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Job No. 210820
September 14, 2021

To: Mr. Thomas C. Dyke II

**Subject: Geotechnical Evaluation of Fill Conditions
Site Located on West Side of Taberna Vista Way About 650 Feet
North of Tavern Road, APN 403-380-6400
Alpine, CA 91901**

Dear Mr. Dyke:

In accordance with your request, I have conducted a geotechnical evaluation of fill conditions at the subject site. This evaluation is in response to a County of San Diego notice of grading violation for placement of unpermitted fill at the site.

In their PDS Land Development checklist of items to be accomplished to obtain a grading permit, the County states:

- Please provide a soils engineer evaluation of the unpermitted fill and whether the graded soil is suitable for future structures, (is) contaminated etc. Include within the report whether the soil should be amended and prepared for future structures. Add soils cert on plans. See report data that may apply per Grading Ordinance 87.209, 87.403-412.

Snipes-Dye Consultants are currently preparing a grading plan and performing a drainage study as part of the checklist response.

There are no plans to develop the site for future buildings, hence my evaluation was limited to a surface inspection of the fill conditions. No subsurface investigation or soil testing was performed.

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GENERAL SITE DESCRIPTION

The site location is shown on the attached Vicinity Map, Figure 1. The site is a rectangular lot with an area of 3.86 acres and dimensions of approximately 300 feet wide by 560 feet long. The lot is located in hillside terrain with elevations ranging from a high of about El. 1780 feet to a low of about El. 1730 feet. Prior to placement of fill the lot appears to have sloped moderately down to the south.

For many years the lot was used as a disposal area for excess fill materials from other sites.

As shown on the attached grading plan there is a central, flat, slightly sloping fill area. There are descending fill slopes in the south to southwest portions of the lot with individual heights of about 15 feet and a combined height of about 30 feet, and lesser fill slopes with heights of about 5 to 10 feet in the north and northwest portions of the lot. The fill slopes are inclined at about 2:1 (horizontal to vertical).

As shown on the grading plan the fill limits extend slightly outside the property boundary on the west side of the site.

I estimate several tens of thousands of cubic yards of fill have been deposited at the site. The maximum fill thickness appears to be at the top of the combined fill slopes in the southwest portion of the lot.

The fill appears to have been spread out in layers as it was brought in and it appears likely there was at least some nominal compaction of the fill. The fill slopes are evenly contoured and there is a drainage terrace between the two main fill slopes. However, since there is no record of the placement and compaction of the fill, the fill is assumed to be uncompacted.

Vegetation across the lot and on the fill slopes is moderate and consists of native shrubs and other vegetation.

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INSPECTION OF FILL CONDITIONS

I inspected the site on August 24, 2021 and walked the entire fill area including the fill slopes to obtain an understanding of the fill conditions. I used a geologist's pick to dig shallow test holes about 1 foot deep but performed no deeper subsurface exploration.

From my inspection the fill soils are surprisingly homogeneous throughout the lot. The fill consists of light brown, silty sand with some gravel and cobbles and rock fragments to about 6 inches in dimension. The soils have a very low expansion potential based on visual observation.

The fill is also relatively clean. I observed some concrete fragments but nothing larger than a few inches. I also observed some minor asphalt concrete fragments but not enough to be a hazardous waste concern. I observed no organic debris.

There are a few exceptions to the above. Near the site entrance off Taberna Vista Way there are piles of large, end dumped rock and concrete fragments. However, the total amount of these materials relatively to the total fill is minor. Also, the central, flat area has been covered with a layer of crushed asphalt concrete for erosion control.

SLOPE STABILITY

The graded fill slopes appear stable. The 2:1 slope inclination conforms with the County requirements for graded slopes. I did not observe any significant slope erosion although the silty sand soils are potentially erodible during heavy rainfall or uncontrolled runoff. There are soil berms next to the tops of the slopes and the natural slope vegetation is fairly well established, which has helped reduce the amount of erosion.

GEOLOGIC CONDITIONS

The site is underlain at depth by very dense granite rock. There are no known geotechnical hazards at the site such as landsliding and earthquake faulting. However, the site is subject to ground shaking from earthquakes on nearby or more distant active faults.

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CONCLUSIONS

1. The fill is homogenous across the site and consists of silty sand with a very low expansion potential.
2. The fill is of good quality and would meet the requirements for import fill on most grading and construction projects.
3. Please note a subsurface investigation with sampling and soil testing would be necessary to confirm my findings and conclusions.

