

Date: March 11, 2020

To: dasMOD LLC.
c/o Sven Simon
1650 N. Coast Highway 101
Encinitas, CA 92024
E: sven@dasmond.com
P: (619) 577-4610

Re: Proposed new hotel building to be located at APN 216-030-48, La Costa Avenue, La Costa California

Subject: Addendum No. 2

References:

- 1.- "Preliminary Geotechnical Investigation and Foundation Recommendations Proposed Commercial Structure to be located at 516 La Costa Avenue, Encinitas, California 92024" prepared by Engineering Design Group dated February 27, 2018.
- 2.- Addendum No. 1 – prepared by Engineering Design Group, dated March 4, 2019.
- 3.- Preliminary Grading Plan – 18-188 MIN/DR/CDP – 516 La Costa Avenue, APN: 216-030-48, prepared by Pasco Laret Suiter and Associates, dated 12/18/2019.
- 4.- Review of Geotechnical Report, Site Grading and Building Plans, 516 La Costa Avenue, Encinitas, California, 18-188 DR/MIN/CDP, prepared by Geopacifica – c/o James Knowlton, dated September 3, 2018.

1.0 PURPOSE

We have prepared this addendum to our original report (Reference No. 1) and Addendum No. 1 (Reference No. 2), as part of our review of the changes to site layout along the top of the slope at the rear portion of the property. The scope of our additional work has included review of the proposed site plan and grading changes, of slope stability analysis to reflect new site conditions, providing this addendum with our updated recommendations and findings pertaining to the development of the site.

2.0 EARTHWORK

In areas of existing undocumented fill slopes and new slopes, a temporary backcut should be made from the property line, downward into the property at an approximate 1:1 slope gradient. The temporary back cut should extend through undocumented fills into competent sandstone material a

minimum of 2 vertical feet. Undocumented fill depths are anticipated on the order of 15 - 18 feet below adjacent grade. At the bottom of the excavation, keyway and benching of slopes should proceed per the recommendations of our original report.

The placement of new fill should include the placement of geotextile fabric, Tencate Mirafi® Miragrid® 3XT or equivalent, starting at 2 feet above the keyway and thereafter every 2 feet vertically. Grids should extend 16 to 20 feet into the property from the property line. (Lengths may vary due to the benching and distance to property line at portions of the new fill slope)

In consideration of the proposed use of permeable pavers throughout the site, we recommend a removal and re-compaction at structurally sensitive improvements, anticipated to depths between 3 - 4 feet throughout the site. In consideration of the site’s previous agricultural use, we anticipate areas of localized organic material and buried vegetation and/or debris may be encountered during site grading. It should be noted that localized areas may require greater removal depths than encountered in our borings and test pits.

3.0 ADDITIONAL SLOPE STABILITY

As part of the proposed site plan changes new slopes are proposed along the top of the existing rear slope. As part of our analysis of new slopes a computer-generated slope stability study was performed of the rear slope at the site. Slope stability calculations were run along two new cross-sections, C-C and D-D, utilizing Bishop’s Simplified Method. As indicated in Addendum No. 1, the minimum factor of safety against global slope stability for the existing undocumented fill slope is less than 1.5 and 1.1 for static and pseudo-static conditions, respectively. At the time of this report we understand permission to grade beyond the rear property line, from Cal-Trans is not available. As permission to grade beyond the rear property line is not available, areas of deep undocumented fills are anticipated; we recommend removals and re-grading of existing undocumented fills along the rear portion of the property, as more specifically outlined in the *EARTHWORK* section below.

The soil strength parameters used in our analysis are presented below. These values are based on documented soil parameters, laboratory test results of soil profiles from nearby sites, our experience in this area and our professional judgement.

