



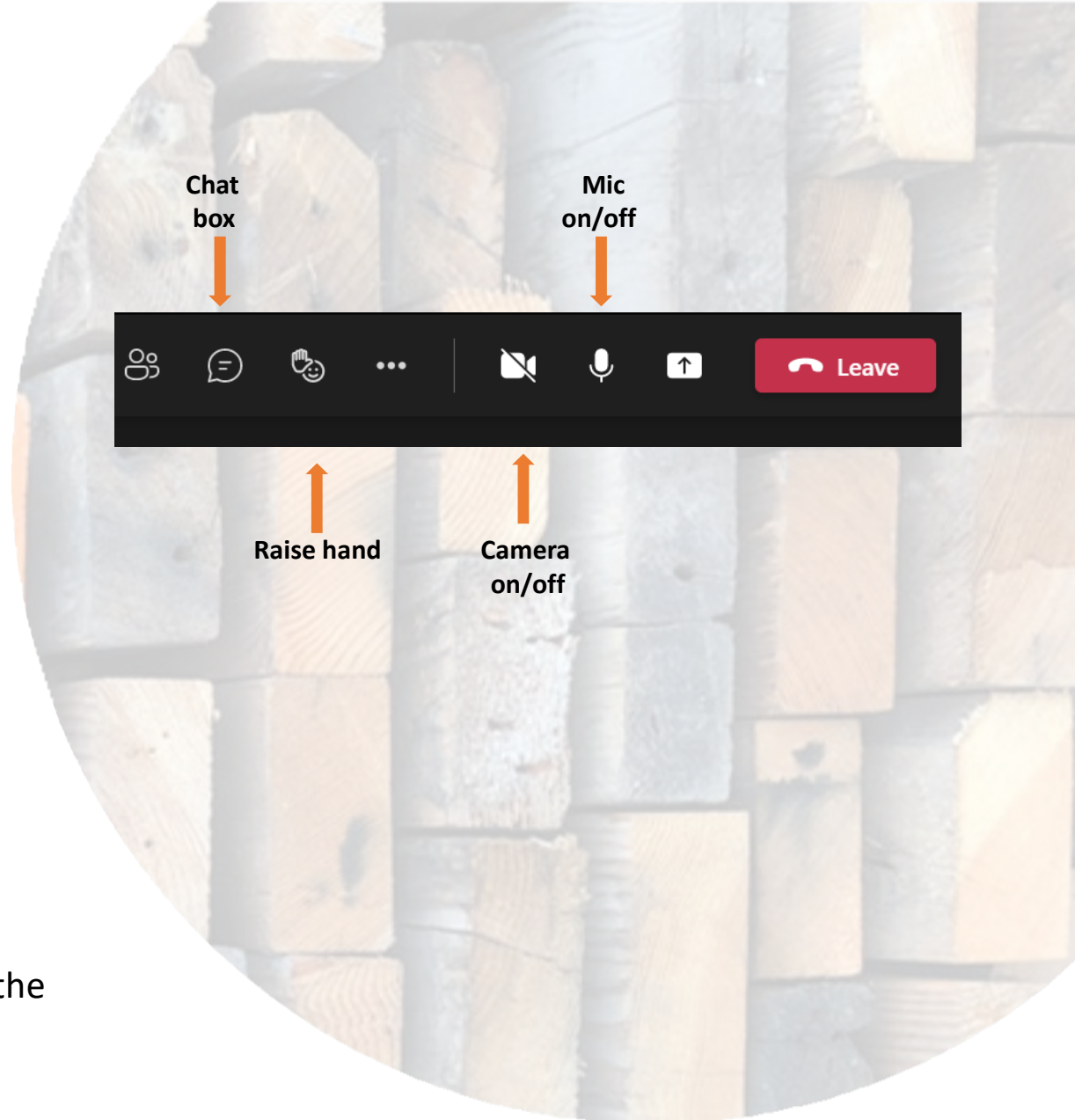
# **Bay Area Deconstruction Workgroup Meeting**

**November 2, 2021**



# Webinar Housekeeping

- Audio is available through your computer's mic and speakers, or by phone.
- All attendees have been muted to reduce background noise.
- Keep your camera **off** to ensure best video quality.
- Questions or comments?
  - Type them into the **Chat Box**
  - **Raise your Hand**
  - Unmute yourself when called upon
- If you experience any technical difficulties, enter in the Chat or email [katz.john@epa.gov](mailto:katz.john@epa.gov)
- **Slides:** The slides are available at the link placed in the Chat function and in the calendar invitation for the meeting



# Bay Area (& Beyond) Deconstruction Workgroup

- **Started by learning about Portland's Mandatory Deconstruction Ordinance**  
(late 2017)
- **Quarterly meetings to learn from each other**
  - Policies, results, barriers
  - Share opportunities for collaboration and ideas
- **Workgroup Members**
  - Now national & international participation
  - Focusing on issue of interest in the San Francisco Bay Area & beyond
- **Website & Contact Us:**  
<https://www.stopwaste.org/DeconstructionWorkgroup>





# Bay Area Deconstruction Workgroup Agenda

**Welcome and Introductions – Angela Sandoval, Manager, Zero Waste Section, U.S. EPA Region 9**

## **Speakers**

**Eden Brukman, SF Environment**

**Nicole Tai, Reuse Alliance & GreenLynx**

**Timonie Hood, U.S. EPA Region 9**

**Krista Kuehnhackl, San Mateo County**

**Max Wechsler, Urban Ore**

**Emily English, All for Reuse**

**Michael Chambers, The Reuse People**

**Nicholas Harvey, Bay Area Redwood**

**Doug Ware, Renera, Inc.**

**Meri Soll, StopWaste**

## **Q&A**





## Disclaimer

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Any information shared is for informational purposes only as every building and deconstruction project is different.





**SF** Environment

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A Department of the City and County of San Francisco

