



Ferndale C&D Ordinance

Michelle Marin - CLC Fellow

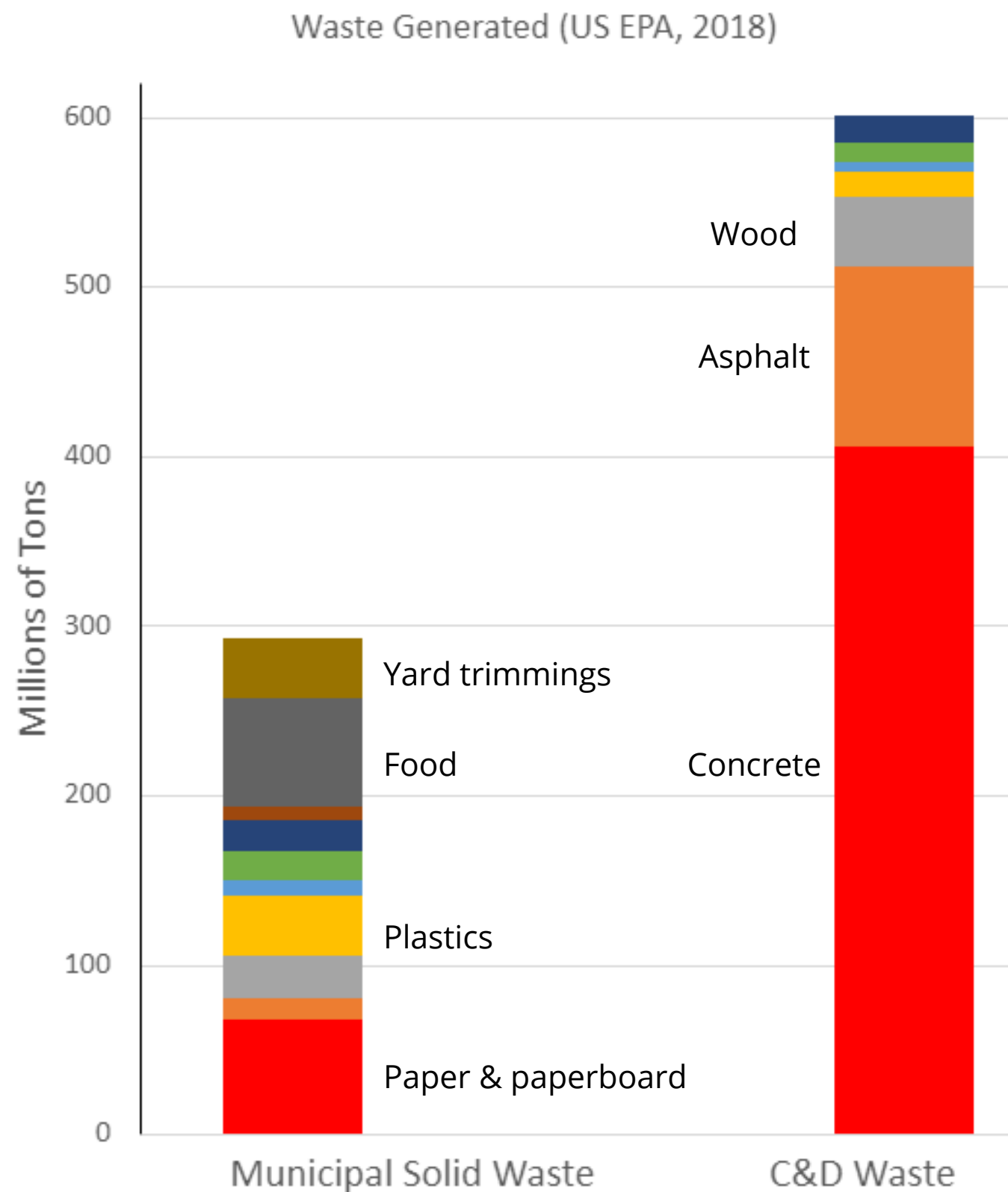
Claire Dion - City of Ferndale Mentor

Kristen Wieland - Technical Advisor, Resource Recycling Systems

Emily Loomis - City of Ferndale Mentor



The scope of C&D waste



- 1 State has a solid waste diversion goal of 45%
- 2 MI Natural Resources & Environmental Protection Act supports recycling and reuse of C&D waste. Proposed 2020 changes further this.
- 3 Downtown Waste Reduction & Recycling Plan includes goal to divert C&D waste

