



Roots: Connecting Tiny Home Dwellers and Landowners to Alleviate the Housing Crisis

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TINY HOMES

As the housing crisis worsens, alternative forms of housing such as tiny homes have the potential to increase the access and affordability of housing here in Santa Barbara and across the country. Tiny homes have many forms, and the connectivity platform being developed by Roots is compatible with any type of housing that can fit in a backyard.



Self-sustaining with no required utility connections



Average footprint 400 ft², space for 1-2 dwellers



Typical construction price \$20,000

AN ENTREPRENEURIAL APPROACH

Customer Profiles

Tiny homes dwellers are typically sought young professionals in the 20s and 30s with impermanent career plans, or couples with grown adult children. The appeal of downsizing and of the minimalist movement is felt most strongly by individuals without children who are interested in the do-it-yourself nature of tiny living.

Landowners who participate in the platform will be individuals familiar and comfortable with the sharing economy who would like to supplement their income using the value of their land.

Business Development

1 92 in-depth customer and expert interviews

To begin the process of developing a business, the team got out of the classroom to hear from customers. Affordability and stability were highlighted as the key customer pain points.

2 Santa Barbara spatial analysis

County data⁴ was analyzed to determine regions of compatibility with the Roots platform. Parameters included land-use code, additional structures, and parcel size.