# Program Updates: Building Product Reuse in San Francisco





# Proposed Infrastructure to Support Policy & Programs



## NETWORK OF SUPPLIERS AND RECEIVERS



## VIRTUAL INVENTORY/ASSET MANAGEMENT

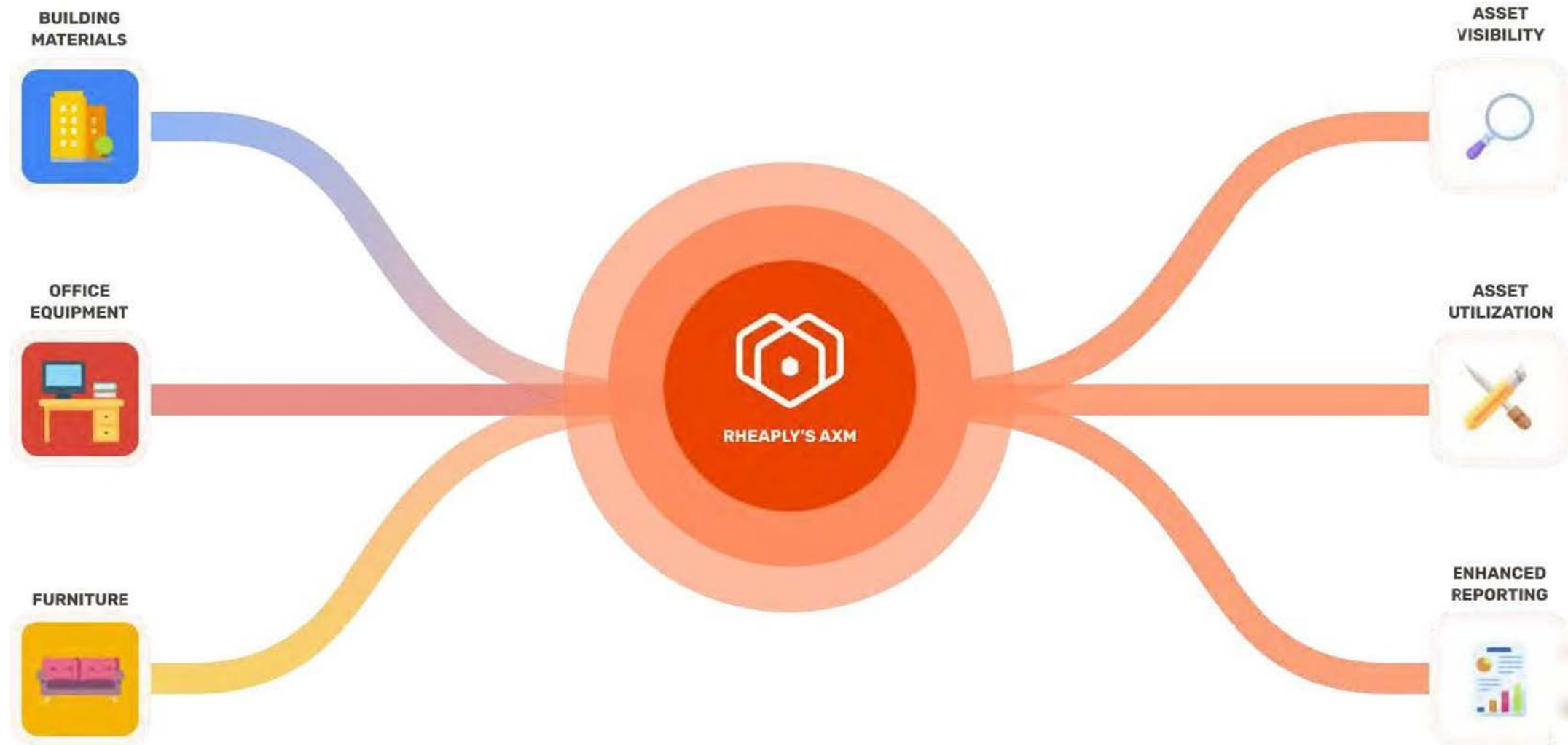


## PHYSICAL 'LAYDOWN' SPACE





# Online Exchange for Building Products





# Repurposing Infrastructure: The B.R.I.C.





# Construction Surplus & Material Redistribution





# Report Contents



Context

Research Approach

Typical Reasons for Surplus

Strategies to Address Surplus

Surplus Prevention

Surplus Redistribution

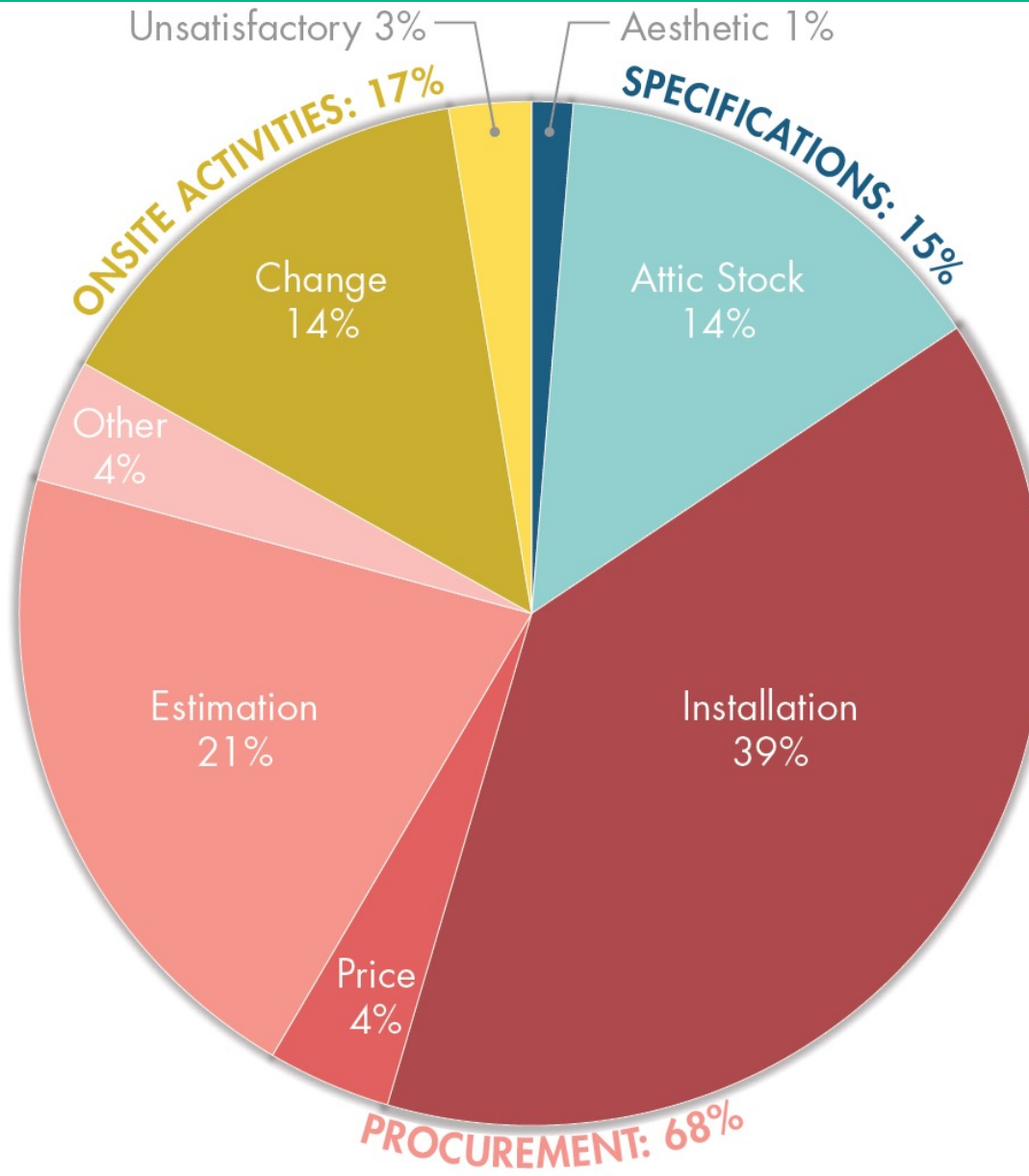
Role of Local Government

Appendices

- A. Survey: "San Francisco Surplus Construction Materials Survey (2020-21)" ("Contractor Survey")
- B. Survey: "Construction Surplus Study - Designers & Specifiers Survey (2020-21)"
- C. Questions: Interviews with San Francisco Bay Area Reuse Retailers
- D. Results: Abridged Data from Contractor Survey Respondents
- E. Results: Abridged Data from Specifier Survey Respondents