Deliverables



 **C&D ordinance**

Recommendations & incentives

 **Report**

Research findings and analyses

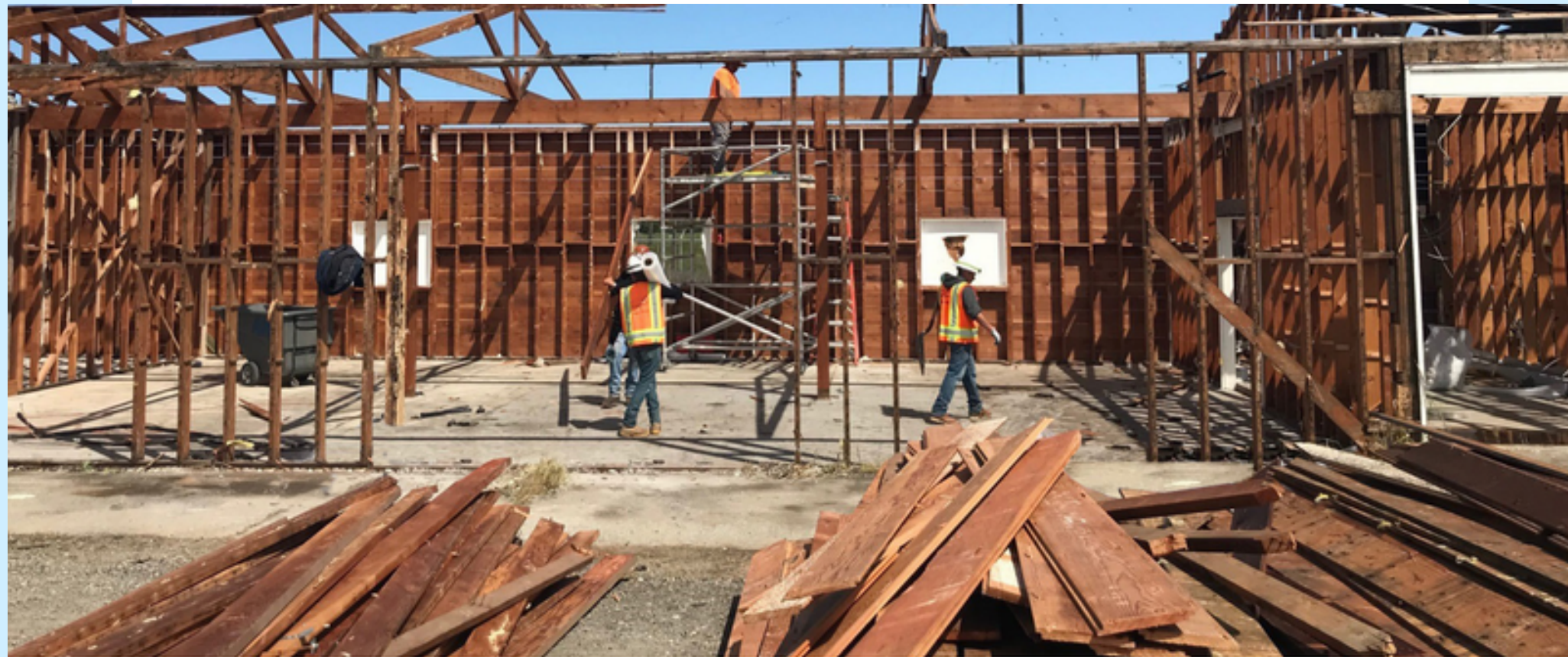
 **Stakeholder Guides**

Editable for flexible use



Demolition

Deconstruction

