISCUSSION:** Earthquake Fault Zones are delineated and adopted by California as part of the Alquist-Priolo Earthquake Fault Zone Act of 1972. Property in an Earthquake Fault Zone ("EF Zone") does not necessarily have a fault trace existing on the site. EF Zones are areas or bands delineated on both sides of known active earthquake faults. EF Zones vary in width but average one-quarter (1/4) mile in width with the "typical" zone boundaries set back approximately 660 feet on either side of the fault trace. The potential for "fault rupture" damage (ground cracking along the fault trace) is relatively high only if a structure is located directly on a fault trace. If a structure is not on a fault trace, shaking will be the primary effect of an earthquake. During a major earthquake, shaking will be strong in the vicinity of the fault and may be strong at some distance from the fault depending on soil and bedrock conditions. It is generally accepted that properly constructed wood-frame houses are resistant to shaking damage.

**PUBLIC RECORD:** Official earthquake fault zone or special study zone maps approved by the State Geologist and issued by the California Department of Conservation, California Geological Survey pursuant to California Public Resources Code §2622.

**SEISMIC HAZARD MAPPING ACT ZONE**

**DISCUSSION:** Official Seismic Hazard Zone ("SH Zone") maps delineate Areas of Potential Liquefaction and Areas of Earthquake-Induced Landsliding. A property that lies partially or entirely within a designated SH Zone may be subject to requirements for site-specific geologic studies and mitigation before any new or additional construction may take place.

**Earthquake-Induced Landslide Hazard Zones** are areas where the potential for earthquake-induced landslides is relatively high. Areas most susceptible to these landslides are steep slopes in poorly cemented or highly fractured rocks, areas underlain by loose, weak soils, and areas on or adjacent to existing landslide deposits. The CGS cautions these maps do not capture all potential earthquake-induced landslide hazards and that earthquake-induced ground failures are not addressed by these maps. Furthermore, no effort has been made to map potential run-out areas of triggered landslides. It is possible that such run-out areas may extend beyond the zone boundaries. An earthquake capable of causing liquefaction or triggering a landslide may not uniformly affect all areas within a SH Zone.

**Liquefaction Hazard Zones** are areas where there is a potential for, or an historic occurrence of liquefaction. Liquefaction is a soil phenomenon that can occur when loose, water saturated granular sediment within 40 feet of the ground surface, are shaken in a significant earthquake. The soil temporarily becomes liquid-like and structures may settle unevenly. The Public Record is intended to identify areas with a relatively high potential for liquefaction but not to predict the amount or direction of liquefaction-related ground displacement, nor the amount of damage caused by liquefaction. The many factors that control ground failure resulting from liquefaction must be evaluated on a site specific basis.

**PUBLIC RECORD:** Official seismic hazard maps or digital data thereof approved by the State Geologist and issued by the California Department of Conservation, California Geological Survey pursuant to California Public Resources Code §2696.

**STATUTORY NATURAL HAZARD DISCLOSURE REPORTING STANDARD:** "IN" shall be reported if any portion of the Property is located within any of the above zones as delineated in the Public Record. "NOT IN" shall be reported if no portion of the Property is located within any of the above zones as delineated in the Public Record. Map Not Available shall be reported in areas not yet evaluated by the governing agency according to the Public Record. Please note that "MAP NOT AVAILABLE" will be applicable to most portions of the state. Official Seismic Hazard Zone ("SH Zone") maps delineate Areas of Potential Liquefaction and Areas of Earthquake-Induced Landsliding.

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## Part 2. County and City Defined Natural Hazard Zones

### HAZARD MAPS IN THE LOCAL GENERAL PLAN

**General Plan regulates property development.** There are currently over 530 incorporated cities and counties in California. The state Government Code (Sections 65000 et seq.) requires each of those jurisdictions to adopt a comprehensive, long-term "General Plan" for its physical development. That General Plan regulates land uses within the local jurisdiction in order to protect the public from hazards in the environment and conserve local natural resources. The General Plan is the official city or county policy regarding the location of housing, business, industry, roads, parks, and other land uses.

**Municipal hazard zones can affect the cost of ownership.** Each county and city adopts its own distinct General Plan according to that jurisdiction's unique vegetation, landscape, terrain, and other geographic and geologic conditions. The "Safety Element" (or Seismic Safety Element) of that General Plan identifies the constraints of earthquake fault, landslide, flood, fire and other natural hazards on local land use, and it delineates hazard zones within which private property improvements may be regulated through the building-permit approval process, which can affect the future cost of ownership. Those locally regulated hazard zones are in addition to the federal and state defined hazard zones associated with statutory disclosures in the preceding section.

**City and/or County natural hazard zones explained below.** Unless otherwise specified, only those officially adopted Safety Element or Seismic Safety Element maps (or digital data thereof) which are publicly available, are of a scale, resolution, and quality that readily enable parcel-specific hazard determinations, and are consistent in character with those statutory federal or state disclosures will be considered for eligible for use as the basis for county- or city-level disclosures set forth in this Report. Please also note:

- If an officially adopted Safety Element or Seismic Safety Element map relies on data which is redundant of that used for state-level disclosures, this Report will indicate so and advise Report recipients to refer to the state-level hazard discussion section for more information.
- If an officially adopted Safety Element or Seismic Safety Element cites underlying maps created by another agency, those maps may be regarded as incorporated by reference and may be used as the basis for parcel-specific determinations if those maps meet the criteria set forth in this section.
- Because county- and city-level maps are developed independently and do not necessarily define or delineate a given hazard the same way, the boundaries for the "same" hazard may be different.

If one or more maps contained in the Safety Element and/or Seismic Safety Element of an officially adopted General Plan are used as the basis for local disclosure, those maps will appear under the "Public Record(s) Searched" for that county or city.

#### REPORTING STANDARDS

A good faith effort has been made to disclose all hazard features on pertinent Safety Element and Seismic Safety Element maps with well-defined boundaries; however, those hazards with boundaries that are not delineated will be deemed not suitable for parcel-specific hazard determinations. Some map features, such as lines drawn to represent the location of a fault trace, may be buffered to create a zone to facilitate disclosure. Those map features which can not be readily distinguished from those representing hazards may be included to prevent an omission of a hazard feature. If the width of a hazard zone boundary is in question, "IN" will be reported if that boundary impacts any portion of a property. Further explanations concerning specific map features peculiar to a given county or city will appear under the "Reporting Standards" for that jurisdiction.

#### PUBLIC RECORDS VS. ON-SITE EVALUATIONS

Mapped hazard zones represent evaluations of generalized hazard information. Any specific site within a mapped zone could be at less or more relative risk than is indicated by the zone designation. A site-specific evaluation conducted by a geotechnical consultant or other qualified professional may provide more detailed and definitive information about the Property and any conditions which may or do affect it.

#### PROPERTY USE AND PERMITTING

No maps beyond those identified as "Public Record(s)" have been consulted for the purpose of these local disclosures. These disclosures are intended solely to make Report recipient(s) aware of the presence of mapped hazards. For this reason – and because local authorities may use on these or additional maps or data differently to determine property-specific land use and permitting approvals – Report recipients are advised to contact the appropriate local agency, usually Community Development, Planning, and/or Building, prior to the transaction to ascertain if these or any other conditions or related regulations may impact the Property use or improvement.

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## NAPA COUNTY GEOLOGIC ZONES DISCUSSION

**PUBLIC RECORD(S) SEARCHED:** The following Public Records, contained or referenced in the Safety Element of the General Plan as adopted by the County Board of Supervisors in June 2008, are utilized for those county-level disclosures below: Digital data of "Figure SAF-1: Earthquake Faults," "Figure SAF-4: Liquefaction Susceptibility," "Figure SAF-5: Napa Dam Inundation Areas," "Figure SAF-5: Napa Dam Inundation Areas" as well as "Map 1-8: Landslides" from the Napa County Baseline Data Report as incorporated by reference into the Safety Element of the General Plan.

### **FAULT**

Three mapped faults within the County have been designated as "active" (showing sign of movement over the past 11,000 years) by the California Geological Survey ("CGS") and are regulated by the State as Alquist-Priolo fault zones:

- **West Napa fault:** The southern portion, from the Napa Airport to very near the Solano County border, has been designated active. The northern segment, which ends near Yountville, has not but may have been the source of the 2000 magnitude 5.2 earthquake west of Yountville in which the City of Napa experienced more damage than Yountville itself. (On General Plan Figure SAF-1 this fault is mislabeled as the "Green Valley Fault".)
- **Green Valley fault:** This fault extends northward 4 to 5 miles into the southeast part of the County and ends along the west edge of Wooden Valley. This fault is characterized by aseismic creep, a slow, gradual movement on a fault not associated with felt earthquakes.
- **Hunting Creek fault zone.** This fault zone extends from the vicinity of the Wilson Valley south-southeast to the Cedar Roughts area west of Lake Berryessa.

A fourth fault, the **Cordelia fault**, runs roughly parallel to and a few miles east of the Green Valley fault. This fault may also be active according to sources consulted by Napa County.

**Reporting Standards:** If any portion of the Property is within an Alquist-Priolo fault as adopted by the County or within one-eighth of one mile (660 feet) of a fault trace delineated in the Public Record, "WITHIN" shall be reported.

### **LANDSLIDE AREAS**

Landsliding is generally considered the most potentially damaging cumulative geologic hazard in the County because of the widespread and frequent occurrence of damaging events. All major ridge and hills systems within the County have experienced landsliding to varying degrees. Even so, rapid slides, such as debris flows and debris avalanches, are much less prevalent in the County. It is important to recognize that landslide maps are not a substitute for detailed site-specific landslide investigations. They are useful, however, to indicate when such investigation may be required or desirable for a particular project and can be used to suggest the extent and detail of the investigation appropriate to the project.

**Reporting Standards:** If any portion of the Property is within a Landslide Area as delineated in the Public Record, "IN" shall be reported. Please note that individual "landslides" as mapped within and outside of "Landslide Areas" are not disclosed in this Report.

### **LIQUEFACTION SUSCEPTIBILITY**

Liquefaction is the sudden loss of strength in water-saturated soils during strong earthquake shaking, due to increased water pressure within the pores between soil grains. As a result, building foundations on the ground surface can settle and fracture. Liquefied soils on sloping ground may flow in a semi-fluid or plastic state (a lateral spreading), disrupting the original ground surface and damaging pipelines, roadways and other improvements in their path. Even within prone areas, liquefaction potential varies from high to low due to various factors, including soil type, soil thickness and groundwater levels. Estuarine areas, and areas comprising nonengineered, saturated, cohesionless fill are often considered to have relatively high liquefaction potential. The largest contiguous area within the County where liquefaction failures could occur is within the loose saturated estuarine deposits along the Napa River, south of the City of Napa.

**Reporting Standards:** The most severe Liquefaction Susceptibility (Very High, High, Medium, Low, or Very Low) area as depicted in the Public Record in which the Property is located shall be reported.

### **DAM INUNDATION**

Potential inundation areas for 16 of the 51 dams identified in the County by the California Department of Water Resources as of 2004 are identified in the Public Record.

**Reporting Standards:** Please refer to the Dam Inundation discussion contained in this Report as the potential inundation boundaries delineated in the Public Record are representative of those shown on official dam inundation maps made publicly available by the California Office of Emergency Services.

### **OTHER HAZARDS**

Information on other geologic and seismic hazards impacting the County but not detailed in this Report (including, but not limited to, ground shaking, expansive soils, erosion, and subsidence) may be found in the Napa County Baseline Data Report online at [www.napawatersheds.org/app\\_pages/view/192](http://www.napawatersheds.org/app_pages/view/192).

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**CITY OF NAPA GEOLOGIC DISCUSSION**

**PUBLIC RECORD(S) SEARCHED:** The following Public Record(s), contained in the Health and Safety Element of the City of Napa General Plan as officially adopted in 1998 and amended in 2009, is used for the City-level disclosure(s) below: "Figure 8-3: Generalized Slope"; "Figure 8-4: Generalized Relative Landslide Susceptibility"; "Figure 8-7: Flood Water Inundation from Dam Failure"; and "Figure 8-8: Wildland Urban Interface (WUI) Fire Hazard Areas".

**LANDSLIDE SUSCEPTIBILITY**

Soil erosion is a naturally occurring process that can be worsened by human activities. Because the Napa River's watershed is a natural, relatively high producer of sediment, it is particularly sensitive to the effects of soil erosion. Soils are generally susceptible to erosion on steep slopes, particularly if vegetation is removed. Landslides are the most dramatic and obvious form of erosion. Landslides consist of rock, soil and/or debris that move downslope by sliding, flowing or falling. Movement ranges from very slow (earthflow) to very fast (debris flow). Landslides vary in size from large blocks of material and slumps to relatively small amounts of surface debris. Specific factors that affect slope instability include heavy local rainfall, earthquakes, surface materials that are loosely bound together ("unconsolidated"), and slope steepness. According to the Public Record the City requires geotechnical studies for projects proposed in areas susceptible to landslides categorized as "general" and "greatest" hazard level, and adherence to the recommendations of the studies.

**Reporting Standards:** "IN" shall be reported as will the more/most severe Relative Landslide Susceptibility category (Greatest, General, Marginal, or Least) affecting any portion of the Property as delineated in the Public Record within the City's Rural/Urban Limit ("RUL") Boundary.

**SLOPE**

The Public Record shows the steepness of slopes divided into three categories: less than 15 percent, 15 to 30 percent, and greater than 30 percent. Within the Rural/Urban Limit (RUL), the steepest slopes are found in the hilly areas west of Buhman Avenue and south of the Rollingwood subdivisions; north of Browns Valley Road and east of Pinewood Drive; both inside and outside the RUL from Browns Valley Road south to Highway 12/121; south of Hagen Road; and the eastern hills along Montecito Boulevard. According to the Public Record the City requires that an erosion control plan be prepared and approved for development on slopes of 15 percent or greater. The plan should include limitations on vegetation removal, revegetation, and installation of other erosion and sedimentation control measures.

**Reporting Standards:** "IN" shall be reported as will the more/most severe Generalized Slope category (slopes greater than 30 percent, slopes between 15 and 30 percent, and slopes less than 15 percent) affecting any portion of the Property as delineated in the Public Record within the City's Rural/Urban Limit ("RUL").