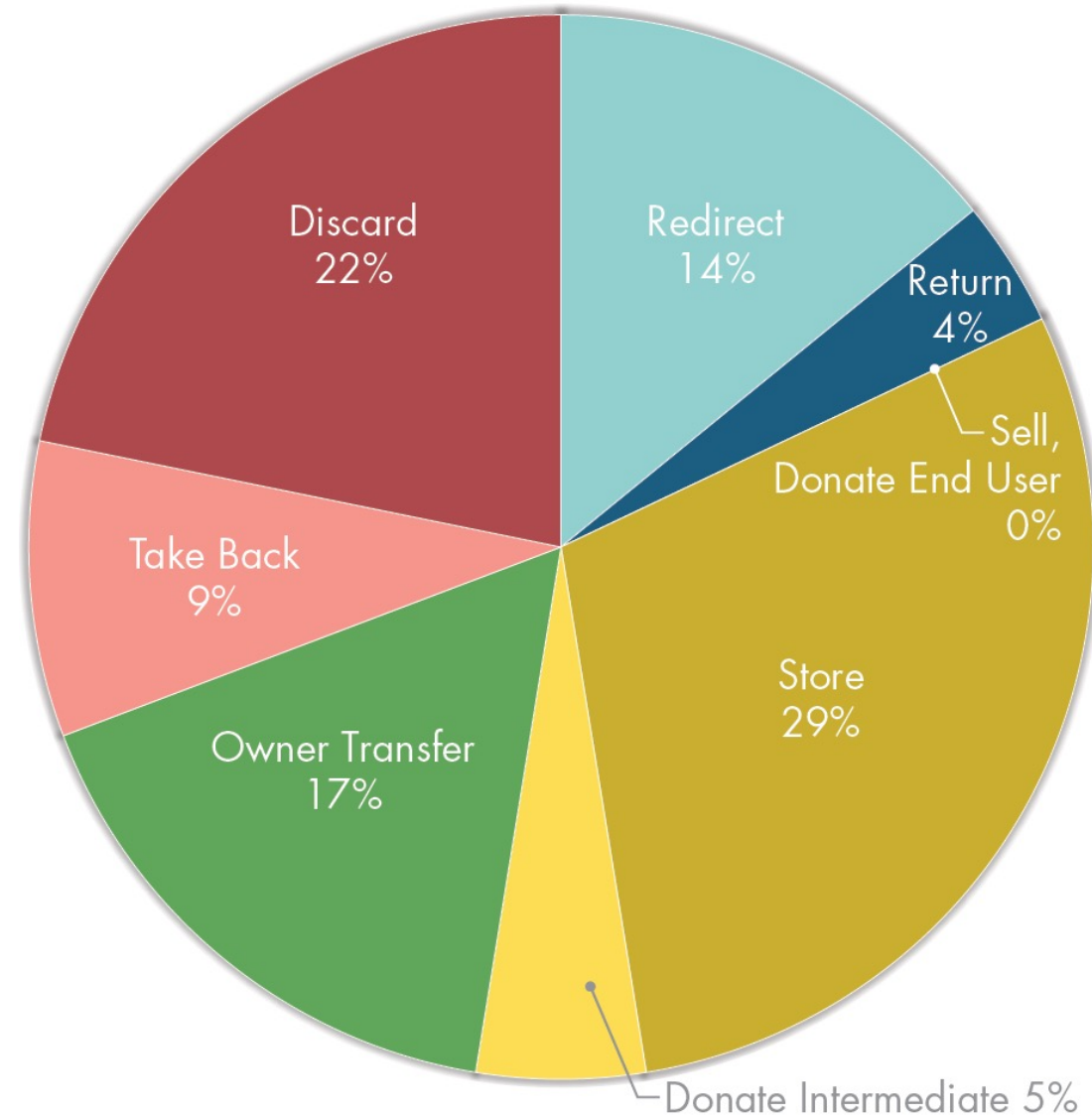


# Typical Reasons for Surplus





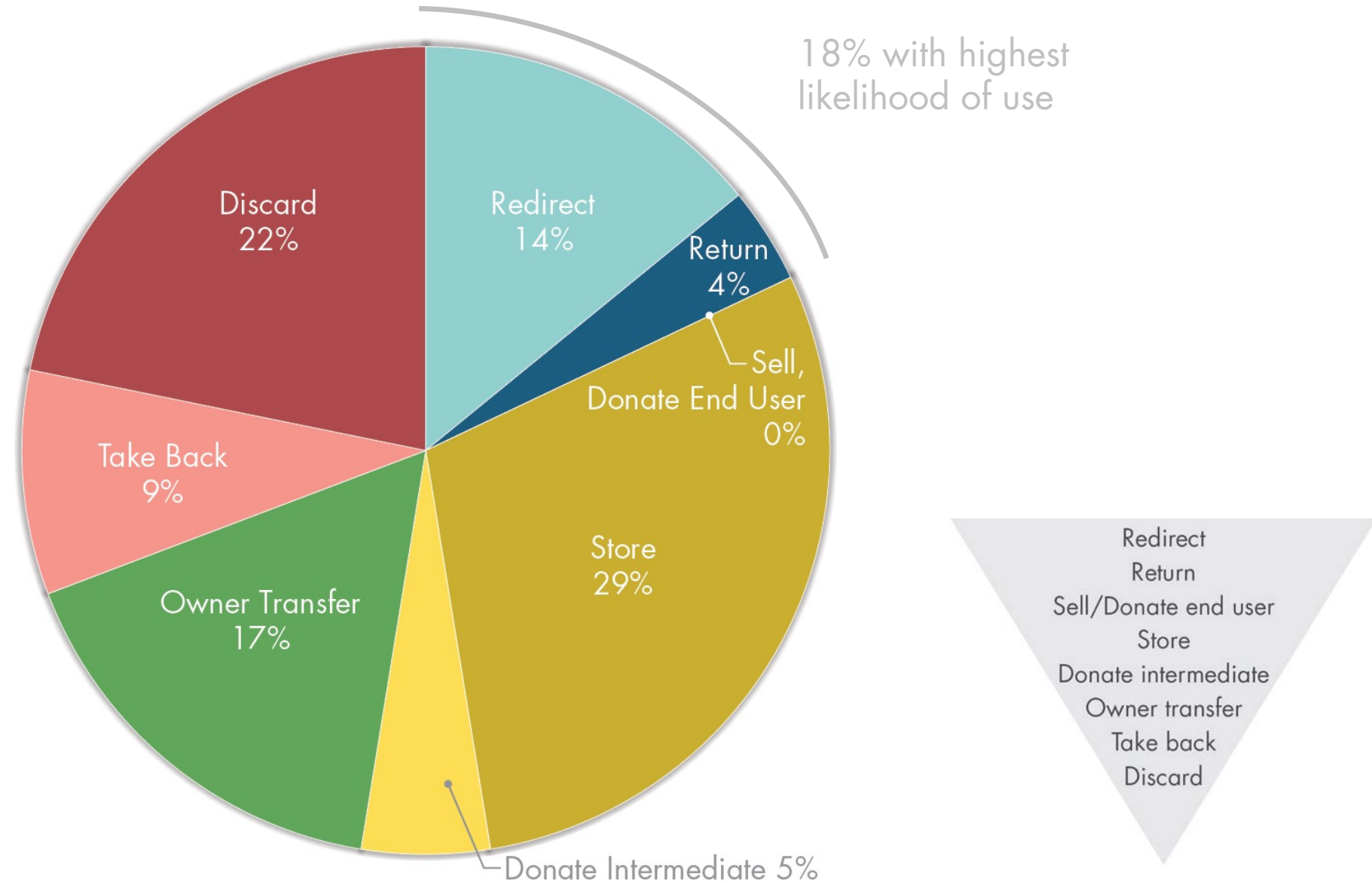
# Strategies for Surplus Redistribution



Redirect  
Return  
Sell/Donate end user  
Store  
Donate intermediate  
Owner transfer  
Take back  
Discard