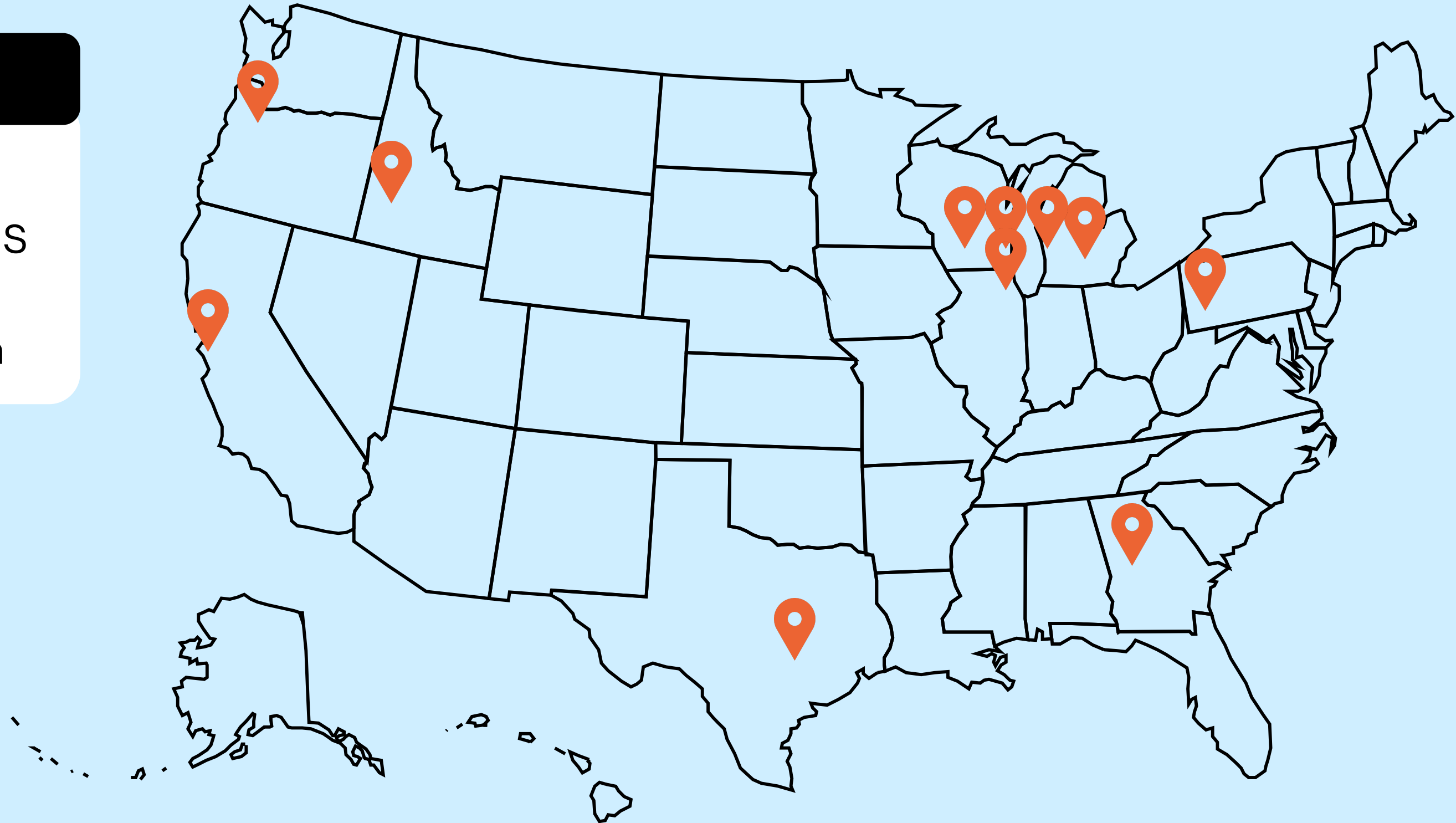


Research Approach

Analyses of current state + possibilities

ANALYSIS

- Existing C&D ordinances (incl. drafts) across the US
- Waste reports and laws
- Ferndale demolition data