Soil Type		Unit Weight	Cohesion	Friction Angle
Undocumented Fill	Qaf	90	0	30
Compacted Fill	--	125	100	31
Terrace Deposit	Qt	125	50	31

Soil Type		Unit Weight	Cohesion	Friction Angle
Santiago Formation	Tsa	125	800	32
BMP Areas	--	70	0	25

Based on our additional slope analysis, and the grading recommendations outlined in this addendum, the new re-graded fill slope along Section C-C and the adjacent areas within the subject property, have a global minimum factor of safety against global slope stability of 1.5 for static conditions and less than 1.1 for pseudo-static conditions. Other portions of the rear slope, where fills are less deep, such as along Section D-D, have a global minimum factor of safety against global slope stability **greater** than 1.5 for static conditions and **greater** than 1.1 for pseudo-static conditions.

4.0 BIORETENTION AREA & PERMEABLE PAVER RECOMMENDATIONS

Based upon our review of the preliminary civil plans, bioretention areas are proposed along the top of the rear slope. Bioretention areas shall be lined, as identified in our original report. Distance to daylight in competent material from bottom of footing of bioretention area walls should be 10 feet of competent material, minimum.

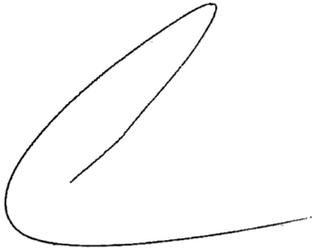
Based upon our review of the updated new layout we understand driveways and parking areas will be detailed utilizing pervious pavers. Specific paver detailing should be detailed and constructed per the minimum recommendations of the Interlocking Concrete Paver Institute and the specific concrete paver manufacturer, including minimum bedding specifications, base and subgrade requirements, installation tolerances, and drainage, etc. Permeable pavers shall be detailed with reinforced concrete edge restraints and horizontal restraints. Paver detailing shall include sloped subgrade of 2% minimum to a perforated subdrain, gravel filled (1cf/ft), wrapped in a filter fabric.

We anticipate permeable paver system will consist of a bedding course, base course (reservoir course) and a sub-base course. We recommend a minimum of 9 inches of Class II aggregate base as a sub-base course, below the reservoir layer. Class II base shall be compacted to 95% relative compaction. Subgrade shall be compacted to 95% minimum compaction in the area of new pavers.

Where runoff and storm water are directed over permeable pavements and water is anticipated to flow through pavers into an aggregate base near and adjacent to foundations or basement, detailing shall include systems to control and to prevent subsurface flow beneath the building. Generally, these systems, detailed as part of the specific building construction plans, may include the cut-off walls and underdrains. Proper surface drainage and irrigation practices will play a significant role in the future performance of the project.

Unless otherwise noted, recommendations of our original geotechnical report and addendum No. 1 are still applicable.

