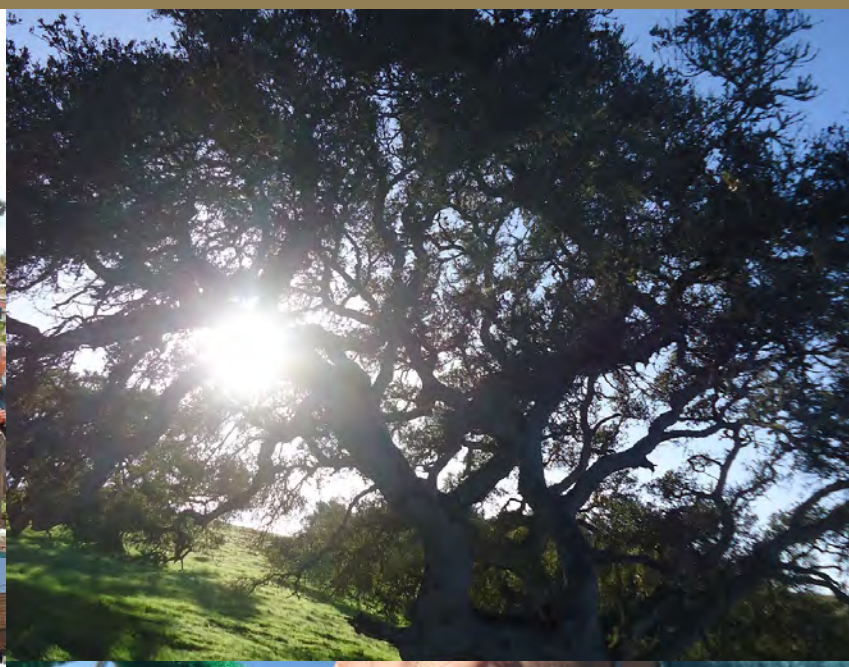
Sustainable City Year Program

Environmental Studies Capstone Summaries

Report submitted to the City of Seaside as part of the Project for a Sustainable City Year course

May 2018

California State University
MONTEREY BAY



The mission of the Environmental Studies Program at California State University Monterey Bay is to develop students and communities with the knowledge, skills, and compassion to promote social and environmental justice and sustainable communities.

The Sustainable City Year Program (SCYP) originated at the University of Oregon as a means to harness the innovation and energy of university students and faculty while supporting cities who are passionate about supporting progressive initiatives but face resource, time, and budget constraints. SCYP came to CSUMB in 2015; first partnering with the City of Salinas, and now rotating to the City of Seaside in 2017-2018.

Located on the Monterey Peninsula at the southern end of the Monterey Bay, the City of Seaside is a small city of 34,182 people. It is a young and ethnically diverse community, with a median age of 30.6 years and a majority-minority population, with 30% of the population identifying as white-only. The projects in this report respond in some way to the Seaside 2040 general plan as part of the Sustainable City Year Program.

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Acknowledgements:

In addition to the individual acknowledgements at the end of each project section, we would like to thank Dr. Dan Fernandez for his leadership in creating the SCYP program and City of Seaside staff Kurt Overmeyer, Rick Riedl, and Gloria Stearns for their vision and leadership.

Sustainable City Year Program
Report of Environmental Studies Capstone Projects

Executive Summary

The Sustainable City Year Program (SCYP) originated at the University of Oregon as a means to harness the innovation and energy of university students and faculty while supporting cities who are passionate about supporting progressive initiatives but face resource, time, and budget constraints. SCYP came to CSUMB in 2015; first partnering with the City of Salinas, and now rotating to the City of Seaside in 2017-2018. The SCYP program begins with the partner city proposing projects for CSUMB, and individual faculty identify courses that align with the city's goals.

Within Environmental Studies, a specific course, ENSTU 471: Projects for a Sustainable City Year, was designed as a capstone course for environmental studies students to engage in issues of sustainability with partner SCYP cities. Students are asked to consider specific projects in the context of sustainability: how a specific place can support economic and political vibrancy, ecological integrity, and a cultural identity that resonates with residents and meets city needs.