Research Approach

Meetings & Interviews

CITIES WITH DECONSTRUCTION ORDINANCES

- City of Portland
- City of Palo Alto
- Zanker C&D Recycling MRF
- Palo Alto's C&D Waste Hauler

LOCAL STAKEHOLDERS

- City of Ferndale Building Division
- City of Ferndale Planning Division
- City of Ferndale Community & Economic Development Department
- 3 Demolition Contractors

INDUSTRY EXPERTS

- Rex Lamore & Nat Hooper, MSU Domicology
- Jennifer Petoskey, City of Ann Arbor
- 4 deconstruction contractors

POTENTIAL PARTNERS

- Architectural Salvage Warehouse
- Green Halo (waste tracking software)
- Kamps Pallets (wood recycling)
- Re-Trac (waste tracking software)
- ReUse Consulting (job training)
- ReUse People (job training)
- Unlimited Recycling (recycling consultant)
- Urban Ashes (wood reuse consultant)
- Woodward Throwbacks (wood salvage)
- Mid Michigan Recycling (wood recycling)



[About](#) [C&D Materials](#) [News](#) [Events](#) [Resources](#) [Find a C&D Recycler](#) [More](#)

This is where the real work begins.

We can help.

[About CDRA](#)

Do You Need to Recycle C&D?

