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# Mass Customization: *Renovating our Cities*



**Jake Fry - Founder of Small Housing & Smallworks**

**BOABC Conference Monday, May 27th 2024**



# Small Housing - About Us



- Founded in 2012, we are a:
  - Non-profit organization
  - Hub of research, ideas exchange and network development
- **Our Focus:** Innovation in housing policy, planning, finance, design, and construction at the gentle density scale
- **Our Mission:** Address attainable housing supply gap in BC ; catalyze the evolution of single-detached neighbourhoods



# Small Housing - Core Pillars



## Advocacy



various levels of government, industry associations, and community groups



## Research



independent research to support the growth and scale of gentle density housing stock



## Capacity Building



Support capacity building and technical advising - across the housing ecosystem - with myriad actors working to develop new attainable housing supply



## Model Development



advancing innovation in the gentle density space

# What is Gentle Density?



Gentle Density is the concept of increasing density by building smaller, more affordable homes in a way that is compatible with the existing built environment and neighbourhood. It can take several forms:



Laneway/Coach Home



Pocket Neighbourhood



Cohousing



Houseplex



Tiny House



Small Lot Homes



Rowhouses



Secondary Suites

# Who does Gentle Density help, & how?

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- It helps people - not developers, speculators, investors
  - Existing, ordinary owners at various stages of ownership can leverage the value of their properties, to create new, more attainable homes.
- It helps seniors who are looking to downsize, but stay in their communities
  - If this option is not open, in many cases they will not be able to secure financing and will be required to sell and move - not necessarily in their own community
- Established owners can provide housing opportunities for **adult children or other family members**, and can also provide **supports to help seniors age-in-place**
- **Multigenerational** SSMU developments can also help **new home buyers** build the nest egg they will need to move up the housing ladder



# Who does Gentle Density help, & how?

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- **Families with children** for whom Single Family Dwellings are too costly and condo towers that are inappropriate for their evolving needs
- **Makes homeownership more attainable for younger generations**, providing them with a valuable pathway to wealth accumulation and financial stability, as well as opening the door to entry level homeownership.



# Gentle Density - “Missing”



- Historical trends of exclusionary zoning which led to proliferation of Single Family Units and an inefficient use of land:
  - Today, 12% of homes are spread out over 55% of the total area (according to the City of Vancouver).
  - For Metro Vancouver, 35% of all households live on single family and duplex properties = 81% of residential land.
- This has led to several challenges for policymakers & communities:
  - Lack of affordability
  - Climate change implications
  - Strained municipal budgets
  - Safety & Emergency response

# Gentle Density - “Missing”... *but now emerging once again*



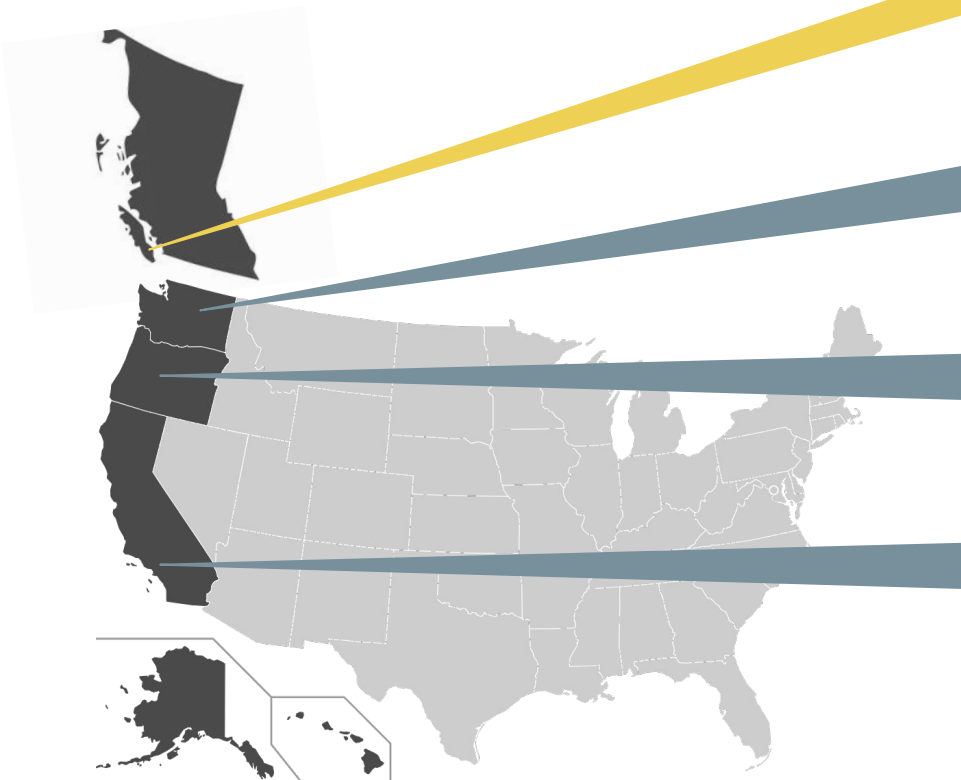
- Historical trends of exclusionary zoning which led to proliferation of Single Family Units is slowly being unwound
- Cities across North America are changing their zoning bylaws to allow for more housing variety in what can be built.
- From Edmonton, Toronto and Burnaby to San Diego, Portland and Minneapolis, and entire states like Vermont, Montana, and Washington (to name a few) – communities are legally enabling “missing middle” housing like laneway houses, multiplexes, and row houses to add more homes of all shapes and sizes in previously exclusive single family neighbourhoods.