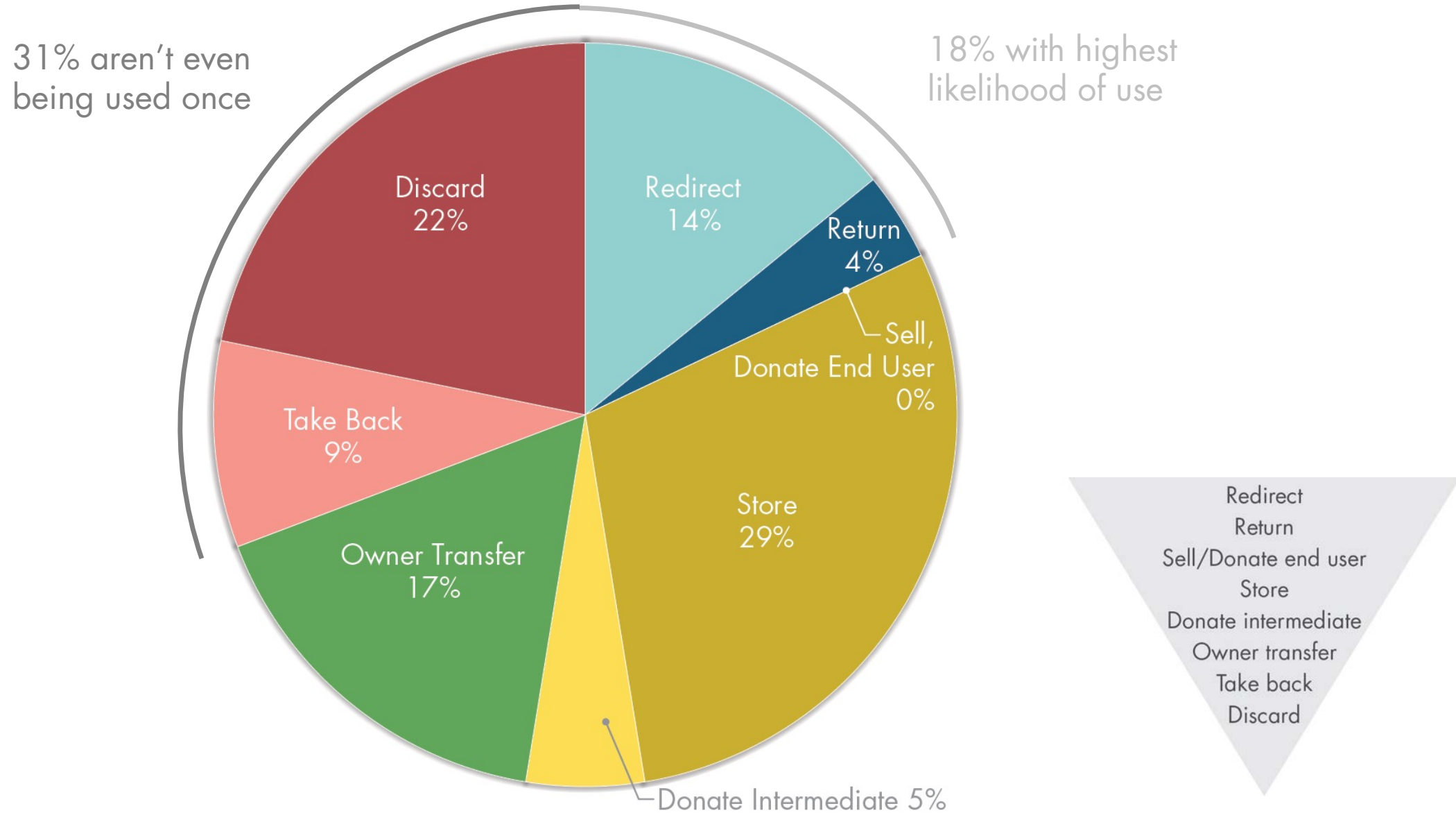


# Strategies for Surplus Redistribution



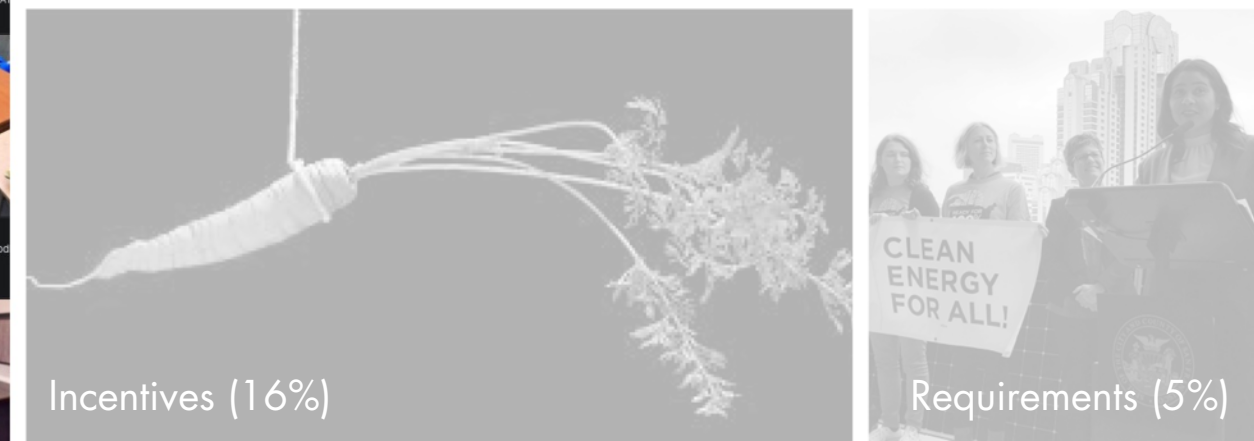
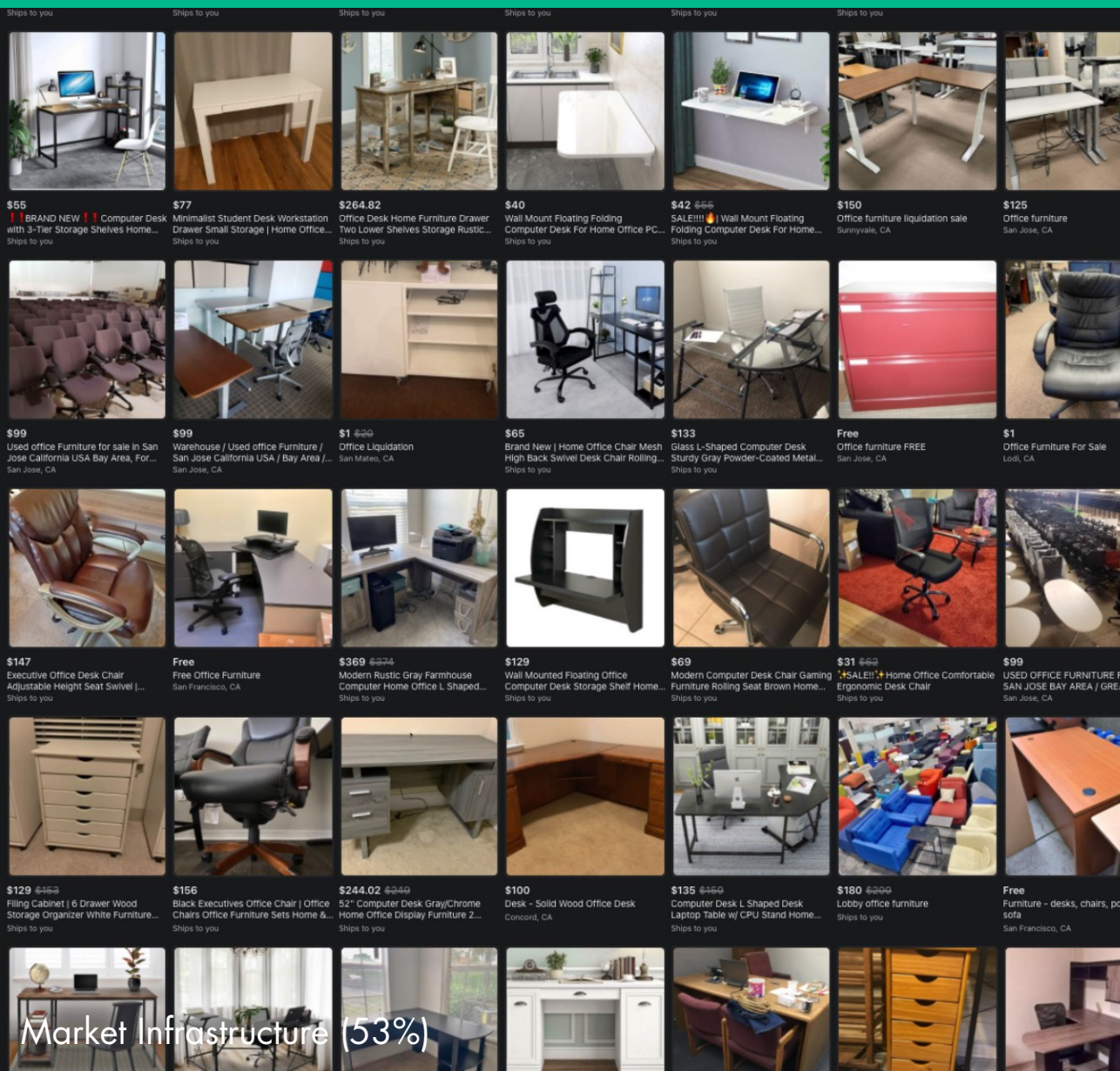


# Strategies for Surplus Redistribution

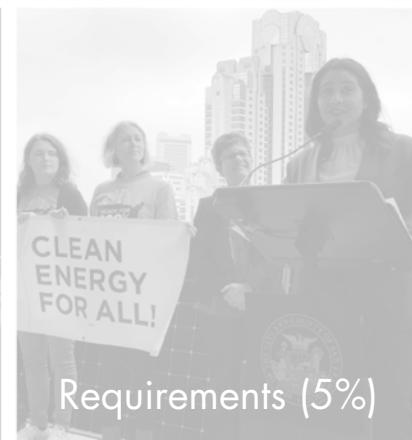
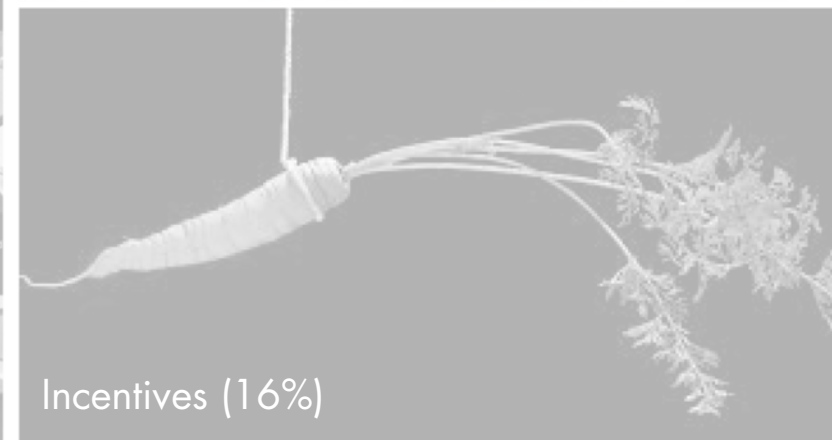




# Role of Government



# Role of Government





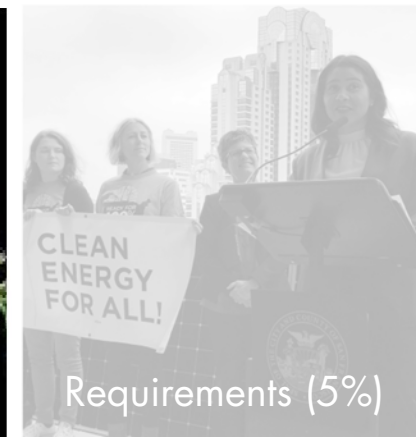
# Role of Government



Programs (26%)

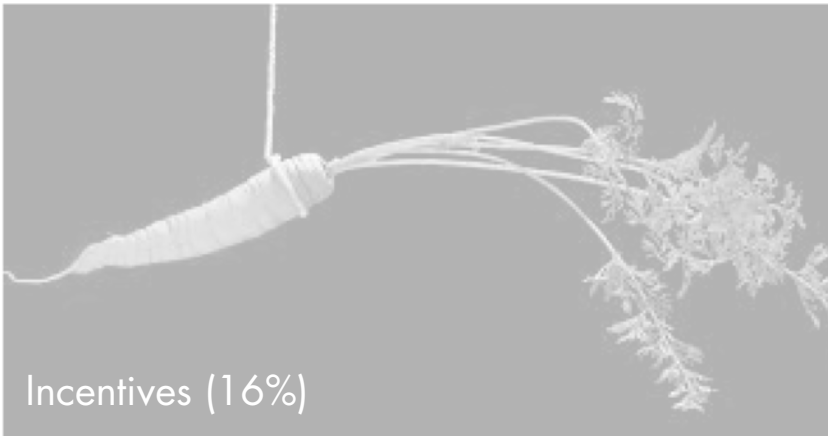


Incentives (16%)



Requirements (5%)

# Role of Government





# Env Code Ch 7: Municipal Green Building Requirements



Photo by Flickr user: David Yu (davidyuweb)



# Waste Prevention





# Source Separation



Photo courtesy of Building Product Ecosystems



# Embodied Carbon Reduction Strategies Checklist



## Embodied Carbon Reduction Strategy

### 0. Process and Tools

#### 0.1 Identify Embodied Carbon as a Priority

Communicate early in the design process that reducing embodied carbon is a design and procurement priority to the structural engineer, architect, contractor, and sustainability consultants.

#### 0.2 Commit to Using Whole Building Life Cycle Assessment

Design team to perform a whole building life cycle assessment in schematic design and design development that identifies the largest opportunities ("hot spots") for emissions reductions. Focus on material substitution strategies for those materials.

#### 0.3 Set a Project Embodied Carbon Reduction Target

Align the design and construction team around an embodied carbon reduction target. Use whole building life cycle assessment tools to track reductions throughout the project to stay on track to meet the target.

#### 0.4 Identify project-specific EC reduction strategies

Use the results from the whole building life cycle assessment(s) done throughout design to identify which strategies below will have the largest impact for this project.

#### 0.5 Use EPDs during Procurement

As part of the bid and procurement process, ask manufacturers to provide an environmental product declaration (EPD). EPDs can be used to look at functionally equivalent materials that meet the same performance requirements, so they are helpful for understanding the embodied carbon of a specific product once the system and performance requirements have already been

### 1. Increase Building Efficiency

#### 1.1 Reuse Existing Buildings (Adaptive Reuse)

Re-use and renovate/retrofit as needed part or all of an existing building, rather than building completely new construction.

#### 1.2 Reduce [New] Floor Area

Reduce floor area required to meet same service/program requirements in less space (e.g., use one space to perform multiple programmatic functions) or re-evaluate and appropriately reduce program floor area requirements where feasible.

#### 1.3 Reduce Below-Grade Construction

Reduce or eliminate below-grade parking or interior spaces.

## Schematic Design Checklist

Will  
pursue?

☐

Add a brief explanation here about how the project may incorporate this strategy into the project and any special considerations necessary

☐
☐
☐
☐

Will  
pursue?

☐
☐
☐

## As-Built Checklist

Pursued?

☐

Add a brief explanation as to whether and how the project incorporated this strategy. If the team intended to pursue this strategy but was not able to, provide insight as to why.

☐
☐
☐
☐

Pursued?

