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March 9, 2021

City of Camas
Community Development Department
616 Northeast 4th Avenue
Camas, Washington 98607
Attention: Lauren Hollenbeck

Phone: 360-817-7253
E-mail: rmaul@cityofcamas.us

**Subject: Geotechnical Peer Review
 Proposed CJ Dens East Residential Subdivision
 Southeast Leadbetter Road
 Camas, Clark County, Washington
 EEI Report No. 21-028-1**

Dear Ms. Hollenbeck:

Per your request, **Earth Engineers, Inc. (EEI)** has completed a geotechnical review for the project referenced above. Our services for this project are being conducted in accordance with EEI Proposal No. 20-P038 dated February 6, 2020, which was authorized by Robert Maul on February 7, 2020.

PROJECT BACKGROUND INFORMATION

Our understanding of the project is based on the following information that you provided to us.

- **March 19, 2013 report by Hart Crowser titled “Critical Areas Report – Update, Proposed Camas Subdivision, Leadbetter Road, Camas, Washington, 15948-01 (Task 01).”**
- **December 7, 2015 report by Hart Crowser titled “Initial Site-Specific Evaluation of Geohazard Areas A and C, Camas Subdivision – Leadbetter Road, Camas, Washington, 15948-02.”**
- **July 6, 2016 report by Hart Crowser titled “Report of Geotechnical Engineering Services, CJ Dens Subdivision, Camas, Washington.”**

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- **November 23, 2020 report by Hart Crowser titled “Geotechnical Report Addendum #1 – Supplemental Design Support, CJ Dens East Subdivision – Leadbetter Road, Camas, Washington.”** This report clarifies that only the lots on the east side of the property are included now.
- **November 24, 2020 drawings by AKS titled “CJ Dens Subdivision, CJ Dens Lacamas II LLC, Camas, Washington.”** The drawings are marked “preliminary not for construction.”

Briefly, we understand that the current project consists of constructing a residential subdivision consisting of 152 single family residential lots on the 49.62 acre property. Hart Crowser has been retained by CJ Dens Lacamas I, LLC to act as the Geotechnical Engineer of Record for the project and has completed the relevant geotechnical reports, which have been submitted to the City of Camas and forwarded to us for review.

PURPOSE AND SCOPE OF SERVICES

The purpose of our geotechnical review was to assess the geotechnical report provided to us and provide our professional opinion on whether the report (1) meets the geotechnical engineering standard of care, and (2) meets Camas Municipal Code (CMC) Chapter 16.59.060—Critical Area Report Requirements for Geologically Hazardous Areas.

REVIEW COMMENTS

After reviewing the geotechnical reports and drawings referenced above, we offer the following comments:

1. The reports addressed in detail the following geologic hazards: erosion hazard, landslide hazard, and seismic hazard. Significant focus was put on landslide hazard, which was warranted in our opinion, given the slopes present on the property.
2. Hart Crowser performed in excess of 100 geotechnical subsurface explorations (test pits). In our opinion, Hart Crowser made an exceptional effort to thoroughly define the subsurface conditions across the site. The test pits generally encountered shallow bedrock, which generally mitigates the concern for slope instability hazard. In the limited areas where shallow bedrock was not encountered, either the slopes were gentle, or Hart Crowser recommended footings be deepened to establish a 10-foot minimum horizontal setback from the face of slopes.

With regard to general compliance with Camas Municipal Code (CMC) 16.59.060 and general geotechnical engineering standard of care, it is our professional opinion that the geotechnical reports provided to us do satisfy the intent of the code section and geotechnical standard of care.

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As a condition of approval, we recommend that Hart Crowser be required to perform geotechnical construction inspection. Hart Crowser has been involved in this project for at least 8 years and has issued multiple reports addressing the geologic hazards and their mitigation. It will be important that Hart Crowser continue their involvement in the project through the completion of construction for continuity's sake.

The only other condition of approval that we recommend is to require that the project development follow the recommendations of Hart Crowser's July 6, 2016 and November 23, 2020 reports.

LIMITATIONS

This report has been prepared for the exclusive use of the City of Camas for the specific application to the proposed CJ Dens East Subdivision on Southeast Leadbetter Road in Camas, Washington. EEL does not authorize the use of the advice herein nor the reliance upon the report by third parties without prior written authorization by EEL.

The Geotechnical Engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

We appreciate the opportunity to perform this geotechnical engineering evaluation. If you have any questions pertaining to this report, or if we may be of further service, please contact Troy Hull at 360-567-1806 (office) or 360-903-2784 (cell).

Sincerely,
Earth Engineers, Inc.



Troy Hull, P.E.
Principal Geotechnical Engineer

Reviewed by:



Daniel Watkins, P.E.
Senior Geotechnical Engineer