Check out our collaboration with Uytae Lee on this!





# Snapshot: Legislation on Gentle Density



**British Columbia**  
Bill 44 (2023)

**Washington**  
HB 1782 (2022)

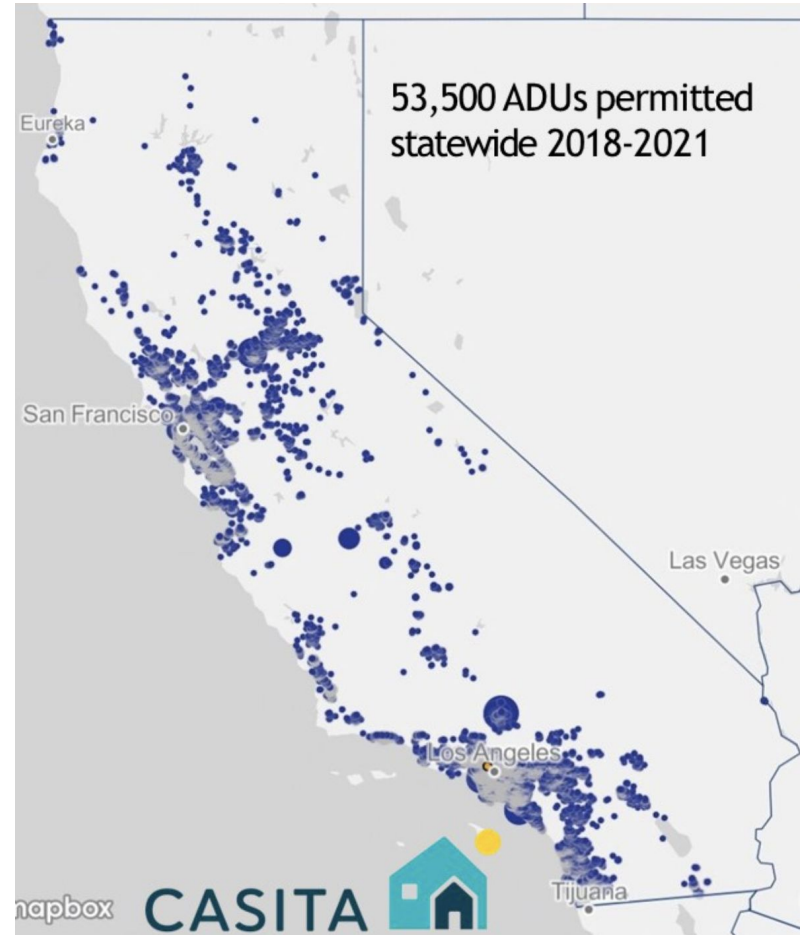
**Oregon**  
SB 2001 (2019)

**California**  
SB 1069 (2016) and SB 9 (2021)



## ADU Revolution in Progress

- 53,500 ADUs permitted in California between 2018 - 2021
- All kinds of neighbourhoods
  - Urban, rural, wealthy, low-income, inland, coast, north, and south
- \$100M in California state budget for ADU finance in the last 2 years
- A new \$4B industry, providing jobs and economic growth
- ADUs rapidly increasing in popularity
  - 73% approve of ADUs in their neighbourhood (residents of 26 US metros, Zillow 2022 survey)



# 66%-80%

In California, 66-80% of ADUs qualify as affordable to households earning the area median income.

