



Snohomish County
Planning and Development Services

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M E M O R A N D U M

TO: Darryl Eastin, Principal Planner (Temp)

FROM: Randolph R. Sleight, P.E., P.L.S. Chief Engineering Officer
R. Alan Murray, P.E., Engineer III

DATE: 06/15/2017

SUBJECT: 11 101457 LU, Point Wells Development

The following is a review of previous comments issued September 15, 2015. The status of the responses related to the current submittal is noted. At the end of the review, comments specific to the current submittal are provided.

Reviewer: Randolph R. Sleight, P.E., PLS

Previous Geotechnical comments plans (Urban Center Submittal dated 3/3/2011) and reports submitted and reviewed in March, 2011 and updated by Hart Crowser in June 2015 have not fully addressed the significant issues surrounding the extent of the geologic hazards on site. However, more technical information has been provided in the subsurface conditions report by Hart Crowser.

- 1) **CRITICAL AQUIFER RECHARGE AREAS:** A hydrogeologic report will be required for any activity or use listed in SCC 30.62C.340 within a critical aquifer recharge area with high or moderate groundwater sensitivity. Please address. See SCC 30.62C.140. What is the significance of having multiple groundwater zones throughout the site and the nature of the existing groundwater quality and potential for groundwater contamination to any wells in the area? Given the near surface elevation of groundwater, the County would consider the potential sensitivity to the aquifer as high.

Second Request. No additional information has been provided.

- 2) **SEISMIC HAZARD AREAS:** Development activities within 200 feet of a seismic hazard area may be allowed with an approved geotechnical report that confirms the site is suitable for the proposed development and is capable to meet the current International Building Code and chapter 30.51A SCC. Under SCC 30.62B.350, please have the geotechnical engineer confirm the site is suitable for the proposed development, including placement of the 4-18 story towers within an area of potential liquefaction with a site class of E during the maximum considered earthquake. Please provide a site response analysis to assess the feasibility of the proposal given these soil conditions. Clarify the apparent inconsistency within the Hart Crowser report in assuming a varying maximum considered earthquake value for differing geologic hazards. PGA =0.5 g and a M=7.0 for seismic, but for landslide hazard assessment or steep slope assessment a 0.168 g value was used and the factors of safety indicate that under these seismic conditions that the slopes may likely fail during an earthquake of this lower magnitude. The tsunami

hazard was modeled at still a different maximum considered earthquake with a magnitude of M=7.2 to M=7.3 located on the Seattle Fault to the south of the site.

Second Request. No additional information has been provided.

- 3) LANDSLIDE HAZARD AREAS: Development activities and clearing are not allowed within landslide hazard areas or setbacks unless there is no alternate location on the property. Therefore, the proposal to locate buildings, grading and retaining walls within the setback and the landslide hazard areas east of the railroad tracks appears in violation of SCC 30.62B.340. Please address. Of particular concern is the siting of the emergency response unit/fire and police at the toe of a landslide hazard area where this structure would be first to be hit if a slide were to occur, potentially. The runout distance of a slide event needs to be depicted on the geologic map and site plan given the existing hydrologic and groundwater regime and the current failing pipes at the a prior fire control dug pond as shown in the geologic report. Repairs to that failing system need to be addressed as a mitigation element to reduce landside risk down gradient of these existing failing pipes.

Second Request. No additional information has been provided. Attached are the current geologic hazard maps for the site.

- 4) The proposed development in the landslide hazard areas does not appear to fully meet SCC 30.62B.320(1)(a)(iv), (b)(i), (ii) or (iii). Please address. Will the walls proposed on the east side of the development be designed to resist hillside movement and landslides and still meet the minimum setback to structures from this geologic hazard?

Second Request. No additional information has been provided.

Reviewer: R. Alan Murray, P.E.

The following comments made on plans (Urban Center Submittal dated 3/3/2011) and reports submitted and reviewed in March, 2011 have not been addressed unless noted otherwise below.

- 5) The grading quantities stated on the grading application are 10,000 CY cut and 300,000 CY fill. However, the site will likely require removal of significant contaminated soils that will also require a grading permit, if not the same permit. Please discuss in the report what grading and grading quantities, or other work will likely be required for site preparation. **This was not discussed in the May 28, 2015 Targeted Drainage Report. Grading quantities shown on the previous Urban Center (Now Village) Submittal are 50,000 cubic yards of cut and 540,000 CY.**

Applicant has not provided any clarification related to this question.

- 6) The drainage report needs to be stamped by the engineer. The Targeted Drainage Report dated May 28, 2015 is stamped, but it has not been signed and dated (WAC 196-23-020(1)).

This comment has been addressed.

- 7) The proposal to possibly relocate outfall from the southern portion of the site by pumping to the north and discharging at outfall 2 may not be in accordance with SCC 30.63A.520. Please address. **Pumping was not discussed in the May 28, 2015 Targeted Drainage Report.**

It appears that this question is no longer applicable based on current drawing C-303.