CONCRETE • METALS • SHINGLES • WOOD • ASPHALT • GYPSUM

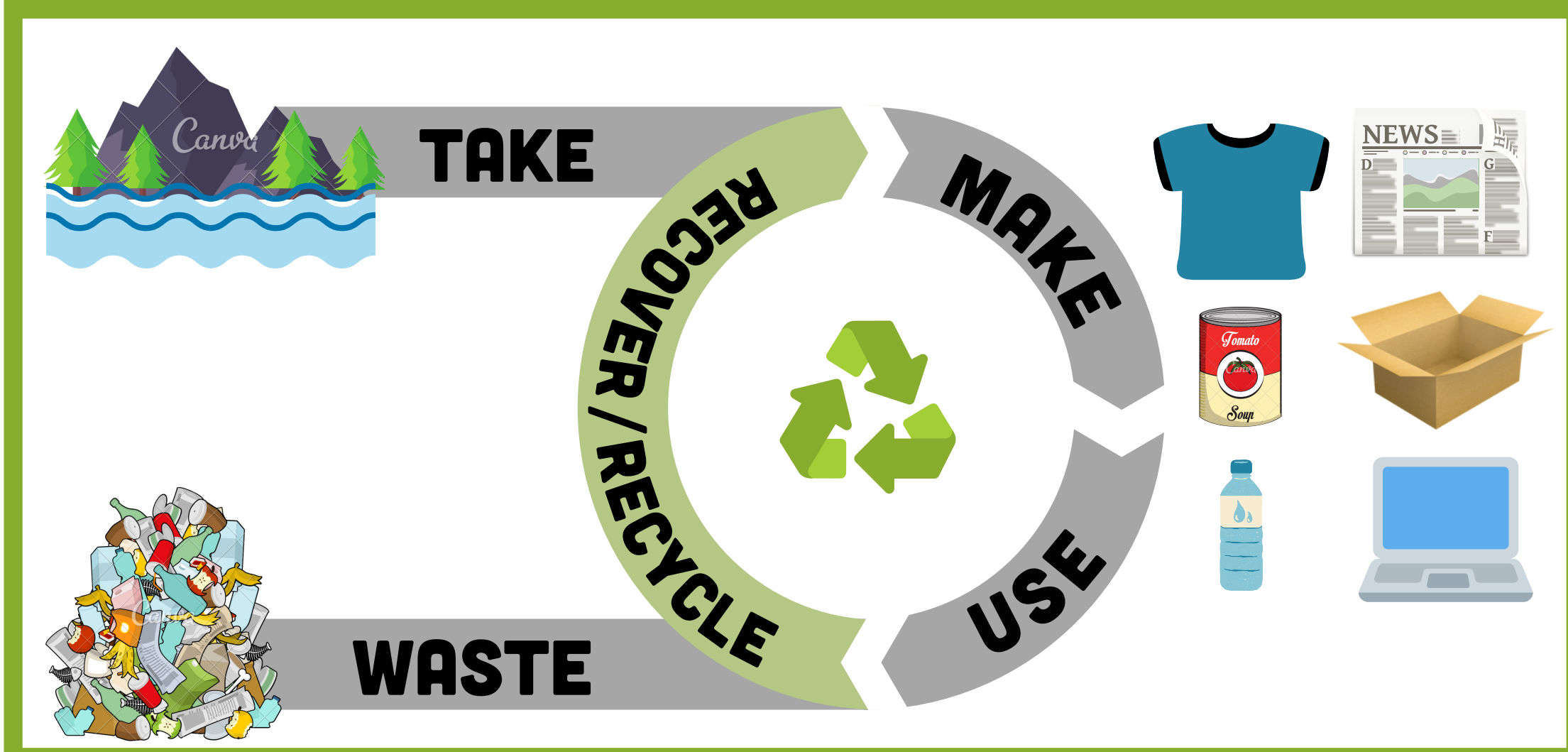
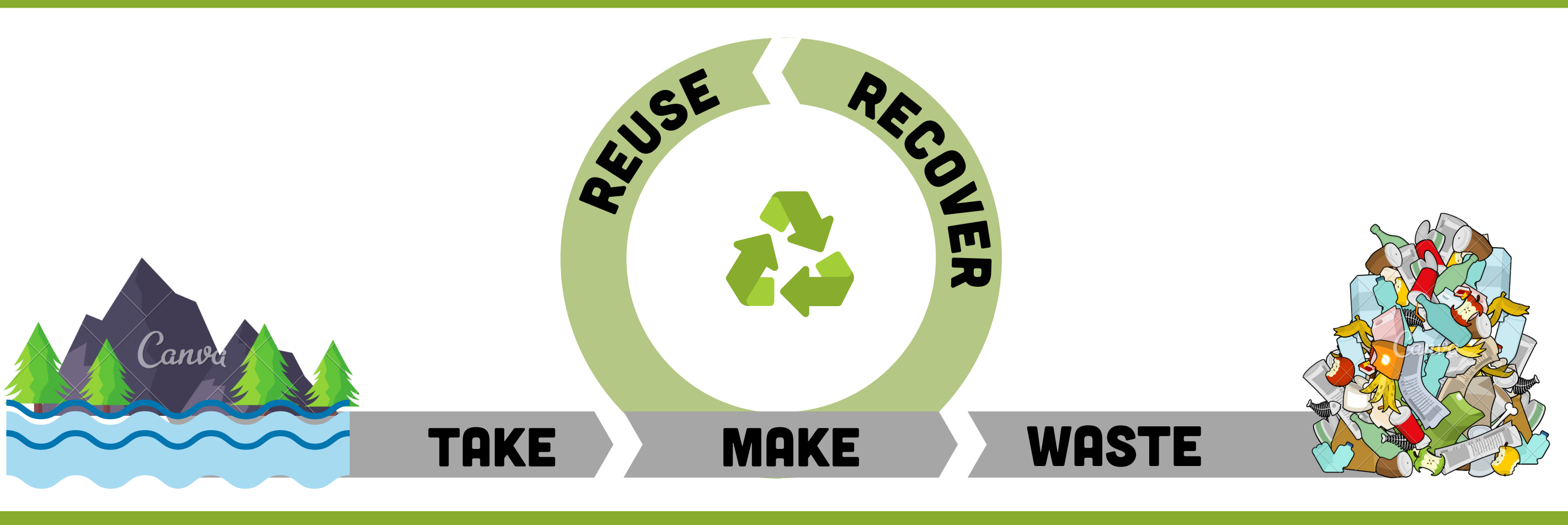
Search our Directory of Member Companies
to locate a C&D Recycler Company

