Profitability Analysis of The Commons

Chloe Meyer
California Polytechnic State University,
San Luis Obispo, CA

Given the current saturated housing market, prices of single-family dwellings have exponentially increased. Due to this housing crisis, alternative housing approaches need to be considered. One potential solution to increasing the supply of affordable housing units is a tiny house village community. Tiny house communities can carry with them a stigma of rundown looks and an RV park aesthetic, but they don't need to. Tiny house communities, at their best, can be thriving communities that are anchored in communal living, shared resources, and affordability. The Commons is a proposed tiny house village development that would be located on 1.6 acres. The land would hold 38 units, with each unit being 600 sq ft. This housing development would likely attract recent graduates, young couples, and retired individuals. Given the current zoning and density regulations of the City of San Luis Obispo, a project such as The Commons has little to no profitability. Looking into the future, city zoning regulations could be revised to encourage developments like The Commons. Each piece of zoned land has a cap for how many density units are allowed on the land, so if each 600 sq ft unit accounted for less density, profitability could increase. Under current city regulations, each 600 sq ft unit gets a density coefficient of .5. However, if this size housing unit were to have a density coefficient of .25, projects such as The Commons would become profitable. In addition to revising density regulations, increased financial matching per unit by the city and the decrease of city impact fees could also encourage affordable housing growth.

Key Words: Missing Middle, Tiny House, Density Coefficient, Zoning, Communal Living

Origins of the Project

There is a concept known as the "Missing Middle" in housing, which is becoming increasingly evident during our current housing crisis. The Missing Middle refers to the range of living quarters that exist between traditional single-family homes and large high-rise condominium buildings. Examples of Missing Middle housing include fourplexes, duplexes, townhomes, and urban communal...
living spaces. These housing types offer a middle ground between the low density of detached houses and the high density of towering apartment complexes.

The importance of addressing the Missing Middle has grown due to the pressing issue of affordable housing scarcity across California. As housing costs continue to rise, it has become apparent that alternative living arrangements, such as tiny house communities, hold great appeal for various demographic groups. Young couples or singles, single-parent households, and retired individuals alike find the idea of these living options appealing. Beyond the financial benefits, joint living arrangements foster a sense of community and connectedness. Living in close proximity to others allows for social interaction, shared resources, and a support network that can greatly enhance well-being.

Driven by the need for affordable housing in the City of San Luis Obispo, The Commons was created. Situated on 1.6 acres of land, The Commons would feature 38 units designed to meet the needs of individuals and families seeking affordable housing solutions. During the beginning stages of discovering the project's feasibility, engagement with City Zoning Officials occurred as well as the creation of a comprehensive budget and schedule for The Commons. Unfortunately, it became apparent that the current zoning and density laws pose significant challenges to the profitability of a project like The Commons.

Addressing these zoning and density regulations is crucial to enable the realization of affordable housing projects. By revising existing laws and regulations, an environment that encourages the development of innovative housing solutions like The Commons can exist. Additionally, increasing financial support per unit from the city and reducing city impact fees could serve as incentives for affordable housing growth.

By expanding the housing options to encompass the Missing Middle, diversity and inclusivity in San Luis Obispo housing will increase. In addition expanding the housing options will provide opportunities for individuals and families from various backgrounds to find suitable, affordable homes. The path forward requires collaboration between city officials, developers, and community stakeholders to bring about meaningful changes that address the pressing need for affordable housing in San Luis Obispo.

**Process**

In the initial stages of this senior project contemplation whether the tiny houses in the development should be on foundations or wheels occurred. After careful consideration, it was determined that they would be permanent structures on foundations. Permanent structures have the ability to offer greater longevity and create a more marketable product. Although opting for permanent structures added time to the schedule and expenses to the budget, it will ultimately result in a development that maintains its appeal over time and avoids the appearance of a typical trailer park. With the decision made to have houses on land, the next step was to find a suitable plot. The outlined steps for completing the development stage of this senior project are detailed below

**Step 1: Finding Land**

Using the help of Kyle Bell, City of San Luis Obispo’s Housing Coordinator, a piece of appropriate land was identified for The Commons. Mr. Bell provided valuable insights into the various zoning categories that would permit a development like The Commons. Armed with this zoning information,
the focus became finding land within the R4 zoning sections of the city. R4 zoning would allow for 12 density units per acre, with each 600 sq ft housing unit currently accounting for half a density unit.