☐
☐
☐



# Thank You!



**Eden Brukman**

Sr Green Building Coordinator

SF Department of the Environment

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[Eden.Brukman@sfgov.org](mailto:Eden.Brukman@sfgov.org)



**SF Environment**

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# CHALLENGES & OPPORTUNITIES

Space  
Staffing  
Funding

Internal growth  
Deconstruction  
Investors/Branches





## Return to our Roots

**Focus on:**

**Sonoma County, Networking,  
Advocacy and Education for Reuse  
Practitioners, Board Recruitment**



The background of the slide is a close-up, high-angle shot of numerous wooden planks or beams stacked in a disorganized, overlapping manner. The wood has a natural, weathered appearance with various shades of brown and tan. The lighting is dramatic, with strong highlights and deep shadows, creating a textured, three-dimensional effect.

# **U.S. Environmental Protection Agency Region 9 Updates**

## **Bay Area Deconstruction Workgroup**

November 2, 2021

**Timonie Hood**  
Zero Waste & Green Building Coordinator





## Resiliency and Natural Disaster Debris - 2021

Region 9 – San Francisco/Pacific Southwest  
Region 5 – Chicago/Great Lakes states

### R9 Focus Areas

*Environmental Justice & Deconstruction/Reuse*



Photo: Ted Reiff

# Highlights



- **75 Expert Participants Very Engaged – MANY IDEAS**
- **Closing Executive Session**
  - **U.S. EPA Deputy Assistant Administrator Carlton Waterhouse Remarks**
  - **Shared Video Highlights & Polls**
- **EJ, Sea-Level Rise & BADWG Member Presentations**



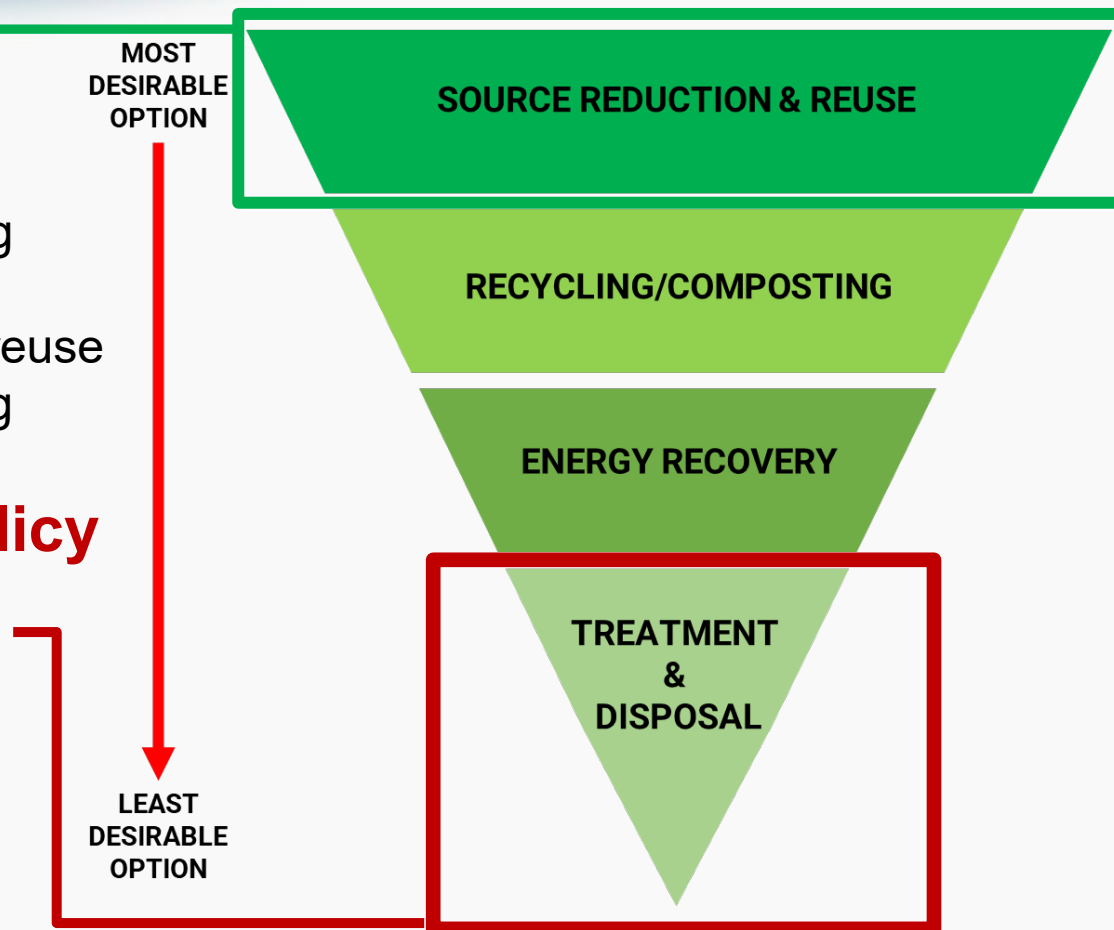


- **EPA priorities**

- Environment Justice
- Disaster-resilient building
- Deconstruction for safe reuse + recycling & composting

- **FEMA Funding & Policy**

- Large demolition contracts that reduce payments if there's any reuse or recycling material value
- No reimbursement for deconstruction



# Post-Disaster Deconstruction by Rutgers University Students



Photos: Tobiah Horton





## **Resilient Floodplain Pocket Park**

- Graded to reduce future flooding
- Reclaimed concrete, wood walkway and bench
- Native plants

**Photo: Tobiah Horton**



# Deconstruction - Alachua County, FL



- 1970's home, modern materials, graded lumber
- **Floodplain Buyout**
- Mechanical Panelization
  - Reduced labor
  - Working more on the ground



# Affordable Housing Made from the Deconstructed FL Home



- New HUD Section 8 home designed and built using the reclaimed lumber
- **Current building code allows reuse under alternative materials and methods**
- OR & WA building codes explicitly allow reclaimed lumber for structural purposes
- Lumber stayed in the community not in the landfill

# Climate Crisis

- More Frequent Disasters
- Sea-Level Rise  
*Buildings often not damaged*
- Potential to reuse buildings & building materials locally & create local jobs

Pacifica, CA  
2021





# EPA Workshop Region 9 Workshop Recommendations



## **Federal leadership needed to tackle Climate Crisis debris impacts**

- **Target funding/resources where need is greatest** (Environmental Justice, Tribes, Islands)
- **Sea Level Rise:** High potential for reuse

## **Prevent “dumping on” disadvantaged communities – engagement and siting guidance**

## **Federal guidance and investment to reimburse and incentivize equitable deconstruction and reuse**

- **Circular Economy:** Policies to reduce waste & conserve embodied carbon
- **Infrastructure investments** in reuse facilities (warehouses, storage yards)

## **Quick Win: Explicitly list deconstruction and reuse as eligible activities for grants -- Infrastructure, Mitigation, Job Training, etc.**

# Recommendations



## State & Local Planning

- Federal guidance, advance planning and exercises, model plans and scopes of work, etc. (*Forest Service Zero Waste Fire Camps*)
- Support federal reimbursement for landfill diversion - even with higher first cost (*Northridge Earthquake*)

**Deconstruction Job Training/Certification – 6x more jobs vs. landfill**

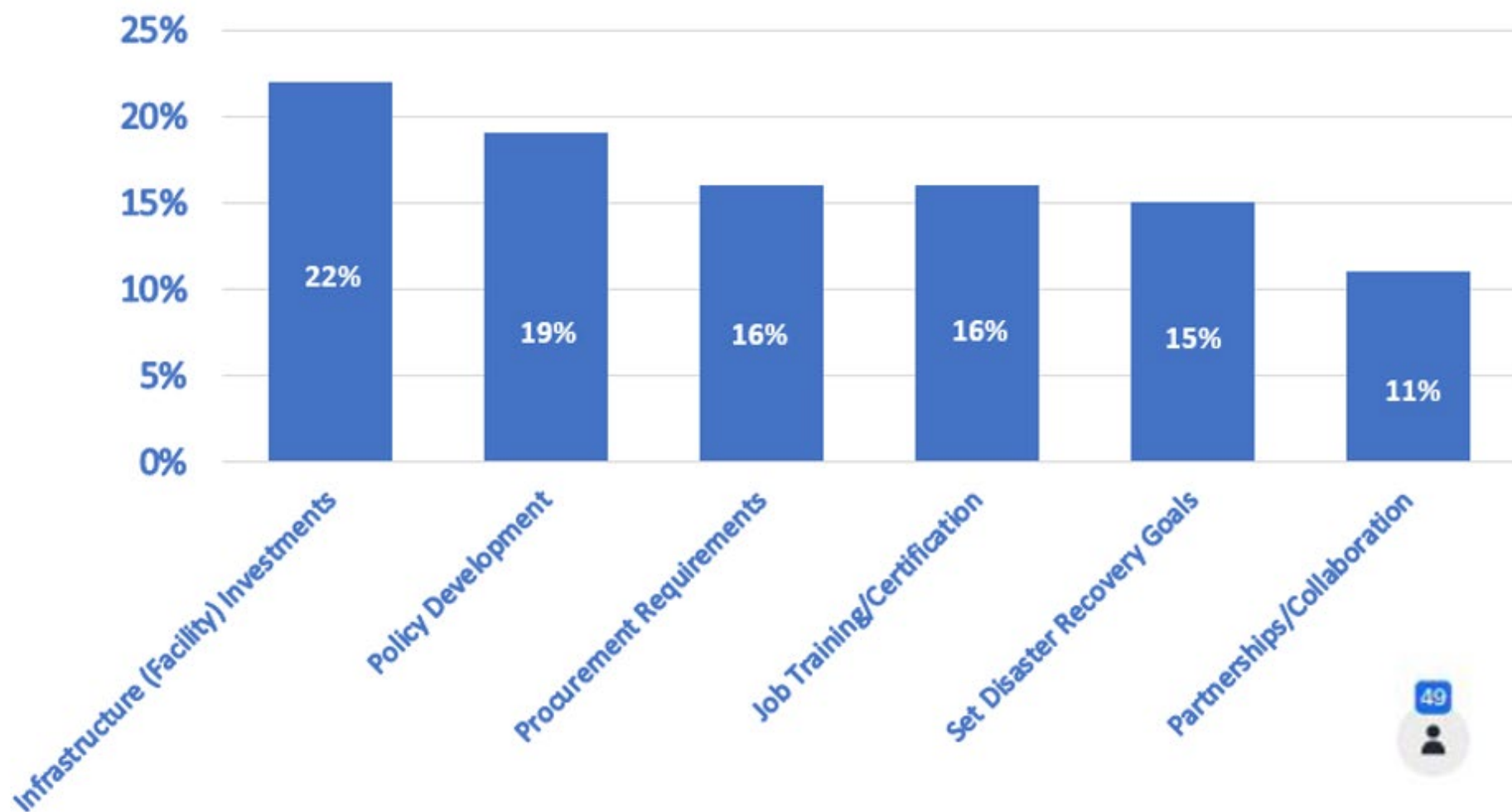
**Federal purchasing requirements to drive reuse/low embodied carbon markets**