- 8) Please revise the drainage basin maps to clearly show more information about the existing conveyance systems and drainage patterns for upstream drainage through/around the site; include pipe sizes and slopes, structure tops and inverts, ditch size/configuration and slope, etc. For each upstream drainage basin, please clearly indicate the flow paths, outfall locations and their descriptions or outfall numbers on the maps. Where does existing drainage from the railroad property drain? Provide enough information on the basin maps that clearly demonstrates how the proposed fill and walls will not alter or block existing drainage patterns and courses for drainage from railroad property or other upstream areas. It is unclear if the information in the May 28, 2015 Targeted Drainage Report attempts to respond to this comment. Exhibit maps are at a very small scale and any notations are impossible to read. Revisions to the Urban Center Submittal are still warranted.

Second Request. No additional information has been provided.

- 9) Provide more detailed storm drainage information on the drainage plans so it is clear where proposed runoff drains to. Show conceptual pipe size, catch basin tops and inverts, and the same for existing. **This was not discussed in the May 28, 2015 Targeted Drainage Report.**

Second Request. No additional information has been provided.

- 10) I don't know of any exemption in SCC 30.63B.070 (Land disturbing permit exemption) for the proposed contaminated soil remediation process. Please address. **This was not discussed in the May 28, 2015 Targeted Drainage Report.**

Second Request. No additional information has been provided.

The following were new comments on the Targeted Drainage Report dated May 28, 2015, which is being reviewed with the idea of it being a supporting document to the Environmental Impact Statement, as well as for a Land Disturbing Activity permit.

- 11) The Targeted Drainage Report should be titled Targeted Stormwater Site Plan Report.

This comment has been addressed

- 12) The incorrect Drainage Information Summary Form is being used (See Attachment B in the Construction/Full Stormwater Site Plan Checklist)

Second request. See Attachment B: <https://snohomishcountywa.gov/DocumentCenter/View/7548>

- 13) The Targeted Stormwater Site Plan Report is confusing, partially because drawings and exhibits are too small to read the text or they lack information (See No 10, above).

Second Request. No additional information has been provided.

- 14) The order that information is presented in the Targeted Stormwater Site Plan Report could be improved to first clearly introduce the location and description of the existing drainage conveyances and then describing the proposal.

Current Stormwater Site Plan Narrative format appears to be improved.

- 15) This project must meet Enhanced Stormwater Treatment Requirements, SCDM Volume I, Chapter 4, Step 5E.

Second Request. All stormwater treatment must meet enhanced treatment standards.

- 16) The Targeted Stormwater Site Plan Report should follow the outline in the Construction/Full Stormwater Site Plan Checklist and shall address Minimum Requirements 1 through 9.

<http://www.snohomishcountywa.gov/DocumentCenter/View/7548>

Current Stormwater Site Plan narrative does address Minimum Requirements 1 – 9. Some revisions may be required to address other specific comments.

- 17) Grading and drainage required for any off-site roadway construction should be addressed as either part of the site (SCC 30.91S.351), or if not contiguous, as a separate drainage facility.

Second Access Exhibit dated 4/12/17 shows the majority of the second access roadway being constructed in the Town of Woodway. It appears that all of the drainage from the Woodway portion of the road will be conveyed to water quality treatment and conveyance facilities.

- 18) Since the Targeted Stormwater Site Plan Report is in support of the EIS, the narrative should be expanded and clearly written for the lay reader.

The report is better organized and is clearer. Additional editing may be desirable, especially related to water quality treatment and how each of the proposed facilities meets enhanced treatment standards.

- 19) Within 300 feet of ordinary high water of Puget Sound, it must be shown that Infiltration can be utilized to reduce the impacts to 10 percent effective impervious area.

It is our understanding that the applicant has indicated that infiltration will not be feasible.

- 20) If infiltration is being proposed in fill soils, then Geotech will need to address stability.

It appears that infiltration is no longer being considered.

- 21) Describe proposed Water Quality facilities for the lay reader.

Response is adequate.

- 22) Since this Targeted Stormwater Site Plan Report is in support of the EIS, all impacts and proposed mitigation to the various alternatives should be addressed.

This comment would be applicable to the EIS.

- 23) Report should better describe how retaining walls will impact grades on the site.

Second Request. No additional information has been provided.

- 24) Proposed stormwater mitigation measures should be clearly described

The mitigation measures are described more clearly in general terms in the current Targeted Stormwater Site Plan narrative. A separate mitigation table organized by drainage basin is desirable.

Additional comments on previous Urban Center Submittal drawings

25) Drawings need to clearly show existing topography in order that proposal can be properly evaluated.

Second Request. No additional information has been provided.

New comments from Randy Sleight based on the current April 17, 2017 submittal.

- 1) Placement of a secondary access within and across a landslide hazard area must be evaluated to assess foundation support and stability of the overpass structure over the railroad tracks and within cut and fill slopes heading up the slope to the east to tie into the Woodway roadway system.

New comments from Alan Murray based on the current April 17, 2017 submittal.

- 2) It appears that the applicant is choosing to utilize the drainage and grading codes and standards that were effective on or after January 22, 2016. Project submittal could be vested to the codes and standards effective September 30, 2010. This must be clarified.
- 3) WWHM analysis is meaningless as presented. The many basins presented are all titled "Basin 1" and only summary information is provided. Clear identification of the basins (basin maps) as well as the identification of the WWHM data together with complete output data is requested.