This opportunity to be of service is appreciated. If you have any questions, please do not hesitate to call or contact me.

Very truly yours,



Martin R. Owen PE, GE
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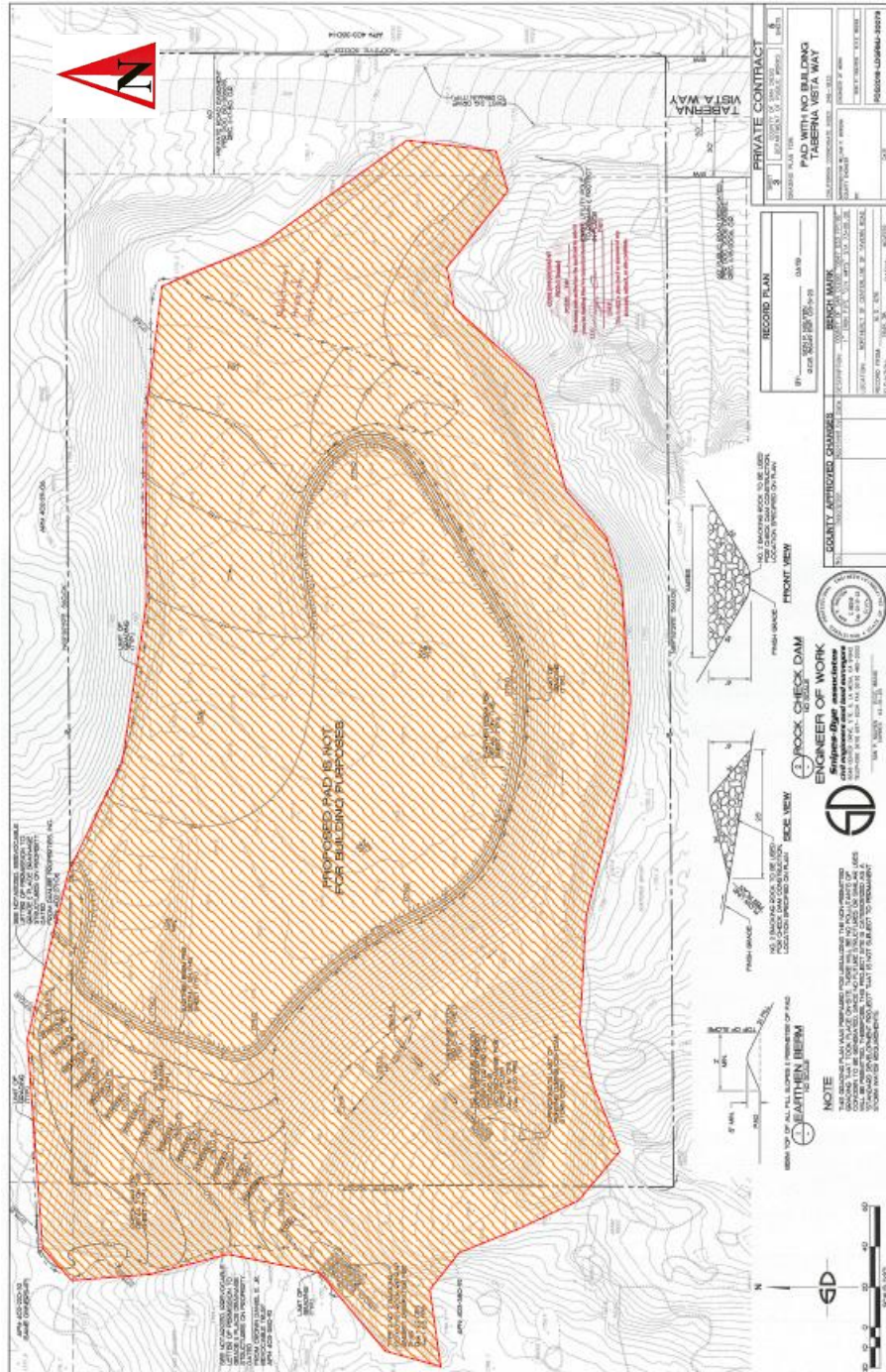


Attachment: Figures 1 and 2

FIGURE 1 VICINITY MAP



FIGURE 2 GRADING PLAN



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