**Build Back Better: More resilient, affordable housing**



## How should the federal government advance deconstruction and safe reuse in resilient disaster planning and actions?

(Vote for up to three)





# Federal Funding and Comment Opportunities

## **FEMA Hazard Mitigation Assistance & Building Resilient Infrastructure in Communities Grants (due Jan. 28, 2021)**

<https://www.fema.gov/grants/mitigation>

<https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities>

## **USDA Rural Solid Waste Management Grants**

**(due Dec. 31, 2021):** <https://www.rd.usda.gov/programs-services/water-environmental-programs/solid-waste-management-grants>

## **Open for Public Comment EPA Draft Strategy to Reduce Lead Exposures and Disparities in U.S. Communities (due Jan. 26, 2022):**

<https://www.epa.gov/lead/draft-strategy-reduce-lead-exposures-and-disparities-us-communities>

<https://www.regulations.gov/docket/EPA-HQ-OLEM-2021-0762/document>

**All Federal Grants:**

<https://www.grants.gov>

See “Related Documents” Tab for Solicitation





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SUSTAINABILITY  

---

COUNTY OF SAN MATEO



# Salvage Center and Deconstruction Trainings

# Salvage Center RFP

- Released a RFP in July 2019 to provide funding to increase capacity for salvaged building materials
- Awarded contract to PlaceMakers Inc. in November 2019





# PlaceMakers Inc.

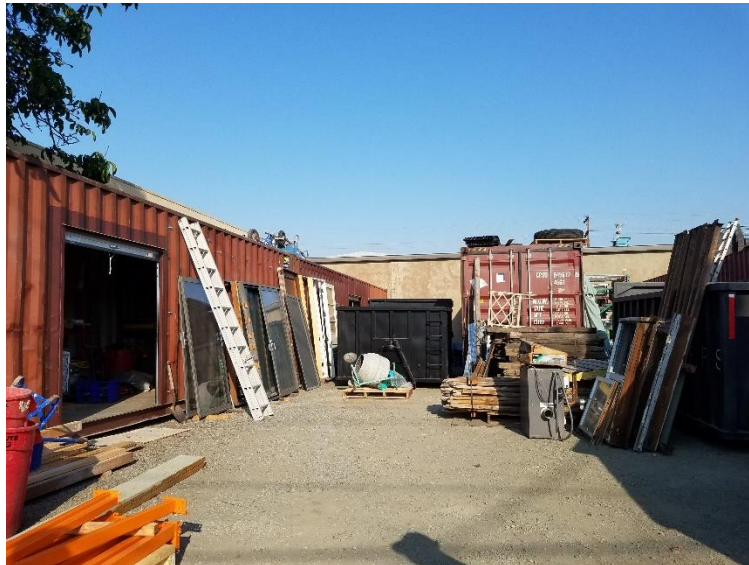


# PlaceMakers Inc. Improvements





# PlaceMakers Inc. Improvements



# PlaceMakers Inc. Improvements

## Donations

- Accepting salvaged materials from the public
- Partnering with The Reuse People to provide tax deduction receipts

## Operating Hours

- Went from appointment only to open 5 days a week including Saturdays

## Staffing

- Hired a yard manager

## Marketing

- Increased outreach and social media
- Selling on Craigslist (search for PMI)





# Deconstruction Trainings

- 3 deconstruction overview trainings
  - 2 day training for C&D professionals and city staff
  - 1 day training for the general public
  - 4 hour training for inmates
- 12 day intensive training for the general public
  - 9 days in the field
  - 3 days in the classroom with a test





# San Mateo?





# Next Training in December



# 2022 Changes to Building Regulations

## Deconstruction survey

- Single family residential dwelling units to be required to obtain a demolition permit
- Deconstruction is not required

Add Waste Management Plans to renovations with a building permit fee of \$2,145 (\$50,000) or over



# Questions?

Krista Kuehnhackl

[kkuehnhackl@smcgov.org](mailto:kkuehnhackl@smcgov.org)

650-559-1405



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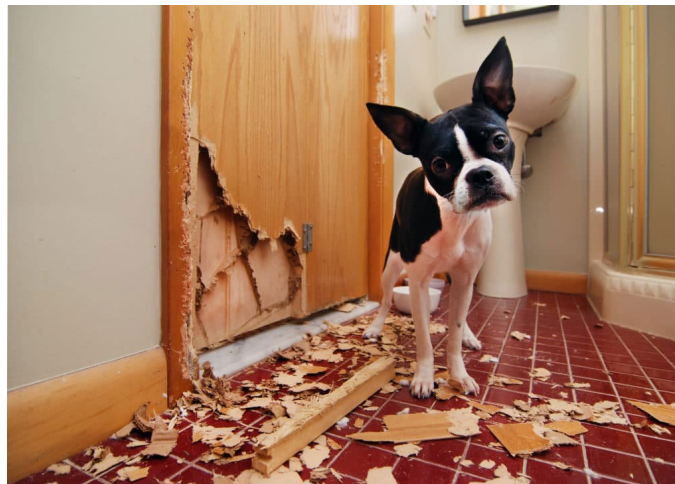
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COUNTY OF SAN MATEO

