



Deconstruction Program

City of Portland, Oregon

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Bureau of Planning and Sustainability

Innovation. Collaboration. Practical Solutions.



Old-Growth Lumber



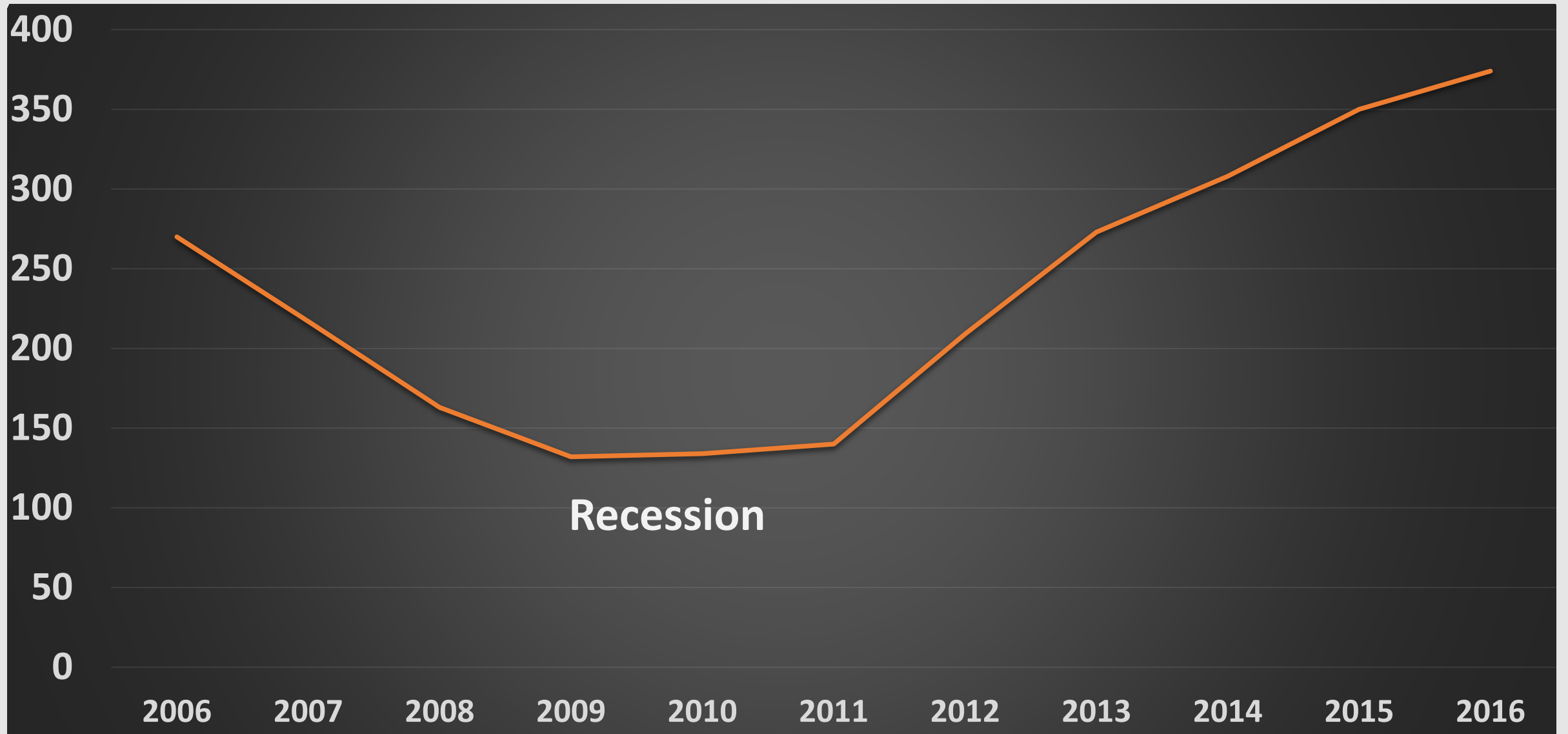
Mechanical Demolition (Pre-2016)



Deconstruction (Post-2016)



House Demolition Applications (2006-2016)