**DAM INUNDATION**

The City's dams are located at the Lake Hennessey, Milliken and Eastside Reservoirs; another dam is the State-owned Rector Reservoir. Failure of any one of these dams would subject the city of Napa to flood water inundation. In the case of the failure of any of the three dams located outside the city, inundation waters in a worst-case scenario would affect the same areas within the city (approximately 25 percent of the City's residences would be affected). Potential inundation areas from Conn and Milliken are delineated in the Public Record. Lake Hennessey is the City's primary water supply storage. The lake's dam, Conn Creek Dam, is earth fill with a concrete spillway which empties into Conn Creek. The crest height is 125 feet and the reservoir stores 31,000 acre-feet of water. Were Conn Creek Dam to fail, inundation waters would arrive at the north city limits in 4 ½ hours with a 16-foot maximum water depth at Trancas Street. According to an April 1986 Seismic Stability Evaluation of Conn Creek Dam by Harding Lawson Associates, the greatest potential for damage to the dam is from a seismic event on the Rogers Creek-Healdsburg Fault (15 miles to the west) or the Cedar Roughs Fault (8 miles to the east). However, the evaluation concluded that the dam "will perform adequately during a major earthquake" (i.e., magnitude 6.5 on the Cedar Roughs Fault) and dam failure is not anticipated. The Milliken Reservoir dam is radial arch reinforced concrete and empties into Milliken Creek. The crest height is 110 feet and the reservoir stores 2,000 acre-feet of water at the crest height. In 2008, the Public Works Department Water Division implemented the Milliken Dam Seismic-Related Modifications Project to lower the nominal water height behind the dam to an elevation 16 feet below the dam crest. The project cored four 18-inch holes and one 24-inch hole at the lower elevation to maintain the reduced water level. In accordance with the California State Water Resources Division of Safety of Dams, Milliken dam is deemed safe to withstand a maximum credible earthquake while storing water at the reduced elevation of the cored holes. The dam stores 1,390 acre-feet of water at the reduced elevation. Prior to implementation of the Milliken Seismic-Related Modifications Project, if the Milliken Reservoir dam were to fail, inundation waters would reach the northeast city limits in one hour with a 16-foot maximum water depth at Trancas Street. A revision to the reduced effects of the inundation waters is not available at this time. However, the State Department of Water Resources Division of Safety of Dams performs annual inspections of the dam and requires maintenance and improvements as needed. The dam is routinely inspected to record settlement or movement. No seismic or significant dam safety concerns have been identified and no significant improvements to the dam are planned for the near future.

**Reporting Standards:** "IN" shall be reported in any portion of the Property is situated within a mapped inundation boundary as delineated in the Public Record within the City's Rural/Urban Limit. "NOT IN" shall be reported in no portion of the Property is situated within a mapped inundation boundary as delineated in the Public Record the City's Rural/Urban Limit Boundary.

**FIRE**



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Napa is characterized by a narrow valley floor surrounded and intermingled with steep, hilly terrain that contains areas that are very susceptible to wildland fires. This in turn exposes areas of development within the city to an increased risk of fire. The most vulnerable structures are the homes in or adjacent to wildland urban interface areas. Wind is an important factor in the spread of fire, by carrying burning embers to adjacent areas. Napa has a characteristic southerly wind that originates from the San Francisco Bay. During the dry season, the city experiences an occasional north wind of significant velocity that can be a contributing factor in the spread of wildland fires. The major wildland fire hazard risks for residential development are in the city's hilly areas characterized by steep slopes, poor fire apparatus access, inadequate water pressure, and highly flammable vegetation. Recognizing that these areas differ from the typical urban fire to be served by city fire departments, there has been a move statewide to include built-in fire protection measures for development in and adjacent to these wildland urban interface areas. The cornerstone of wildland fire protection is the provision of defensible space around residential development in hazardous areas to protect residents and enable firefighting equipment and personnel to safely operate. The City requires that development in wildland urban interface areas provides adequate access roads, onsite fire protection systems, signage, ignition resistant building materials, and defensible space.

**Reporting Standards:** "IN" shall be reported in any portion of the Property is situated within a mapped "Fire Hazard Area" as delineated in the Public Record within the City's RUL (Rural/Urban Limit) Boundary. "NOT IN" shall be reported in no portion of the Property is situated with a mapped "Fire Hazard Area" as delineated in the Public Record within the City's Rural/Urban Limit Boundary.

**OTHER HAZARDS**

"Figure 8-1: Ground Shaking Intensity (West Napa Fault)" and "Figure 8-1B: Ground Shaking Intensity (Hayward Fault)" are Association of Bay Area Government (ABAG) ground shaking maps that depict shaking intensity resulting from only 2 seismic event scenarios. These and other shake maps for the City of Napa may be viewed online at <http://quake.abag.ca.gov/earthquakes/napa/>. As with most communities in the San Francisco Bay Area near active earthquake faults, much of the City would be susceptible to violent ground shaking. [NOTE: The Public Record when originally adopted predates the magnitude 5.2 earthquake on September 3, 2000. That earthquake occurred nine miles northwest of the City of Napa near the West Napa fault. It caused damage estimated at between \$15 and \$70 million, primarily in the Napa downtown area.] "Figure 8-2: Generalized Geology Map" identifies the type and distribution of geologic materials within the Napa area including those very susceptible to slope failure; however, areas of Generalized Slope and Relative Landslide Susceptibility that are subject to development requirements are already disclosed. The flood-related maps contained in the Health and Safety Element including, but not limited to "City of Napa 100 year floodplain for Napa River and Creeks" and "100-year Floodplain & Floodway Comparison □ Effective and LOMR Interim Conditions" are based on flood zones since superseded by more recent FEMA DFIRM data. For the most current FEMA flood zone information please refer to the state-level discussion and disclosure of Special Flood Hazard Area in the preceding section of this Report. The mapped Flood Evacuation Area pertains only to proposed residential developments resulting in more than four dwelling units on a parcel.

**The following natural hazards are discussed at length but not mapped in the City General Plan:**

**LIQUEFACTION**

Liquefaction occurs when water-saturated, cohesionless soil loses its strength and liquefies during intense and prolonged ground shaking. Areas which have the greatest potential for liquefaction are those areas where the water table is less than 50 feet below the surface and soils are predominantly clean, composed of relatively uniform sands, and are of loose-to-medium density. The poorly consolidated younger alluvium that occupies areas south of the city and along the Napa River are considered to have high to very high potential for liquefaction. The younger soils found on the valley floor in the western part of the city are also subject to moderate to high potential for liquefaction.

**Reporting Standards:** No determination is reported because the Public Record does not include a map which delineates the boundaries for this hazard within the City's Rural/Urban Limit Boundary.

**SOIL EROSION**

As noted above, soil erosion is a naturally occurring process that can be worsened by human activities. Because the Napa River's watershed is a natural, relatively high producer of sediment, it is particularly sensitive to the effects of soil erosion. Soil erosion is a naturally occurring process that can be worsened by human activities. Because the Napa River's watershed is a natural, relatively high producer of sediment, it is particularly sensitive to the effects of soil erosion. Soil erosion can take the form of sheet and rill erosion. In sheet erosion, a relatively uniform layer of soil is removed over a large area gradually over time. In rill erosion, streambank and gully erosion can occur from small concentrated water flows. Urban development activities are a significant contributor to streambank and gully erosion which is sensitive to changes in watershed hydrology, rainfall infiltration rates, the amount of hard surfaces, and surface flow diversions. Urban development, with its grading, construction and land alteration (particularly on hillsides), can cause excessive erosion and sedimentation if not regulated properly. Grading for building pads, roads, and land-scaping removes natural vegetation that protects topsoil from erosion. Recontouring of the land surface alters natural drainage patterns and can increase surface runoff if not properly designed. General construction activities such as equipment washing and site clearance also indirectly contribute to soil erosion.



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**Reporting Standards:** No determination is reported because the Public Record does not include a map which delineates the boundaries for this hazard within the City's Rural/Urban Limit Boundary.

**END OF LOCAL AREA DISCLOSURES AND DISCUSSIONS SECTION**

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### **Part 3. Additional Property Specific Disclosures**

#### **FORMER MILITARY ORDNANCE SITE DISCLOSURE**

**DISCUSSION:** Former Military Ordnance (FUD) sites can include sites with common industrial waste (such as fuels), ordnance or other warfare material, unsafe structures to be demolished, or debris for removal. California Civil Code Section 1102 requires disclosure of those sites containing unexploded ordnance. "Military ordnance" is any kind of munitions, explosive device/material or chemical agent used in military weapons. Unexploded ordnance are munitions that did not detonate. **NOTE: MOST FUD sites do not contain unexploded ordnance. Only those FUD sites that the U.S. Army Corps of Engineers (USACE) has identified to contain Military Ordnance or have mitigation projects planned for them are disclosed in this Report. Additional sites may be added as military installations are released under the Federal Base Realignment and Closure (BRAC) Act. Active military sites are NOT included on the FUD site list.**

**PUBLIC RECORD:** Data contained in Inventory Project Reports, Archives Search Reports, and related materials produced for, and made publicly available in conjunction with, the Defense Environmental Restoration Program for Formerly Used Defense Sites by the U.S. Army Corps of Engineers. Sites for which no map has been made publicly available shall not be disclosed.

**REPORTING STANDARD:** If one or more facility identified in the Public Record is situated within a one (1) mile radius of the Property, "WITHIN" shall be reported. The name of that facility or facilities shall also be reported.

#### **COMMERCIAL OR INDUSTRIAL ZONING DISCLOSURE**

**DISCUSSION:** The seller of real property who has actual knowledge that the property is affected by or zoned to allow commercial or industrial use described in Section 731a of the Code of Civil Procedure shall give written notice of that knowledge to purchasers as soon as practicable before transfer of title (California Civil Code Section 1102.17). The Code of Civil Procedure Section 731a defines industrial use as areas in which a city and/or county has established zones or districts under authority of law wherein certain manufacturing or commercial or airport uses are expressly permitted. The "Zoning Disclosure" made in this Report DOES NOT purport to determine whether the subject property is or is not affected by a commercial or industrial zone. As stated above, that determination is based solely upon ACTUAL KNOWLEDGE of the seller of the subject property.

In an effort to help determine areas where this may be applicable, this disclosure identifies if a property exists within one mile of the seller's property that is zoned to allow for commercial or industrial use. Very commonly, a home will have in its vicinity one or more properties that are zoned for commercial or industrial use such as restaurants, gasoline stations, convenience stores, golf courses, country club etc.

**PUBLIC RECORD:** Based on publicly-available hardcopy and/or digital zoning and land use records for California cities and counties.

**REPORTING STANDARD:** If one or more property identified in the Public Record as "commercial," "industrial," or "mixed use" is situated within a one (1) mile radius of the Property, "WITHIN" shall be reported. Please note that an airport facility that may be classified as public use facility in the Public Record will be reported as "commercial/industrial" in this disclosure.

**JCP-LGS Residential Property Disclosure Reports  
Natural Hazard Disclosure (NHD) Report  
For NAPA County**

**Property Address:** 1040 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-007-000  
**Report Date:** 01/29/2018  
**Report Number:** 2229240

**AIRPORT INFLUENCE AREA DISCLOSURE**

**DISCUSSION:**

**Certain airports are not disclosed in this Report.** JCP-LGS has made a good faith effort to identify the airports covered under Section 1102.6a. Sources consulted include official land use maps and/or digital data made available by a governing Airport Land Use Commission (ALUC) or other designated government body. Most facilities for which an Airport Influence Area has been designated are included on the "California Airports List" maintained by the California Department of Transportation's Division of Aeronautics. Not disclosed in this Report are public use airports that are not in the "California Airports List", airports that are physically located outside California, heliports and seaplane bases that do not have regularly scheduled commercial service, and private airports or military air facilities unless specifically identified in the "California Airports List". **If the seller has actual knowledge of an airport in the vicinity of the subject property that is not disclosed in this Report, and that is material to the transaction, the seller should disclose this actual knowledge in writing to the buyer.**

Most facilities for which an Airport Influence Area has been designated are included on the "California Airports List" maintained by the California Department of Transportation's Division of Aeronautics. The inclusion of military and private airports varies by County, and heliports and seaplane bases are not included, therefore, airports in these categories may or may not be included in this disclosure.

**NOTE:** Proximity to an airport does not necessarily mean that the property is exposed to significant aviation noise levels. Alternatively, there may be properties exposed to aviation noise that are greater than two miles from an airport. Factors that affect the level of aviation noise include weather, aircraft type and size, frequency of aircraft operations, airport layout, flight patterns or nighttime operations. Buyer should be aware that aviation noise levels can vary seasonally or change if airport usage changes.

**PUBLIC RECORD:** Based on officially adopted land use maps and/or digital data made publicly available by the governing ALUC or other designated government body. If the ALUC or other designated government body has not made publicly available a current officially adopted airport influence area map, then California law states that "a written disclosure of an airport within two (2) statute miles shall be deemed to satisfy any city or county requirements for the disclosure of airports in connection with transfers of real property."

**REPORTING STANDARD:** "IN" shall be reported along with the facility name(s) and the "Notice of Airport in Vicinity" if any portion of the Property is situated within either (a) an Airport Influence Area as designated on officially adopted maps or digital data or (b) a two (2) mile radius of a qualifying facility for which an official Airport Influence Area map or digital data has not been made publicly available by the ALUC or other designated governing body. "NOT IN" shall be reported if no portion of the Property is within either area.

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**AIRPORT NOISE DISCLOSURE**

**DISCUSSION:** California Civil Code §1102.17 requires the seller(s) of residential real property who has/have actual knowledge that the property in the transaction is affected by airport use must give written notice of that knowledge, as soon as practicable, before transfer of title.

Under the Federal Aviation Administration's *Airport Noise Compatibility Planning Program Part 150*, certain 65 decibel (dB) Community Noise Equivalent Level (CNEL) contour maps have been produced for some airports. Not all airports have produced noise exposure maps. A property may be near or at some distance from an airport and not be within a delineated noise exposure area, but still experience aviation noise. Unless 65dB CNEL contour maps are published, helipads and military sites are not included in this section of the Report.

The *Airport Noise Compatibility Planning Program* is voluntary and not all airports have elected to participate. Furthermore, not all property in the vicinity of an airport is exposed to 65dB CNEL or greater average aviation noise levels. Conversely a property may be at some distance from an airport and still experience aviation noise. Buyer should be aware that aviation noise levels can vary seasonally or change if airport usage changes after a map is published or after the Report Date. JCP-LGS uses the most seasonally conservative noise exposures provided.

Federal funding may be available to help airports implement noise reduction programs. Such programs vary and may include purchasing properties, rezoning, and insulating homes for sound within 65dB areas delineated on CNEL maps. Airport owners have also cooperated by imposing airport use restrictions that include curfews, modifying flight paths, and aircraft limitations.

**PUBLIC RECORD:** Certain 65 decibel (dB) Community Noise Equivalent Level (CNEL) contour maps produced under the Federal Aviation Administration's *Airport Noise Compatibility Planning Program Part 150*.

**REPORTING STANDARD:** "IN" shall be reported if any portion of the Property is situated within a 65 decibel Community Noise Equivalent Level contour identified in the Public Record. "NOT IN" shall be reported if no portion of the Property is situated within a 65 decibel Community Noise Equivalent Level contour identified in the Public Record.

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**SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT**  
**COMMISSION DISCLOSURE**

**DISCUSSION:** As of July 1, 2005, Civil Code §1103.4 mandates disclosure to buyers of certain real estate if the boundary of the property is determined to be (1) within 100 feet of the San Francisco Bay shoreline as mapped in 1997 by the National Ocean Survey (NOS), an agency of the National Oceanographic and Atmospheric Administration (NOAA); or (2) within another mapped zone established by the Bay Conservation and Development Commission (BCDC). The BCDC has regulatory jurisdiction within 100 feet inland from the point of "mean higher high water" as mapped by the NOS, and within other zones the agency has defined along the San Francisco Bay margin (BCDC Memo entitled "Guidance on Determining Commission Jurisdiction Pursuant to Senate Bill 1568").

