# Exhibit Q

#### MEMORADUM

TO: EMILY MEHARG, SENIOR PLANNER

FROM: MIKE WALKER, DIRECTOR OF PUBLIC WORKS

RE: PUBLIC WORKS COMMENTS - FILE NO. 21-037 SUB/VAR TREE

DATE: OCTOBER 29, 2021

The following are Public Works' comments on the above-referenced application.

### **Transportation**

The sole access to and from the site is via the intersection of Kelso Rd and proposed Street A. Kelso Rd. is a Clackamas County facility, the County's design standards apply to improvements adjacent to and within Kelso Rd.

The applicant's traffic impact analysis has been reviewed by the City's traffic engineer, Replinger and Associates.

The Applicant submitted a design modification request to Clackamas County to reduce sidewalk and planter strip width to minimize impacts to existing delineated wetlands on the Kelso Rd. frontage of the site west of proposed street A. The County approved the design modification to allow a five-foot-wide curb tight sidewalk adjacent to the wetland. The County also approved a design modification allowing the Kelso Rd. frontage sidewalk to terminate short of the east of the site boundary adjacent to proposed lot 53.

The County's narrative response to the design modification request indicates that the applicant requested that the sidewalk improvements on Kelso Rd. terminate five feet from the eastern property line of the site due to grading required to construct the sidewalk. The County approved this modification even though there is no mention of the sidewalk terminating short of the site boundary in the design modification request or the land use application narrative submitted by the applicant. The site plan submitted with the application shows the Kelso Rd. sidewalk improvements terminating approximately 30 feet from the eastern boundary of the site and about 10 feet from the western boundary of the site. Based on the contours shown on the existing conditions plan it does not appear that any slope easement or grading on adjacent property would be necessary to allow Kelso Rd. street frontage improvements to extend to the <u>east</u> boundary of the site per the requirements in section 17.84.60 Sandy Municipal Code. It does however appear that retaining walls or grading outside the right-of-way would be required to extend the Kelso Rd. sidewalk to the <u>west</u> boundary of the site.

The applicant shall clarify if a request to terminate the Kelso Rd. sidewalk improvements was included with the design modification request submitted to the County and if so clarify whether it was for the east or west end of the development site.

Modifications proposed to the existing pedestrian path and stormwater facility maintenance roadway in the adjacent Sandy Woods development include placing

asphalt pavement over the existing crushed rock surfacing to provide a 12-foot-wide emergency vehicle access route for Sandy Woods 2.

The existing pedestrian path and stormwater facility maintenance roadway includes locked bollards at the intersection of the path with Broken Top Ave to prevent unauthorized vehicle access. The applicant shall submit a proposal to secure the new pedestrian path/stormwater maintenance and emergency vehicle access roadway from unauthorized vehicle use while still allowing emergency vehicle access.

The proposed pedestrian path/stormwater maintenance and emergency vehicle access roadway will be more than 1,000 feet long between Broken Top Ave. and the cul-de-sac bulb of proposed street A. There is pedestrian-scale lighting on the portion of the path between existing lots 30 and 31 in Sandy Woods but no illumination on the rest of the proposed route. The applicant shall submit a design for City and Fire District review to mitigate risks to pedestrians and emergency vehicles due to the lack of illumination along the route. Possible mitigation steps include reflective pavement edge striping and/or delineators; curve and chevron signage to define changes in horizontal alignment or illumination.

The pedestrian path/stormwater maintenance and emergency vehicle access roadway design shall comply with Clackamas County Interagency Fire Code Access Guide standards for width, grade, vertical clearance, load capacity, turning radii and gates. The applicant shall submit turning template diagrams for the intersection of the existing pedestrian path/stormwater maintenance roadway and Broken Top Ave. and the proposed pedestrian path/stormwater maintenance and emergency vehicle access roadway and Street A to demonstrate that the existing driveway approach at Broken Top is wide enough and to define any No Parking zones that would need to be posted to allow emergency and service vehicle access.

## **Utilities**

The development site is proposed to be served by a single 8" diameter dead-end water line connected to the existing 12" water line in Kelso Rd. The applicant shall submit calculations demonstrating that the proposed water line will be able to furnish the required fire and domestic flows for the development.

The proposed sanitary sewer extension between Tract L and the existing sanitary sewer in Olson St. is over 1,600 feet long and includes four manholes. There is no all-weather access to the proposed sewer line. The applicant shall construct a 12-foot-wide crushed rock access roadway over the existing and proposed sewer easement between Tract L and manhole F-8 and between Olson St. and manhole F-6 to provide maintenance access for the off-site sewer line.

The stormwater management plan depicts fourteen separate flow-through planters in the proposed City right-of-way adjacent to lots 44, 45, 47, 53, 54, 63, 64, 65, 71 through 74, 76, 78, 80, 82, 83 and Tracts K, M and O. The street frontage of these lots shall include Vehicle Non-Access Reserve (VNAR) strips coincident with the flow-through

planter locations to prevent the construction of driveway approaches over these areas upon development of the lots.

The stormwater detention pond in Tract L shall be fenced per the requirements in the City of Portland SWMM.

Plans for public and private sewer collection and conveyance facilities shall be submitted to the Oregon Department of Environmental Quality for review and approval per ORS Chapters 454, 468 and 4868B and OAR 340-052 and in particular OAR 340-052-0040(2).

Public utility and street plans for land use applications are submitted to comply with the requirements in 17.100.60 SMC. Land use approval does not connote approval of utility or street construction plans which are subject to a separate submittal and review process.

#### General

Tract L shall be dedicated to the City for stormwater management, emergency vehicle and pedestrian access. Tracts J, K, M and O shall be dedicated to the City as open space and pedestrian easements.