



August 26, 2020

Arancha Casal

Subject: Geologic Hazard Evaluation: New Driveway Entrance, La Honda Road.
PLN2020-00245; APN 078-190-200

Dear Ms. Casal:

This letter presents our consideration of the typical geologic hazards that may exist at the site, and the potential for these hazards to exist at the subject property.

SITE DESCRIPTION

The property is located on La Honda Road, about 2 miles from La Honda, in the direction of Skylonda. A new driveway entrance is proposed where there is currently a road cut along La Honda Road. The road cut is up to 40 feet tall in the vicinity and sloped at a little steeper than 1:1 in places. The site is vegetated with heavy brush and numerous oak trees.

The site is underlain by the lower Miocene, Oligocene, and middle and upper Eocene age Lambert Shale and San Lorenzo formations, as shown in Figure 4. The units are both described as brown and dark gray to gray, brown, and red mudstone, siltstone, and shale. Includes some beds of fine to coarse grained sandstone. Weathered fine-grained bedrock is exposed in parts of the road cut. There is very little soil cover.

POTENTIAL GEOLOGIC HAZARDS

Slope Stability

As Figure 5 shows, the site vicinity is mapped as having a high potential for slope instability. Units "V" and "L" are described as having high to highest landslide potentials, although it is acknowledged that some areas in these mapped zones may be stable. There are active landslides on the creek-side of La Honda Road, several hundred feet up the road toward Skylonda. The road has been under repair many times over the years. However, in the near vicinity of the proposed driveway entrance, the road has been stable for at least 50 years. The subject property in this area is dominated by a broad ridge. The slope stability issues occur in nearby broad swales where surface and subsurface water concentrates. The road cut shows no signs of instability. The site vicinity does not exhibit hummocky topography or any other geomorphic evidence of past landslide activity.

The proposed driveway entrance will result in new cuts inclined at 2:1 (H:V), in an area where the old road cuts are as steep as 1:1. As the proposed driveway approaches the property line and the top of the road cut, the slope of the land lessens to 5:1, allowing the proposed 2:1 driveway cut to daylight at a reasonable distance. The cut will be in the same material as the existing road cut along La Honda Road. Therefore, the proposed



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driveway cut will be substantially more stable than the existing nearby road cuts. Since the existing 1:1 road cuts have been stable for over 100 years, the proposed 2:1 driveway cut should be very stable.

Faulting

The nearest active fault is the San Gregorio-Seal Cove fault, located about 6 km to the southwest. Although it would result in strong ground shaking during its maximum probable earthquake, it would not create fault ruptures across the site.

Flooding

The site is well about 140 vertical feet above La Honda Creek, which is located across La Honda Road, about 600 feet to the west. It is not in or near a flood zone.

Liquefaction

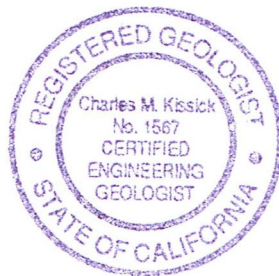
Liquefaction occurs when loose sandy soils below the water table liquefy and lose strength during a large earthquake. The site is underlain by shallow bedrock and not subject to liquefaction.

In conclusion, there are no potential geologic hazards that are likely to render the site infeasible for proposed driveway entrance.

If you have any questions, please call me at (650) 728-3590.