# URBAN ORE

## COVID UPDATE

**In 5 Minutes!**



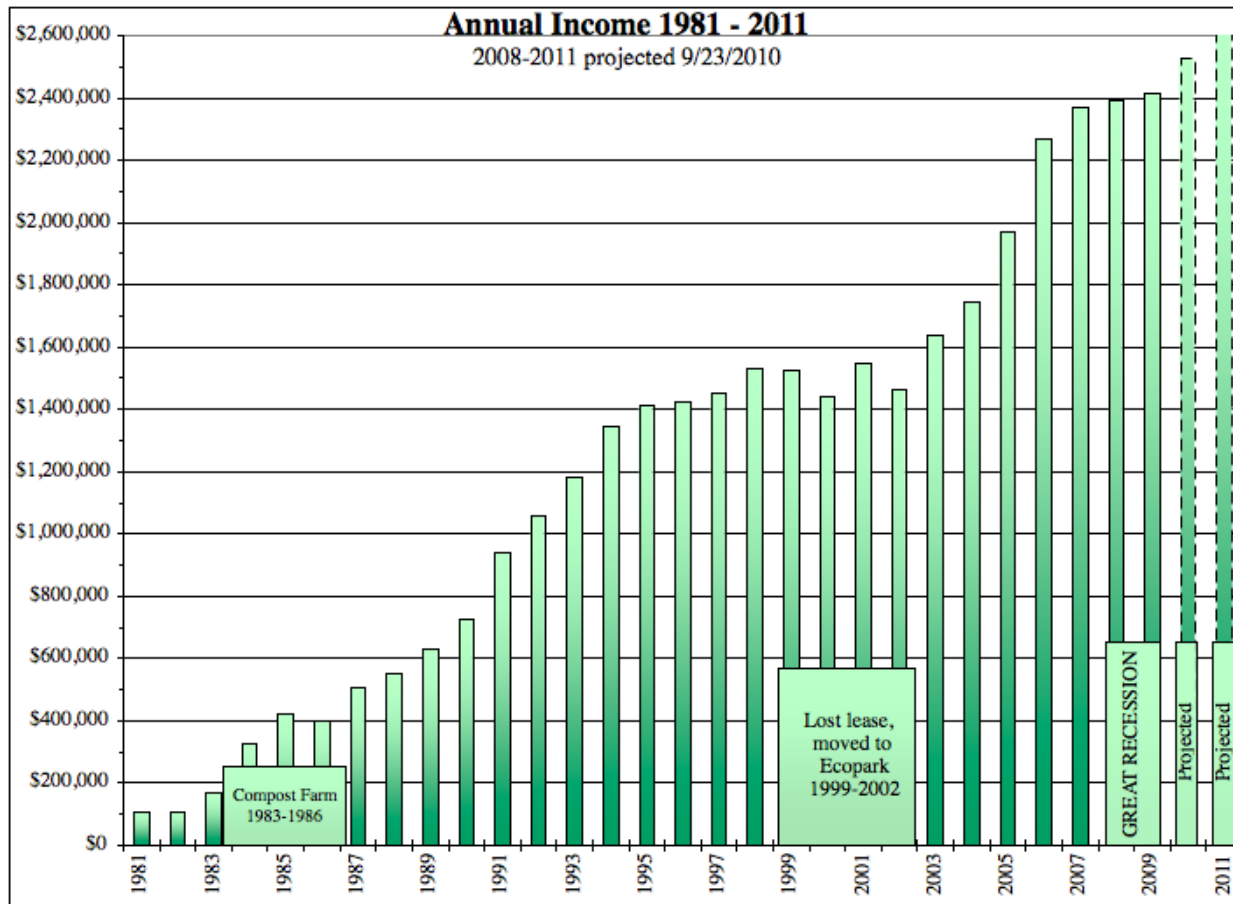
**For BADWG**

**November 2, 2021**



# GROSS REVENUE

2010 – 2019 = ~\$2.6M



# COVID GROSS REVENUE

**2020 = \$2,741,565.84**

**2021 = ~\$3.5M (!!!)**



# COVID = BINGO'S CLOSED



# COVID = FINANCIAL HARDSHIP





# COVID = PEOPLE MOVING



# **COVID SUPPLY SIDE TRENDS**

- **BUSINESSES CLOSING**
- **GARAGE/BASEMENT CLEAR OUTS**
- **DEATH**



# COVID DEMAND SIDE TRENDS

- HOME IMPROVEMENT PROJECTS
- NEW HOBBIES
- LESS ENTERTAINMENT OPTIONS
- THRIFTING TRENDING

# COVID = GREAT RESIGNATION

## Why Millions Of Employees Plan To Switch Jobs Post-Pandemic



**Caroline Castrillon** Contributor @

Careers

*I write about career, entrepreneurship and women's advancement.*

Follow



Listen to article 5 minutes





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 SPECIAL SERIES  
Help Wanted: Where Are The Workers?



As The Pandemic Recedes, Millions Of Workers Are Saying 'I Quit'

June 24, 2021 - 6:01 AM ET

 ANDREA HSU

 4-Minute Listen

+ PLAYLIST



# GROWTH

- HIGHER WAGES
- NEW ROOF AND SOLAR SYSTEM
- NEW TRUCK(S)
- NEW ADMINISTRATIVE MANAGER



# **RENEWED SALVAGE CONTRACT**

- **\$47.74 / TON SALVAGE SERVICE FEE**
- **EPA BERKELEY ZERO WASTE STUDY:**
  - <https://www.epa.gov/transforming-waste-tool/zero-waste-case-study-berkeley>
- **EPA WEBINAR ABOUT CONTRACT:**
  - <https://youtu.be/1xld5lumXgw?t=1724>
- **CONTRACT WITH CITY OF BERKELEY:**
  - <https://www.epa.gov/transforming-waste-tool/full-contracts-and-agreements-berkeley-ca>



# THANK YOU!



**MAX WECHSLER**  
**OPERATIONS MANAGER**  
**[MAX.W@URBANORE.COM](mailto:MAX.W@URBANORE.COM)**  
**510-841-7823 EXT. 303**

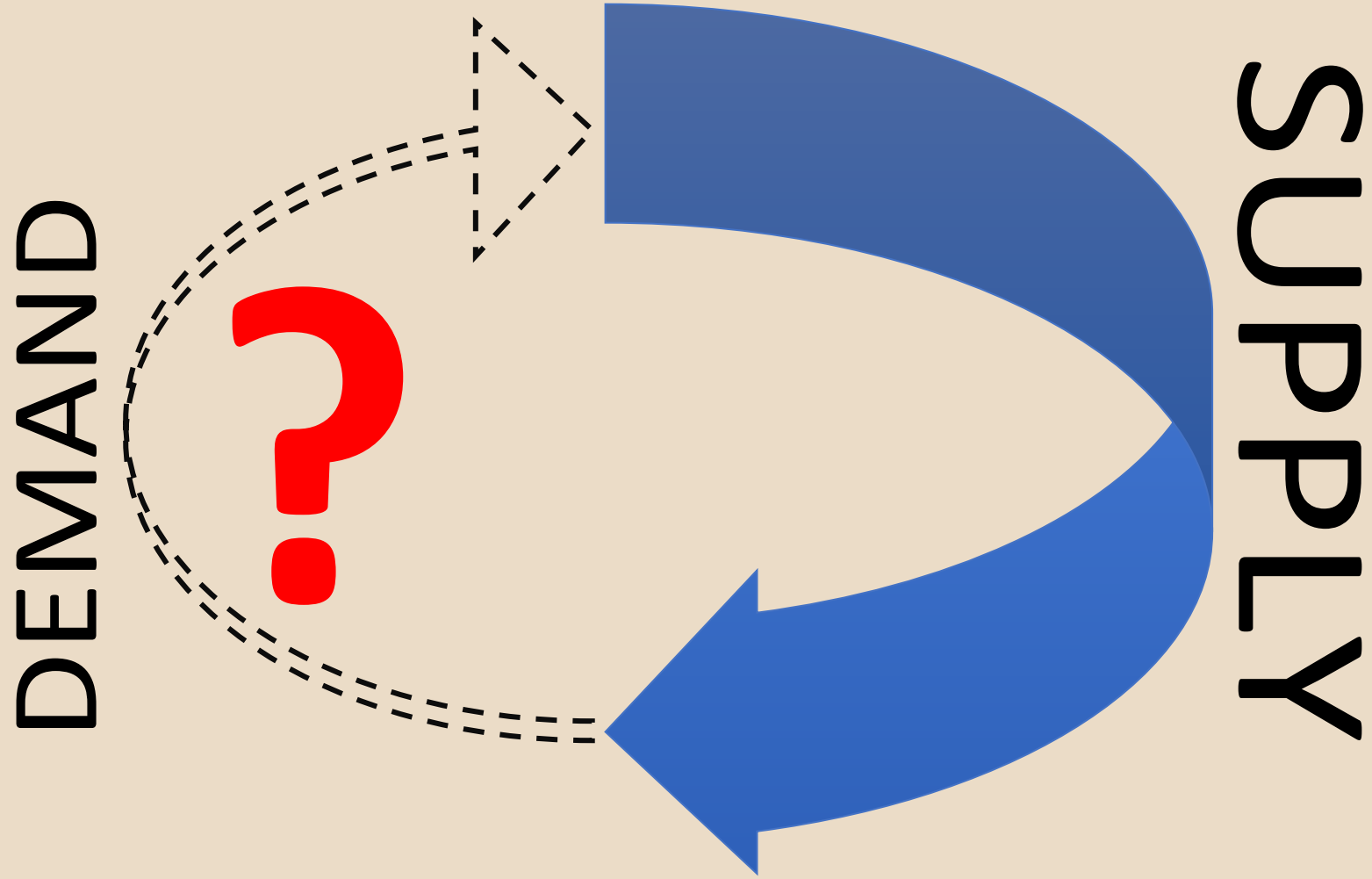
# ALL FOR REUSE

BADWG - November 2, 2021

ALL FOR REUSE



rationale



No demand = no reuse businesses = no waste diversion

# goals



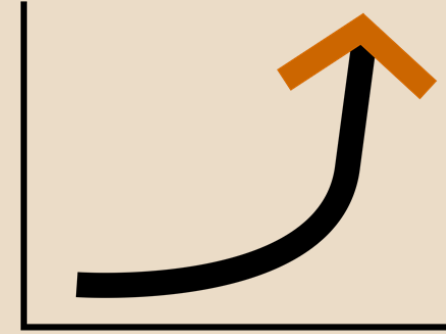
## Environmental Impact

Reduce Carbon  
Reduce Waste  
Protect Resources



## Ecosystem of Circular Enterprises

Create jobs in  
deconstruction,  
warehousing,  
remanufacturing  
& resale



## Scale up Quickly!

Be a viable strategy  
to reach climate &  
carbon goals



# the pledge [draft]

(General) We recognize that an enormous volume of commercial TI materials are **landfilled prematurely** and that **increasing reuse** of these building products can *reduce waste, save embodied carbon, and preserve natural resources and ecosystems*. **Realizing such benefits** will require a paradigm shift in how commercial spaces are fit out, requiring **change across the entire value chain**. As *building owners, developers, and tenants*, we recognize the need to **take the first step** in overcoming this challenge and will request our design and construction teams to **incorporate reclaimed materials** in building fitouts. Such actions include:

- Locate deconstruction, salvage and reuse partners
- Consider specific reclaimed material options within the material palette
- Understand how to adapt the design process to maximize reuse
- Creating the infrastructure needed to facilitate reuse

# workshops

## #1- January

### **Establish SF Bay Area Owners Alliance**

Agree vision and objectives

Present All for Reuse pledge

## #2- May

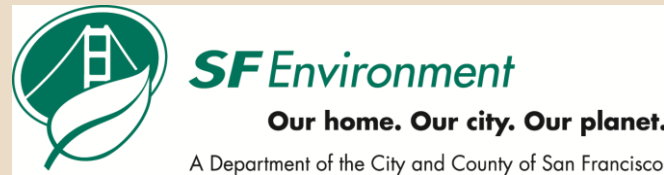
Confirm **common understanding** of the actions required from the Owners Alliance

Demonstrate AFR support and resources

## #3- November

**Implement with concrete actions** and commitments

Share action plans





## ACTION PLAN WORKSHEET: GETTING STARTED

### General All for Reuse Pledge:

We recognize that an enormous volume of commercial TI materials are landfilled prematurely and that increasing reuse of these building products can reduce waste, save embodied carbon, and preserve natural resources and ecosystems. Realizing such benefits will require a paradigm shift in how commercial spaces are fit out, requiring change across the entire value chain. As building owners and tenants, we recognize the need to take the first step in taking on this challenge and will request our design and construction teams to incorporate reclaimed materials in building fitouts. Such actions include:

- Identifying deconstruction, reclamation, and resale partners
- Considering specific reclaimed material options within the material palette
- Beginning to adapt the design process to maximize reuse
- Creating and supporting the infrastructure needed to facilitate reuse

**ALL  
FOR  
REUSE**

### EXAMPLE: SPECIFIC MATERIAL FOCUS

PROMPT: How can projects start to source specific materials as reused instead of new?

