APPENDIX D-3
PRELIMINARY GEOTECHNICAL PLAN REVIEW AND UPDATE
Serramonte Terraces, LLC  
888 Brannan Street, #153-155  
San Francisco, California 94103

Attention: Mr. Henry Lam

RE: PRELIMINARY GEOTECHNICAL PLAN REVIEW  
and UPDATE  
Proposed Serramonte Views Residential & Hotel Development  
525, 555, 575 & 585 Serramonte Boulevard  
Daly City, California

Dear Mr. Lam:

Pursuant to your authorization, we have completed preliminary geotechnical review of the Architectural plan set submitted for the subject project to be located at the western end of the property and accessible from Serramonte Boulevard bordering the northern side of the property.

This review follows our May 28, 2016 review and update for a previous project design prepared by Costa Brown Architecture (CBA, dated 12/29/15, Job 14020) that featured three (3) multi-family residential buildings (Buildings A-C) up to 12 stories above ground and up to 3 levels of underground parking, and a 12-story Hotel (Building D) with up to 4 levels of underground parking. Grading requirements included a continuous retained cut up to more than 100 feet high along the southern side of the development, and up to 40 feet to accommodate the underground parking. We concluded from the review that findings, conclusions, and recommendations presented in our December 22, 2014 geotechnical report remained valid.

The current plan by CBA (latest revision dated 8/22/17) features the same layout and footprint for the four (4) detached buildings as depicted in the previous version described above. Proposed residential buildings include up to 17 stories of residential units with four levels of parking which spans all three residential buildings. The parking levels vary from at-grade to up to 60 feet below grade with portions of the parking levels stepped. The proposed hotel is 12 stores with four levels of parking varying from at-grade to up to 70 feet below grade with portions of the parking levels stepped.
Grading requirements for the project have been reduced to retained cuts up to 80 feet high.

**Updated Building Code Seismic Design Parameters**

The proposed new residential buildings and hotel should be designed to resist the seismic forces generated by earthquake shaking in accordance with local design practice. The site is understood to be underlain by bedrock at shallow depth. Therefore, it is our opinion that a Site Class C classification (very dense soil and soft rock) is appropriate for characterizing potential earthquake ground shaking conditions and seismic design considerations for the site, per ASCE/SEI 7-10 (Chapter 20).

Code-based spectral acceleration parameters were developed following the procedures of the 2016 CBC (Section 1613.3). The values of $S_S$, $S_1$, $F_a$, and $F_v$ used to identify the site-adjusted maximum considered earthquake (MCE) parameters are listed below. The values of $S_S$ and $S_1$ for the site were obtained from the USGS national seismic hazard mapping website\(^1\) based on the ASCE/SEI 7-10 Standard as required by the 2016 CBC. The values of $F_a$ and $F_v$ are for Site Class D. The design spectral acceleration parameters $S_{DS}$ and $S_{D1}$ are equal to two-thirds of $S_{MS}$ and $S_{M1}$, respectively.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>$S_S$ (0.2 sec $S_A$)</td>
<td>2.598 g</td>
</tr>
<tr>
<td>$S_1$ (1.0 sec $S_A$)</td>
<td>1.248 g</td>
</tr>
<tr>
<td>$F_a$</td>
<td>1.0</td>
</tr>
<tr>
<td>$F_v$</td>
<td>1.3</td>
</tr>
<tr>
<td>$S_{MS}$ = $S_S * F_a$</td>
<td>2.598 g</td>
</tr>
<tr>
<td>$S_{M1}$ = $S_1 * F_v$</td>
<td>1.622 g</td>
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<td>$S_{DS}$ = $\frac{2}{3} * S_{MS}$</td>
<td>1.732 g</td>
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<td>$S_{D1}$ = $\frac{2}{3} * S_{M1}$</td>
<td>1.081 g</td>
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<tr>
<td>PGA(_M)</td>
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<tr>
<td>$T_L$</td>
<td>12 seconds</td>
</tr>
<tr>
<td>Seismic Design Category</td>
<td>E</td>
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</tbody>
</table>

The building site location is taken as 37.6689°N and 122.4720°W. We have not performed a site specific seismic design analysis for this project.

Based upon this review, it is our opinion the findings, conclusions, and recommendations remain valid on a conceptual level for the current project with the exception of updated seismic design parameters, provided above. However, it is important that we be given the opportunity to review the detailed grading plan/retaining wall distribution, and anticipated building loads when they become available in order to provide additional input and updated geotechnical recommendations for grading, foundations, retaining walls, and surface/subsurface drainage, as appropriate.

REFERENCES

Earth Investigations Consultants, Inc., 2014, Geotechnical investigation, 9-story condominium complex, 239 Serramonte Boulevard, Daly City, California: Geotechnical consultant's December 22, 2014 report, Job 1130.16.00, 40 pages with appendices and illustrations,

______, 2016, Preliminary geotechnical plan review, proposed Phase 1 Serramonte Views & Phase 2 Hotel, 239 Serramonte Boulevard, Daly City, California: Geotechnical consultant's plan review and update letter, Job 1130.16.00, 2 pages.
Serramonte Terraces, LLC, attn. Henry Lam
Job 1130.16.00

We trust this preliminary geotechnical review and update provides you with the information you require at this time. Please contact our office if you have any questions.

Very truly yours,

Earth Investigations Consultants, Inc.

[Signature]

Joel E. Baldwin, II
Engineering Geologist 1132 (Renewal 2/28/19)

[Signature]

Marlene K. Jackson
Geotechnical Engineer 2538 (Renewal date 12/31/17)

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Earth Investigations Consultants