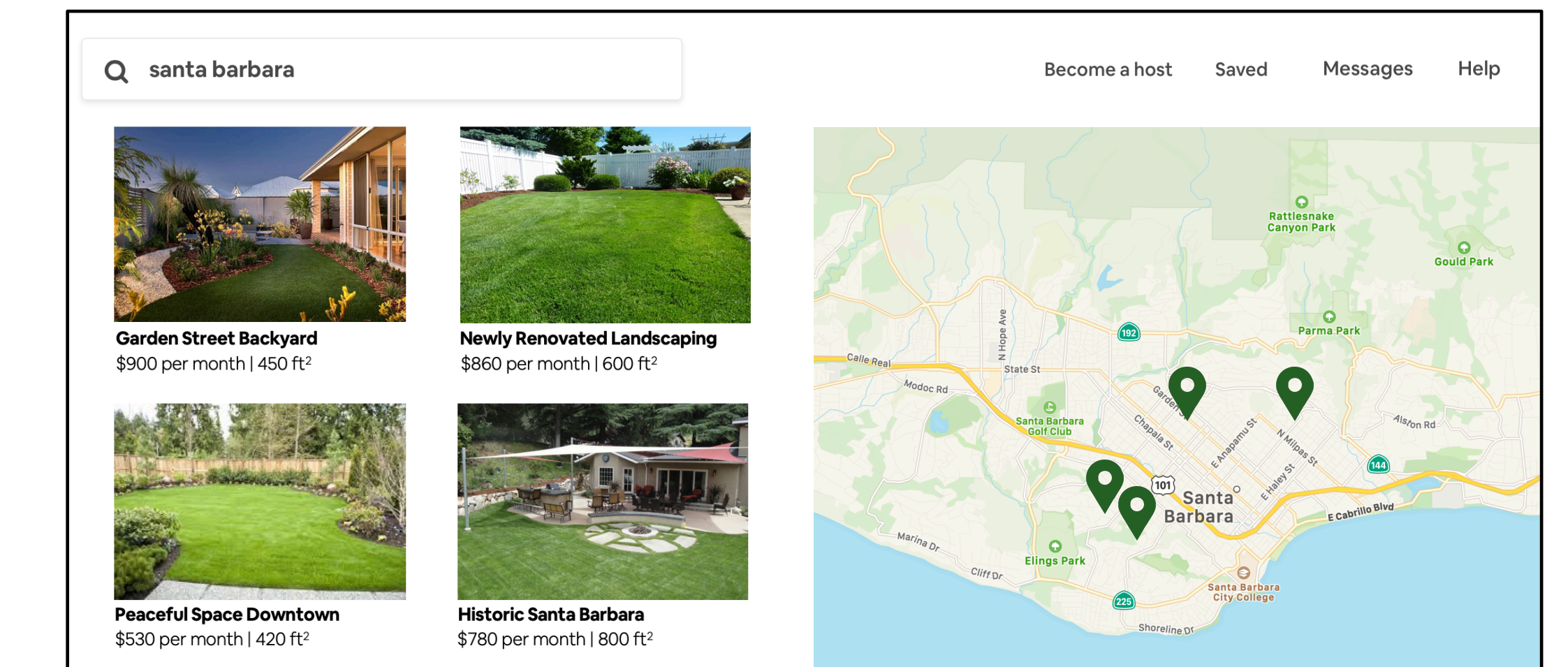


3 Landowner survey to gauge interest (n = 52)

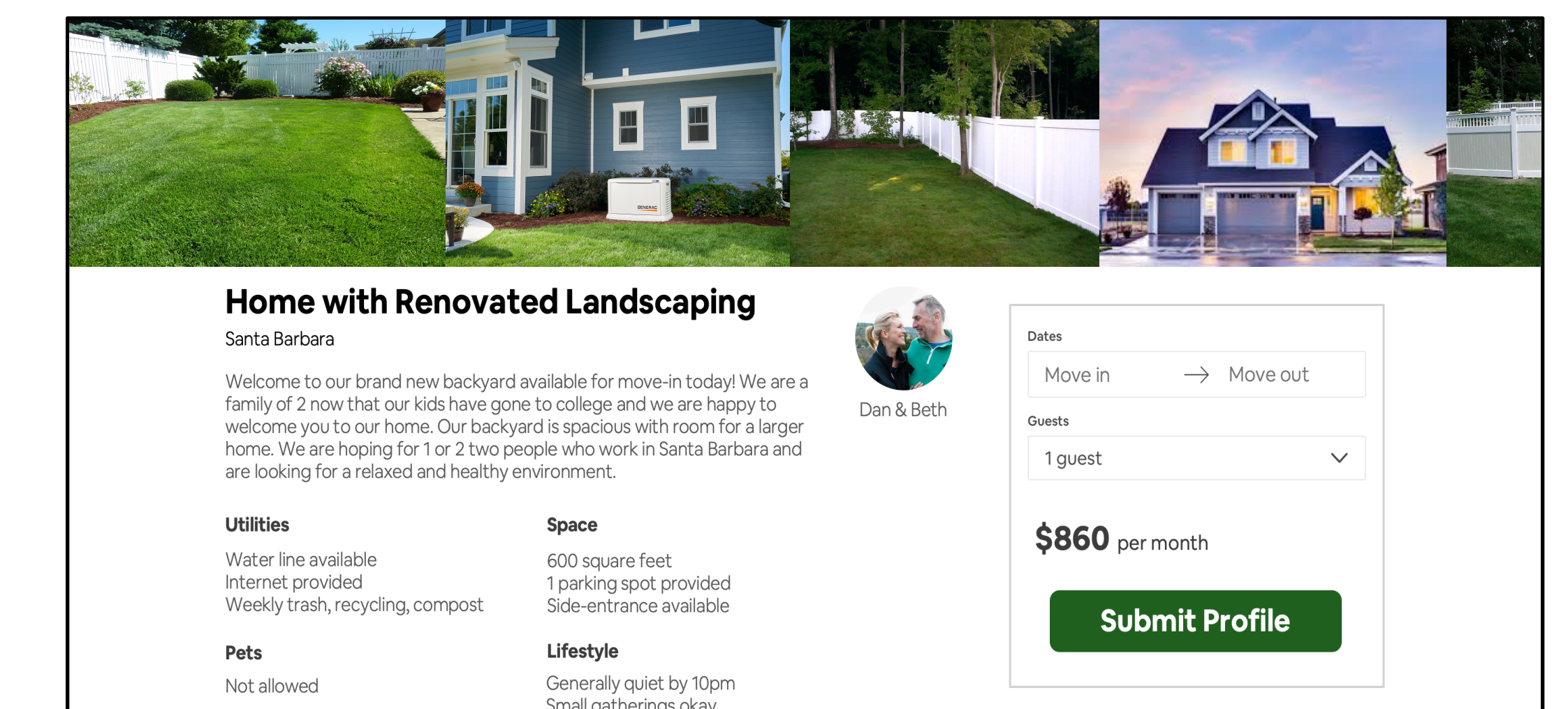
- 14%** Of respondents were interested in participating
- \$800** Reasonable expected rental price
- Legality & Feasibility** Primary concerns of landowners

