

MEMORANDUM

May 15, 2018

TO: Paul MacCready, Principal Planner/Project Manager, Snohomish County
Departments of Planning & Development Services and Public Works

FROM: Bill Gerken, Senior Coastal Engineer, Moffatt & Nichol

RE: Response to Point Wells Urban Center Supplemental Staff Recommendations,
May 9, 2018

7. Failure to Address Shoreline Management Regulations

Residential Development Dependent on Shoreline Protection Measures Not Allowed

General regulation #5 for residential development provides: “Residential development shall not be approved for which flood control, shoreline protection measures, or bulkheading will be required to protect residential lots unless a variance is obtained.” Here, the Applicant has provided plans for shoreline protection for residential development (see Coastal Engineering Assessment, Exhibit C-25, p.47-50). The Applicant has not provided a variance application.

8. Failure to Comply with Code Provisions Regarding Critical Areas, Including Geologically Hazardous Areas, Wetlands and Fish & Wildlife Habitat Conservation Areas, and Critical Aquifer Recharge Areas

New Shoreline Stabilization

SCC 30.62A.330(2)(a)(i) [2007] provides that projects shall be sited and designed to prevent the need for shoreline or bank stabilization and structural flood hazard protection measures for the life of the development. Further, shoreline stabilization measures are only allowed to protect an existing primary structure. SCC 30.62A.330(2)(b) [2007]. The only way this may be approved is through Innovative Development Design (SCC 30.62A.350 [2010]). There is no Innovative Development Design proposal by the Applicant on this issue.

Response to these Issues:

The intent of the proposed shoreline modifications is to expand and enhance the shoreline area to a more natural stable condition. The proposed modifications include removal of all or portions of the existing shore protection measures (including existing seawall, rock revetment, and riprap)

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along the shoreline, setting the elevation of the esplanade above the Base Flood Elevation, and providing adequate setback from the shoreline to the esplanade to construct a dynamically stable mixed sand-and-gravel beach.

The function of the existing seawall and revetment structure(s) was to protect the upland area and associated infrastructure from potential erosion due to wave runup and overtopping. The proposed shoreline modifications eliminate the need for typical shore protection by design. The esplanade is set back from the shore far enough, and placed at a sufficient elevation, to allow for the creation of an expanded beach area capable of dissipating wave energy like a natural beach. The expanded enhanced beach area is not considered a shoreline stabilization or flood control structure. It is an integral expansion of the upper beach that allows for removal of existing shore protection structures and increased public access to the shoreline.

We believe that the comment(s) regarding shoreline stabilization are not applicable because of the following:

- **“Residential development shall not be approved for which flood control, shoreline protection measures, or bulkheading will be required to protect residential lots unless a variance is obtained.”**

This is in-line with the proposed modifications along the shoreline: The elevation of esplanade is set above the Base Flood Elevation. The proposed esplanade setback from the shoreline is sufficient to construct an expanded dynamically stable mixed sand-and-gravel beach shoreward of the esplanade. The expanded beach area will be capable of dissipating wave energy like a natural beach. No shoreline protection structures are proposed for the protection of residential lots or project infrastructure. The enhanced expanded beach area is not considered a shoreline protection structure or measure.

- ***“projects shall be sited and designed to prevent the need for shoreline or bank stabilization and structural flood hazard protection measures for the life of the development.”***

This is in-line with the proposed modifications along the shoreline: The elevation of esplanade is set above the Base Flood Elevation. The proposed esplanade setback from the shoreline is sufficient to construct an expanded dynamically stable mixed sand-and-gravel beach. The expanded beach area will be capable of dissipating wave energy like a natural beach. No structures have been proposed within the shoreline area to provide bank stabilization or flood protection. The enhanced expanded beach area is not considered a shoreline protection structure or measure.

- ***“Further, shoreline stabilization measures are only allowed to protect an existing primary structure”.***

This is in-line with the proposed modifications along the shoreline: No new shoreline stabilization structures/measures are proposed. The proposed shoreline modifications

eliminate the need for typical shore stabilization measures/structures. The project expands and enhances the shoreline by:

- Removing, to the greatest extent practicable, existing stabilization measures (seawall and riprap revetment) along the shoreline.
- Re-grading the area landward of the removed bulkhead and revetment to a more natural shoreline/beach slope.
- Placing stable beach material to establish a more natural expanded shoreline/beach area.

The proposed esplanade is set back from the shore far enough, and placed at a sufficient elevation, to allow for the creation of the expanded beach area capable of dissipating wave energy like a natural beach.

A concrete edge beam/below grade separation wall is included as an integral part of the shoreside esplanade edge. This thickened edge beam/separation wall will provide structural support and separation between the sub-grade under the promenade and the beach fill material and is not considered a shoreline stabilization measure.