Neighborhood Concerns

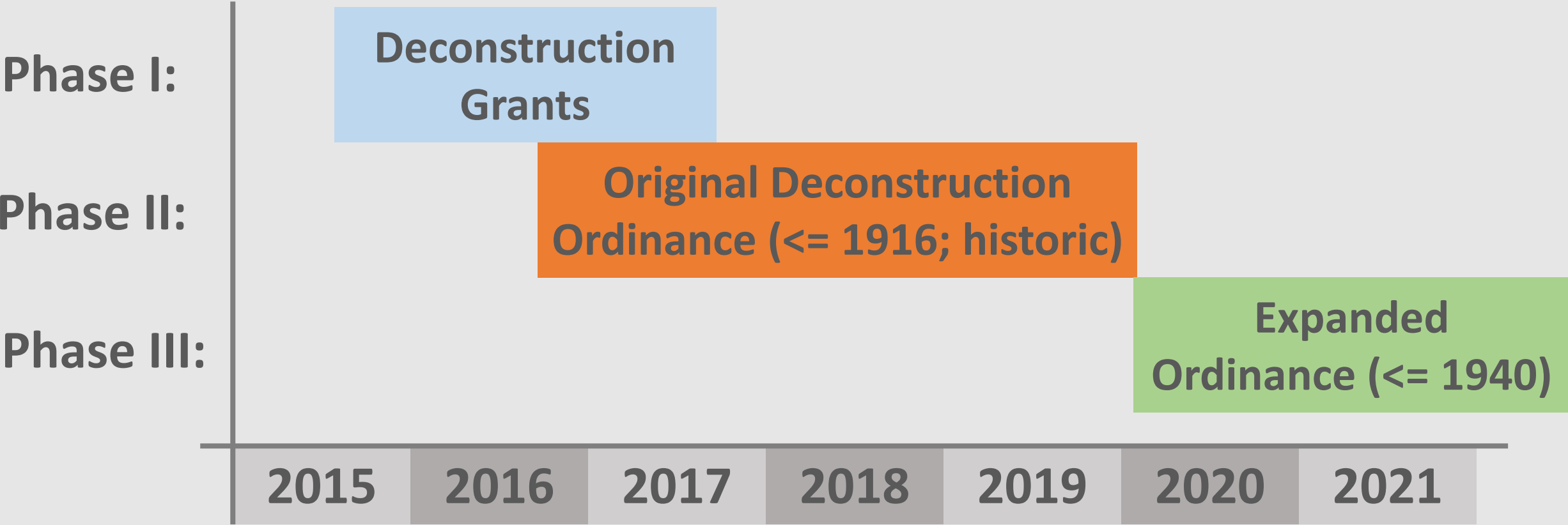


Neighborhood Organization

