Title: Update on the Fiscal Year 2022 Implementation of the Deconstruction and Construction Materials Management Ordinance (Ordinance 5472/ Palo Alto Municipal Code Title 5, Chapter 5.24)

From: City Manager

Lead Department: Public Works

Recommendation
This is an informational report only and no Council action is required.

Background
In August 2018, Council accepted the 2018 Zero Waste Plan\(^1\). The plan contained 48 initiatives to help the City meet its sustainability and climate action goals, including salvage and diversion of deconstruction and construction materials. In June 2019, Council approved the Deconstruction and Construction Materials Management Ordinance\(^2\) (Deconstruction Ordinance, Ordinance 5472/ PAMC Title 5, Chapter 5.24,) with the effective date of July 1, 2020. The ordinance aligns with the 2018 Zero Waste Plan and implements key provisions including:

- Initiative #1, Require Deconstruction and Source Separation of Construction Materials;
- Initiative #2, Direct Mixed Construction Materials to High Diversion Construction Materials Recycling Facilities; and
- Initiative #4, Construction Project Recycling Technical Assistance.

In addition, implementing and expanding the Deconstruction Ordinance is a key action identified in the Sustainability and Climate Action Plan Goals and Key Actions accepted by Council in October 2022\(^3\).

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The Deconstruction Ordinance applies to all residential and commercial projects undergoing a whole structure demolition and requiring a deconstruction permit on or after July 1, 2020. The objectives of the ordinance are to 1) increase salvage/reuse to the highest extent possible and 2) increase the amount and quality of recyclable materials for all construction and demolition projects, beginning with whole structure deconstruction projects.

Palo Alto’s Deconstruction Ordinance is the first of its kind in the United States that covers all commercial and residential projects undergoing whole structure removal regardless of the age of the buildings. Although some deconstruction projects were occurring voluntarily in the City prior to the ordinance, the requirements and process were new to most permit applicants and contractors and, consequently, require contractors to learn the new process. During the development of the ordinance, staff estimated based on historical data that it would affect approximately 114 projects annually (100 residential and 14 commercial). Outreach and education were developed explaining the ordinance requirements and resources were made available and sent to stakeholders prior to the ordinance’s July 1, 2020 effective date.

Discussion
Staff continues to conduct outreach and educate homeowners, general contractors, and architects when building permit applications are submitted to provide information on the newly enacted ordinance requirements. Staff proactively schedules video conference calls to explain the ordinance and answer questions from the applicants and their contractors. When the deconstruction permits are issued, staff reaches out again to meet the general contractors and subcontractors hired for deconstruction onsite to review the requirements, walk through the property together, and ensure expectations are communicated. During deconstruction, staff inspects each project site multiple times to document progress, reiterates requirements for source separation and hauling of single stream materials, and addresses any concerns observed.

In Fiscal Year 2022, the City’s Development Center received 74 building permit applications for projects that involved whole structure demolition (74 residential and 0 commercial) covered under the Deconstruction Ordinance, compared to 44 permit applications in Fiscal Year 2021 (41 residential and 3 commercial). As summarized in Graph 1, of the total building permit applications in Fiscal Year 2022, the City issued 60 deconstruction permits (59 residential and 1 commercial), and 57 buildings were removed (55 residential and 2 commercial). This is an increase from Fiscal Year 2021 when the City issued 18 deconstruction permits and 16 buildings were removed (15 residential and 1 commercial). Staff expects the number of building permit applications to continue to increase in Fiscal Year 2023 while the economy and the development industry continue to slowly recover from the COVID-19 pandemic, which postponed some projects. Additionally, it is expected that some permit applications received in Fiscal Year 2022 will have permits issued in Fiscal Year 2023.

Graph 1: Fiscal Year 2022 Deconstruction Permit Application and Project Status
Table 1 below summarizes the tonnages generated from 32 residential projects that completed permit documentation, and had the whole structures removed. The tonnages of materials were documented in the Green Halo Systems, a waste management tracking tool for development projects required by the Planning and Development Services Department. Graph 2 provides a visual of the percentage of material categories from these projects. In summary, the salvaged materials recovered for reuse (mostly lumber, cabinets, doors, and windows) accounted for seven percent of the materials from the 32 complete residential projects, and only eight percent (8%) of the materials were landfilled. Examples of materials landfilled included insulation and painted wood. Materials recovered for recycling included clean wood debris and drywall aside from concrete. This is an increase from Fiscal Year 2021, when there were 15 complete residential projects creating approximately 1,582 tons of materials with 3 percent (3%) salvaged for reuse.

Table 1: Fiscal Year 2022 Residential Deconstruction Tonnage

<table>
<thead>
<tr>
<th></th>
<th>Tonnage</th>
<th>Percentage (%)</th>
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</thead>
<tbody>
<tr>
<td>Salvaged for Reuse</td>
<td>238</td>
<td>7%</td>
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<tr>
<td>Recycled</td>
<td>795</td>
<td>23%</td>
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<tr>
<td>Concrete Recycled</td>
<td>2,168</td>
<td>62%</td>
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<tr>
<td>Landfilled</td>
<td>274</td>
<td>8%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>3,475</strong></td>
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Graph 2: Fiscal Year 2022 Residential Deconstruction Tonnage Percentages
Staff emphasizes continuous communication, outreach, and education with the stakeholders involved in each covered project. Staff also performs oversight and documents and addresses instances of noncompliance. The most common form of noncompliance is improper sorting of waste into single material type. Staff will continue to emphasize better onsite source separation for all active and upcoming deconstruction projects in Fiscal Year 2023.

Staff will continue to implement requirements, monitor qualifying projects and will explore how to potentially expand the Deconstruction Ordinance to include more projects through a future Council action. Due to the lack of reuse and salvage infrastructure, staff began working on expanding the list of approved reuse organizations to encourage reuse and salvage, as well as collaborating with San Francisco and other Bay Area jurisdictions to research the potential for reuse market development.

**Resource Impact**
The primary resource impact is staff time for project site visits, documentation, and communication with stakeholders including virtual meetings and onsite meetings with project owners and contractors. Staff spends approximately 9 staff hours for each project. Staff also spends time and resources on collaboration across different City departments and with industry representatives. In Fiscal Year 2022, this effort totaled approximately 0.4 full time equivalents of staff time or 832 hours annually.

**Stakeholder Engagement**
Outreach and education were conducted during Fiscal Years 2021 and 2022 as the Deconstruction Ordinance was implemented and included communicating directly with stakeholders with upcoming and active deconstruction projects. Staff is also involved in regional and statewide efforts via working groups that focus on deconstruction, reuse, market development, and construction, demolition, and deconstruction debris management.
Environmental Review
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