The City of Seaside is located at the southern extension of the Monterey Bay. A small city of 34,182 people, Seaside is a young and ethnically diverse community, with a median age of 30.6 years and a majority-minority population, with 30% of the population identifying as white-only (U.S. Census, 2017). The goal for this course was for students to use the capstone process to generate a deeper understanding of Seaside's sense of place, residents' role in the future of the city, and to understand how residents imagine a sustainable Seaside. In the spring semester of 2018, the City of Seaside identified several potential projects for the SCYP partnership. In the end, our class selected four projects, related to Latino community representation and inclusion, tactical urbanism along Echo Avenue, land use planning for Seaside East and Fort Ord, and tiny homes to mitigate homelessness.

Ethnic Representation and Outreach to the Latino Community (pages 4-11)

This project addressed two concerns of the City of Seaside: the need for a visual representation of Seaside's demographics and representation within government, and a question about why the Hispanic and Latino population are not more involved at city meetings. These goals are important in informing the city's 2040 general plan: seeing and understanding the dynamics and interests of the Latino community is vital to envisioning the city's future as a whole. Demographic analysis compared U.S. Census data on race and ethnicity for the City of Seaside with Seaside city government employment demographics. This capstone group also conducted outreach at two Mexican grocery stores in Seaside using City as Play and open-ended interviews. Results of the demographic analysis show that the Latino population has grown by 38% over the past 15 years, now composing 44% of the total population while 2.43% of Latino city government employees are in positions that can influence decision-making in the city. Outreach to the Latino community found that this population wants to see more art, parks, community events, and general upkeep and cleanliness in the city. Latino community members said they were interested in speaking with city employees via similar methods used in this capstone, and that radio and flyers at Mexican groceries were good ways to communicate simple messages with them.

Seaside Tactical Urbanism (pages 12-21)

Tactical Urbanism is process of making low-cost and temporary changes to the built environment in order to experiment with and catalyze changes in a city. Seaside Tactical Urbanism (STU) was created by a group of six environmental studies students to explore street interventions on Echo Avenue, a large and underdeveloped street in Seaside. The project sought to experiment with changes to the physical infrastructure by adding a crosswalk, curb extension, and a parklet the day of the event. After numerous design iterations and community outreach, these interventions were installed just prior to Earth Day. The community day included six food and plant vendors, art and games, and a Return of the Natives seed give-aways. A survey at the event and behavior mapping before and after the event were used to gather information about the installations. The survey and informal conversations with community members suggest that the community would like to see more tactical urbanism, increased street safety, art, and community events. They liked the idea of holding a weekly event, such as a farmers market, on Echo Avenue. They particularly liked the crosswalk as a safety feature and colorful addition to the neighborhood. Behavior mapping results showed a large increase in usage of the crosswalk, but no significant changes in pedestrian behavior were observed at the curb extension. Levels of jaywalking were high both before and after the event. This group recommends that the city consider an additional crosswalk with pedestrian-activated light feature in the middle of Echo Avenue to address this issue.

Seaside East and Fort Ord Assimilation (pages 22-26)

The Fort Ord Army base was decommissioned in 1994. The base was 28,000 acres large, roughly the same size as San Francisco. The Fort Ord Base Reuse Plan was developed to find new uses for the vacated land; 21,000 acres were designated for conservation while 7,000 acres were designated for development. The CSU Monterey Bay campus, housing, and retail are among the uses for the converted land. Seaside East is a strip of land designated for development under the Fort Ord Base Reuse Plan. The City of Seaside will assume control of the land in 2018. This capstone group interviewed a variety of stakeholders for what the community wanted this property to become. Stakeholders included county and CSUMB representatives as well as environmental, African American, and development interests. Stakeholder interviews for Seaside East suggested that City Hall should be relocated to Seaside East; Del Rey Oaks and Seaside should be socially connected to Seaside East; apartments, community fields, and business park development are appropriate land uses; and the chaparral land. Interviews that focused on Fort Ord assimilation suggest that county land needs long term ownership that can sustain maintenance costs, partnerships are needed for a long term management solution, and ecotourism should be a long term goal. Most also said that the land had great potential for ecological interpretation and as a learning laboratory, potentially through CSUMB and Monterey Peninsula College partnerships. Based on these interviews, this capstone provides specific recommendations for Seaside East and Fort Ord assimilation land use.

