Population growth, environmental changes and urban expansion are putting pressure on our cities and our planet’s resources.

Wood is a smart choice for cities and our future. Wood construction can help solve the issues our cities are facing.

2 billion square meters of new building space is needed every year between 2019 and 2025 to accommodate growth.²

40% of U.S. carbon dioxide emissions per year are from buildings.³

$390B+ in damages due to extreme weather in 2017 and 2018 in the U.S.⁴

America’s affordable housing stock dropped by 60% between 2010-2016.¹

URBAN DENSIFICATION

By re-purposing office buildings and constructing taller structures with wood, cities can accommodate more people.

• Up to 18 story buildings can be built using mass timber in accordance with 2021 code changes.
• Lighter weight timber makes adding stories to existing buildings more feasible and affordable.
• Wood meets code for urban infill buildings, offering an economic advantage for developers who pay a premium price on infill real estate.⁵

SUSTAINABILITY

Using wood instead of concrete and steel minimizes building carbon footprints and reduces environmental impact.

• Wood is the only building material made from renewable resources that is also a carbon sink.
• 60% of GHG emissions on average can be reduced by substituting wood for concrete and steel.⁶

RESILIENCE

Wood meets International Building Code standards for strength and can withstand extreme weather.

• Wood’s ductility, light weight, and strength gives buildings an advantage during seismic activity - to yield and displace without sudden brittle fracture.⁷
• Wind resistant designs can withstand up to 250-mph winds.⁸

¹America’s affordable-housing stock dropped by 60 percent from 2010 to 2016, The Washington Post
²Rethinking Timber Buildings, Arup
³Buildings & Built Infrastructure, Environmental and Energy Study Institute
⁴Billion-Dollar Weather and Climate Disasters: Overview, NOAA
⁵Wood Brings the Savings Home, WoodWorks
⁶Use of structural wood in commercial buildings reduces greenhouse gas emissions, Oregon State University
⁷Designing for Earthquakes, Think Wood
⁸Wind Resistance, Think Wood
The benefits of wood go beyond the city limits. Wood not only delivers affordable and sustainable buildings for our cities, but it’s a smart alternative and can help grow our economy.

**ECONOMIC GROWTH**
By choosing wood, developers keep the cost of construction down while helping grow the economy and job market.

- One million jobs in the U.S. are wood contractors.¹⁰
- Four jobs are created for every U.S. lumber industry job. There are more than 775,000 direct and indirect jobs in harvesting and manufacturing related to lumber.¹²

**ENVIRONMENTAL BENEFITS**
Wood’s manufacturing creates less pollution and waste than concrete and steel, while emitting less greenhouse gases.

<table>
<thead>
<tr>
<th>Material</th>
<th>Carbon Emissions (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lumber</td>
<td>33kg</td>
</tr>
<tr>
<td>Concrete</td>
<td>265kg</td>
</tr>
<tr>
<td>Steel</td>
<td>694kg</td>
</tr>
</tbody>
</table>

The lowest energy input is required to manufacture wood. Net carbon emissions in producing one ton of:³

1% increase in demand for wood products can drive 77,000 square miles of new sustainably managed tree farms.⁶

The lumber industry is committed to advancing a built environment that is sustainable, resilient, and cost effective – addressing the needs of future and growing cities.

To learn more, visit BuildSafeCommunities.com and thinkwood.com

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¹ Making the case for the “forest economy”. Bain & Company
² Designing for Earthquakes. Think Wood
³ Portland cement as a construction material. How does it compare to wood. Steely Dowel, Inc.
⁵ Economic Impact of U.S. Softwood Lumber Industry, Softwood Lumber Board