Notice is required to prevent unknowing violations of the law by new owners who were unaware that certain activities on the real property are subject to the BCDC's permit requirements. The BCDC notes that the Bay is a highly dynamic environment and the shoreline changes over time (see Discussion below). In addition, there is inherent uncertainty in the shoreline position as mapped by the NOS or any agency. The BCDC advises the buyer and other interested parties to contact its office if a more authoritative jurisdictional determination is desired. The BCDC office is located at 50 California Street, Suite 2600, San Francisco, California 94111, and can be reached at (415) 352-3600, or by email to [info@bcdc.ca.gov](mailto:info@bcdc.ca.gov)

The BCDC has issued maps for some parts of its jurisdiction, including the San Francisco Bay Plan maps (California Code of Regulations, Title 14, Section 10121) and the Suisun Marsh Plan maps (Nejedly-Bagley-Z'berg Suisun Marsh Preservation Act of 1974). Official maps have not been issued for other parts of the BCDC jurisdiction (McAteer-Petris Act areas) because the Bay is a highly dynamic environment and the shoreline changes over time (in part because the sea level also changes over time). In those areas where official BCDC maps are not available or along the edges of the BCDC's mapped jurisdiction, to meet the disclosure requirements, this Report will indicate that the property "could be within" the BCDC's jurisdiction and that a location-specific jurisdictional determination should be made by consulting the BCDC. This determination of "could be within" the BCDC's jurisdiction was recommended by the BCDC in that certain Memo entitled "Guidance on Determining Commission Jurisdiction Pursuant to Senate Bill 1568" issued in February 2005 and posted on the BCDC website.

**PUBLIC RECORDS:** San Francisco Bay Plan maps (California Code of Regulations, Title 14, Section 10121) and the Suisun Marsh Plan maps (Nejedly-Bagley-Z'berg Suisun Marsh Preservation Act of 1974) made publicly available by BCDC and that certain Memo entitled "Guidance on Determining Commission Jurisdiction Pursuant to Senate Bill 1568" issued by BCDC in February 2005 and posted on the BCDC website ("BCDC Memo").

**REPORTING STANDARD:** "WITHIN" shall be reported if any portion of the Property is situated within an areas mapped by BCDC or is within the 100-foot shoreline band. "COULD BE WITHIN" shall be reported if any portion of the Property is situated within one-quarter (1/4) mile of either an area mapped by BCDC or the 100-foot shoreline band. "NOT WITHIN" shall be reported if no portion of the Property is situated within an area that would otherwise be reported as either "WITHIN" or "COULD BE WITHIN".

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**CALIFORNIA ENERGY COMMISSION DUCT SEALING & TESTING REQUIREMENT**

**DISCUSSION:** According to the California Energy Commission ("CEC") most California homes have improperly sealed central air conditioning and heating system ducts such that approximately 30 percent of the conditioned air actually leaks outside the home.

Effective July 1, 2014, in order to combat this waste of energy and money, the CEC updated its residential duct sealing and testing requirements in the 2013 Building Energy Efficiency Standards (Title 24). Previously, such duct sealing and testing was required only in certain CEC-designated climate zones when a central air conditioner or furnace is installed or replaced. **The revised standards now make duct sealing and testing mandatory in all California climate zones when such a system is installed or replaced.** Ducts found to leak more than 15 percent or more must be repaired. Once a contractor tests and fixes these ducts, you must have an approved third-party verifier determine that the ducts have been properly sealed. The CEC cautions homeowners that a contractor who fails to obtain a required building permit and fails to test and repair your ducts "is violating the law and exposing you to additional costs and liability." If you do not obtain a permit, you may be required to bring your home into compliance with code requirements for that work and may incur additional penalties and fines that have to be paid prior to selling your home. Remember that you have a duty to disclose whether you obtained required permits for work performed to prospective Buyers and appraisers. Local governments may mandate more stringent requirements.

Please note there are specific alternatives that allow high efficiency equipment and added duct insulation to be installed instead of fixing duct leaks. Please also be advised that there are separate regulations which govern duct insulation levels required by climate zone and HVAC system.

For more information please contact the California Energy Commission or visit the official CEC "2013 Building Energy Efficiency Standards" portal at: <http://www.energy.ca.gov/title24/2013standards/index.html>

**PUBLIC RECORD:** 2013 Building Energy Efficiency Standards (Title 24).

**REPORTING STANDARD:** "WITHIN" shall be reported regardless of CEC-designated climate zone pursuant to the revised Title 24 Standards.

**COOLING AND HEATING ENERGY-EFFICIENCY ADVISORY**

Effective January 1, 2015, new federal energy-efficiency standards apply to the repair and replacement of residential heating, ventilation and air conditioning ("HVAC") systems. The new standards raise the minimum efficiency requirements for air conditioning systems and certain types of heating systems. Energy efficiency is measured by the Seasonal Energy Efficiency Ratio ("SEER"), which compares the amount of cooling (or heating) output by an HVAC system to the amount of energy (electricity or gas) input over its operating season. The higher the system's SEER value, the more energy-efficient it is and the lower the unit cost of cooling (or heating) a home.

For the first time, federal minimum-efficiency standards will vary by region. Prior to 2015 one standard, called SEER 13, applied nationwide. Now, in California, Nevada, Arizona and New Mexico (the Southwestern Region), SEER 13 has been replaced by the more efficient SEER 14 standard. In the Southwestern Region the new rule allows repairs to existing SEER 13-compliant systems. However, in many cases a full system replacement (both the indoor and outdoor unit) will be necessary to make the system compatible, and replacement is allowed only with a SEER 14-compliant unit. The higher standard may increase the replacement cost to the property owner because the SEER 14 efficiency improvements require increased complexity of the new equipment, and the SEER 14 units may not fit in the existing space, requiring structural modifications at the owner's expense. In some cases the SEER 14 standard could double the cost of replacement over the earlier replacement cost. For applicable details and codes, see the California Energy Commission web page at: [http://www.energy.ca.gov/title24/2013standards/residential\\_manual.html](http://www.energy.ca.gov/title24/2013standards/residential_manual.html) (The new federal standards go into effect on January 1, 2015, which is six months after the July 1, 2014, effective date of the 2013 Standards.)

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**STATEWIDE RIGHT TO FARM DISCLOSURE**

**DISCUSSION:**

If the property is presently located within one mile of a parcel of real property designated as "Prime Farmland," "Farmland of Statewide Importance," "Unique Farmland," "Farmland of Local Importance," or "Grazing Land" on the most current "Important Farmland Map" issued by the California Department of Conservation, Division of Land Resource Protection, the following notice is required:

**NOTICE OF RIGHT TO FARM**

This property is located within one mile of a farm or ranch land designated on the current county-level GIS "Important Farmland Map," issued by the California Department of Conservation, Division of Land Resource Protection. Accordingly, the property may be subject to inconveniences or discomforts resulting from agricultural operations that are a normal and necessary aspect of living in a community with a strong rural character and a healthy agricultural sector. Customary agricultural practices in farm operations may include, but are not limited to, noise, odors, dust, light, insects, the operation of pumps and machinery, the storage and disposal of manure, bee pollination, and the ground or aerial application of fertilizers, pesticides, and herbicides. These agricultural practices may occur at any time during the 24-hour day. Individual sensitivities to those practices can vary from person to person. You may wish to consider the impacts of such agricultural practices before you complete your purchase. Please be advised that you may be barred from obtaining legal remedies against agricultural practices conducted in a manner consistent with proper and accepted customs and standards pursuant to Section 3482.5 of the Civil Code or any pertinent local ordinance.

California has a "Right to Farm Act" (Civil Code Section 3482.5) to protect farming operations. When agricultural land within the State's agricultural areas is bought and sold, the purchasers are often not made aware of the fact that there are right-to-farm laws. This has led to confusion and a misunderstanding of the actual uses of the land or uses of the surrounding agricultural lands.

In 2008 the State of California enacted Assembly Bill 2881 to limit the exposure of farmers to nuisance lawsuits by homeowners in neighboring developments. The mechanism of this bill is a formal notification of the Buyer, through a "Notice of Right to Farm" in an expert disclosure report that advises the Buyer if the subject property is within one mile of farmland as defined in the bill.

**If the seller has actual knowledge of an agricultural operation in the vicinity of the subject property that is not disclosed in this Report, and that is material to the transaction, the seller should disclose this actual knowledge in writing to the Buyer.**

**PUBLIC RECORD:** Based on the most current available version of the "Important Farmland Map" issued by the California Department of Conservation, Division of Land Resource Protection, utilizing solely the county-level GIS map data, if any, available on the Division's Farmland Mapping and Monitoring Program website, pursuant to Section 11010 of the Business and Professions Code, and Section 1103.4 of the California Civil Code.

**REPORTING STANDARD:** "IN" shall be reported and the "Notice of Right to Farm" provided if any portion of the Property is situated within, or within one mile of, a parcel of real property designated as "Prime Farmland," "Farmland of Statewide Importance," "Unique Farmland," "Farmland of Local Importance," or "Grazing Land" in the public record. "NOT IN" shall be reported if no portion of the Property is within that area.

Some counties, or parts thereof, are not included in the Public Record because they have not been mapped for farmland parcels under this State program. Typically, this is because the county area is public land and not planned for incorporation, or, in the case of San Francisco, the county is entirely incorporated. In those instances, we report "Map Not Available" above, or "Map N/A" in the table of summary determinations at the beginning of this Report.



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**NOTICE OF MINING OPERATIONS DISCLOSURE**

If the Property has been determined to be located within one (1) mile of a reported mining operation(s), the following notice is provided as mandated by California law:

**NOTICE OF MINING OPERATIONS**

**This property is located within one mile of a mine operation for which the mine owner or operator has reported mine location data to the Department of Conservation pursuant to Section 2207 of the Public Resources Code. Accordingly, the property may be subject to inconveniences resulting from mining operations. You may wish to consider the impacts of these practices before you complete your transaction.**

**DISCUSSION:** Historically mining operations have been located in remote areas. However, increasing urbanization has resulted in some residential projects being developed near existing mining operations.

California Public Resources Code §2207 requires owners and operators of mining operations to provide annually specific information to the California Department of Conservation ("DOC"), including but not limited to, (i) ownership and contact information, and (ii) the latitude, longitude, and approximate boundaries of the mining operation marked on a specific United States Geological Survey map. The Office of Mining Reclamation ("OMR") is a division of the DOC. Using the mandatory data specified above, OMR provides map coordinate data that can be used by GIS systems to create points representing mine locations ("OMR Maps"). For more information please visit OMR's Mines OnLine Map Viewer (<http://maps.conservation.ca.gov/mol/index.html>).

Effective January 1, 2012, California Civil Code §1103.4 requires the seller of residential property to disclose to a Buyer if the residential property is located with one (1) mile of mining operations as specified on OMR Maps.

**Special Notes:**

1. This statutory disclosure does not rely on the OMR's "AB 3098 List," a list of mines regulated under the Surface Mining and Reclamation Act of 1975 ("SMARA") that meet provisions set forth under California Public Resources Code §2717(b). The AB 3098 List does not include map coordinate data as required under California Public Resources Code §2207 and may not include all mining operations subject to the "Notice of Mining Operations" disclosure.
2. This "Notice of Mining Operations" disclosure is not satisfied by disclosing abandoned mines. An abandoned mine is NOT an operating mine. California Civil Code §1103.4 is satisfied only by disclosing based on OMR Maps.

**PUBLIC RECORD:** Mining operations as provided on OMR Maps made publicly available by DOC pursuant to California law.

**REPORTING STANDARD:** "IN" is reported if any portion of the Property is located within a one (1) mile radius of one or more mining operation(s) identified in the Public Record for which map coordinate data is provided. If "IN", the name of the mining operation(s) as it appears in the Public Record is also reported. "NOT IN" is reported if no portion of the Property is located within a one (1) mile radius of a mining operation specified on OMR Maps.

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**Part 4. General Advisories**

**REGISTERED SEX OFFENDER DATABASE DISCLOSURE REQUIREMENT  
("MEGAN'S LAW")**

**Notice:** Pursuant to Section 290.46 of the Penal Code, information about specified registered sex offenders is made available to the public via an Internet Web site maintained by the Department of Justice at [www.meganslaw.ca.gov](http://www.meganslaw.ca.gov). Depending on an offender's criminal history, this information will include either the address at which the offender resides or the community of residence and ZIP Code in which he or she resides.

**DISCUSSION:** California law (AB 488), signed by the Governor on September 24, 2004, provides the public with Internet access to detailed information on registered sex offenders. The Sex Offender Tracking Program of the California Department of Justice (DOJ) maintains the database of the locations of persons required to register pursuant to paragraph (1) of subdivision (a) of Section 290.46 of the Penal Code. The online database is updated with data provided by local sheriff and police agencies on an ongoing basis. It presents offender information in 13 languages; may be searched by a sex offender's specific name, zip code, or city/county; provides access to detailed personal profile information on each registrant; and includes a map of your neighborhood.

**California Department of Justice Information Sources:**

Megan's Law Sex Offender Locator Web Site: <http://www.meganslaw.ca.gov>

California Department of Justice Megan's Law Email Address: [meganslaw@doj.ca.gov](mailto:meganslaw@doj.ca.gov)

**Local Information Locations For The Property:**

All sheriffs departments and every police department in jurisdictions with a population of 200,000 or more are required to make a CD-ROM available free to the public for viewing. Although not required, many other law enforcement departments in smaller jurisdictions make the CD-ROM available as well. Please call the local law enforcement department to investigate availability.

***The following are the law enforcement departments in your county that are REQUIRED to make information available:***

**Napa County Sheriff's Department**

**(707) 253-4440**

**Explanation and How to Obtain Information**

For over 50 years, California has required certain sex offenders to register with their local law enforcement agencies. However, information on the whereabouts of the sex offenders was not available to the public until implementation of the Child Molester Identification Line in July 1995. The available information was expanded by California's "Megan's Law" in 1996 (Chapter 908, Stats. of 1996). Megan's Law provides certain information on the whereabouts of "serious" and "high-risk" sex offenders. The law specifically prohibits using the information to harass or commit any crime against the offender. The information on a registered sex offender includes: name and known aliases; age and sex; physical description, including scars, marks and tattoos; photograph, if available; crimes resulting in registration; county of residence; and zip code (from last registration). Accessing the online database requires agreement to the DOJ's terms of use on the web page.

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**GAS AND HAZARDOUS LIQUID TRANSMISSION PIPELINE  
DATABASE DISCLOSURE REQUIREMENT**

**DISCUSSION:** Following a number of pipeline disasters in the U.S., such as the 2010 San Bruno explosion in Northern California, there is an increased awareness of the potential dangers associated with underground transmission pipelines. As a result, the California Legislature unanimously passed Assembly Bill 1511 (Bradford), signed by Governor Jerry Brown on July 13, 2012. This law, which becomes effective January 1, 2013, is chaptered as California Civil Code Section 2079.10.5 and mandates the disclosure of the following notice to Buyers:

**NOTICE REGARDING GAS AND HAZARDOUS LIQUID  
TRANSMISSION PIPELINES**

This notice is being provided simply to inform you that information about the general location of gas and hazardous liquid transmission pipelines is available to the public via the National Pipeline Mapping System (NPMS) Internet Web site maintained by the United States Department of Transportation at <http://www.npms.phmsa.dot.gov/>. To seek further information about possible transmission pipelines near the property, you may contact your local gas utility or other pipeline operators in the area. Contact information for pipeline operators is searchable by ZIP Code and county on the NPMS Internet Web site. (California Civil Code Section 2079.10.5(a))

*Civil Code Section 2079.10.5(c) adds, "Nothing in this section shall alter any existing duty under any other statute or decisional law imposed upon the seller or broker, including, but not limited to, the duties of a seller or broker under this article, or the duties of a seller or broker under Article 1.5 (commencing with Section 1102) of Chapter 2 of Title 4 of Part 4 of Division 2."*

Such "existing duties" include the disclosure of actual knowledge about a potential hazard, such as may be created by the delivery of a letter from the local utility company informing the seller that a gas transmission pipeline exists within 2,000 feet of the Property.