Yours,
Sigma Prime Geosciences

Charles Kissick, CEG



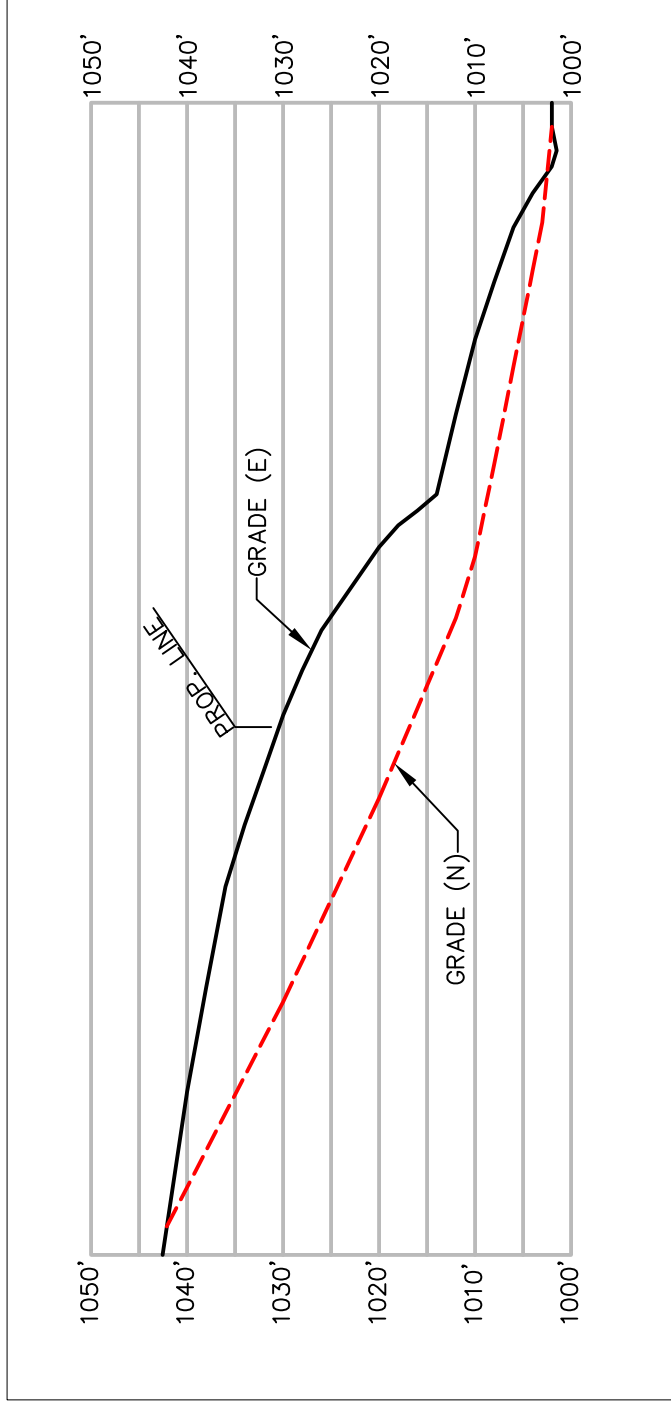


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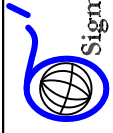
Figure	1
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Location Map

Casal Property, La Honda Road, La Honda



1"=20'



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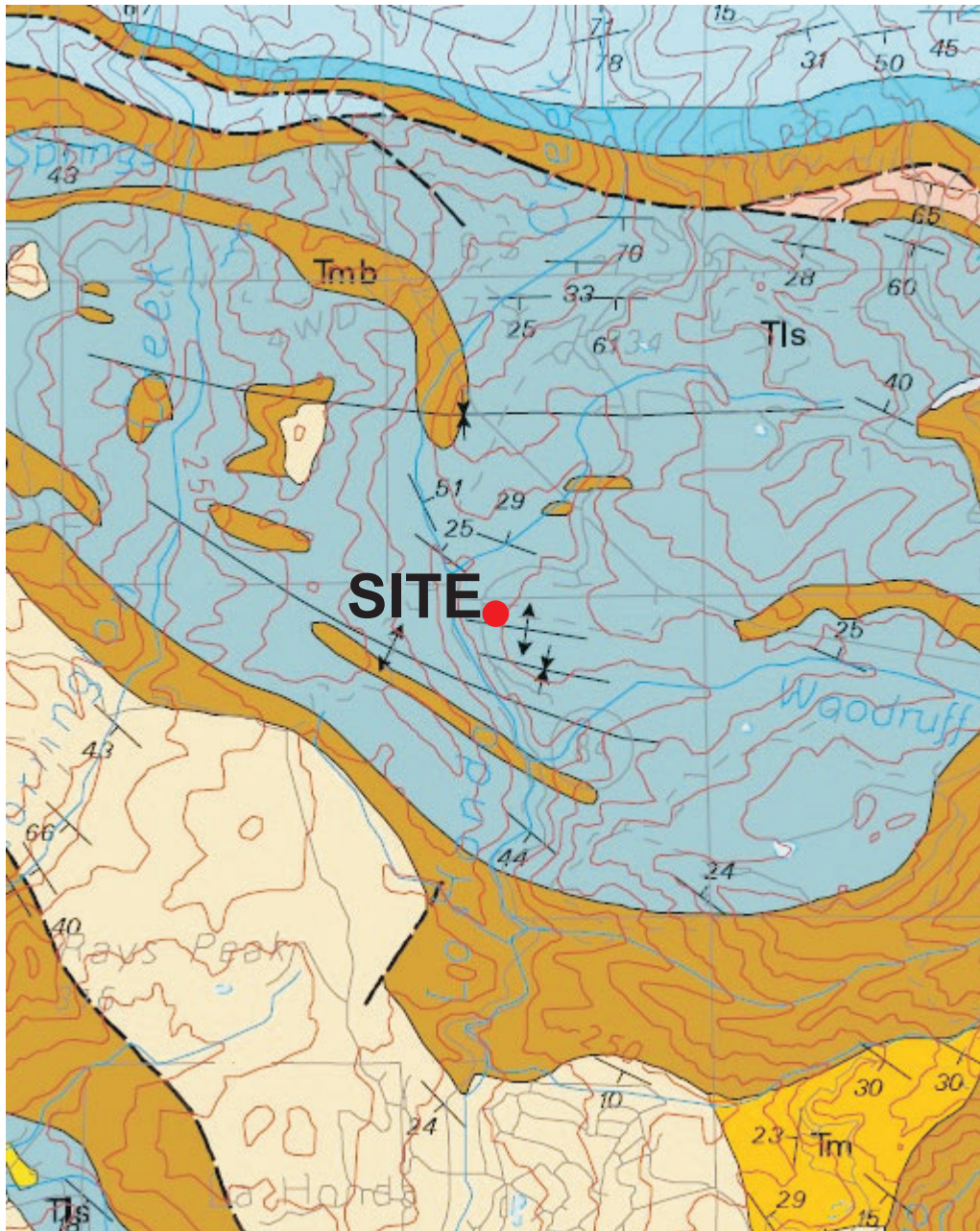
Figure 3

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Cross Section

La Honda Road, La Honda



Tls: brown and dark gray to gray, brown, and red mudstone, siltstone, and shale. Includes some beds of fine to coarse grained sandstone.



Ref.: Brabb at al, 1998



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Figure	4
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Geologic Map

Casal Property, La Honda Rd., La Honda



Ref.: Brabb and Pampeyan, 1972



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Figure	5
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Landslide Map
Casal Property, La Honda Rd., La Honda