

Public Meeting, October 26, 2015

## **Experts in environmental, geotechnical, and civil engineering discuss due diligence efforts on 46-acre former pumice mine site**

*Beginning in 2013, engineering experts have examined a 46-acre former pumice mine as a potential site for an expanded OSU-Cascades campus. Experts from three Northwest firms shared their findings and answered questions from community members during a public meeting held Oct. 26, 2015. For background about meeting see [media release](#). The following is a summary of the questions and answers.*

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### **Overall engineering assessment**

#### **Q. Are there any engineering concerns about the development of this site for a university campus?**

A. No major concerns. Geotechnical engineers have identified measures to address steep site slopes and areas of the site underlain by uncontrolled fill materials. Civil engineers have reviewed the site feasibility for site access, mass grading, storm drainage and utilities. Environmental scientists have identified minor issues that are being addressed.

### **Fill/Soils**

#### **Q. Summit High School is built on a reclaimed pumice mine and we've seen sinkholes/potholes there. How will you make sure that doesn't occur if OSU-Cascades develops this 46-acre site?**

A. The solution is to avoid what occurred at Summit High. A decision was made to "float" the Summit High School football field on uncontrolled fill. Irrigation of the field created instability and caused the soil to collapse. OSU-Cascades will completely remove uncontrolled fill materials where located within site areas dedicated for campus development and replace those fill materials in a controlled (engineered) manner. On-site and imported fill materials will be processed, moisture-conditioned, and compacted in conformance with the project geotechnical report.

#### **Q. What kind of building foundations would be required, given the fill and conditions at the site?**

A. The foundations will depend, in part, on the building designs, loads, and settlement tolerances. The geotechnical engineer will collaborate with the building designers to help select the most economic foundation system for each building.

#### **Q. How much of the 46-acre site is usable for the campus?**

A. The majority of the property is developable.



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## **Cascades**

### **Q. How deep would the site be after remediation?**

A. The site would be terraced at various elevations. The vertical distance from SW Chandler to the lowest elevation will be approximately 80 feet.

### **Dust**

#### **Q. What about the dust and debris that may be stirred up at the site, is it toxic?**

A. Our due-diligence investigation did not find any evidence of hazardous substances present at the former pumice mine. There are “fill” materials present on the site that do not meet the Department of Environmental Quality’s definition of “clean fill” because they contain materials such as steel rebar, pvc plastic and organic debris. Those materials will need to be removed prior to using the fill to reclaim the mine. The dust would be controlled on site with water trucks. During transit, city code requires trucks hauling fill to be covered.

#### **Q. How will dust control be managed for transportation of soils on off-site roads? What environmental regulations are in place to control off-site transportation?**

A. OSU-Cascades is currently looking into local and state regulations. We would require our contractors to comply with those rules. We want to do everything we can to mitigate impacts on the local neighborhoods and community.

### **Traffic**

#### **Q. What will the impact be to the roads with trucks bringing fill materials to the site?**

A. Engineers estimate the site will require approximately 9,000 cubic yards of fill to be brought in immediately after purchase of the site to achieve Oregon Department of Geology and Mineral Industries’ (DOGAMI) slope stability requirements. The average truck can bring 20 cubic yards per load, or roughly 450 trucks over several weeks early in the project. Over the course of the campus development, approximately 127,000 cubic yards of additional fill would need to be brought in. Fill delivery would depend on the phasing strategy of the campus development. The trucks would most likely use the Simpson Avenue entrance to the site.

#### **Q. Are there any new curb cuts on the 46-acres that indicate where future access would be located?**

A. No. OSU-Cascades does not own the 46-acres and has not conducted any development work on the site. Any existing curb cuts originated with the current owner and do not indicate where future access would be located. Any new curb cuts are located on the 10-acre property, which OSU-Cascades owns and is developing for our campus.

### **Parking**

#### **Q. Where would parking be located on the expanded, 46-acre site to accommodate as many as 5,000 students and faculty? That doesn’t appear on the site plans?**

A. The site drawings people have seen were created in 2013 to conceptualize how the site might accommodate 5,000 students. These sketches did not attempt detailed parking scenarios, such as structured parking vs. surface parking. Over the next 17 months, and if OSU-Cascades decides to purchase the property, OSU-Cascades and its contractors would analyze site access, internal roadways and parking areas as part of the Long Range Development planning. OSU-Cascades would include and encourage the community to participate.

**Q. Can underground parking be provided at the site?**

A. That's still to be determined. Parking will be evaluated during the long-range planning process.

**Cost**

**Q. What is the cost per square foot for development on the 46-acre site?**

A. That's also still to be determined. Earth work at the site would cost an estimated \$6.1 million, with another 15% (\$1.5 million) built in as a contingency. Total project costs would be determined following long-range planning.

**Adjacent landfill**

**Q. Is there any migration of materials from the adjacent county landfill onto the 46-acre site?**

A. Engineers excavated the hillside north of the site and found no waste, liquids or asbestos materials. That was a limited analysis but there is no indication of landfill encroachment.

**Q. Are there concerns about this location on an earthquake fault?**

A. Engineers found a geologic fault line that crosses the property, roughly north to south. This is considered part of the Metolius fault zone, characterized by the United State Geological Survey (USGS) as relatively low activity fault zone, with an assigned slip rate less than 0.2 mm per year. In terms of seismic activity, or potential, this site is not different than many other sites in Bend. What is unique about this site is the ability to readily identify the location of the fault and take necessary precautions during planning. Buildings would not be constructed on top of or across the fault.

**Q. Would the analysis of this site be any different if the developer was looking at multi-family housing or another use vs. a university campus?**

A. Geotechnical engineering analysis would be practically the same for a comparably sized multi-housing development. Additional seismic hazard analysis may be required to address code requirements for university campus buildings.



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**Cascades**

**Timing/What's next**

**Q. When will the decision made regarding whether to purchase this property for campus expansion?**

A. OSU-Cascades must complete more due diligence assessment before making a purchase decision.

**Q. What is the master planning schedule?**

A. Long Range Development Planning will occur over approximately 17 months, beginning this fall.

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