Beginning on the law's January 1, 2013, effective date, except where such "existing duties" apply, "Upon delivery of the notice to the transferee of the real property, the seller or broker is not required to provide information in addition to that contained in the notice regarding gas and hazardous liquid transmission pipelines in subdivision (a). The information in the notice shall be deemed to be adequate to inform the transferee about the existence of a statewide database of the locations of gas and hazardous liquid transmission pipelines and information from the database regarding those locations." (California Civil Code Section 2079.10.5(b))

The disclosure of underground transmission pipelines helps the parties in a real estate transaction make an informed decision and is in the best interest of the public. Buyer should be aware that, according to the NPMS Internet Web site, gas and/or hazardous liquid transmission pipelines are known to exist in 49 of California's 58 counties, the exceptions being in rural mountainous parts of the state. Every home that utilizes natural gas is connected to a gas "distribution" pipeline, which is generally of smaller size and lower pressure than a transmission pipeline.

**For More Information**

To investigate whether any pipeline easement (right-of-way) exists on the Property, Buyer should review the Preliminary Title Report. Buyer should consult an attorney for interpretation of any law. This notice is for information purposes only and should not be construed as legal advice.



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**METHAMPHETAMINE CONTAMINATED PROPERTY DISCLOSURE ADVISORY**

**DISCUSSION:** According to the "Methamphetamine Contaminated Property Cleanup Act of 2005" a property owner must disclose in writing to a prospective buyer if local health officials have issued an order prohibiting the use or occupancy of a property contaminated by meth lab activity. The owner must also give a copy of the pending order to the buyer to acknowledge receipt in writing. Failure to comply with these requirements may subject an owner to, among other things, a civil penalty up to \$5,000. Aside from disclosure requirements, this new law also sets forth procedures for local authorities to deal with meth-contaminated properties, including the filing of a lien against a property until the owner cleans up the contamination or pays for the cleanup costs.

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**MOLD ADVISORY**

**DISCUSSION:** The Buyer is hereby advised that naturally occurring molds may exist both inside and outside of any home and may not be visible to casual inspection. Persons exposed to extensive mold levels can become sensitized and develop allergies to the mold or other health problems. Extensive mold growth can damage a structure and its contents. All prospective purchasers of residential and commercial property are advised to thoroughly inspect the Property for mold. Be sure to inspect the Property inside and out for sources of excess moisture, current water leaks and evidence of past water damage.

As part of a buyer's physical inspection of the condition of a property, the buyer should consider engaging an appropriate and qualified professional to inspect and test for the presence of harmful molds and to advise the buyer of any potential risk and options available. This advisory is not a disclosure of whether harmful mold conditions exist at a property or not. No testing or inspections of any kind have been performed by The Company. Any use of this form is acknowledgement and acceptance that The Company does not disclose, warrant or indemnify mold conditions at a property in any way and is not responsible in any way for mold conditions that may exist. Information is available from the California Department of Health Services Indoor Air Quality Section fact sheet entitled, "Mold in My Home: What Do I Do?" The fact sheet is available at <https://archive.cdph.ca.gov/programs/IAQ/Pages/IndoorMold.aspx> or by calling (510) 620-3620.

The Toxic Mold Protection Act of 2001 requires that information be developed regarding the potential issues surrounding naturally occurring molds within a home. Information was written by environmental authorities for inclusion in the *Residential Environmental Hazards: A Guide for Homeowners, Buyers, Landlords and Tenants* booklet developed by the California Environmental Protection Agency and the Department of Health Services. It is found in Chapter VII of that booklet, and includes references to sources for additional information.

**For local assistance, contact your county or city Department of Health, Housing, or Environmental Health.**

**JCP-LGS Residential Property Disclosure Reports**  
**Natural Hazard Disclosure (NHD) Report**  
**For NAPA County**

Property Address: 1040 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

APN: 041-700-007-000  
Report Date: 01/29/2018  
Report Number: 2229240

**RADON ADVISORY**

**DISCUSSION:** For its Radon Advisory, JCP-LGS uses the updated assessment of radon exposure published in 1999 by the Lawrence Berkeley National Laboratory (LBNL) and Columbia University, under support from the U.S. Environmental Protection Agency (EPA), the National Science Foundation, and the US Department of Energy (published online at <http://www2.lbl.gov/Science-Articles/Archive/radon-risk-website.html>). Based on this recent assessment, JCP-LGS radon advisory is as follows:

**All of California's 58 counties have a predicted median annual-average living-area concentration of radon below 2.0 pCi/L (picocuries per liter of indoor air) – which is well below the EPA's guideline level of 4 pCi/L and equivalent to the lowest hazard zone (Zone 3) on the 1993 EPA Map of Radon Zones.**

The "median concentration" means that half of the homes in a county are expected to be below this value and half to be above it. All houses contain some radon, and a few houses will contain much more than the median concentration. **The only way to accurately assess long-term exposure to radon in a specific house is through long-term testing (sampling the indoor air for a year or more). The EPA recommends that all homes be tested for radon.** Columbia University's "Radon Project" website offers help to homeowners in assessing the cost vs. benefit of testing a specific house for radon or modifying it for radon reduction (see <http://www.stat.columbia.edu/~radon/>).

**NOTE:** JCP-LGS does not use the EPA's 1993 map for advisory purposes because that map shows "short-term" radon exposure averaged by county. It was based on "screening measurements" that were intentionally designed to sample the worst-case conditions for indoor air in US homes—using spot checks (sampling for just a few days), in the poorest air quality (with sealed doors and windows), at the worst time of the year (winter), in the worst part of the house (the basement, if one was available). These short-term, winter, basement measurements are both biased and variable compared to long-term radon concentrations (averaged over a year) in the living area of a house. Long-term concentrations are a more accurate way to judge the long-term health risk from radon. For the above reasons, the EPA expressly disclaims the use of its 1993 map for determining whether any house should be tested for radon, and authorizes no other use of its map for property-specific purposes. For additional information about EPA guidelines and radon testing, see "Chapter VII—Radon", in the California Department of Real Estate's *Residential Environmental Hazards: A Guide for Homeowners, Homebuyers, Landlords and Tenants*.

**ENDANGERED SPECIES ACT ADVISORY**

**DISCUSSION:** The Federal Endangered Species Act of 1973 ("ESA"), as amended, requires that plant and animal species identified and classified ("listed") by the Federal government as "threatened" or "endangered" be protected under U.S. law. Areas of habitat considered essential to the conservation of a listed species may be designated as "critical habitat" and may require special management considerations or protection. All threatened and endangered species – even if critical habitat is not designated for them – are equally afforded the full range of protections available under the ESA.

In California alone, over 300 species of plants and animals have been designated under the ESA as threatened or endangered, and over 80 species have critical habitats designated for them. Most California counties are host to a dozen or more protected species and, in many cases, 10 or more species have designated critical habitats within a county.

**ADVISORY:** An awareness of threatened and endangered species and/or critical habitats is not reasonably expected to be within the actual knowledge of a seller.

No federal or state law or regulation requires a seller or seller's agent to disclose threatened or endangered species or critical habitats, or to otherwise investigate their possible existence on real property. Therefore, Buyer is advised that, prior to purchasing a vacant land parcel or other real property, Buyer should consider investigating the existence of threatened or endangered species, or designated critical habitats, on or in the vicinity of the Property which could affect the use of the Property or the success of any proposed (re)development.

**FOR MORE INFORMATION:** Complete and current information about the threatened and endangered species in California that are Federally listed in each county – including all critical habitats designated there – is available on the website of the U.S. Fish & Wildlife Service, the Federal authority which has enforcement responsibility for the ESA.

**U.S. Fish & Wildlife Service Endangered Species Database (TESS)**

[http://ecos.fws.gov/tess\\_public/](http://ecos.fws.gov/tess_public/)

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**ABANDONED MINES ADVISORY**

**DISCUSSION:** According to the California Department of Conservation, Office of Mine Reclamation, since the Gold Rush of 1849, tens of thousands of mines have been dug in California. Many were abandoned when they became unproductive or unprofitable. The result is that California's landscape contains many thousands of abandoned mines, which can pose health, safety, or environmental hazards on and around the mine property. Mines can present serious physical safety hazards, such as open shafts or adits (mine tunnel), and they may create the potential to contaminate surface water, groundwater, or air quality. Some abandoned mines are such massive problems as to earn a spot on the Federal Superfund environmental hazard list.

No California law requires the disclosure of abandoned mines in a real estate transaction, unless the existence of an abandoned mine is within the actual knowledge of the Seller and is deemed to be a fact material to the transaction.

The Office of Mine Reclamation (OMR) and the U.S. Geological Survey maintain a database of abandoned mines – however, it is known to be incomplete and based on maps that are often decades out of date. Many mines are not mapped because they are on private land. The OMR warns that, *"Many old and abandoned mines are not recorded in electronic databases, and when they are, the information may not be detailed enough to accurately define, differentiate or locate the mine feature, such as a potentially hazardous vertical shaft or horizontal adit or mine waste."* (See reference below.)

**Accordingly, this Report does not contain an abandoned mines disclosure from any government database or map or any other source, in order to protect the seller from liability for non-disclosure of unrecorded abandoned mines.**

Parties concerned about the possible existence or impact of abandoned mines in the vicinity of the Property are advised to retain a State-licensed geotechnical consultant to study the site and issue a report. Other sources of information include, but are not limited to, the State Office of Mine Reclamation at (916) 323-9198 (website: <http://www.conservation.ca.gov/OMR>), and the Engineering, Planning or Building Departments in the subject City and County.

**FOR MORE INFORMATION:** For more information visit the State Office of Mine Reclamation's website at: [http://www.conservation.ca.gov/omr/abandoned\\_mine\\_lands/Pages/index.aspx](http://www.conservation.ca.gov/omr/abandoned_mine_lands/Pages/index.aspx)

**OIL & GAS WELL ADVISORY**

California is currently ranked fourth in the nation among oil producing states. Surface oil production is concentrated mainly in the Los Angeles Basin and Kern County, and in districts elsewhere in the state. In recent decades, real estate development has rapidly encroached into areas where oil production has occurred. Because the state's oil production has been in decline since the 1980's, thousands of oil and gas wells have been shut down or abandoned, and many of those wells are in areas where residential neighborhoods now exist.

According to the California Department of Conservation ("DOC"), to date, about 230,000 oil and gas wells have been drilled in California and around 105,000 are still in use. The majority of remaining wells have been sealed ("capped") under the supervision of the DOC's Division of Oil, Gas and Geothermal Resources. A smaller number have been abandoned and have no known responsible operator – these are called "orphan" wells. The state has a special fund that pays the cost of safely capping orphan wells, however, that program is limited in its scope and progress.

**Buyer should be aware that, while the DOC database is the most comprehensive source available for California oil and gas well information, the DOC makes no warranties that the database is absolutely complete, or that reported well locations are known with absolute accuracy.**

**For More Information**

For a search of the state's databases of oil and gas wells and sites of known environmental contamination on or near the Property, please obtain the JCP-LGS Residential Environmental Report. For general information, visit the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources at <http://www.consrv.ca.gov/dog>.

**JCP-LGS Residential Property Disclosure Reports**  
**Natural Hazard Disclosure (NHD) Report**  
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**TSUNAMI MAP ADVISORY**

**DISCUSSION:** The California Emergency Management Agency (CalEMA), the University of Southern California Tsunami Research Center (USC), and the California Geological Survey (CGS) have prepared maps that depict areas of maximum tsunami inundation for all populated areas at risk to tsunamis in California (20 coastal counties). The maps were publicly released in December 2009 with the stated purpose that the maps are to assist cities and counties in identifying their tsunami hazard and developing their coastal evacuation routes and emergency response plans only.

These maps specifically contain the following disclaimer:

**Map Disclaimer:** This tsunami inundation map was prepared to assist cities and counties in identifying their tsunami hazard. It is intended for local jurisdictional, coastal evacuation planning uses only. This map, and the information presented herein, **is not a legal document and does not meet disclosure requirements for real estate transactions nor for any other regulatory purpose.** The California Emergency Management Agency (CalEMA), the University of Southern California (USC), and the California Geological Survey (CGS) make no representation or warranties regarding the accuracy of this inundation map nor the data from which the map was derived. Neither the State of California nor USC shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

A tsunami is a series of ocean waves or surges most commonly caused by an earthquake beneath the sea floor. These maps show the maximum tsunami inundation line for each area expected from tsunamis generated by undersea earthquakes and landslides in the Pacific Ocean. Because tsunamis are rare events in the historical record, the maps provide no information about the probability of any tsunami affecting any area within a specific period of time.

Although these maps may not be used as a legal basis for real estate disclosure or any other regulatory purpose, the CGS has, however, provided diagrams of the maps online which the public can view. To see a maximum tsunami inundation map for a specific coastal community, or for additional information about the construction and/or intended use of the tsunami inundation maps, visit the websites below:

State of California Emergency Management Agency, Earthquake and Tsunami Program:  
<http://myhazards.calema.ca.gov/>

University of Southern California – Tsunami Research Center:  
<http://www.usc.edu/dept/tsunamis/2005/index.php>

State of California Geological Survey Tsunami Information:  
[http://www.conservation.ca.gov/cgs/geologic\\_hazards/Tsunami/index.htm](http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/index.htm)

National Oceanic and Atmospheric Agency Center for Tsunami Research (MOST model):  
<http://nctr.pmel.noaa.gov/time/background/models.html>



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**RESIDENTIAL FIREPLACE DISCLOSURE**

Residential wood burning is the leading source of wintertime air pollution in the Bay Area and studies have confirmed there are significant health impacts from exposure to fine particulate matter found in wood smoke. The Bay Area Air Quality Management District ("BAAQMD") established the Wood Burning Devices (Wood Smoke Rule), Regulation 6, Rule 3 to reduce wintertime smoke pollution and protect public health. The Wood Smoke Rule requires anyone selling, renting or leasing a property in the Bay Area to disclose the potential health impacts from air pollution caused from burning wood. Fine particulate matter, also known as PM2.5, can travel deep into the respiratory system, bypass the lungs and enter the blood stream. Exposure may cause short term and long term health effects, including eye, nose and throat irritation, reduced lung function, asthma, heart attacks, chronic bronchitis, cancer and premature deaths. Exposure to fine particulates can worsen existing respiratory conditions. High PM2.5 levels are associated with increased respiratory and cardiovascular hospital admissions, emergency department visits, and even deaths. Children, the elderly and those with pre-existing respiratory or heart conditions are most at risk from negative health effects of PM2.5 exposure. The Buyer should consult with a licensed professional to inspect, properly maintain, and operate a wood burning stove or fireplace insert according to manufacturer's specifications to help reduce wood smoke pollution. The Air District encourages the use of cleaner and more efficient, non-wood burning heating options such as gas-fueled or electric fireplace inserts to help reduce emissions and exposure to fine particulates.