Tiny Homes (pages 27-32)

This capstone explored the use of tiny homes as a means to mitigate homelessness and housing insecurity in the City of Seaside. The project researched homelessness in the nation, the state of California, Monterey County, and California State University Monterey Bay, with findings that demonstrate inequitable access to resources and prohibitive requirements for obtaining shelter. This capstone then researched tiny home villages as a means to provide inclusive and sustainable housing. The project recommends three tiny home villages: in Seaside East and Parker Flats for the homeless population of Seaside, and an eco-village on CSUMB's campus for the 15% or more of students who face housing insecurity.

Sustainable City Year Program Environmental Studies Executive Summary

Cross-Cutting Themes

While these projects are diverse in their focus and outcomes, each capstone project engaged one or more sectors of the Seaside community and sought to identify ways to build Seaside's identity for a more sustainable and vibrant future. Some themes emerged that cut across projects:

- Residents of Seaside care about their community and desire a place that recognizes its cultural and ecological richness, celebrates diversity, and promotes vibrancy through arts, parks, and open space. This is highlighted in the Ethnic Representation, Seaside Tactical Urbanism, and Seaside East capstone projects.

- Residents of Seaside want to be heard, but often this means going into the community, rather than holding community meetings for participation. When students in the Ethnic Representation and Seaside Tactical Urbanism were working in the community, many residents stopped and chatted with the students and shared rich ideas. This is the goal of methods such as City as Play or Tactical Urbanism, which bring people together through temporary installations in the city. Use of these strategies not only as a form of experimentation about the physical infrastructure, but also as a form of community engagement, hold great promise for the City of Seaside.

- Housing affordability is a tremendous challenge for sustaining the City of Seaside, with nearly 20% of residents living in poverty, median homes at roughly $350,000, homelessness at a 10 year high, and an estimated 15% of CSUMB students housing insecure. These challenges emerged in capstone research through Latino outreach, with some mentioning that they had moved from Seaside after living in the community for more than 20 years because it was no longer affordable for them. Housing affordability was also an explicit focus of the Seaside East and tiny homes capstones. These projects suggest locations and means of increasing affordable housing and addressing housing insecurity in Seaside.

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May 2018

Ethnic Representation and Outreach to the Latino Community

Raquel Hernandez and Sarcee Munoz Renteria

Introduction: Context and Goals

[Seaside] is a vibrant, proudly diverse, energetic and safe community that has character, social diversity, cultural identity, and that is welcoming to all people. - Seaside 2040 Plan

Seaside's biggest minority group, the Latino population, is largely absent from city meetings despite making up 44% of the population. Historically, Seaside was comprised of a diverse population of Mexicans, Italians, Japanese, and Portuguese (Figures 1 and 2), giving the city a reputation as a poorer subdivision of Monterey and a multicultural enclave. Latinos have a long history as California's largest ethnic minority group and formed a distinctive community in Seaside, working in agriculture, construction, and small businesses (McKibben, 2009).

This project addressed two concerns of the City of Seaside: the need for a visual representation of Seaside's demographics and representation in government, and identifying why the Hispanic and Latino population are not more involved at city government meetings. Reaching this population is a goal of the city's 2040 general plan - a multi-year undertaking to develop and involve input from the community to create policies and programs to achieve a common goal (Figure 3). According to Economic Development Program Manager Gloria Stearns, seeing and understanding the dynamics and interests of the Latino community is vital to envisioning the city's future as a whole.