[Search for C&D Recycler Companies](#)

Demolition Contractor ~~≡~~ Deconstruction Contractor



Source: CD Recycler



Recycling



Wood



Concrete



Asphalt



Drywall

<i><u>Average House</u></i>	Demolition	Deconstruction
Cost	\$10,000	\$20,000
Number of Workers	2-3	6
Resale materials value	\$0	\$25,000
Waste to landfill	48 tons	8 tons
<i><u>New Build</u></i>	Raw Materials	Recycled materials
Carbon Emissions	80 tons	46 tons

All sources cited in full report

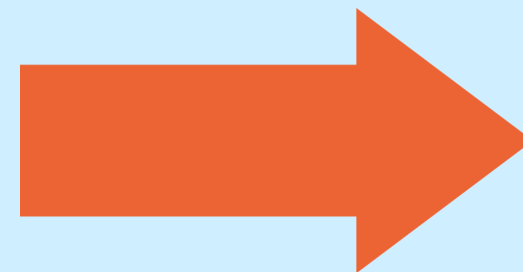
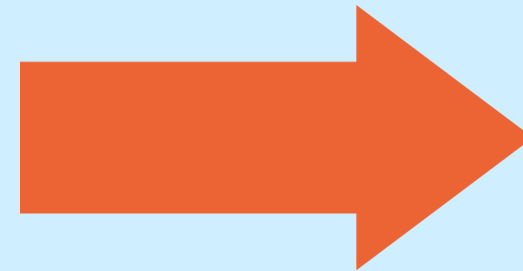
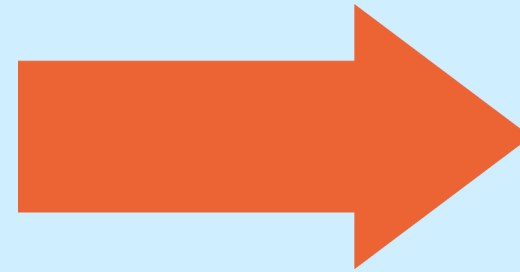
Ferndale C&D Waste

Current State

Lack of data collection

Contractors recycle & salvage material when convenient and economical

General contractors employ demolition contractors



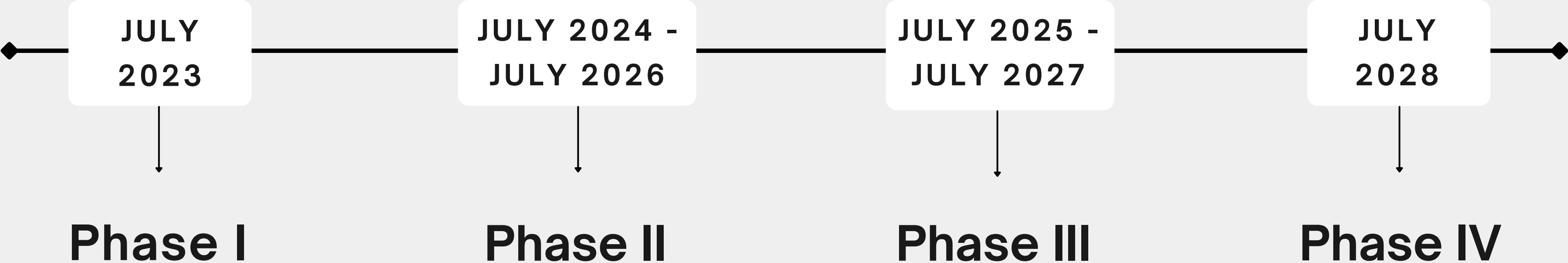
Possibilities

Data tracking software partnership

Regional reuse, recycle, and deconstruction orgs and companies looking for partnerships and source materials