A density unit is a way that the City of San Luis Obispo can quantify how much housing they allow on a piece of land. Each zoning designation has a varied amount of density units allowed on the property. Figure 1 outlines a chart used by the City of San Luis Obispo to determine the density allowed in each of the residential zones.

<table>
<thead>
<tr>
<th>Average Gross-Bias per %</th>
<th>Maximum Density Allowed (units per net acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R-1</td>
</tr>
<tr>
<td>0—15</td>
<td>As allowed in the zoning regulations for that zone.</td>
</tr>
<tr>
<td>16—20</td>
<td>4</td>
</tr>
<tr>
<td>21—25</td>
<td>2</td>
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<tr>
<td>26+</td>
<td>1</td>
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Figure 1. Maximum Density Allowed in Units Per Acre

For context, a single family house is usually equivalent to one density unit. Given The Commons' location on a 1.6-acre plot, the allowed density units would be 1.6 x 12, resulting in 19.2 density units and the potential to construct 38 tiny house units. Figure 2 shows a general layout of The Commons site plan highlighting the layout of the 38 housing units.

Figure 2. Site Layout for The Commons
Step 2: For Sale or Rent

A key financial decision during the development process was whether to sell or rent the units at The Commons. While renting offered advantages such as facilitating a positive community atmosphere through property management and generating long-term financial profits, ultimately The Commons was proposed as a "for sale" development for many reasons. This decision aimed to provide San Luis Obispo residents with the opportunity to own property, build equity, and enjoy the benefits of homeownership, even if they couldn't afford a single-family home. Furthermore, given the limited upfront funding available for this project, selling the units allows for immediate returns on the development.

Moreover, establishing The Commons as a for-sale development enables residents to establish roots and a sense of belonging in their community. This new development seeks to create a space where people not only live but also socialize. Selling the units makes the most sense in order to foster stronger bonds and community relationships. Additionally, homeownership helps stabilize property values within a city. When homeowners have a vested interest in their properties, they are more likely to invest in maintenance, improvements, and renovations. This can contribute to an overall increase in property values, benefiting both individual homeowners and the city's tax base.

Step 3: Design of The Commons

The original design of the commons included an on site parking lot and a community building. After looking at the financial impact of these elements it was decided that The Commons would be revised to a very stripped site layout. In addition, taking out the common house would increase the minimalist appearance of the site as well as decrease responsibilities of the property manager.

The placement of the individual units from the first design stayed relatively the same. The units are placed intentionally to create a bigger common area in the middle. Every resident will be encouraged to engage with other residents just throughout the layout and placement of the units. The on site parking lot was also removed in order to create more time for residents to organically connect as they are walking from the street into The Commons living community.

Step 4: Considering Affordable Housing

Originally The Commons was going to be marketed as affordable housing. Before creating The Commons budget the threshold for “moderate” affordable housing looked promising and profitable for the units. In addition to the for sale price under “moderate” affordable housing, Kyle Bell also claimed that the city would pay $25,000 per unit if the project was labeled as affordable housing for moderate income levels. Figure 3 shows that a one bedroom house could sell for $366,975.

Unfortunately, as the budget was flushed out it became clear that having The Commons be affordable housing over market rate was not financially profitable. The market rate sale price per unit would be around $500,000 dollars which is more than $100,000 dollars per unit even with the $25,000 dollar stipend from the city.
### Deliverables

#### Budget

Unfortunately, the final budget analysis revealed that The Commons would not be financially profitable. To make the project profitable, several changes would need to be implemented. If each 600 sq ft unit accounted for only 0.25 density units instead of the current 0.5 density units, as shown in Figure 4, the project could generate $3 million in profit. Additionally, City Impact Fees currently make up 6.8 percent of the project's budget. To promote the creation of more affordable housing, potential solutions could involve reducing impact fees, increasing density, and enhancing financial matching through collaboration between the city and the developers.

![Figure 3. Affordable Housing vs Income Group](image1)

![Figure 4. Profit for Project if Double Unit Density on the Site was Used](image2)
Two budgets were created for The Commons. The first budget illustrates the negative profit that would result from the development if the density units remained at 0.5 per housing unit, while the second budget outlines the potential profit that could be achieved if the density on the property were allowed to double. Doubling the number of units on the property would also enable more individuals to invest in affordable housing ownership. Increasing density would have various benefits for San Luis Obispo.