Sincerely,
ENGINEERING DESIGN GROUP



Steven Norris
California **GE#2590**



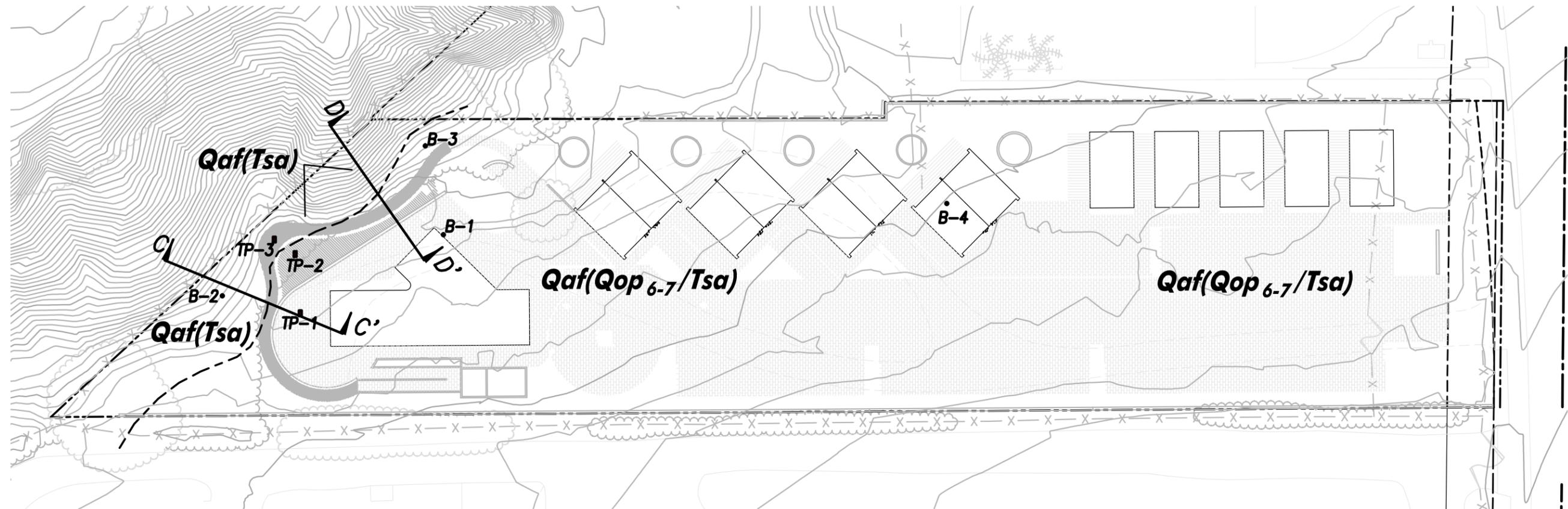
Erin E. Rist
California **RCE #65122**

Attachments:

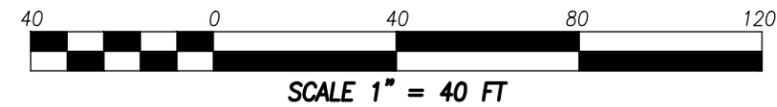
- 1.- Figure No. 1; Geologic/Geotechnical Map
- 2.- Figure No. 2; Geologic/Geotechnical Cross-Section C - C'
- 3.- Figure No. 3; Geologic/Geotechnical Cross-Section D - D'
- 4.- Figure No. 4; Areas of Slope Grading / Re-Grading

FIGURES

LA COSTA HOTEL GEOLOGIC / GEOTECHNICAL MAP



- Qaf () Weathered / Artificial Fill (buried units shown in parentheses)
- Qop6-7 Old Paralac Deposits, undivided, late to middle Pleistocene (Kennedy, 2008)
- Tsa Santiago Formation, Middle Eocene (Kennedy, 2008)
- B-2 ● Borings (Per our original report - 2.27.18)
- TP-1 ■ Test Pits (Per our original report - 2.27.18)
- Approximate Limits of Geologic Contact