Federal tax credits and grant funding can incentivize deconstruction, recycling, and reuse

Recommended Ordinance Timeline



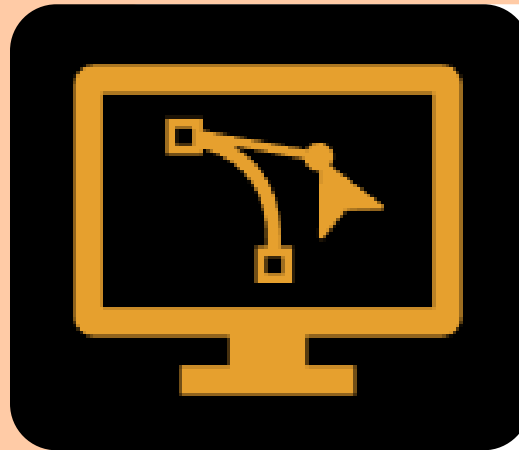
Phase I

Materials tracking for
all demolitions

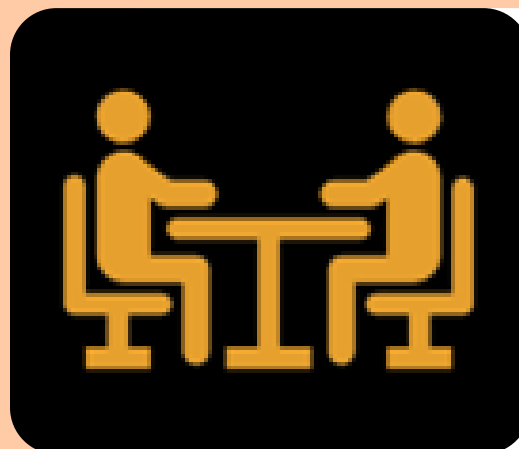


Requirement: Report waste disposal.

No recycle, reuse, or deconstruction requirement



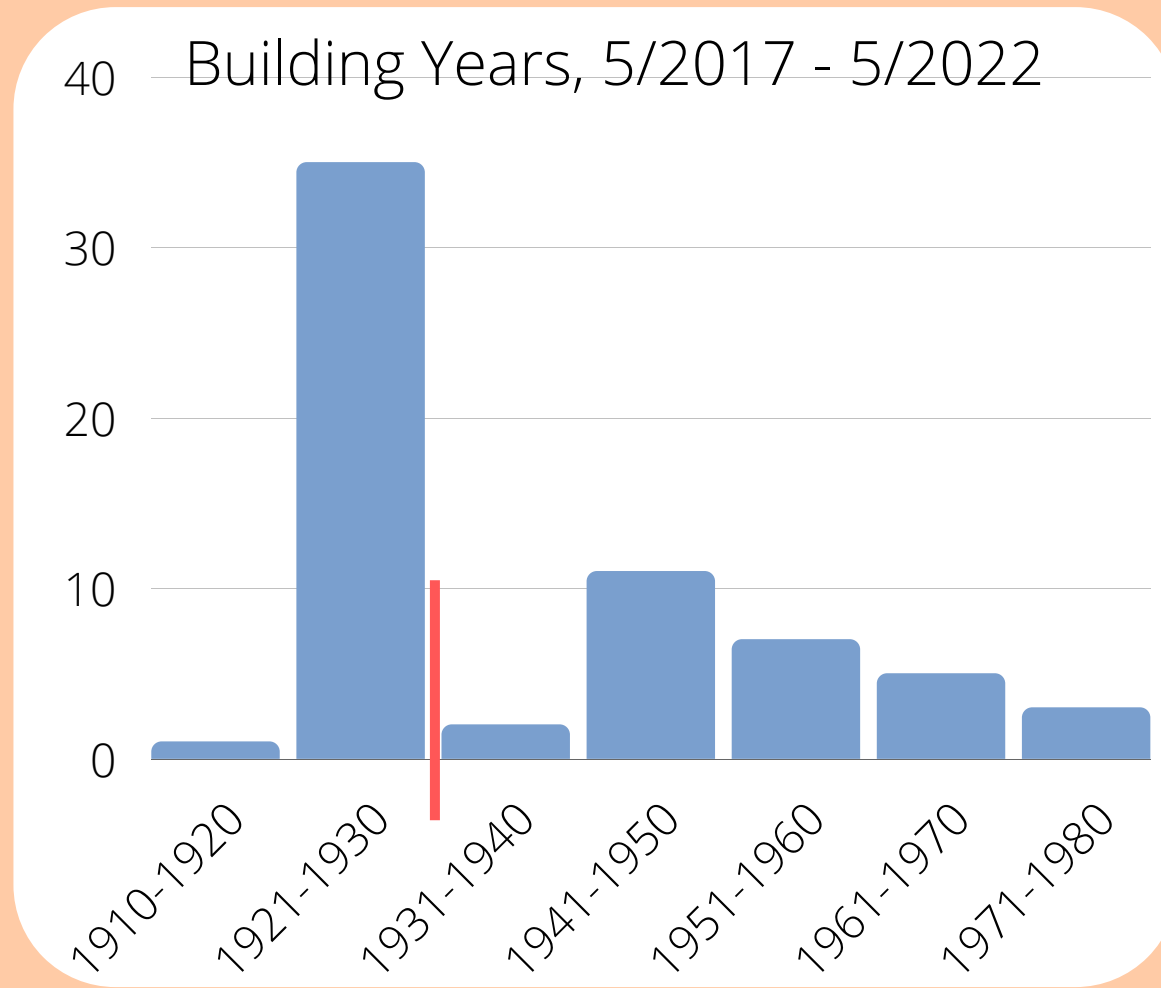
How: Use waste tracking software to require weight tags, recycling reports, and salvage reports from current general and demolition contractors