Platform Functionality

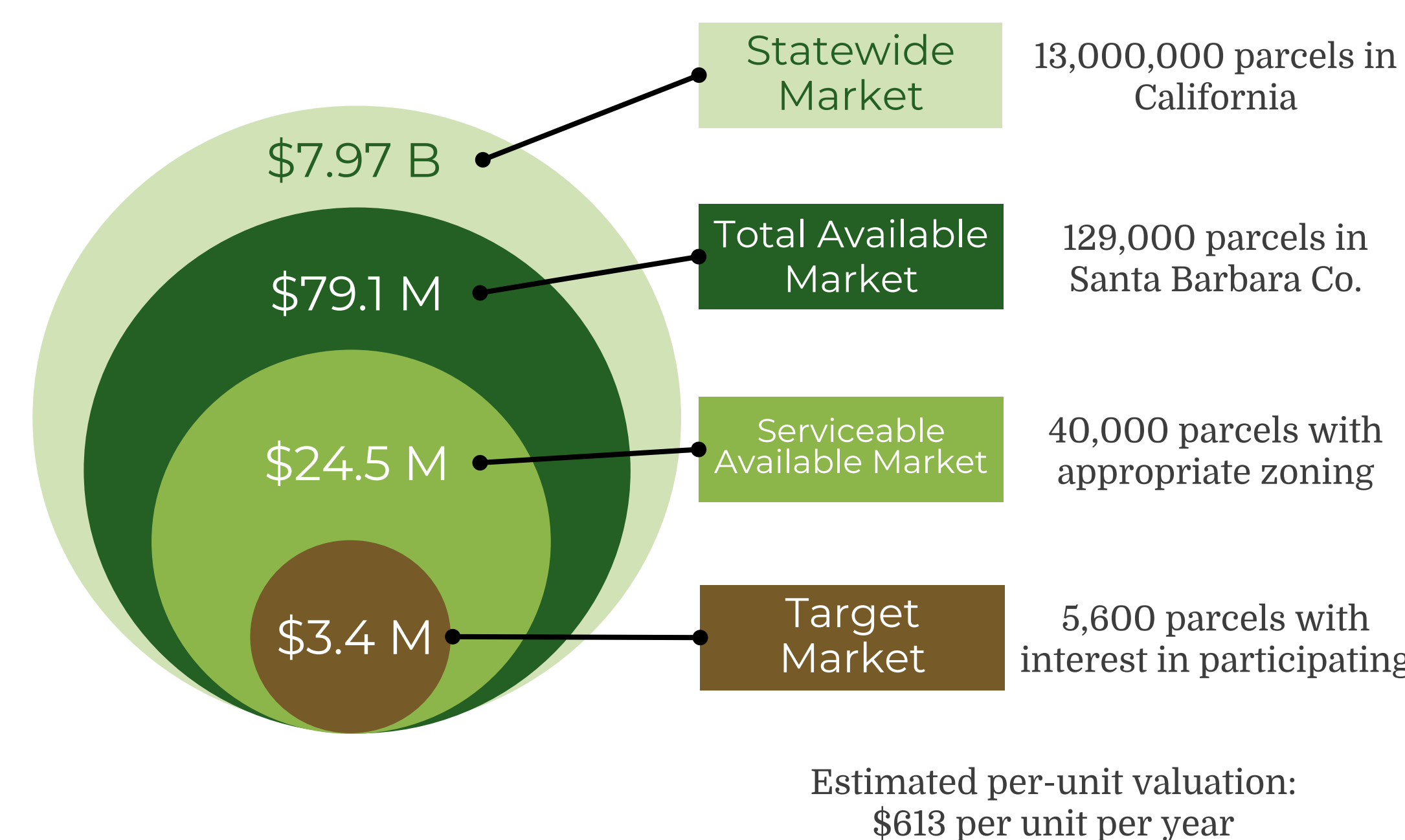
The online platform will connect dwellers and landowners, similar to Airbnb. The unique element of Roots is the compatibility algorithm, which, like a dating app, will ensure matches have lasting success.