JOB NAME: dasMOD LA COSTA HOTEL

JOB ADDRESS: 516 LA COSTA AVENUE,
ENCINITAS, CA 92024

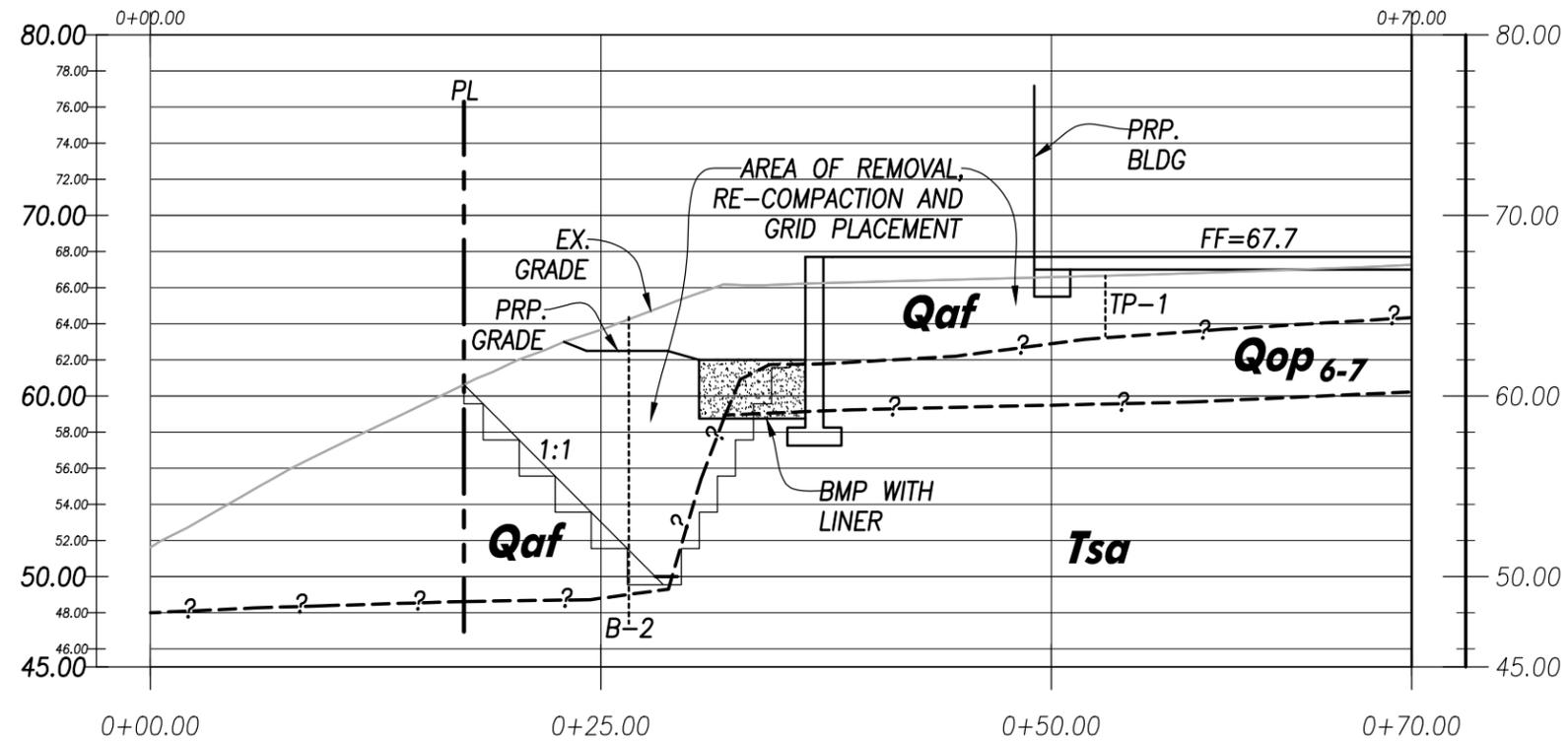
JOB NO.: 185881-1

DATE.: 1-23-2020

FIGURE NO.: 1

LA COSTA HOTEL

SECTION C - C'