Partners: Software, landfills, recycling facilities, and reuse partners

Phase II

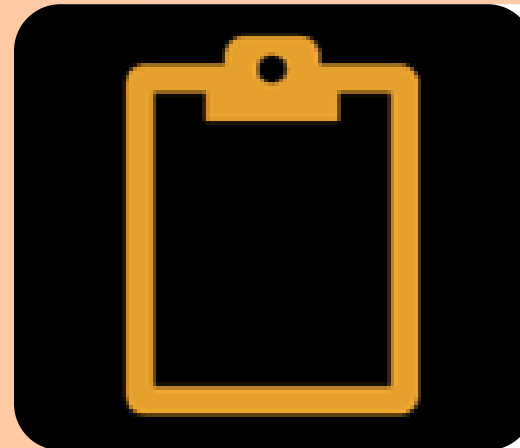
Landfill diversion for
demolished buildings
older than 1931



Requirement: Material diverted from the landfill through reuse and recycling



Stage A: 25% landfill diversion
Stage B: 50% landfill diversion
Stage C: 75% landfill diversion



How: See Phase I + pre-demolition salvage survey, Waste Management Plan and Report



Partners: Software, landfills, recycling facilities, and reuse partners

Phase III

Landfill diversion for
all buildings



Requirement: Material diverted from the landfill through reuse and recycling



Stage A: 25% landfill diversion
Stage B: 50% landfill diversion
Stage C: 75% landfill diversion

Phase IV

Full-building deconstruction requirements



Requirement: No full building demolitions allowed. Buildings must be disassembled piece-by-piece rather than with excavation equipment.



How: see Phase III + no demolition equipment. Instead of demolition contractor, GC employs a certified deconstruction contractor.



Partners: Support and marketing of deconstruction trainers

Next Steps

**Begin ordinance
development in
Fall 2022**

**Claire working with
NextCycle to
convene
communities across
the state to plan
market development
solutions**

**To replicate this in your
community, explore
what's currently there,
what's possible for your
government, and what
outside partners are
needed**

Thank you!

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Source: Zillow



Source: Zillow

