



associated
earth sciences
incorporated

December 9, 2022
Project No. 20190414H001

EA Engineering, Science, and Technology, Inc.
2200 6th Avenue, #707
Seattle, Washington 98121

Attention: Ms. Gretchen Brunner

Subject: Review of Master Site Plan Revisions
47° North
Cle Elum, Washington

Reference: *Technical Report: Geology, Soils, and Groundwater, 47° North Master Site Plan Supplemental Environmental Impact Statement*, prepared by Associated Earth Sciences, Inc. (AESI) for EA Engineering, Science, and Technology, Inc., dated September 2020.

Dear Ms. Brunner:

We have completed our review of the recent revisions to the Master Site Plan (MSP) for the subject project as presented in the following documents:

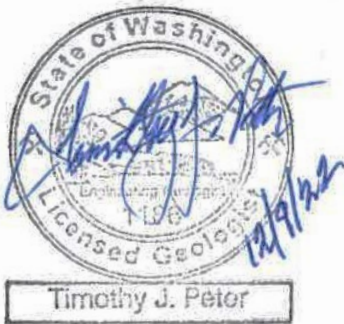
- Civil plan sheets C000, C001 through C004, C100, C101, C102, C300, C301, C302, and C600, prepared by Atwell, LLC, dated September 30, 2022.
- *Supplement to the Site Engineering Technical Report for 47° North*, prepared by ESM Consulting Engineers, dated November 18, 2022.

Based on our review, the proposed clearing limits under the revised MSP would be the same as those previously proposed under SEIS Alternative 6, addressed in our September 2020 report. The clearing limits would remain outside of designated erosion hazard areas and would be limited to the more gently to moderately sloping portions of the site with inclinations of approximately 33 percent or less. The proposed grading volumes and impervious surface areas under the revised plan would be less than those proposed under SEIS Alternative 6. For this reason, potential erosion,

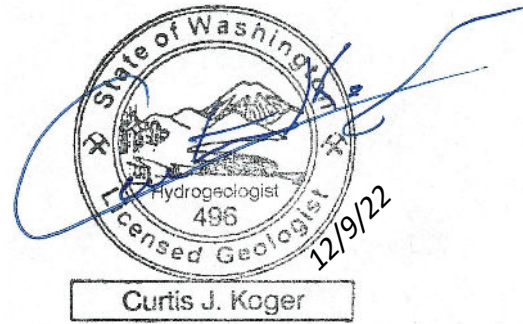
sedimentation, stormwater runoff, and groundwater impacts under the revised plan will be similar or reduced. The revisions to the stormwater design indicate that the stormwater ponds remain in the same general locations as proposed under SEIS Alternative 6 with infiltration ponds continuing to be limited to those areas of the site underlain by permeable outwash sediments suitable for infiltration. The proposed revisions will result in no significant unavoidable adverse impacts associated with seismic hazards, coal mine hazards, or volcanic hazards for the same reasons discussed in our September 2020 report for SEIS Alternative 6. In summary, it is our opinion that the proposed revisions are relatively minor with respect to the geology, soils, and groundwater components of the project, and our findings and conclusions presented in our September 2020 technical report remain unchanged.

We trust this letter meets your current needs. Should you have any questions, please contact us at your convenience.

Sincerely,
ASSOCIATED EARTH SCIENCES, INC.
Kirkland, Washington



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