When the BAAQMD issues a Winter Spare the Air Alert during the winter season from November 1 through the end of February, it is illegal to burn wood, manufactured fire logs, pellets or any solid fuels in fireplaces, wood stoves or outdoor fire pits. To check when a Winter Spare the Air Alert is issued and it is illegal to burn wood, please call 1-877-4NO-BURN or visit [www.baaqmd.gov](http://www.baaqmd.gov) or [www.sparetheair.org](http://www.sparetheair.org).

**END OF NATURAL HAZARD DISCLOSURE REPORT SECTION**  
**See Terms and Conditions at end of this Report.**

**JCP-LGS Residential Property Disclosure Reports**  
**Property Tax Disclosure Report**  
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**California Property Tax Disclosure Report**

The parties for whom this Report was prepared are the owner ("Seller") of the Residential Property ("Property") on the Report Date, the buyer ("Buyer") of the Residential Property from Seller as of the Report Date, and their respective licensed real estate agents ("Agents"). Seller, Buyer and the Agents are sometimes referred to herein as "Party" or "Parties."

**Part 1. Introduction and Summary**

This Tax Report section discusses the results of an electronic search of specified government lists ("Databases") containing real property tax information and geographic data concerning the Residential Property. To understand the information provided, please read this entire Report.

**Summary of Property Tax Determinations**

<b>The Residential Property:</b>	<b>IS</b>	<b>IS NOT</b>	
A.		<b>X</b>	NOT SUBJECT TO a Mello-Roos Community Facilities District. <u>31</u>
B.		<b>X</b>	NOT SUBJECT TO a 1915 Bond Act District. <u>31</u>
C.	<b>X</b>		SUBJECT TO one or more other direct assessments. <u>32</u>
D.		<b>X</b>	NOT SUBJECT TO the State Responsibility Area Fire Prevention Fee (SRA Fee is suspended until 2031 by Assembly Bill 398 of 2017). <u>37</u>

Determined by First American Professional Real Estate Services, Inc.

**THIS IS A DATABASE REPORT ONLY:** The tax information in this Report only provides data derived from County Tax Assessor's Databases ("Databases") identified in this Report. While JCP-LGS has made good faith efforts to report from the Databases as accurately as possible, the quality, accuracy, and currency ("Database Date") of the information contained in these Databases can vary greatly. For more information regarding a specific Database, please read Part 2 of this Report. By use of this Report, transferee agrees this is a Report product and not an insurance policy and is subject to the Terms and Conditions attached hereto and incorporated herein.

***This Report satisfies Seller's obligations to disclose (a) Mello-Roos and 1915 Act Bond Assessments applicable to the Residential Property as required by California Civil Code Section 1102.6b, and (b) Supplemental Taxes as required by California Civil Code Section 1102.6c.***

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## **Part 2. NOTICE OF SPECIAL TAX/ASSESSMENT**

Special assessments, also referred to as direct or fixed assessments, are charges that are not based on the value of the property. These charges are levied to provide funding for services or improvements that directly benefit the property. Mello Roos Community Facility Districts and 1915 Bond Districts are also classified as special assessments. Certain special assessments may be subject to accelerated foreclosure if allowed to go delinquent.

**TO THE PROSPECTIVE PURCHASER OF THE RESIDENTIAL PROPERTY AT THE ADDRESS REFERENCED ABOVE: THIS IS A NOTIFICATION TO BUYER PRIOR TO PURCHASING THE RESIDENTIAL PROPERTY.**

### **A. Mello-Roos Community Facilities Districts**

**This Residential Property is NOT SUBJECT to Mello-Roos Community Facilities Districts.**

**Database Date:** 2017-2018

### **B. 1915 Bond Act Assessment Districts**

**This Residential Property is NOT SUBJECT to 1915 Bond Assessment Districts.**

**Database Date:** 2017-2018

### **C. Accelerated Foreclosure Information**

Certain assessment or bond issues may contain accelerated foreclosure liens which have priority over other real property taxes and are a legal right included as part of the security for the obligation. The issuers of such bonds are often contractually required to monitor and collect delinquent assessments quickly. Accordingly these assessments are not subject to the five (5) year waiting period applicable to ad valorem real property taxes. If the real property is subject to such an assessment and the taxes are not paid promptly, the real property may be foreclosed upon and sold at public auction on an expedited basis. **Therefore, it is extremely important that the real property tax bill be paid on time to prevent the accelerated foreclosure.**

### **D. Notice of Property Assessed Clean Energy (PACE) Program**

Property assessed clean energy (PACE) programs allow property owners to finance energy efficiency, water efficiency and renewable energy projects on residential and commercial structures through a voluntary special tax assessment on the property. PACE programs are offered by many city, county and regional planning agencies, and have repayment periods ranging from 5 to 20 years however some may be longer.

**WHAT THIS MEANS:** If a property owner voluntarily enters into a PACE program, a contractual assessment lien is placed on the property. The lien is repaid through installments collected on the property owner's secured county property tax bill. In certain situations the program administrator may bill the property owner directly. If the property is sold and the contractual assessment is not repaid in full, the new owner may be responsible for future assessments contributing towards repayment of the PACE contract.

**DISCLOSURES AT RESALE:** A PACE lien runs with the land. This means that the responsibility to repay the PACE lien may fall to the new owner upon transfer of the property unless the lien is paid off before closing. This fact may be material to a buyer's decision to purchase or price offered for the property. In addition, the buyer's lender may require the lien to be paid in full before closing (for certain federally backed mortgages, for example). Therefore, the property seller and his or her real estate agent may have a duty to disclose the existence of a PACE lien on the sale property.

**DISCLAIMER:** This Property Tax Report only discloses PACE special taxes documented in the county's 2017-2018 property tax roll. The Report does not include PACE special taxes first assessed or recorded after JCP-LGS obtained this tax roll information. To discover a PACE lien on the Property executed more recently, the buyer should read the preliminary title report and obtain and read all exceptions listed therein. Note that, in the title report, lien exceptions are named as recorded with the county; therefore, a PACE lien may be listed under a name that is not obvious.

### **E. Approved Assessment Districts Which Have Been Formed and Authorized But Are Not Yet Funded**

Certain assessment districts may have been formed and authorized but have not yet been funded. Accordingly no assessment lien will appear in the County Assessor records. However, the information regarding such districts may appear on your preliminary report issued by a title company. If the assessment district has not been formed or funded, the improvements have also not been constructed. If the district is subsequently formed, the assessments may then appear on the property tax bill.

**Property Tax Disclosure Report  
For NAPA County**

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**Part 3. Current Property Tax Bill Summary**

**A. Summary of 2017-2018 Property Tax Bill**

The following is a summary of Database information obtained from the NAPA COUNTY Secured Property Tax Roll for Tax Year 2017-2018 ("Database Date"). This summary is provided for informational purposes only. The summary includes Ad Valorem taxes which are based on the property's Assessed Value as well as other Non- Ad Valorem Direct or Special Assessments. Upon transfer of ownership, the Assessed Value may be reset to the Current Market Value or Sale Price which may result in a substantial change in the Ad Valorem taxes assessed. Please see Parts 4 and 5 of this Report for more information regarding Ad Valorem taxes and Supplemental taxes.

Total Assessed Value:	\$2,601,000.00
1st Installment Due 11/01/2017	\$14,864.76
2nd Installment Due 02/01/2018	\$14,864.76
Total Annual Tax Liability	\$29,729.52

**General Ad Valorem Taxes**

AGENCY	DESCRIPTION	AMOUNT	CONTACT PHONE
COUNTY GENERAL RATE	COUNTY GENERAL RATE	\$26,010.00	707-253-4466
CTY OF NAPA PARAMEDIC	EMERGENCY SERVICES	\$390.14	707-253-4466
NAPA COUNTY	NVUSD ELEC 2006 BOND COMBINED	\$1,126.24	707-253-4466
NVC BD COMBINED	GEN OBLIG BOND	\$619.04	707-253-4466
NVUSD 2002 BD COMBINED	SCHOOL BONDS	\$574.82	707-253-4466
NVUSD 2016 BOND	NVUSD 2016 BOND	\$959.76	707-253-4466
	<b>TOTAL AD VALOREM TAXES</b>	<b>\$29,680.00</b>	

**Direct and/or Special Assessments**

AGENCY	DESCRIPTION	AMOUNT	CONTACT PHONE
COUNTY PUBLIC WORKS	NAPA COUNTY FLOOD MAINTENANCE	\$18.02	(707) 259-8657
MOSQUITO ABATEMENT	MOSQUITO ABATEMENT (553-9610 SPRAYING)	\$19.50	(800) 273-5167
SF BAY RESTORATION AUTHORITY	SAN FRANCISCO BAY RESTORATION AUTHORITY PARCEL TAX	\$12.00	(888) 508-8157
	<b>TOTAL DIRECT ASSESSMENTS</b>	<b>\$49.52</b>	

**B. Available Senior Citizen Exemptions**

Certain districts that levy special taxes or assessments may offer exemptions to Senior Citizens. These exemptions can result in substantial savings to qualified tax payers. The filing of an application along with annual renewal may be required. Below is the contact information for requesting details on filing exemptions for districts that may offer a Senior Citizen Exemption. Additional Direct Assessment Districts may offer exemptions. Therefore you may want to contact the districts to determine their policy on Senior Citizen Exemptions.

No Senior Citizen Exemptions listed as of the most recent update from the County.  
See Part 4B for additional information on other exemptions that may be available to Buyer.

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**Part 4. Estimating Property Taxes After the Sale**

Instantly calculate estimated property taxes and supplemental taxes on our website (or manually calculate them below):  
<https://orderform.fanhd.com/Order/TaxCalcForm?quid=91430520C55D4579AF31E0E7B5DC08EE>

**A. Calculating Property Taxes After Sale (ESTIMATE ONLY)**

*PROPERTY TAX ESTIMATOR*

The following calculation method is provided to assist Buyer in estimating the approximate amount of property tax charges that the Residential Property may be subject to for the upcoming tax year based on the assessed valuation being equal to the sales price. The amount derived is only an estimate and is not a substitute for a tax bill from the County, nor does it anticipate new property tax charges, fees or other changes in the property tax rates for future tax years.

1	Estimated Sales Price.....	• 1	\$	_____
2	Estimated Ad Valorem Tax Rate.....	• 2		<u>0.0114100</u>
3	Multiply line 1 by line 2. This is your Estimated Ad Valorem Tax.....	• 3	\$	_____
4	Direct Assessments including Mello Roos Special Taxes and 1915 Bond Act Assessments if applicable.....	• 4	\$	<u>49.52</u>
5	Add lines 3 and 4. Total Estimated Annual Tax Amount After Sale.....	• 5	\$	_____

The information in this subparagraph A is an estimate only. The purpose of this "ESTIMATOR" is to assist Buyer in planning for property taxes which will be applicable after the Sale Date. This "ESTIMATOR" requires the Buyer's projection of the purchase price of the Residential Property. Please note that potential exemptions and exclusions are not reflected in this estimate. Additionally, undeveloped or recently developed properties may be subject to additional Direct Assessments not included in this estimate JCP-LGS is not responsible or liable for any losses, liabilities or damages resulting from use of this Property Tax Estimator.

**B. Exemptions & Exclusions to Ad Valorem Taxes**

California law provides certain exemptions from reassessments. The following is a list of common exemptions which may be available:

- Homeowner exemption (California Constitution Art XIII, §3 & R&T Code §218)
- Honorably discharged veterans (California Constitution Art XIII, §3 & R&T Code §205)
- Disabled veterans (California Constitution Art XIII, §4 & R&T Code §205)

California law also provides certain exclusions from reassessment. The following is a list of common exclusions which may be available:

- Persons over 55 years of age (R&T Code § 69.5)
- Severely and permanently disable persons (R&T Code § 69.5(a))
- Transfers between parents and children and grandparents and grandchildren (R&T Code § 63.1)
- Transfers into revocable trusts (R&T Code § 62)
- Interspousal transfers (R&T Code § 63)
- Improvements for seismic retrofitting (R&T Code § 74.5)
- Improvements for disabled access (R&T Code § 74.3)
- Replacement of property damaged or destroyed by disaster (R&T Code § 69)

In order to determine if Buyer may qualify for any exemptions or exclusions or to obtain a comprehensive list of available exemptions and exclusions, please contact the county tax assessor's office (707-253-4466) or visit the county website at <http://www.countyofnapa.org/Assessor/>. Additional information is also available on the website for the California Board of Equalization at [www.boe.ca.gov](http://www.boe.ca.gov)

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## **Part 5. Supplemental Property Tax Information**

### **A. General Information Regarding Supplemental Taxes**

California law mandates the county assessor to reappraise real property upon a change in ownership or completion of new construction. The assessor's office issues a supplemental assessment which reflects the difference between the prior assessed value and the new assessment. This value is prorated based on the number of months remaining in the fiscal tax year which ends June 30.

Notices of the supplemental assessment are mailed out to the property owners prior to the issuance of the supplemental tax bill or refund if the value is reduced. The taxes or refund based on the supplemental assessment are in addition to the regular annual tax bill.

The supplemental tax will be due from the current owner in addition to the regular tax assessment. Accordingly for the first year of ownership, Buyer should plan for this additional payment.

### **B. Supplemental Property Tax Disclosure**

The following notice is mandated by California Civil Code Section 1102.6c:

#### **NOTICE OF YOUR "SUPPLEMENTAL" PROPERTY TAX BILL**

**"California property tax law requires the Assessor to revalue real property at the time the ownership of the property changes. Because of this law, you may receive one or two supplemental tax bills, depending on when your loan closes.**

**The supplemental tax bills are not mailed to your lender. If you have arranged for your property tax payments to be paid through an impound account, the supplemental tax bills will not be paid by your lender. It is your responsibility to pay these supplemental bills directly to the Tax Collector.**

**If you have any question concerning this matter, please call your local Tax Assessor or Collector's Office."**

NAPA County Assessor  
Phone: 707-253-4466  
Website: <http://www.countyofnapa.org/Assessor/>

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**C. Calculating Supplemental Taxes After Sale (ESTIMATE ONLY)**

Instantly calculate estimated property taxes and supplemental taxes on our website (or manually calculate them below):  
<https://orderform.fanhd.com/Order/TaxCalcForm?guid=91430520C55D4579AF31E0E7B5DC08EE>.

**SUPPLEMENTAL TAX ESTIMATOR**

The following schedule is provided to estimate the potential amount of the supplemental taxes on a given property and does NOT include the amount of the regular annual ad valorem property tax. The following calculation provides an estimate of the supplemental property taxes that can be expected during the first year of ownership, and should be used for planning purposes only.