Dwellers will be able to search for features such as utility availability, space requirements, lifestyle details, and timing. If a potential match is found, the dweller will submit a profile and a connection will be made.



Santa Barbara Market



TWO PREVIOUS BUSINESSES

As an Eco-Entrepreneurship project, Roots was tasked with developing a durable, timely, and environmentally beneficial business model from the ground up. Over the course of the project, the team developed three distinct businesses, all related to the theme of affordable housing.

Business Solution 1

Tiny Home Communities



Originally, Roots attempted to own land and lease space to tiny home dwellers; creating a sustainable tiny home community. This would have addressed the legal concerns of dwellers and provided an improved living location near to urban centers.

“Not a new idea, just a cute idea”

Business Solution 2

Pre-screened ADU design

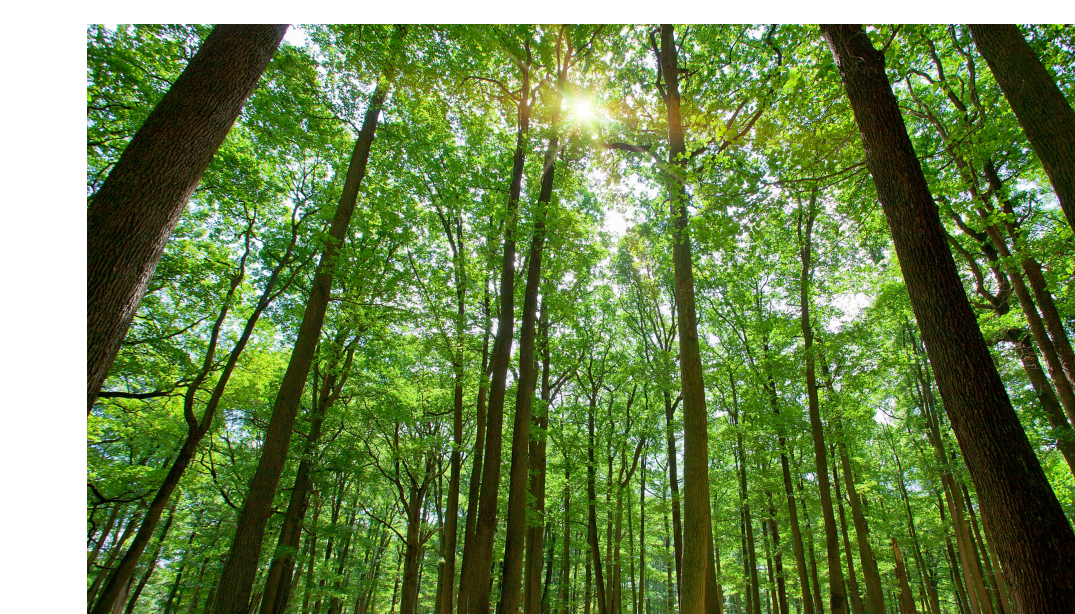


Second, the team developed a pre-screened Accessory Dwelling Unit (ADU) design which would reduce the time-to-build of these structures. This cost-effective solution aimed to provide an alternative housing option to more people.