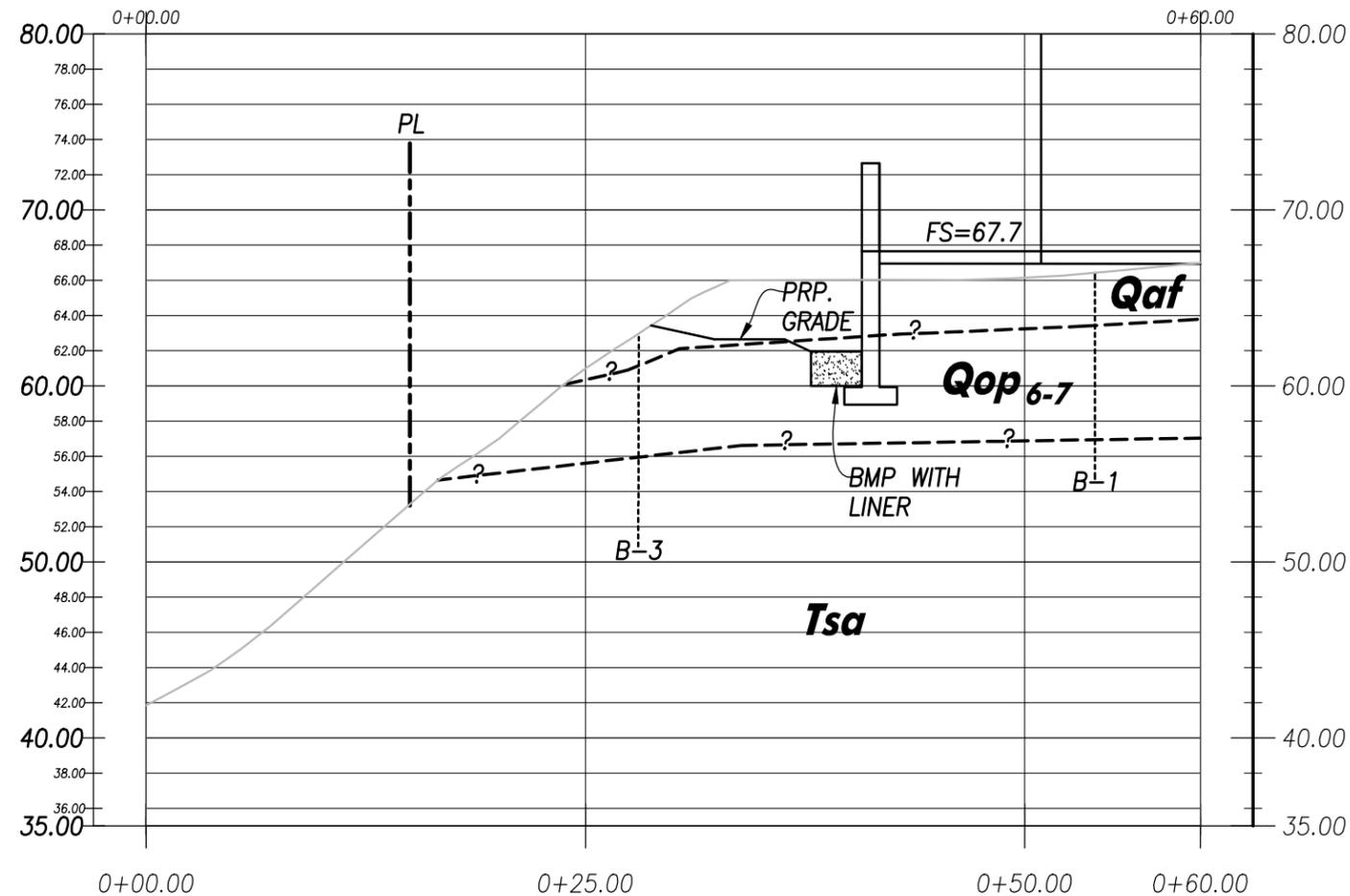


SECTION C - C'
SCALE: 1"=10'-0"

*WHERE BORING IS NOT IN LINE WITH CROSS-SECTION, BORING IS REPRESENTED ALONG CROSS-SECTION AT 90 DEGREES FROM FIELD LOCATIONS. CONTACTS MAY BE EXTRAPOLATED.

LA COSTA HOTEL

SECTION D - D'



SECTION D - D
SCALE: 1"=10'-0"

*WHERE BORING IS NOT IN LINE WITH CROSS-SECTION, BORING IS REPRESENTED ALONG CROSS-SECTION AT 90 DEGREES FROM FIELD LOCATIONS, CONTACTS MAY BE EXTRAPOLATED.

LA COSTA HOTEL

AREA OF GRADING / RE-GRADING

