**Perceptions of Density in the Residential Built Environment**

A high density environment that is perceived as low density, what might that look like?

**Why Density Deserves Attention**

Density...is highly associated with people’s environmental preferences. It has historically been a means for describing the evolution of a city, is vital in determining what form a city might take, is ubiquitous in urban planning communication, has the potential to communicate many related concepts, is critical given the current rate of global urbanization, is the foundation for designing towards sustainable cities, physically manifests in a multitude of ways for a given measurement, is extremely complex and requires further defining.

“There is clearly a need for further fundamental research on density. Systematic development of work dealing with the relation between the quantitative and qualitative aspects of space consumption has yet to occur.”

**Density in the Suburban Context**

Perceptions of Density in Suburbia

**RESEARCH QUESTION:**
To what degree do street width, setback distance and tree coverage contribute to perceptions of density with respect to housing typologies?

**DEPENDENT VARIABLES**
- Spaciousness Preference

**INDEPENDENT VARIABLES**
- Street Width
- Setback Distance
- Tree Coverage

**HYPOTHESES**
1. Environments with three story or taller buildings will be perceived as less spacious than those with lower stories, regardless of the interior setback.
2. Environmental with more tree coverage will be preferred (Hur et al, 2010, 2012).
3. Environments with three story or taller buildings will be perceived as less spacious when the setback is far. (Stamps, 2009, 2011, street setbacks)
4. Street width will not factor into perceived spaciousness when the setback is far. (Stamps, 2009, 2011, street setbacks)
5. All factors equal, environments with detached housing will be perceived as more spacious than attached. (Stamps & Zacharias, 2004, building spacing; 2008, building setbacks)

**SURVEY METHODOLOGY**
A 32 question survey, utilizing discrete choice modeling, will be sent to 400 residents of Beaverton, OR. Below are three examples of the 40 stimuli randomly generated in the survey. Each question will be presented as either the most spacious or least spacious situation and respondents will be asked to choose the most preferred environment.

**Images:**
- Images: by author