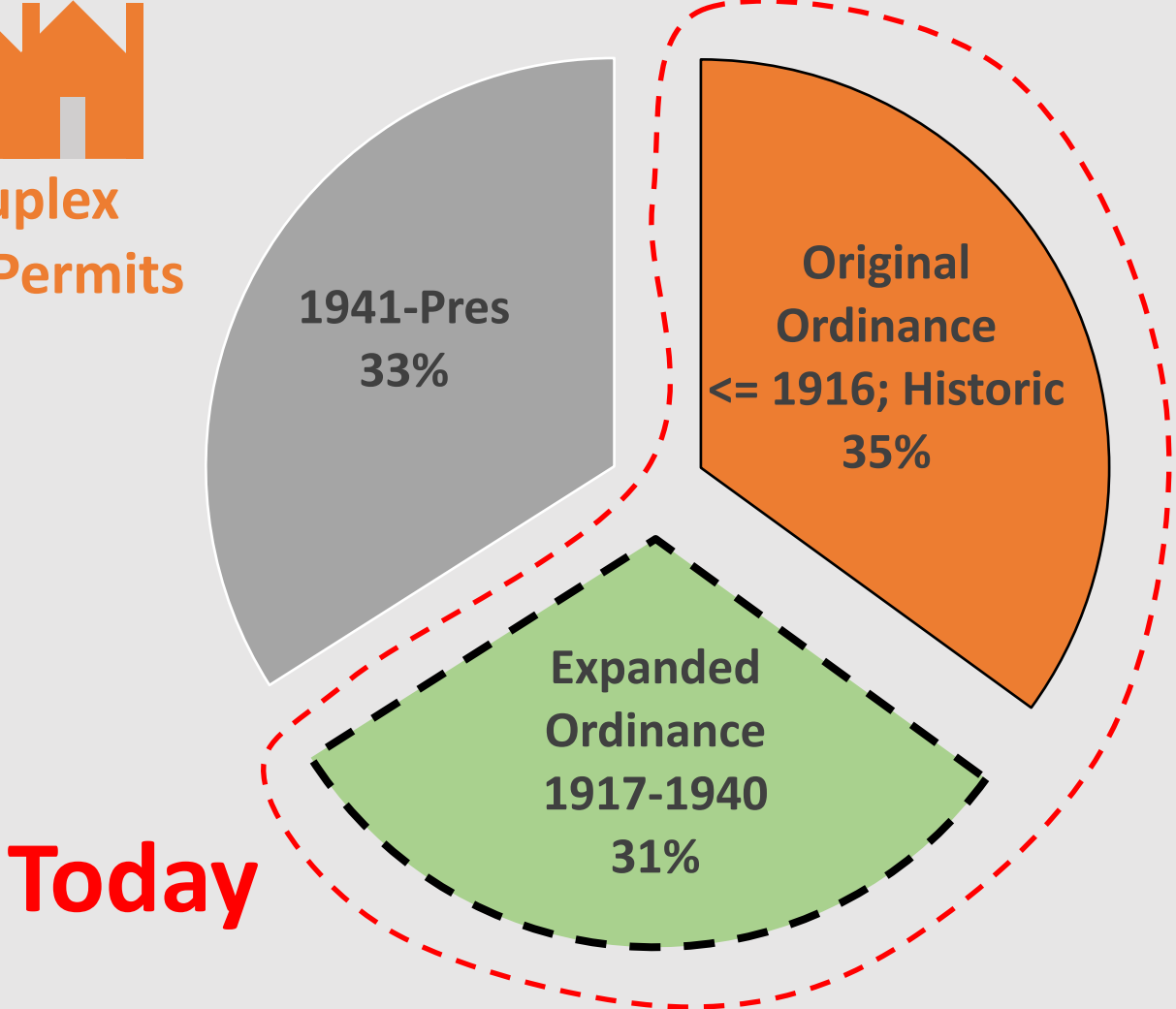
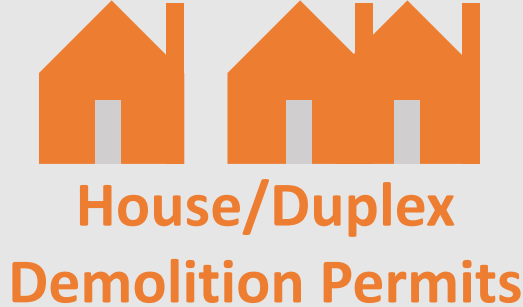


