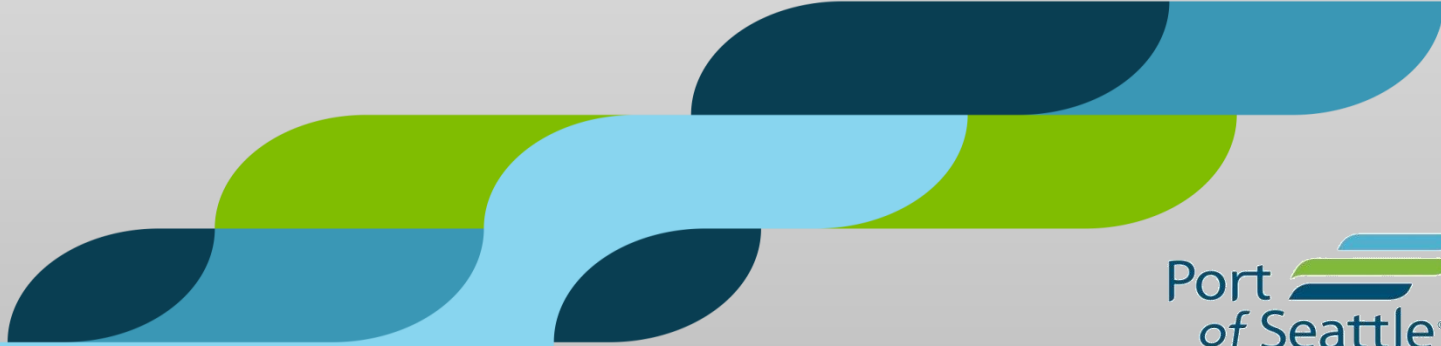


# Terminal 91 Building C-173 Roof Overlay



# Building C-173 Roof Overlay



Existing C-173 Roof Approximately 29 Years Old

# Existing Roof Elements



Abandoned mechanical unit



Underside of abandoned mechanical unit

Existing Roof Top Mechanical Elements

# Existing Deteriorated Roof Elements



Underside rusted canopy area



Hole previously repaired with coating



Hole previously repaired with coating



Rusted underside of roof panel



Previous repair of metal roof at rusted location



Mechanical room penetrations

Existing Deteriorated Roof Elements

# Incorporate Sustainable Elements

- Increase Insulation Value
- Utilize Reflective Overlay Material
- Recycling of Demolished Materials
- Durable Roof System that can last 30 years as specified

The project will also consider:

- Bio filtration units at the downspouts

# Project Alternatives Considered

Alternatives	Description	Cost Implications [Solar]
<b>Alternative 1</b>	<ul style="list-style-type: none"><li>• Maintain Status Quo.</li><li>• Continue to pay maintenance cost. (Approximately \$9.8K/yr)</li></ul>	\$9.8K
<b>Alternative 2</b>	<ul style="list-style-type: none"><li>• Coat Roof with roll-on Coating System (10 year life)</li><li>• Add Fall protection and Security ladders</li></ul>	\$2.34M
<b>Alternative 3</b>	<ul style="list-style-type: none"><li>• Replace Roof with PVC membrane (30 year life)</li><li>• Add Fall protection and Security ladders</li><li>• Install Thin Film solar panels</li></ul>	\$1.56M [\$944K]
<b>Alternative 4</b>	<ul style="list-style-type: none"><li>• Replace Roof with PVC membrane (30 year life)</li><li>• Add Fall protection and Security ladders</li><li>• <b>This is the recommended alternative</b></li></ul>	\$1.56M

Project Alternatives

# Next Steps

- Complete Design 4<sup>th</sup> Quarter 2016
- Request Construction Authorization 1<sup>st</sup> Quarter 2017
- Construction Starts 2<sup>nd</sup> Quarter 2017
- Construction Complete 4<sup>th</sup> Quarter 2017