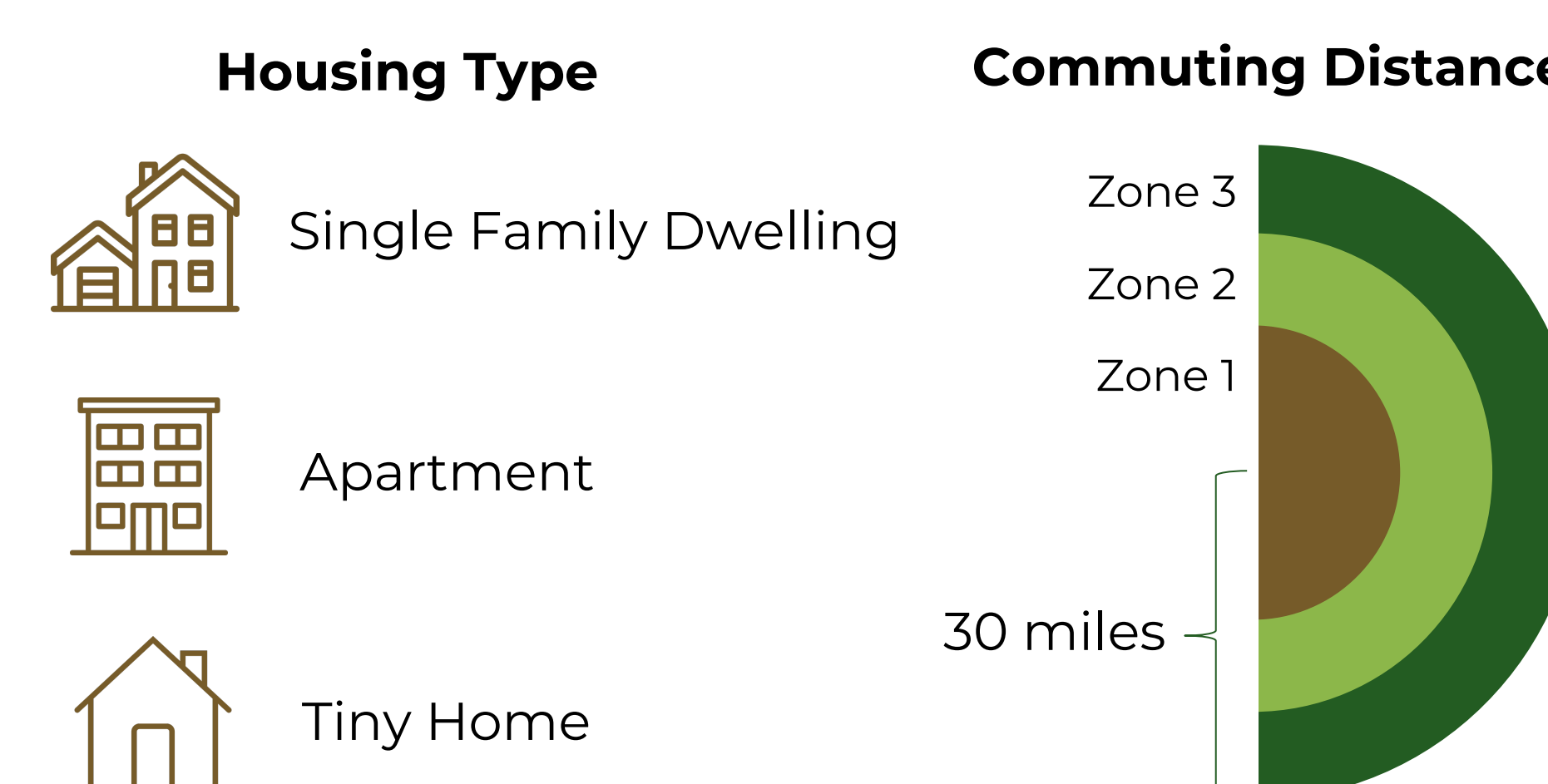
Costly start-up, lack of expertise

THE ROOTS ENVIRONMENTAL BENEFIT

The Environmental Benefit of a Roots Customer is **2.6** *tonnes CO₂ eq. person * year*
Equivalent to **3** *acres of forest year*