1	Estimated Sales Price.....	• 1	\$	_____
2	Estimated Current Assessed Value.....	• 2	\$	2,601,000.00
3	Subtract line 2 from line 1. Estimated Supplemental Assessed Value.....	• 3	\$	_____
4	Multiply line 3 by 0.0114100 (the Estimated Ad Valorem Tax Rate for the Residential Property). Estimated Full-Year <b>Supplemental</b> Tax Obligation.....	• 4	\$	_____

**If the Sale Date for the Residential Property falls during the months of January through May, Buyer will receive TWO supplemental tax bills: (a) one for the current partial tax year; and (b) one for the next full tax year. The supplemental taxes can be estimated by completing lines 5 through 8 below:**

5	Enter the Month-of-Sale Factor from TABLE 1 below.....	• 5	_____
6	Multiply line 4 by line 5. Estimated Supplemental Tax Bill # 1.....	• 6	\$ _____
7	Enter the amount on line 4. Estimated Supplemental Tax Bill # 2.....	• 7	\$ _____
8	Add lines 6 and 7. Total estimated Supplemental Tax Bill.....	• 8	\$ _____

**If the Sale Date for the Residential Property falls during the months of June through December, Buyer will receive ONE supplemental tax bill. The supplemental tax can be estimated by completing lines 9 and 10 below:**

9	Enter the Month-of-Sale Factor from TABLE 2 below.....	• 9	_____
10	Multiply line 4 by line 9. Total estimated Supplemental Tax Bill.....	• 10	\$ _____

**TABLE 1. Month-of-Sale Factor**

<b>Jan</b>	0.4167
<b>Feb</b>	0.3333
<b>Mar</b>	0.2500
<b>Apr</b>	0.1667
<b>May</b>	0.0833

**TABLE 2. Month-of-Sale Factor**

<b>Jun</b>	1.0000
<b>Jul</b>	0.9167
<b>Aug</b>	0.8333
<b>Sept</b>	0.7500
<b>Oct</b>	0.6667
<b>Nov</b>	0.5833
<b>Dec</b>	0.5000

The information in this subparagraph C is an estimate only. The purpose of this "ESTIMATOR" is to assist Buyer in planning for the supplemental taxes. The estimated supplemental tax is not a substitute for the supplemental bill and may not be relied upon as such. This "ESTIMATOR" requires the Buyer's projection of the purchase price of the Residential Property as well as month in which the transaction will be consummated. Please note that potential exemptions and exclusions are not reflected in these



**JCP-LGS Residential Property Disclosure Reports**

**Property Tax Disclosure Report  
For NAPA County**

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estimations JCP-LGS is not responsible or liable for any losses, liabilities or damages resulting from use of this Supplemental Tax Estimator.



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## **Part 6. State Responsibility Area Fire Prevention Fee**

In 2011, the California Legislature and Governor enacted a "Fire Prevention Fee" on habitable structures in the State's wildland fire responsibility area ("SRA"). The yearly fee, levied on property owners, paid for various activities to prevent and suppress wildfires in the SRA, and was most recently at the rate of \$152.33 per habitable structure on the property.

**Effective July 1, 2017, as authorized by Assembly Bill 398 and signed by the Governor, that fire prevention fee is suspended until 2031.**

The fire prevention activities supported by the fee will continue, but instead will be funded through a different State program – one aimed at curbing industrial emissions of carbon dioxide (also known as California's "cap-and-trade" program). For more information, please refer to the text of the Assembly bill at the following link:  
[http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201720180AB398](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB398)

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## **Part 7. Private Transfer Fee Advisory**

**Private Transfer Fee.** This is a fee imposed by a private entity such as a property developer, home builder, or homeowner association, when a property within a certain type of subdivision is sold or transferred. (It is commonly known as a "Private Transfer Tax".) It is NOT the same as a city or county Documentary Transfer Tax. A Private Transfer Fee may apply in addition to government Documentary Transfer Taxes that are due upon sale or transfer of the Property.

**Transfer Fee Defined.** California Civil Code Section 1098 defines a "Transfer Fee".

**Effective January 1, 2008, if the payment of any Transfer Fee is required in the sale or transfer of the Property, Civil Code Section 1102.6e requires Seller to notify Buyer of the existence of the fee and to disclose certain specific information about the fee.**

**How to Determine the Existence of a Transfer Fee.** If a Transfer Fee does exist affecting the Property, the document creating the fee may be on file with the County Recorder as a notice recorded against the Property and should be disclosed in the preliminary (title) report on the Property. However, the preliminary (title) report will merely disclose the existence of the documents affecting title, not the content of the documents. The title of a document may also not be sufficient to disclose that a Transfer Fee is included in its terms. Accordingly Seller should (a) request the title company which issued the preliminary (title) report to provide copies of the documents shown as "exceptions," and (b) review each document to determine if it contains a Transfer Fee.

**Parties are advised that documents regarding any Transfer Fee should be obtained early in the sale process in order to avoid delays in the transaction process and to ensure full disclosure as required by law.**

**To determine if the Property is subject to a Transfer Fee, OBTAIN COPIES OF ALL OF THE EXCEPTIONS LISTED ON THE PRELIMINARY (TITLE) REPORT FROM THE TITLE COMPANY AND READ THEM TO DETERMINE IF ANY TRANSFER FEES ARE APPLICABLE.**

**END OF TAX DISCLOSURE REPORT SECTION**  
**See Terms and Conditions at end of this Report.**



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## Environmental Screening Report

### Part 1. Introduction and Summary

The parties to the Transaction to which this Report applies ("Parties") are the owner ("Seller") of the Residential Property ("Property") on the Report Date, the buyer ("Buyer") of the Residential Property under contract of sale as of the Report Date, and their respective licensed real estate agents ("Agents"). Seller, Buyer and the Agents are sometimes referred to herein as "Party" or "Parties." JCP-LGS and the Parties are the parties to the contract that is entered into by the purchase of this Report.

**This Report discloses the results of an electronic search of specified federal and state level environmental-hazard record systems ("Databases") that are known to include contamination sites ("Sites").**

The Databases are searched for hazard Sites at standard distances from the Property. The standard search distance is not the same for all Databases, but depends upon the nature of the environmental hazard represented in the Database. JCP-LGS uses search distances that comply with the U.S. Environmental Protection Agency (EPA) "All Appropriate Inquiry" (AAI) standard for government records search (40 CFR Part 312.26) under the U.S. Small Business Liability Relief and Revitalization Act ("the Brownfields Law")

#### POINT AND LINE SOURCE METHODOLOGY

This Report does not identify the precise areas actually contaminated by an environmental hazard; rather, as a reasonable approximation, it identifies "point sources" for contamination, such as a specific Site address where a leaking underground tank was recorded. The address does not precisely reflect the location of the source of contamination on the Site, nor will it indicate the potential spread of any contamination from that source. In addition, any point source that lies beyond the standard distance searched for each Database will not be reflected in this Report – even if it is known to be the origin of a larger contaminated area. Point sources are included in this Report as of the time they are identified in the government Database consulted by the Company. Please note that the Gas Transmission and Hazardous Liquid Pipeline disclosure (in Part 4) is based on the Property's location with respect to "line sources" represented in that Database.

The perchlorate contamination plume that is known to have affected groundwater in parts of Morgan Hill, San Martin, and possibly Gilroy is an example of a hazard Study Area. The point source responsible for it, reported to be in Morgan Hill, has not yet been officially listed on a publicly-available government site list. For current information about that Study Area, please contact the Santa Clara Valley Water District Perchlorate Hotline at 1-888-Hey-Noah (1-888-439-6624).

**To understand the information provided, please read this entire Environmental Screening Report including Part 1 through Part 6. Information about a specific Database or standard search distance is provided in Part 5.**

### Part 2. Sites Identified in Environmental Records Search

A Site must have a complete address in order for its location to be known and its distance from the Property measured. Only Sites having a complete address in the Database searched are included in this section. Site "Distance" is the straight line distance in miles between the geocoded address (latitude and longitude) of the Site and the geocoded address of the Property. If the Public Record includes a Site that is within the standard distance searched for that Database category, then that Site is (1) listed as "Found" in the table below and at the beginning of this disclosure Report is (2) shown on the "Map of Sites Found" and (3) noted as "IN" in the "Summary of Environmental Screening Determinations" for the applicable Database category. JCP-LGS recommends further investigation of any Site(s) listed below.

Codes indicating the status of a Site are explained as follows:

**Open** = Site listed as undergoing clean-up, investigation, or referral to another agency; or as non-active, abandoned or absorbed but not closed or completed.

**Closed** = Site listed as clean-up completed, release secured, no further remedial action planned, case closed, or delisted.

**Active (or Inactive)** = Site facility listed as actively (or not actively) engaged in a type of activity regulated under RCRA.

**N/A** = Not Applicable - site listed as uncontaminated, or as using or storing hazardous substances.

**N/P** = Not Provided - site status not supplied on agency list used.

Found	None Found	Database Searched (with standard search distance)
	X	National Priorities List (Federal "Superfund" list) - 1 mile
	X	Federal Resource Conservation and Recovery Act (RCRA) - Corrective Actions List - 1 mile
	X	California State Response List (includes Active Annual Workplan, AWP, sites) - 1/2 mile

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X	California Spills, Leaks, Investigation and Cleanup (SLIC) List - 1/2 mile
X	California Solid Waste Landfill Sites (SWMS) List - 1/2 mile
X	California Leaking Underground Storage Tank (LUST) List (see status explanation below) - 1/4 mile

**CLOSED SITES REMAIN OFFICIALLY LISTED:** All Sites listed on the State's Leaking Underground Storage Tank Information System (LUSTIS) have been identified to have had a leaking storage tank. Many LUST Sites have been cleaned up and their cases "Closed", and this is noted above if applicable. Parties should be aware that LUST Sites remain in the LUSTIS database even after they have been closed, and are included in this Report if found by our search. Leaking underground storage tanks are the most common type of contamination.

Storage tank leaks are often less extensive than other types of contamination releases and usually do not extend beyond the real property on which the tank is located. For specific information about a Site listed above, please see Part 5 of this Report and contact the agency responsible for maintaining that Database.

**PART 3. Sites Missing Key Location Information**

Many environmental hazard Sites in the Databases searched have incomplete or inaccurate address information. Those Sites cannot be precisely or reliably located and could potentially be anywhere in the Property's city, county, or state. They are, therefore, considered "unlocatable".

A sample of unlocatable sites that may be in the vicinity is listed below. A full list of ALL unlocatable California sites that include a zip code is available at the web address below:

[http://www.firstamprs.com/sites/default/files/Current\\_List\\_of\\_Unlocatable\\_Sites\\_by\\_Zip\\_Code.xlsx](http://www.firstamprs.com/sites/default/files/Current_List_of_Unlocatable_Sites_by_Zip_Code.xlsx)

Status codes for the unlocatable Sites are the same as noted above for the Sites "Found".

No.	Site Name	Address	Case No.	Status	Database
1	La Joya Mercury Mine	n/a Oakville Grade Road Napa, CA 94558	T10000008099	Closed	CA_SLIC
2	MERRYVALE VINEYARDS LLC	1401 STANLY LANE NAPA, CA 94558	SL0605527591	Closed	CA_SLIC
3	NAPA RIVER FLOOD PROTECTION PROJECT	First Street First Street Napa, CA 94558	SL1822G924	Open	CA_SLIC
4	Napa State Hospital - California Department of Mental Health	2100 NAPA-VALLEJO-HIGHWAY Napa, CA 94558-6293	SL605592776	Open	CA_SLIC
5	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605524325	Closed	CA_SLIC
6	BARITELLE WINERY	1546 ST HELENA HWY NAPA, CA 94558	T0605500011	Closed	CA_LUST
7	BC STOCKING DISTRIBUTING	120 TOWER RD NAPA, CA 94558	T0605500012	Closed	CA_LUST
8	CALTRANS	1684 UNION LN NAPA, CA 94558	T0605500032	Closed	CA_LUST
9	CARGILL SALT	2983 GREEN ISLAND RD NAPA, CA 94558	T0605500082	Closed	CA_LUST
10	CARNEROS VALLEY INVESTORS	1451 STANLY LN NAPA, CA 94558	T0605500034	Closed	CA_LUST
11	GARFIELD LANE CONDOS	UNKNOWN GARFIELD LN NAPA, CA 94558	T0605500060	Closed	CA_LUST
12	HYDRO CONDUIT CORP	385 TOWER RD NAPA, CA 94558	T0605500067	Closed	CA_LUST
13	MONTGOMERY WARD	4000 BELAIRE PLAZA NAPA, CA 94558	T0605500089	Closed	CA_LUST
14	NAPA AMERICAN CANYON JOINT WASTE	UNKNOWN SOSCOL FERRY RD NAPA, CA 94558	T0605500103	Closed	CA_LUST
15	PACIFIC BELL	230 CAMINO ORUGA CT NAPA, CA 94558	T0605500119	Closed	CA_LUST
16	PLEASURE COVE RESORT	6100 HWY 128 NAPA, CA 94558	T0605500306	Closed	CA_LUST
17	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500056	Closed	CA_LUST
18	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500129	Closed	CA_LUST
19	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500105	Closed	CA_LUST
20	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500246	Closed	CA_LUST
21	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558-	T0605500278	Closed	CA_LUST
22	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500198	Closed	CA_LUST
23	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558-	T0609500001	Closed	CA_LUST
24	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500221	Closed	CA_LUST

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25	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558	T0605500257	Closed	CA_LUST
26	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558-	T0605500270	Closed	CA_LUST
27	PRIVATE RESIDENCE	PRIVATE RESIDENCE NAPA, CA 94558-	T0605500283	Closed	CA_LUST
28	TEXACO	UNKNOWN FREEWAY DR NAPA, CA 94558	T0605500152	Closed	CA_LUST
29	WALSH VINEYARDS	2440 DUHIG RD NAPA, CA 94558	T0605500014	Closed	CA_LUST
30	WEST NAPA PUMP STATION	UNKNOWN COOMBS ST NAPA, CA 94558	T0605500102	Closed	CA_LUST

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## **PART 4. Oil & Gas Well Locations Within 1/4 Mile Of Property**

No oil or gas well locations were identified within a radius of one-fourth (1/4) of one (1) mile of the Residential Property, based on a search of valid geographic coordinates contained in the current Statewide All Wells Database maintained by the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) ("All Wells Database").

Buyer is advised that additional wells may exist in the area of the Property which are not contained in the All Wells Database. Wells that do not have valid geographic coordinates in the All Wells Database are not disclosed in this Report. The physical property boundaries of well locations and the Property are not factored into the calculation of the specified search radius.

**EXPLANATION:** The All Wells Database includes approximately 230,000 well location records. This database is searched for well locations within one-fourth (1/4) of one (1) mile around the geocoded point representing the Residential Property. Well locations, if any, within the specified parameters are listed in the table above.

Of the approximately 230,000 wells identified in the All Wells Database, 105,000 are classified as new, active, or idle in the latest Statewide All Wells Database release. The majority of remaining wells have been sealed under supervision of the DOGGR. A smaller number have been deserted and have no known responsible operator.

California has established laws with respect to well drilling, operation, maintenance, and abandonment to "prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil and gas deposits from infiltrating water and other causes; loss of oil, gas, or reservoir energy, and damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of, detrimental substances." (California Public Resources Code §3106).

The DOGGR is responsible for maintenance of orphaned wells. To defray the maintenance costs, oil companies pay the State 4.3 cents per barrel a year. A portion of this assessment funds the Orphan Well Plugging Fund ("Fund") with an annual \$1 million budget. Since its inception in the 1970's, the Fund has facilitated the plugging of wells by hired contractors. The selection process for wells to be plugged considers numerous factors including, but are not limited to, the proximity of wells to populated areas, the amount of pressure in well reservoirs, and other hazards.

