Deconstruction Program
City of Portland, Oregon

Shawn Wood
Construction Waste Specialist
Mechanical Demolition (Pre-2016)
Deconstruction (Post-2016)
House Demolition Applications (2006-2016)
Neighborhood Concerns
Neighborhood Organization
Multi-Phased Approach to Deconstruction

- Incentives (deconstruction grants)
- Requirements that could grow over time

Phase I:
- Deconstruction Grants

Phase II:
- Original Deconstruction Ordinance (<= 1916; historic)

Phase III:
- Expanded Ordinance (<= 1940)

Years:
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
Deconstruction Ordinance (Orig. and Expanded)

- Original Ordinance <= 1916; Historic 35%
- Expanded Ordinance 1917-1940 31%
- 1941-Pres 33%

Today

House/Duplex Demolition Permits
Demo Permits and Deconstructions Since 2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Demos</th>
<th>Decons</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>42%</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>67%</td>
<td></td>
</tr>
</tbody>
</table>
Key Components

• Year-built threshold provides the throttle to right-size annual number of projects

• Reliance on Certified Deconstruction Contractors
  • Training
  • Exam
  • Skills Assessment
## Stakeholder Concerns with Required Deconstruction

<table>
<thead>
<tr>
<th>Group</th>
<th>Concern</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developers</td>
<td>Cost</td>
<td>Competition, Grants</td>
</tr>
<tr>
<td>Developers</td>
<td>Time</td>
<td>Competition</td>
</tr>
<tr>
<td>Developers</td>
<td>Availability of Contractors</td>
<td>Contractor/Workforce Training</td>
</tr>
<tr>
<td>Developers, Deconstructionists</td>
<td>Not all houses worthy</td>
<td>Exemptions</td>
</tr>
<tr>
<td>Neighborhoods</td>
<td>Maximize Salvage</td>
<td>Certified Decon Contractors</td>
</tr>
<tr>
<td>Neighborhoods</td>
<td>Avoid greenwashing</td>
<td>Certified Decon Contractors</td>
</tr>
<tr>
<td>Developers, Deconstructionists</td>
<td>Flooding material market</td>
<td>Year-Built Threshold</td>
</tr>
<tr>
<td>Deconstructionists</td>
<td>Workforce/hiring</td>
<td>Workforce Training</td>
</tr>
</tbody>
</table>
Benefits and Outcomes

• Waste diversion
  • Over 350 house deconstructions
  • Over 3.5 million pounds of lumber recovered for reuse
  • 4,000 BF of lumber per house

• Carbon benefit
  • Net per house - 7.6 metric tons of CO2eq
  • To date - Equivalent to removal of 578 cars from the road for a year
  • 5.4 M plastic straws = 1 house deconstruction
Benefits and Outcomes

- Preservation
  - Built history
  - Craftsmanship
  - Materials
  - Old-growth lumber
Benefits and Outcomes

• Economic
  • More jobs – deconstruction, fabrication, retail
  • Deconstruction workforce (35% people of color and 16% women)
  • Cost of deconstruction has come down while mechanical demo costs have increased
  • Costs can be competitive between mechanical demo and deconstruction
Industry Growth (4 years)

• 12 Certified Deconstruction Contractors (companies)
• Two new salvage retail stores
• Product development/research
  • Furniture
  • Siding
  • Wall cladding
  • Mass timber applications (CLT)
• Grant awards/support
  • Processing (portable sawmills)
  • Boom trucks (loading/unloading)
  • Training (focus on POC and women)
  • Ongoing efforts
New Retail Stores

Reclaim NW
New Retail Stores

Good Wood
Salvage Works

Retail & Fabrication
Salvage Works

Retail & Fabrication