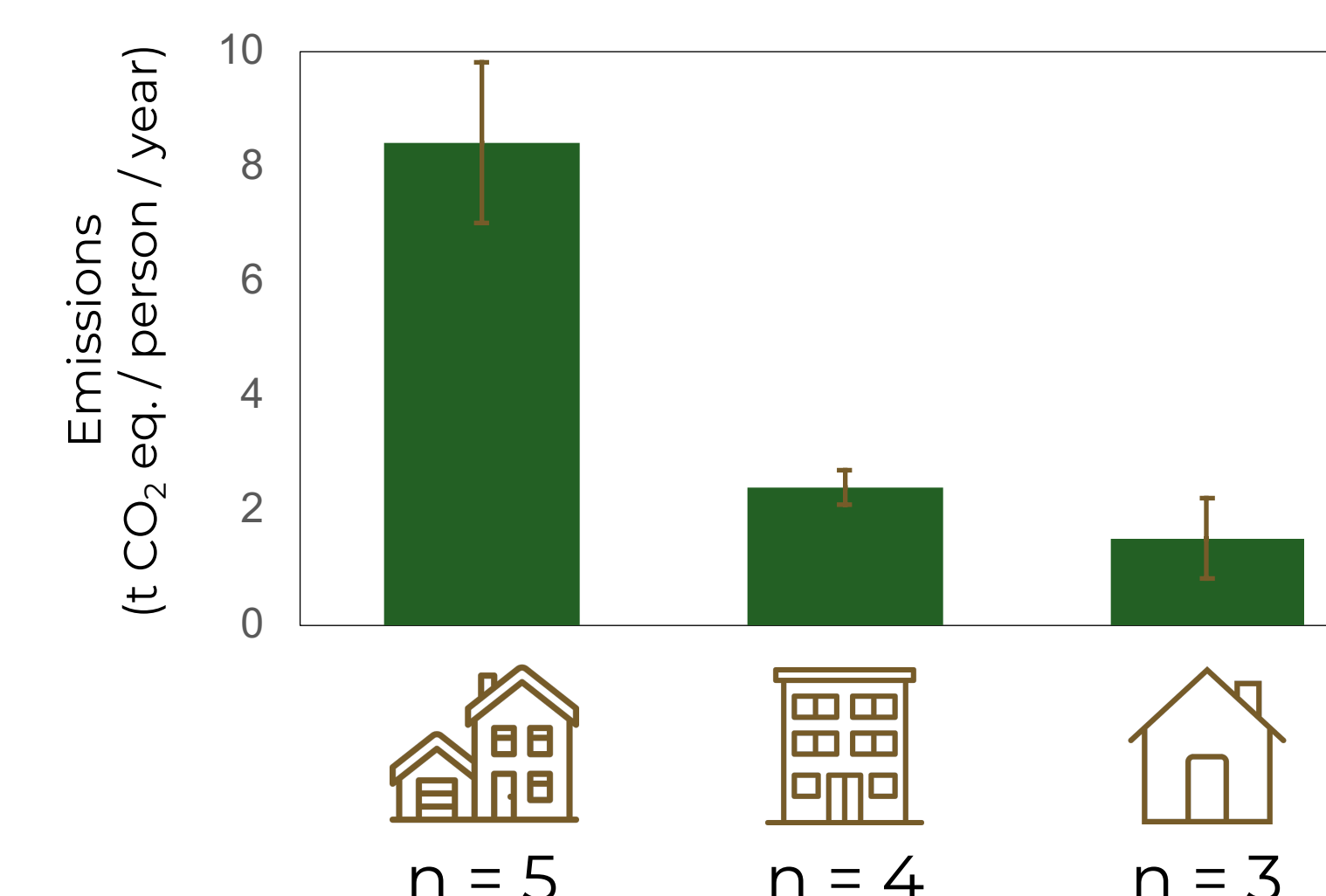


Approach



A two-fold approach was used to calculate the environmental benefit of the Roots platform. The combined effect of housing type and commuting distance resulted in an environmental impact in units of metric tons of carbon dioxide equivalent.

Carbon Footprint by Housing Type



An investigation into 12 scientific papers^{2,3} showed that Single Family Dwellings have a far greater impact than any other type of housing. Tiny homes have the lowest emissions of any housing type¹.

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