For a complete listing and explanation of well status codes, visit the following DOGGR web page:  
<http://www.conservation.ca.gov/dog/maps/Pages/GISMapping2.aspx>

**FOR MORE INFORMATION:** Ownership information of oil, gas, mineral, geothermal and other subsurface rights regarding the Residential Property may be disclosed in a preliminary (title) report or title commitment. The DOGGR does not use the County Assessor Parcel Number or site address to locate wells or leases, and therefore, the APN and address cannot be used to determine if there is a well on a specific property. To help tell if there is a well on a property, oilfield maps may be available on the DOGGR website (<http://www.conservation.ca.gov/dog/maps/Pages/GISMapping2.aspx>). In addition, the DOGGR Online Mapping System (<http://maps.conservation.ca.gov/doms/doms-app.html>) allows users to search well locations by API Number, Property Address, Geographic Coordinates, or Field Name. For detailed information about a specific well, reference the unique "API Number" that the DOGGR has assigned to it. The DOGGR website provides an online well search by API number at <http://opi.consrv.ca.gov/opi/opi.dll>.

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## **Part 5. NPMS Gas Transmission and Hazardous Liquid Pipelines Within 2,000 Feet of the Residential Property**

Buyer is advised to carefully review the limitations of the Public Record noted below as to the important limitations regarding the National Pipeline Mapping System (NPMS) and the NPMS Public Map Viewer used for making this determination. For more information please visit the NPMS Public Map Viewer (<https://www.npms.phmsa.dot.gov/PublicViewer/>).

**EXPLANATION:** Proximity to a pipeline does not of itself indicate a safety risk. However, on September 9, 2010, a Pacific Gas and Electric (PG&E) natural gas transmission pipeline exploded in San Bruno, California, causing loss of life and extensive property damage. Following this incident much attention has focused on the presence of natural gas and hazardous liquid pipelines in the vicinity of residential neighborhoods. As a result, PG&E has notified residents and businesses within 2,000 feet of PG&E's natural gas transmission pipelines about their proximity.

This disclosure covers gas "transmission" and hazardous liquid pipelines only. It is important to note that every home that uses natural gas is connected to a gas "distribution" pipeline. Distribution pipelines are generally of smaller size and lower pressure than transmission pipelines. This disclosure does not include distribution pipelines nor is it meant to indicate there is no risk associated with distribution lines. While proximity to a pipeline does not of itself indicate a safety risk, excavation near a pipeline poses a definite hazard. For this reason, this disclosure includes an advisory about how to spot and avoid buried pipelines on and near a property.

The U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA) administers the national regulatory program to monitor the transportation of natural gas, liquefied natural gas (LNG), and hazardous liquids by pipeline. PHMSA and the U.S. Office of Pipeline Safety (OPS) maintain a database of pipeline information called the **National Pipeline Mapping System (NPMS)** in cooperation with other federal and state governmental agencies and the pipeline industry. The NPMS is created using data compiled from mandatory submissions to PHMSA made by operators of pipelines and LNG plants, and from voluntary submissions made by breakout tank operators. The data is processed by private contractors. Since 2002, transmission pipeline and LNG plant facility operators are required to update their submissions annually.

The PHMSA website provides a **Public Map Viewer** that allows the general public to view pipeline maps in one county at a time. The viewer displays maps and associated data identifying transmission pipelines, LNG plants, and breakout tanks stored in the NPMS database. The data include information about the pipeline commodity (e.g., natural gas or liquid fuel), pipeline operator, agency contact, etc. The Public Map Viewer can be accessed at the following address:  
<https://www.npms.phmsa.dot.gov/PublicViewer/>

This pipeline disclosure is based on a proximity search of the gas transmission pipelines and hazardous liquid pipelines depicted in NPMS Public Map Viewer at a scale of approximately 1:24,000. That map scale is the maximum resolution at which pipelines are displayed. At that map scale one inch on the map equals approximately 2,000 feet on the ground, which is the same scale as regulatory maps required for statutory natural hazard disclosure in California.

This pipeline disclosure is provided as an accommodation and is subject to the following **limitations in the Public Record:**

- Access to the original digital data in the NPMS database (on which the public maps are based) is restricted to federal, state, and local government agencies (including emergency responders). Pipeline operators are allowed access to their own pipeline data only.
- Pipeline locations in the NPMS database are accurate to plus or minus 500 feet.
- Neither the United States government nor any party involved in the creation and compilation of NPMS data and maps guarantees the accuracy or completeness of its product.
- Because the NPMS digital data are restricted from public access, any disclosure based on the NPMS Public Map Viewer may be subject to some positional inaccuracies in addition to those acknowledged by NPMS.
- Neither this disclosure nor NPMS data should ever be used as a substitute for calling "811" – the federally-mandated "Call Before You Dig" one-call center – prior to any digging project.

### **How to Spot a Pipeline Easement**

**Read the Preliminary Title Report** A pipeline right-of-way is a strip of land over and around pipelines where some of the property owner's legal rights have been granted to a pipeline company. A right-of-way agreement between the pipeline company and the property owner is also called an easement and is usually filed in the public records with property deeds. Rights-of-way and easements provide a permanent, limited interest in the land that enables the pipeline company to operate, test, inspect, repair, maintain, replace, and protect one or more pipelines on property owned by others. The agreement may vary the rights and widths of the right-of-way, but generally, the pipeline company's right-of-ways extend 25 feet from each side of a pipeline unless special conditions exist.

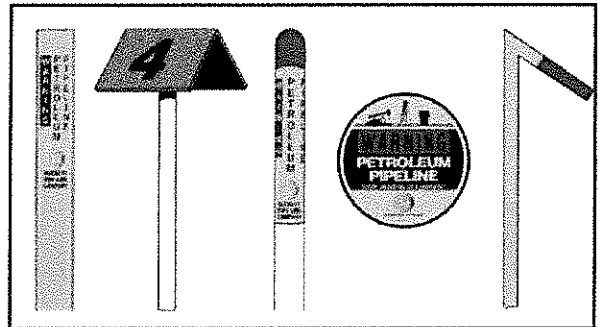
**To determine if the Property includes a pipeline right-of-way or easement, OBTAIN COPIES OF ALL OF THE EXCEPTIONS LISTED ON THE PRELIMINARY (TITLE) REPORT FROM THE TITLE COMPANY AND READ THEM.**

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**Call Before You Dig - Every Time!** In 2000, the U.S. Department of Transportation and the utility industry created the Common Ground Alliance (CGA), a trade association to work with all industry stakeholders in an effort to prevent damage to underground utility infrastructure and ensure public safety and environmental protection. The result is the "Call Before You Dig - 811 Service". Whether you are a homeowner or a professional excavator, every digging job requires a call to "811" - even small projects like planting trees or shrubs. If you hit an underground utility line while digging, you can harm yourself or those around you, disrupt service to an entire neighborhood and potentially be responsible for fines and repair costs. One call to 811 gets your underground utility lines marked for FREE.

**Signs of Buried Pipelines** Since pipelines are usually buried underground, line markers and warning signs like the ones shown here are used to indicate their approximate location along the pipeline route. The markers and signs are in high-visibility colors (yellow or orange) and are located at frequent intervals along the pipeline right-of-way. The markers can be found where a pipeline intersects a street, highway, railway, or waterway, and at other prominent points along the route. The markers display the material transported in the line, the name of the pipeline operator, and a telephone number where the operator can be reached in the event of an emergency. Pumping stations, tank farms, and cleared rights-of-way also help signal that a pipeline is located nearby.



Markers and warning signs only indicate the general location of a pipeline. They cannot be relied upon to indicate the exact position of the pipeline they mark. Also, the pipeline may not follow a straight course between markers. And, while markers are helpful in locating pipelines, they are limited in the information they provide. They provide no information, for example, about the depth or number of pipelines in the vicinity.

## EXPLANATION OF THE DATABASES USED IN THIS REPORT

This Report uses the following Databases as of the date specified:

### 1) NATIONAL PRIORITIES LIST ("NPL" - commonly called "Superfund" or "CERCLIS" site list) as of 12 Sep 2016

The National Priorities List is a U.S. Environmental Protection Agency ("USEPA") database which includes Sites where known releases or threatened releases of hazardous substances, pollutants, or contaminants have occurred. As a part of the Superfund cleanup program, the NPL helps the USEPA determine which Sites warrant further investigation to assess human health and environmental risks, identify what remedial actions may be appropriate, notify the public of Sites believed to warrant further investigation, and serve notice to potentially responsible parties that the USEPA may initiate remedial action. Some NPL Sites encompass relatively large areas. Search Distance: one (1.0) mile. Responsible Agency: USEPA

**Public Record:** Facilities located in California listed as NPL Status code "A" (Site is Part of NPL Site), "D" (Deleted from the Final NPL), "F" (Currently on the Final NPL), "P" (Proposed for NPL), "R" (Removed from Proposed NPL), or "W" (Withdrawn) in the Region IX Active CERCLIS database obtained from USEPA. Facilities assigned NPL Status code "N" (Not on the NPL) are not disclosed in this Report.

**For More Information:** Contact the Environmental Protection Agency Superfund Hotline at (800) 424-9346 to speak with a Superfund consultant to request information from the individual Site Fact Sheet. This help-line can also provide the telephone number of the local Community Relations Coordinator for the Site in question and the location of the local information repository for that Site. The USEPA's official Internet website address is:

<http://www.epa.gov/superfund/index.htm>

### 2) RESOURCE CONSERVATION & RECOVERY ACT-CORRECTIVE ACTION list ("RCRA-COR") as of 12 Sep 2016.

RCRA (pronounced "ric-ra") is a federal law enforced by the U.S. Environmental Protection Agency ("USEPA") that requires safeguards on the use and disposal of household, municipal, commercial and industrial refuse. The goals of the law are to protect human health and the environment from the potential hazards of waste disposal, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner. Under the Corrective Action program, the USEPA permits and monitors the cleanup of hazardous waste contamination. Search Distance: one (1.0) mile. Responsible Agency: USEPA

**Public Record:** "Subject to Corrective Action" facilities identified using USEPA's RCRAInfo Hazardous Waste Query Form for California.

**For More Information:** Contact the Environmental Protection Agency at (800) 424-9346 to speak with a consultant to request information from the individual Site Fact Sheet. The USEPA's official Internet website address is:

<http://www.epa.gov/enviro/html/rcris/index.html>

### 3) CALIFORNIA ENVIROSTOR STATE RESPONSE list as of 13 Sep 2016.



**Property Address:** 1040 BORRETTE LN  
NAPA, NAPA COUNTY, CA 94558  
("Property")

**APN:** 041-700-007-000  
**Report Date:** 01/29/2018  
**Report Number:** 2229240

The State Response list, a part of California's "Envirostor" database, identifies sites of confirmed hazardous materials releases where the Department of Toxic Substances Control ("DTSC") is involved in cleanup activities, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk, according to the DTSC. The State Response list includes the sites formerly contained in the "Active Annual Workplan (AWP)" list. Search Distance: 1/2 mile. Responsible Agency: State EPA/DTSC

**Public Record:** Sites listed as "State Response" under "Site\_Facility\_Type" in the EnviroStor Cleanup Sites database obtained from the Department of Toxic Substances Control. Please note that a given Site may have more than one record if the Site has more than one activity Status or EnviroStor ID assigned to it.

**For More Information:** Contact the State Environmental Protection Agency Department of Toxic Substances Control at: (916) 323-3400

**4) SPILLS, LEAKS, INVESTIGATION & CLEANUP list ("SLIC") as of 13 Sep 2016.**

The California SLIC Program oversees soil and water investigations, corrective actions, and assessments at Sites with current or historic unauthorized discharges and covers all types of pollutants (such as solvents, petroleum fuels, heavy metals, pesticides, etc.). As of January 1, 2005, all SLIC data is required to be submitted to the Geotracker database of the State Water Resources Control Board ("SWRCB"). Information on individual Sites may be available online at <http://geotracker.waterboards.ca.gov>. Please note that according to the SWRCB, "data is undergoing data cleanup and may contain errors". Search Distance: 1/2 mile. Responsible Agency: SWRCB

**Public Record:** Sites identified as "Cleanup Program Site" in the GeoTracker database obtained from the State Water Resources Control Board GeoTracker website.

**For More Information:** For details about a particular site, please visit GeoTracker at <http://geotracker.waterboards.ca.gov> Using the Identifier tool and clicking on the site on the graphic map interface, you can access a report that includes the case number and contact telephone number for the agency with more information on this site. If you know case number, you may access the record using Case Finder at <http://geotracker.waterboards.ca.gov/search.asp>.

**5) SOLID WASTE INFORMATION SYSTEM list ("SWIS") as of 13 Sep 2016.**

Solid waste landfill sites vary from state to state and may include active landfills, inactive landfills, incinerators, transfer stations, recycling facilities, and other facilities where solid waste is treated or stored. The California Integrated Waste Management Board ("CIWMB") tracks such Sites via its Solid Waste Information System database. SWIS contains information on facility type, regulatory and operational status, type of wastes received, and local enforcement actions. Please note that these Sites are simply regulated facilities and are not classified as being "contaminated" by the Board. Search Distance: 1/2 mile. Responsible Agency: CIWMB

**Public Record:** Sites listed in the "SwisGis.txt" database obtained from the California Integrated Waste Management Board Solid Waste Information System website.

**For More Information:** Contact the Board's "Solid Waste Information Center" at (916) 341 6320 and ask for the Associate Waste Management Specialist who should be able to answer some limited general questions. For more information, please contact the CIWMB in Sacramento or visit <http://www.calrecycle.ca.gov/SWFfacilities/Directory/search.aspx> on the Internet.

**6) LEAKING UNDERGROUND STORAGE TANK list ("LUST") per GEIMS/GeoTracker Information Management System as of 13 Sep 2016.**

The LUST database is also known as the "LUFT" database because it includes records of leaking underground fuel tanks. LUSTs may be a significant source of soil and groundwater contamination. The State Water Resources Control Board ("SWRCB") maintains a database of LUSTs known as the Leaking Underground Storage Tank Information System ("LUSTIS") which was recently supplanted by the statewide GEIMS/GeoTracker information management system. LUSTIS contains the locations of all reported LUSTs, as well as the contents and status of the LUSTs. Search Distance: 1/4 mile. Responsible Agency: SWRCB

**Public Record:** Sites identified as "LUST Cleanup Site" in the GeoTracker database obtained from the State Water Resources Control Board GeoTracker website.

**For More Information:** For general questions, telephone the State Water Resources Control Board's Clean Water Desk in Sacramento at (866) 480-1028. Information on specific Sites is available at [www.swrcb.ca.gov](http://www.swrcb.ca.gov) or visit their official Internet site at <http://geotracker.waterboards.ca.gov>.

**7) CALIFORNIA STATEWIDE ALL WELLS DATABASE as of 07 Oct 2016.**

The California Division of Oil, Gas, and Geothermal Resources, California Department of Conservation ("DOC"), maintains a database of oil, gas and geothermal wells in the state. Of the approximately 230,000 wells identified in the All Wells Database, approximately 105,000 are still in use. The majority of remaining wells have been sealed under supervision of the DOGGR. A smaller number have been deserted and have no known responsible operator. Search Distance: 1/4 mile. Responsible Agency: State Department of Conservation

**JCP-LGS Residential Property Disclosure Reports**  
**Environmental Screening Report**  
**For NAPA County**

**Property Address:** 1040 BORRETTE LN  
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("Property")

**APN:** 041-700-007-000  
**Report Date:** 01/29/2018  
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**Public Record:** Well locations listed in the Statewide All Wells Database obtained from the Department of Conservation, Division of Oil, Gas and Geothermal Resources.