By doubling the density, San Luis Obispo could retain more local residents as tenants. Affordable housing also promotes economic diversity. The workforce in San Luis Obispo consists of individuals such as teachers, agricultural workers, and food service workers who earn lower incomes. To foster thriving and diverse markets, the supply of affordable housing is crucial. Increasing the availability of affordable housing provides greater support for lower-income families. As Cal Poly students graduate, they seek housing that aligns with their recent graduate incomes. To retain talent and cultivate an educated workforce, San Luis Obispo must increase the availability of affordable housing throughout the city.

**Schedule**

The completed preconstruction, construction and post-construction of the project takes 540 days. Of the 540 days, 420 of those days would be devoted to preconstruction. 420 days for pre construction is a conservative estimate for the project because the current schedule assumes that all city processes take the maximum time allotted. Figure 5 outlines the steps of the preconstruction process that are required in order to obtain a permit from the city. This Permit sequence accounts for about 85% of the scheduled preconstruction time.

![Figure 5: Preconstruction steps](image)

Given that the preconstruction process is the longest section of the whole development projects, there are some alternatives that can be looked into in order to decrease the amount of time the
preconstruction section takes. For starters, the earlier a developer can engage with the city about the project the better. Fully understanding regulations and ordinances makes the process efficient and faster. Another way to increase the speed of pre construction is to assign that stage to be under the processes of a local project manager who knows the ins and outs of their city’s regulations and processes.

Project Proposal

This project proposal serves as a formal document submitted to the City of San Luis Obispo, presenting the objectives and goals of The Commons development. The executive summary of the proposal highlights the necessity and significance of The Commons in addressing various housing challenges. It emphasizes that The Commons will serve as an innovative housing community, offering affordable, environmentally friendly, and community-oriented housing solutions to individuals and families in need.

The summary clearly articulates that The Commons aims to create a sense of belonging and promote social connections among its residents. By fostering a community-oriented environment, The Commons will encourage interaction, collaboration, and a shared sense of responsibility among its residents. Furthermore, the development will prioritize sustainable living practices, contributing to the overall well-being of both residents and the local community.

The primary target population for The Commons comprises individuals and families in San Luis Obispo who are grappling with the exorbitant costs of housing and are seeking more sustainable and affordable alternatives. The development specifically aims to cater to low-income and middle-income individuals, including students, young professionals, and seniors. By providing housing options that align with their financial capabilities, The Commons aims to alleviate the burden of housing expenses and create opportunities for a diverse range of residents.

The project proposal outlines two main objectives that The Commons endeavors to achieve. The first objective is to provide affordable housing, addressing the pressing need for accessible housing options in the city. The Commons seeks to demonstrate that affordable housing can be both aesthetically appealing and functional, setting an example for future minimalist living projects within a medium-sized city.

The second objective is to encourage community engagement within the development. By emphasizing the importance of social connections and shared experiences, The Commons aims to create a vibrant and inclusive community where residents can forge meaningful relationships. This objective aligns with the broader vision of fostering a strong sense of community and promoting overall well-being among the residents.

Through the submission of this project proposal, The Commons seeks to convey its vision, objectives, and potential impact to the City of San Luis Obispo, creating support and approval for the realization of this much-needed housing community. Figure 6 shows the project proposal.
Lessons Learned

Through this project, invaluable insights and lessons have been gained. One of the major takeaways revolves around the intricacies of working with municipal authorities and understanding the multitude of requirements involved. It was enlightening to uncover the "hidden" fees that can accumulate when embarking on a development project. Another lesson learned was the large amount of time that the preconstruction phase can take for a development of this size.

Furthermore, insight relating to the profitability of a project in relation to unit density has significantly expanded. Selling more units translates to higher profits as fixed costs are spread across a larger number of units. This means that expenses such as land costs are divided among more units, leading to increased profitability. Additionally, when doubling the number of units, city impact fees do not double but instead experience a seventy-five percent increase, resulting in further cost savings when comparing the budgets of the original density and the double density scenarios.

This senior project served as a satisfying way to bring together a culmination of knowledge that was gained through the Construction Management degree at Cal Poly. Developing the project schedule provided an excellent opportunity to refresh knowledge relating to Microsoft Project. Excel was also utilized to create a comprehensive budget, drawing upon the insights gained from business classes and a cost alternative course. While crafting the project proposal was a novel endeavor, it proved to be manageable through research and consultation with the city.

There were many lessons learned as they relate to the collaborative process with municipal authorities and the importance of navigating complex regulations. Moreover, a solid grasp of the financial considerations and the significance of meticulous planning in undertaking successful development projects has been gained.
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