Multi-Phased Approach to Deconstruction

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

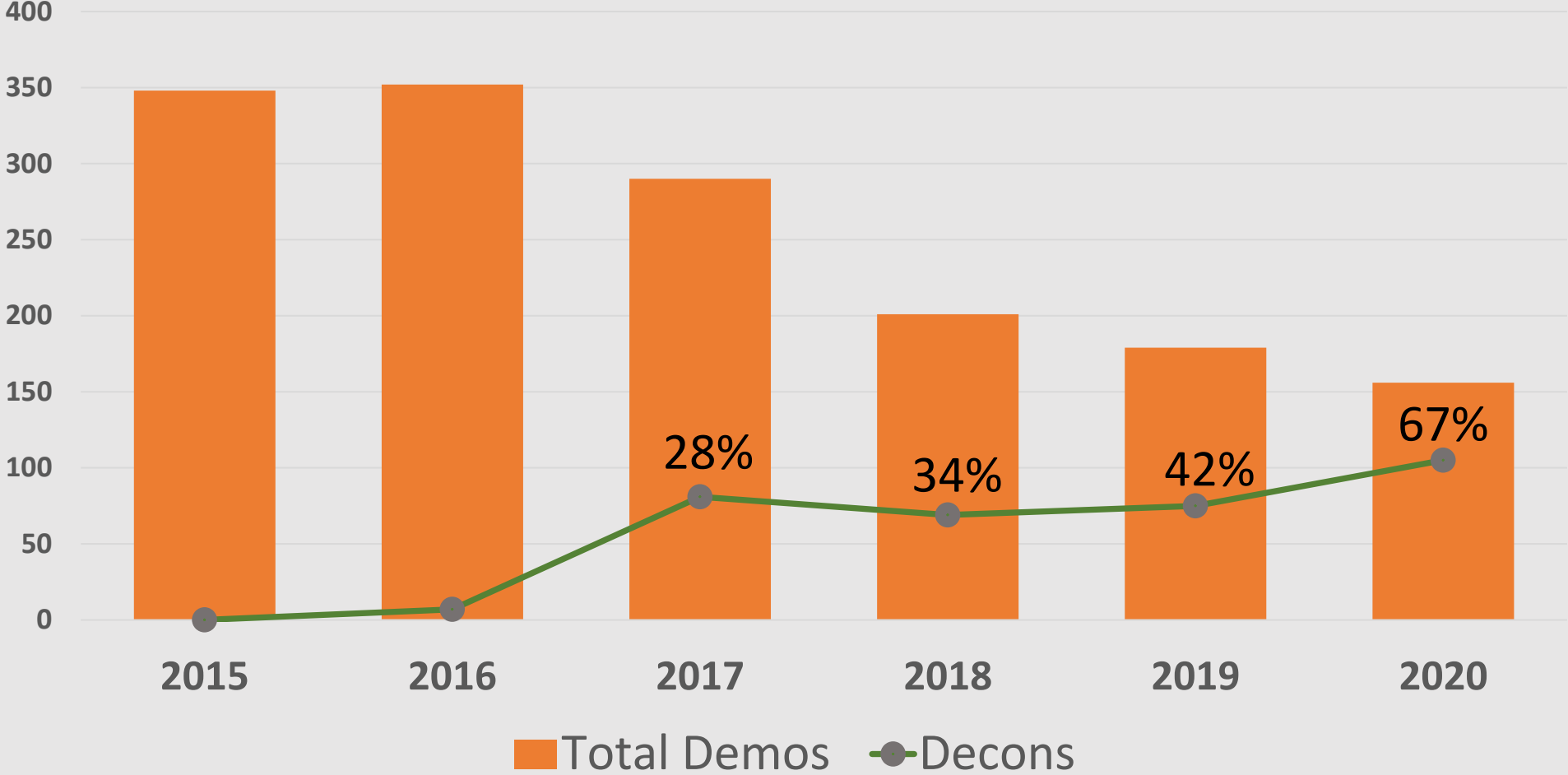


Deconstruction Ordinance (Orig. and Expanded)



Today

Demo Permits and Deconstructions Since 2015



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

Group	Concern	Solution
Developers	Cost	Competition, Grants
Developers	Time	Competition
Developers	Availability of Contractors	Contractor/Workforce Training
Developers, Deconstructionists	Not all houses worthy	Exemptions
Neighborhoods	Maximize Salvage	Certified Decon Contractors
Neighborhoods	Avoid greenwashing	Certified Decon Contractors
Developers, Deconstructionists	Flooding material market	Year-Built Threshold
Deconstructionists	Workforce/hiring	Workforce Training

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)

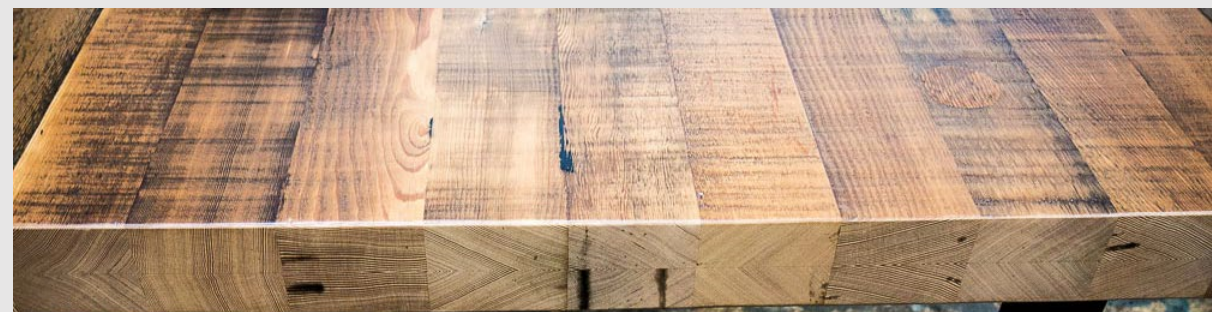
- 12 Certified Deconstruction Contractors (companies)
- Two new salvage retail stores
- Product development/research
 - Furniture
 - Siding
 - Wall cladding
 - Mass timber applications (CLT)
- Grant awards/support
 - Processing (portable sawmills)
 - Boom trucks (loading/unloading)
 - Training (focus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



Retail



Research



Fabrication

New Retail Stores



Reclaim NW



New Retail Stores



Good Wood



Retail & Fabrication



Salvage Works



Retail & Fabrication



Salvage Works