**For More Information:** Contact the State Department of Conservation, Division of Oil, Gas and Geothermal Resources at: (916) 445-9686.

**8) NATIONAL PIPELINE MAPPING SYSTEM (NPMS) GAS TRANSMISSION AND HAZARDOUS LIQUID PIPELINES as of 31 Oct 2016.**

The National Pipeline Mapping System (NPMS) is a geographic information system (GIS) created by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS) in cooperation with other federal and state governmental agencies and the pipeline industry. The NPMS is created using data compiled from mandatory submissions made by pipeline, LNG (Liquid Natural Gas) plant operators, and voluntary submissions made by breakout tank operators. The data is processed by private contractors. Neither the United States government nor any party involved in the creation and compilation of NPMS data and maps guarantees its accuracy or completeness. NPMS data should be considered no more accurate than +/- 500 feet and must never be used as a substitute for contacting the appropriate one-call center prior to digging. PHMSA restricts access to the NPMS to federal, state, and local government agencies (including emergency responders). Pipeline operators are allowed access to their own pipeline data only. NPMS Public Map Viewer (<https://www.npms.phmsa.dot.gov/PublicViewer/>) allows the general public to view available data one county at a time and at a limited zoom level in accordance with PHMSA's security policy. Search Distance: 2,000 feet. Responsible Agency: PHMSA

**Public Record:** Gas transmission pipelines and hazardous liquid pipelines as depicted on the NPMS Public Map Viewer at a scale of 1:24,000.

**For More Information:** To identify a specific pipeline owner/operator, please use the NPMS Public Map Viewer at the URL provided above. For policy and technical questions regarding NPMS, please contact PHMSA.

**WANT MORE INFORMATION?**

There is no single government agency that handles information for all contaminated Sites. Multiple agencies are responsible for organizing clean-up efforts at different types of Sites. Each generally maintains files on the Sites they oversee with information on the type and extent of contamination, clean-up efforts etc. There is also the possibility that the file may have no additional information. For general information, refer to the discussions in this Report. If your question isn't answered there, call us here at JCP-LGS. We will try and answer them for you.

In the list of databases above, there is the name and telephone number of the agency overseeing that site. Agencies are limited to answering general questions. **NOTE!** Additional information on a site may be limited and the government agency you contact will not venture opinions.

**How to Obtain Generalized Environmental Information**

Brochures published by the Environmental Protection Agency (EPA) are a good source of general information. County health departments may have a health and safety officer or a "hazmat" (hazardous materials) specialist that can answer general questions also. The telephone number for the local Department of Health should be listed in the telephone book.

- Environmental Protection Agency Drinking Water Hotline: **(800) 426-4791**
- Federal Environmental Protection Agency Public Information Office: **(866) 372-9378**
- California Environmental Protection Agency: **(916) 445-3846**

**BACKGROUND ABOUT ENVIRONMENTAL HAZARDS**

JCP-LGS provides a consumer guide titled, "Guide to Environmental Hazards", as a supplement to this environmental Report. This "plain-English" supplement discusses and explains environmental hazards and what they mean for residential property transactions. The guide may be freely downloaded (as a PDF document) and printed from our website at the following address:  
[http://www.firstamprs.com/sites/default/files/jcp-lgs\\_residential\\_environmental\\_hazards\\_guide.pdf](http://www.firstamprs.com/sites/default/files/jcp-lgs_residential_environmental_hazards_guide.pdf)

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## TERMS and CONDITIONS

### ACCEPTANCE OR USE OF THIS REPORT CONSTITUTES APPROVAL AND ACCEPTANCE OF THE TERMS, CONDITIONS, AND LIMITATIONS STATED HEREIN.

The Report ("Report") is subject to each of the following Terms and Conditions. Each Recipient (defined below) of the Report agrees that the Report is subject to the following Terms and Conditions, and each Recipient agrees to be bound by such. Use of this Report by any Recipient constitutes acceptance of the Terms and Conditions to the Report. The Terms and Conditions below are incorporated by this reference into the Report. **This Report is not an insurance policy.**

This Report is made for the real property specifically described in the Report (the "Property") and solely for the transaction for which it was originally purchased ("Transaction"). The Property shall not include any property beyond the boundaries of the real property described in the Report. The Property shall not include any structures (whether located on the Property, or not), easements, or any right, title, interest, estate, or easement in any abutting streets, roads, alleys, lanes, ways, or waterways.

**IMPORTANT NOTICE:** Transferor(s) and transferee(s) shall read the complete Report in its entirety before the close of escrow. A "Signature Page" or "Summary Pages" document may be included in the electronic delivery of this Report. Those documents do not replace the complete Report or remove the need to read the complete Report, and do not remove the requirement to disclose. The Signature Page and Summary Pages documents are subject to the Terms and Conditions of the complete Report.

- A. **No Third Party Reliance on This Report.** Only the transferor(s) and transferee(s), and their agents/brokers, if any, involved in the Transaction (collectively, the "Recipients") may use and rely on this Report and only after they have paid in full for the Report. While disclosures made on the Natural Hazard Disclosure Statement in the Report may indicate certain risks to the Property, the disclosures are only "...between the transferor, the transferor's agents, and the transferee, and shall not be used by any other party, including, but not limited to, insurance companies, lenders, or governmental agencies, for any purpose." Cal. Civil Code section 1103.2, subdivision (g).
- B. **Seller and Seller's Agent's Responsibility of Full Disclosure.** Recipients are obligated to make disclosures, and always disclose material facts, that are within their actual knowledge.
- C. **Scope of Report.** This Report is limited to determining whether the Property is in those specified natural hazard zones and property tax districts, and in proximity to those specified environmental sites (depending on the report product ordered), as defined in the Report. The Report is not a geologic report or a land survey and no site inspection has been made in producing the Report. JCP-LGS makes no determination, expresses no opinion or view, and assumes no responsibility in this Report concerning the right, entitlement, or ability to develop or improve the Property. JCP-LGS has no information concerning whether the Property can be developed or improved. No determination is made and no opinion is expressed, or intended, by this Report concerning structures or soils on or outside of the Property, including, without limitation, habitability of structures or the Property, suitability of the Property for construction or improvement, potential for soil settlement, drainage, soil subsidence, or other soil or site conditions. The Recipient(s) is advised to consult the local Planning Department to determine whether factors beyond the scope of this Report may limit the transferee(s) ability to use or improve the Property.  
  
The Report is not a title report, and no determination is made and no opinion is expressed, or intended, by this Report as to title to the Property or liens against the Property, recorded or otherwise, or whether the Property is comprised of legal lots in conformance with the California Subdivision Map Act or local ordinances. The Report is not a property inspection report, and no determination is made and no opinion is expressed, or intended, by this Report concerning architectural, structural, mechanical, engineering, or legal matters, or the marketability or value of the Property. JCP-LGS has not conducted any testing or physical or visual examination or inspection of the Property, nor is this Report a substitute for any such testing, physical or visual examination, or inspection.
- D. **Tax and Environmental Disclosures (if included in Report).** No determination is made and no opinion is expressed, or intended, by the Report concerning the existence of property tax liabilities, or the existence of hazardous or toxic materials or substances, or any other defects, on, under, or in proximity to the Property, unless specifically described in the Report. JCP-LGS's total liability for any error or omission in its disclosures relating to taxes and/or environmental matters shall be limited to actual proven damages not to exceed \$10,000.
- E. **JCP-LGS Database Updates.** Each database used in this Report is updated by the responsible agency at various intervals. Updates for a database are determined by the responsible agency and may be made at any time and without notice. JCP-LGS maintains an update schedule and makes reasonable efforts to use updated information. For these reasons, JCP-LGS reports information as of the date when the database was last updated by JCP-LGS. That date is specified as the "Database Date" for each database.
- F. **Statutory and Additional Disclosures, Advisories, and Local Addenda (if included in Report).** No determination is made and no opinion is expressed, or intended, by this Report concerning the need to purchase earthquake or flood insurance for the Property. In preparing the Report, JCP-LGS accurately reported on information contained in Government Records. JCP-LGS reviewed and relied upon those Government Records specifically identified and described in the Report. JCP-LGS has not reviewed or relied upon any Government Records that are not specifically identified in the Report. JCP-LGS also has not reviewed any plat maps, survey maps, surveyor maps, assessor maps, assessor parcel maps, developer maps, or engineering maps, whether or not such maps have been recorded. No determination is made and no opinion is expressed, or intended, by the Report concerning any matters identified in Government Records that were not reviewed by JCP-LGS. Local Addenda, where applicable, are included "AS IS" as an accommodation to the local real estate board that provided the content; JCP-LGS assumes no responsibility for the accuracy of any information included in the Local Addenda.
- G. **FEMA Flood Determination Certificate (if accompanying the Report).** No determination is made and no opinion is expressed, or intended, by the Report concerning the requirement for or cost of flood insurance on the Property. Recipient(s) understands that a lender may require flood insurance to secure its loan collateral independent of whether FEMA may require flood insurance under the National Flood Insurance Program on a federally backed mortgage. The FEMA Flood Determination Certificate ("Flood Certificate"), which may accompany the Report, is produced by a third-party expert certified by FEMA to provide Flood Certificates. JCP-LGS assumes no liability for errors in that third-party flood determination.

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- H. **Changes to Government Record after Report Date.** This Report is issued as of the Report Date identified in the Report. JCP-LGS shall have no obligation to advise any Recipient of any information learned or obtained after the Report Date even if such information would modify or otherwise affect the Report. Subsequent to JCP-LGS acquisition of Government Records, changes may be made to said Government Records and JCP-LGS is not responsible for advising the Recipients of any changes. JCP-LGS will update this Report upon request and at no charge during the transaction process for which this Report was issued, but not to exceed one year from the date of the Report. Likewise, JCP-LGS is not liable for any impact on the Property that any change to the Government Records may have.
- I. **Government Record Sources.** JCP-LGS relies upon the Government Records specifically identified in the Report without conducting an independent investigation of their accuracy. JCP-LGS assumes no responsibility for the accuracy of the Government Records identified in the Report. JCP-LGS makes no warranty or representation of any kind, express or implied, with respect to the Report. JCP-LGS expressly disclaims and excludes any and all other express and implied warranties, including, without limitation, warranties of merchantability or fitness for a particular purpose. The JCP-LGS Report is "AS IS".
- J. **Limitation of JCP-LGS's Liability**
1. JCP-LGS is not responsible for:
    - Any inaccuracies or incompleteness of the information in the Public Records.
    - Inaccurate address information provided for the Property.
    - Any other information not contained in the Public Records as of the Report Date.
    - Any information which would be disclosed by a physical inspection of the Property.
    - Any information known by one of the Parties.
    - The health or risk to humans or animals that may be associated with any of the disclosed hazards.
    - The costs of investigating or remediating any of the disclosed hazards.
  2. Except as otherwise expressly set forth in these Terms and Conditions, JCP-LGS's total liability and responsibility to all Recipients collectively for any and all liabilities, causes of action, claim or claims, including but not limited to claims for breach of contract or negligence, shall be for actual proven damages only caused directly by JCP-LGS's error. In no event shall JCP-LGS's total liability exceed the difference between the amount actually paid for the property and the fair market value on the date of the disclosure, as measured by a retrospective appraisal performed by a licensed professional appraiser under the Uniform Standards of Professional Appraisal Practice. JCP-LGS expressly disclaims any liability for Recipients' indirect, incidental and/or consequential damages, including, without limitation, lost profits, even if such damages are foreseeable, and Recipients hereby waive and release any right to assert a claim against JCP-LGS for such amounts. In the event of any error, omission or inaccuracy in the JCP-LGS Report for which JCP-LGS is liable, JCP-LGS shall have no duty to defend or pay any attorneys' fees, costs or expenses incurred by the Recipients, or any of them. The Recipients, and each of them, expressly waive the benefits of California Civil Code Section 2778 and 1542 and any other similar provisions. Section 1542 provides that "A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."
- K. **Reporting of Risk Elements for Condominium Projects, Planned Unit Developments, and Other Properties with Common or Undivided Interests.** Because California's Residential Natural Hazard Disclosure Law requires disclosure if any portion of the Property is located within a specified natural hazard area/zone, the Report must indicate that the subject Property falls within the area/zone if any portion of such a condominium project, planned unit development, or common area is located within a specified hazard area/zone.
- L. **Governing Law.** The Report shall be governed by, and construed in accordance with, the laws of the State of California.
- M. **Small Claims or Arbitration.** This provision constitutes an agreement to arbitrate disputes on an individual basis. Any party may bring an individual action in small claims court instead of pursuing arbitration. All disputes and claims arising out of or relating to the Report must be resolved by binding arbitration. This Report to arbitrate includes, but is not limited to, all disputes and claims between JCP-LGS, transferor(s) and transferee(s) and claims that arose prior to purchase of the Report. This agreement to arbitrate applies to transferor(s) and transferee(s) successors in interest, assigns, heirs, spouses, and children. As noted above, a party may elect to bring an individual action in small claims court instead of arbitration, so long as the dispute falls within the jurisdictional requirements of small claims court.
- Any arbitration must take place on an individual basis, JCP-LGS, transferor(s) and transferee(s) agree that they are waiving any right to a jury trial and to bring or participate in a class, representative, or private attorney general action, and further agree that the arbitrator lacks the power to consider claims for injunctive or declaratory relief, or to grant relief effecting anyone other than the individual claimant.
- The arbitration is governed by the Commercial Arbitration Rules and the Supplementary Procedures for Consumer Related Disputes (the "AAA Rules") of the American Arbitration Association ("AAA"), as modified by this Agreement, and will be administered by the AAA. Company will pay all AAA filing, administration and arbitrator fees for any arbitration it initiates and for any arbitration initiated by another party for which the value of the claims is \$75,000 or less, unless an arbitrator determines that the claims have been brought in bad faith or for an improper purpose, in which case the payment of AAA fees will be governed by the AAA Rules. **A COPY OF THESE RULES IS AVAILABLE FROM THE AAA'S WEB SITE AT [WWW.ADR.ORG](http://WWW.ADR.ORG) OR ON REQUEST FROM THE COMPANY. THE ARBITRATION AWARD MAY INCLUDE ATTORNEY'S FEES IF ALLOWED BY FEDERAL, STATE, OR OTHER APPLICABLE LAW AND MAY BE ENTERED AS A JUDGMENT IN ANY COURT OF PROPER JURISDICTION.**
- The arbitration will take place in the same county in which the property covered by the Report is located. The Federal Arbitration Act will govern the interpretation, applicability and enforcement of this arbitration agreement. This arbitration agreement will survive the termination of this Report.
- N. **Severability.** If any provision of the Terms and Conditions to this Report is determined to be invalid or unenforceable for any reason, then such provision shall be treated as severed from the remainder of the Terms and Conditions, and shall not affect the validity and enforceability of all of the other provisions of the Terms and Conditions.
- Other Agreements.** This Report constitutes the entire, integrated agreement between JCP-LGS and Recipients, and supersedes and replaces all prior statements, representations, negotiations, and agreements.

**END OF REPORT**