ACTION:

*Example: Require our design and construction teams to seek salvaged materials first for all [ancillary furniture, casework, doors, light fixtures, other]*

This action would be in support of:

- |  |  |
|--|--|
| <input type="checkbox"/> Identifying deconstruction, reclamation, and resale partners                | <input type="checkbox"/> Understanding how to adapt the design process to maximize reuse |
| <input type="checkbox"/> Considering specific reclaimed material options within the material palette | <input type="checkbox"/> Creating the infrastructure needed to facilitate reuse          |

### Making the case...

#### WHY CONSIDER REUSE?

How big is the opportunity if this material came from reuse?

What are the benefits?

#### WHAT NEEDS TO CHANGE?

What is the current process for selection and procurement of this material?

What are the current expectations for this product type (e.g. aesthetics, durability, etc.)?

**What from these might present a barrier to sourcing reused instead? (circle which apply)**

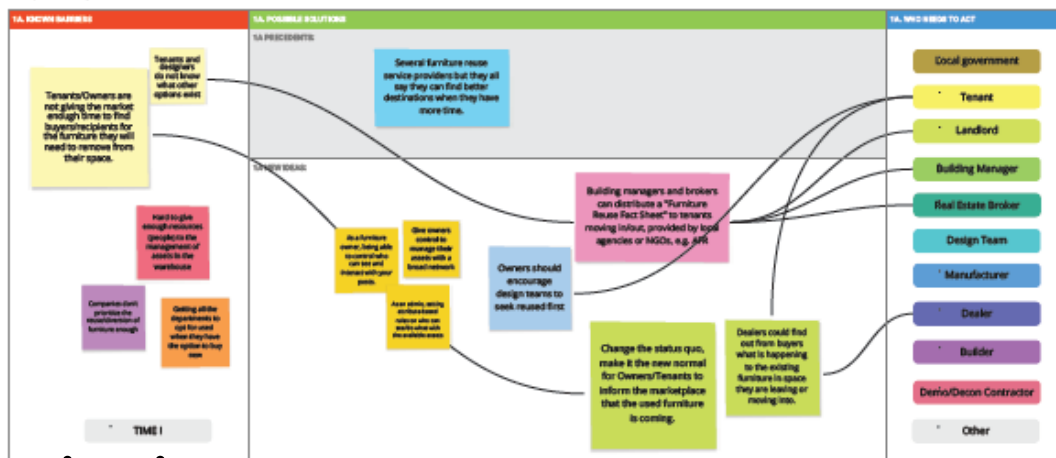
Examples:      Tried and true brands/products  
Vendor relationships limit the choices

**What are some ideas for overcoming these barriers?**

ALL FOR REUSE

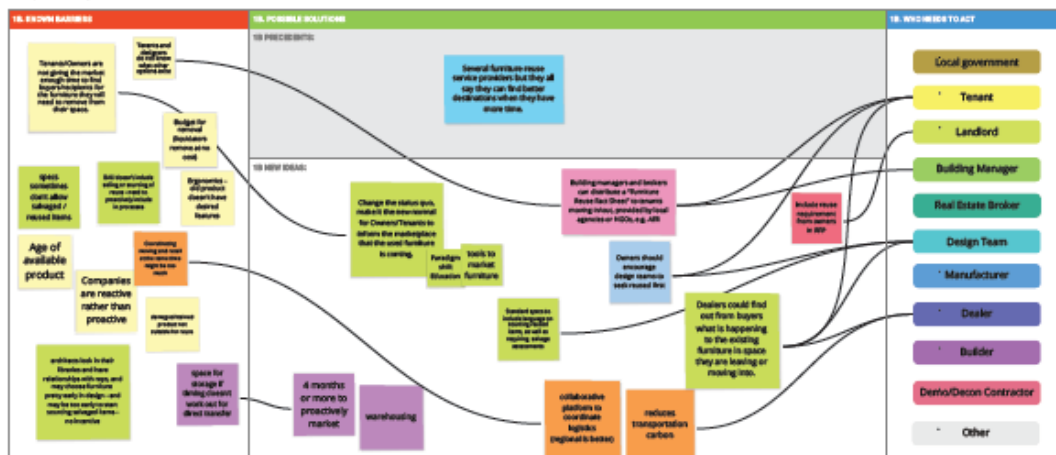
# solutions charrette

Group #1: Timing & Awareness



## Timing & awareness

Group #1b: Timing & Awareness



## Storage, handling, logistics

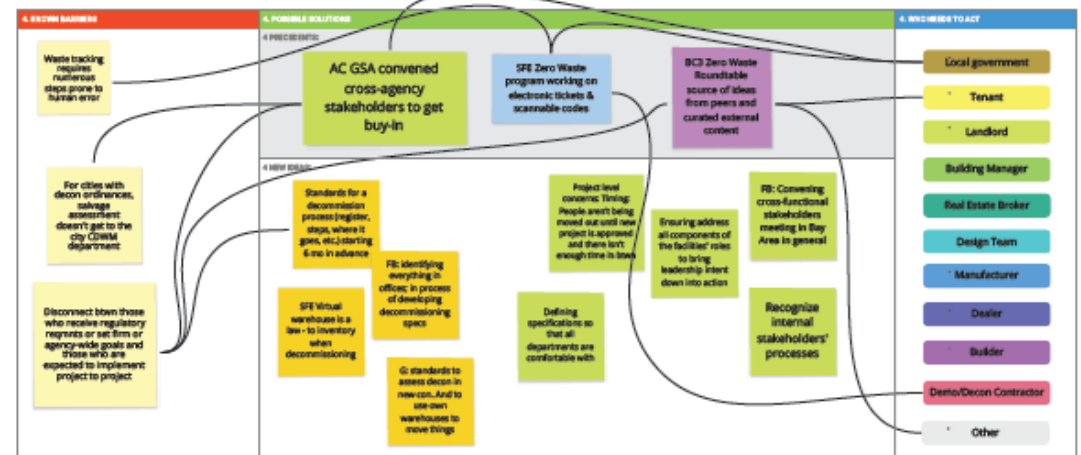
Group #2: Storage, Handling & Logistics

Group #2: Expectations, brand, warranties, lease agreements



## Brand, warranties, leases

Group #2b: Breaking down silos, simplifying the process



## Breaking down silos

ALL FOR REUSE

# actions wall

We are currently conducting a deconstruction inventory across our approx **60 acre site** with intention to salvage and reuse as much as possible, instead of leaving the existing buildings for the contractor to demo.

We are investigating **online platforms** to improve management and access to the inventory of items in our warehouse and expansion of them to **include building materials**, not just furniture and equipment.

We will co-facilitate meetings of the **Bay Area Owners Alliance** to ensure we and our peers continue to maximize reuse opportunities within our influence.

We commit to reaching out to reuse partners (deconstruction contractors, take-back programs, furniture brokers, etc.) **as soon as a renovation project is identified**, as opposed to waiting till near the time of our move out.

We are seeking language to add to our **Technical Specifications, Requests For Proposals, and Owner's Project Requirements** on all new projects to require future project teams to prioritize reuse.

We are adding and prioritizing reuse and deconstruction in our organization's **climate action plans** because we recognize the connection between reuse and carbon emissions reductions.



# The ReUse People of America, Inc. (TRP)



Bay Area Deconstruction Work Group  
November 2, 2021

# Where TRP is headed.....

- TRP is currently predicting that education is an essential priority to reducing waste associated with the demolition or deconstruction of buildings. Education is two-fold, with the public, and with government.
- TRP is expanding its involvement and assistance with municipalities in not only education, but implementation of public mandates necessary to reduce waste.

# Education

- Training staff of contractors and municipalities alike on how to deconstruct a building.
  - Increases recovery yield
  - Provides a higher quality product that has a higher propensity to be re-used in future construction
  - Provides for increased employment
  - Increases tax revenue
  - Increases public awareness of the benefits



# Municipal Assistance

- Consultation on the trials and tribulations that other municipalities, and deconstructors, experience today.
  - Implementation issues
  - Accountability/Measurement
  - Enforcement

# Time for Change

- TRP is predicting a change in the commercial market, and will be a part of that process as it has in the residential arena
  - Predicting many Covid-19 attributes will become substantially permanent.
  - Commercial properties will either be subject to a change in use or revitalized/refreshed through upgrade.

# Expansion

- TRP is looking to expand into the commercial deconstruction and reuse market.
  - Expansion into other locations to facilitate the collection and resale of used commercial building materials as well as residential
  - Expanding into social media to facilitate greater visibility of available products.



# Thank You

**Michael Chambers**

Executive Director

The ReUse People of America, Inc.

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Oakland, CA 94603

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Office: 510.383.1983



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The ReUse People of America, Inc. 2021



Bay Area Redwood

SUSTAINABLY SOURCED



# January 2021





# March 2021



# April 2021





# May 2021





# June 2021



# July 2021





# July 2021



# July 2021





# August 2021





# September 2021



# October 2021





# Urban Wood Definition

Urban wood can be defined as any wood that was not harvested for its timber value and was diverted from or removed from the waste-stream and developed or redeveloped into a product. Urban wood can come from 3 sources: deconstruction, fresh cut urban trees, and salvaged trees.

T