The Atlantic (2023)

# Small Housing Research Results (2023)

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## What does the public want?

- A majority (**73%**) of British Columbians say they are **concerned about access to affordable housing**.
- **71%** of British Columbians agree that **infill housing** can help address the housing crisis in the province
- Over a fifth of homeowners (**>20%**) across urban areas say they would **consider building a small secondary home** on their property in the next five years.



# For BC: Homes for People Action Plan



## Key Deliverables

- Greater housing supply:
  - Homes for people, not speculators; making it easier to get housing built; making better use of residential zoned lands to deliver more housing supply
- **Short-Term Rental Vacations (Bill 35)**
- **Development costs/processes of development proposals (Bill 46)**
- **Transit-oriented development (Bill 47)**
- **Small-Scale Multi Unit (SSMU) housing on traditionally SFD lots (Bill 44) -**
  - Between single-family homes & “high rise condos”

# Bill 44 & Homes for People



- **Key measures & timelines**

- 3 & 4 units per lot as of right; up to 6 close to frequent transit
- Provincial minimums for height, density, setback, parking
- All local governments of communities of 5,000+ required to implement new zoning bylaws per Bill 44 by June 30, 2024



# Enabling Gen Den

- Important to understand that simply legalising gentle density as-of-right, does not mean it will be built
- Key strategies for enabling gentle density at scale:
  - Zoning + Regulatory Reform
  - Public Buy-In
  - Industry Engagement
  - Innovation

# Innovating Gentle Density



- **The 3 P's:**

- **Pre-Zoning:**

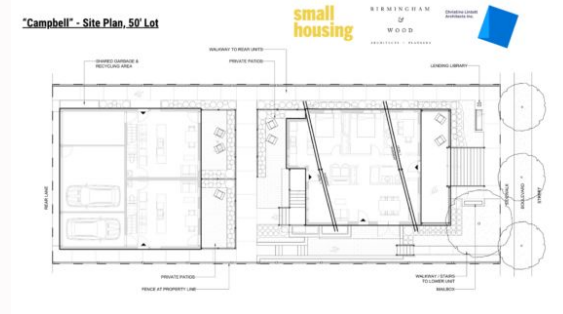
- Small Scale Multi Unit Housing (SSMUH)
    - ADUs
    - Plexes

- **Pre-Fabrication:**

- Offsite Construction
    - Modular homes

- **Pre-Approve:**

- Sample Home Designs





# Smallworks



**SMALLWORKS**

# Smallworks' Approach



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- Bathroom Pod
  - Modular fitted and plumbed bathroom unit
  - Wet wall that houses kitchen plumbing
- Closed Wall Panels
  - Ready-insulated closed wall panel system
  - Step 4 of the BC Energy Step Code
- Alternative Foundation
  - helical pile foundation with wood floor/beams
  - Low embodied carbon alternative with equal or greater durability

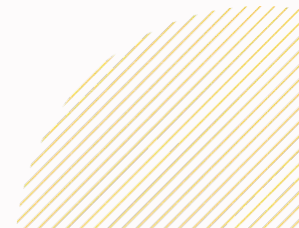
# Helical Pile Foundation



# Bathroom Pod



# Mass Customization



# Smallworks' Approach



- **Mass Customization**

- Meeting climate goals
- Address labour shortages
- Expedite housing development
- Create cost savings

# Smallworks' Approach



# Opening to the floor: Enabling Gen Den



- Role of BOABC members in supporting gentle density:
  - Feedback on Smallworks' approach
  - What are the key challenges or barriers (if any) you face?
  - Where are the areas that orgs. like Small Housing could support?



# Small Housing: Supports offered



- **Industry/Market Activation: (by request)**
  - Hosting local government-local industry engagement
  - Supporting pre-reviewed design programs
  - Offering skill-building workshops for homebuilders
- **Technical support and Capacity building**
  - Development feasibility analysis
  - “Industry Activation” workshops
  - Skill-building workshops for single-family builders
- **Tool Development**
  - Sample Home Designs & Financial Models
  - The Gentle Density Toolbox



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THANK  
YOU



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