Pressures on residential construction continue to grow

Minnesota faces a significant housing shortage - 300,000 homes needed by 2030 - yet the residential construction industry faces major obstacles to meeting that demand:

- Housing costs are rising, driven in part by construction costs
- Construction industry productivity has been nearly stagnant since the 1970s
- 90% of builders report difficulty finding skilled labor, a challenge expected to worsen

Offsite construction: High quality, lower cost, shorter timeline

Offsite construction has long been viewed as a transformative innovation, and there are reasons to believe that its time has come. Around the world, the use of offsite techniques has begun to unlock significant benefits in residential construction: The early benefits appear to be substantial:

- **20-50% ↓** Schedule compression
- **20% ↓** Cost savings
- Sustainable design opportunities
- Workforce development opportunities

Units on the production floor at the newly-opened Rise Modular factory in Owatonna, MN
Adopting offsite construction in Minnesota will require shifts from all sectors

Offsite construction is an integrated model of production and the transformation to offsite will require shifts from every sector. At the Summit, participants explored key barriers to overcome:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Current state</th>
<th>Barriers to overcome</th>
<th>Future state</th>
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</thead>
<tbody>
<tr>
<td>Offsite Manufacturers</td>
<td>• Limited presence and capacity in Minnesota, beyond single-family homes</td>
<td>• Limited demand for offsite projects in Minnesota</td>
<td>• New factories open across the state, boosting the economy and creating jobs</td>
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<tr>
<td>Developers &amp; Contractors</td>
<td>• Reliance on traditional construction, with some leaders adopting panelized elements</td>
<td>• Limited local experience with more advanced offsite techniques</td>
<td>• Growing pipeline of offsite projects, delivered with predictable cost &amp; time savings</td>
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<td>Architects &amp; Engineers</td>
<td>• Fully customized designs for each project, requiring significant effort on low-value elements</td>
<td>• Uncertainty around market acceptance of broader standardization</td>
<td>• Focus on highest-value design elements, with full standardization of others</td>
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<td>Lenders</td>
<td>• Perception of additional risk and conservative processes inhibit lending to offsite projects</td>
<td>• Distinct capital timing and security requirements for offsite projects</td>
<td>• Offsite projects financed readily through accepted processes and lending products</td>
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<td>Local Officials</td>
<td>• Perceived local uncertainty around building permits limits confidence</td>
<td>• Low familiarity with offsite construction and state regulatory process</td>
<td>• Efficient state and local permitting for offsite, enabling widespread adoption</td>
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<tr>
<td>Labor &amp; Workforce</td>
<td>• Demand for skilled workers exceeds supply in construction industry</td>
<td>• Traditional work roles and conditions limit workforce growth</td>
<td>• New offsite careers and training options attract new sources of talent</td>
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Next steps for a system-wide revolution

To reduce the cost of housing, the Construction Revolution has set an ambitious vision: **By 2025, 10% of multi-family residential developments in Minnesota will meaningfully use advanced, offsite construction techniques.** At the Summit, participants contributed to an action-planning workshop and identified five cross-sector actions to make this vision a reality:

1. **Launch multi-sector innovation cohorts** to explore the potential and challenges of offsite construction techniques in actual projects.
2. **Develop and promote learning opportunities** to highlight Minnesota’s progressive building standards and inspections process for offsite construction.
3. **Foster local collaboration** to develop a fast-track or pre-approval process for projects using offsite concepts.
4. **Incentivize a series of pilot projects** using offsite construction through a public-private partnership request for proposals.
5. **Attract new modular manufacturers and investors** to Minnesota through a robust economic development campaign.

Many of these recommendations are already underway. Contact us at info@constructionrevolution.io to get involved, or check out our website (constructionrevolution.io) for updates and resources.