Figures 1 and 2. Historic Seaside Community members.
Photos courtesy of the City of Seaside Archive

Methods

In order to address both the question of demographic representation in government as well as Latino participation in city planning, the project used two approaches. We analyzed U.S. Census Bureau and Seaside employment data to understand ethnic representation. We conducted outreach and experimented with ways to reach the Latino population using innovations in engagement, such as James Rojas' City as Play process.

City Demographics

To understand city demographics, we collected data from the U.S. Census Bureau and Roberta Greathouse, the Human Resource Director of the City of Seaside. Data from the U.S. Census provided the ethnicities of Seaside as a whole, while data from the city provided the ethnicities and position types of the city's employees.

Using Microsoft Excel, we created graphs to examine the change in ethnic populations over time, the ethnic population breakdown from 2012-2016 in Seaside, and the percent change within the Latino population between 2000-2016. We used data from the city to compare ethnicities within employment positions of "low" and "high" influence in decision making. To conduct this analysis, we sorted the data into five employment categories by the degree of influence positions might have in decision making. "Low" influence positions were anything that did not require more than a high school degree or certification and do not tend to have high influence in decision-making, such as a paraprofessional or service maintenance positions. "High" influence positions included the positions that require more education and/or that tend to have more influence in decision -making, including the City Manager, professional positions, and city council members. We categorized these positions by employment status: temporary, part-time, and full-time positions. After sorting position types, we sorted each category by ethnicity.

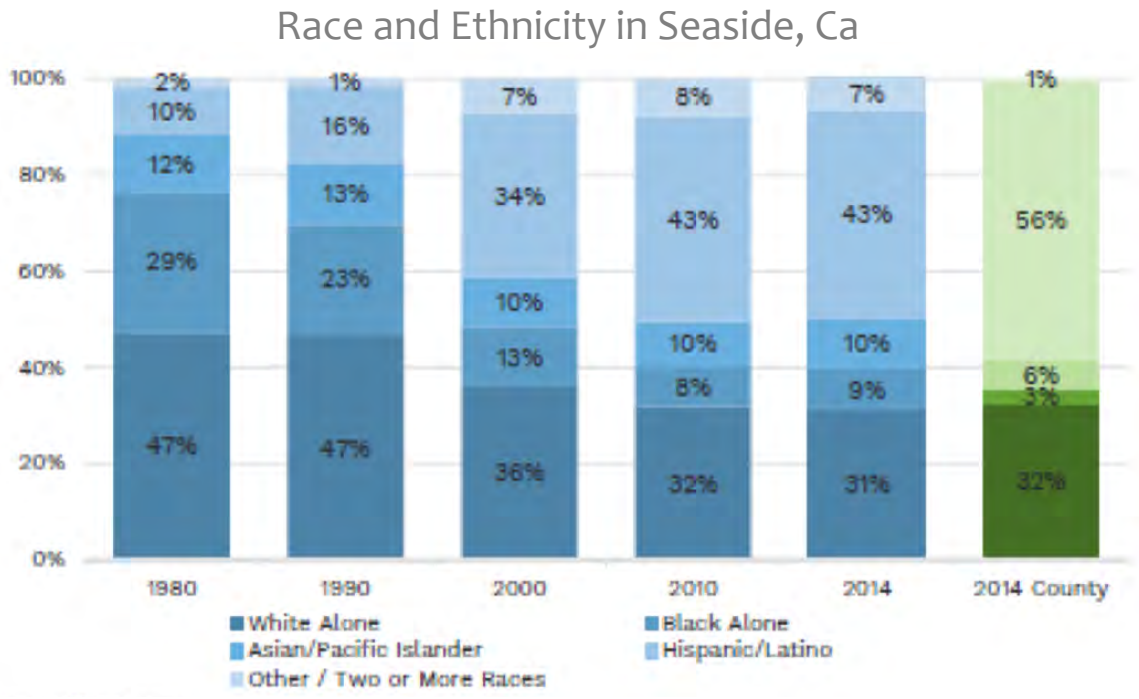


Figure 3: Above is the race and ethnicities in Seaside, Ca between 1980 and 2014, compared to Monterey County. Source: City of Seaside, Presentation to ENSTU 471 class.

City as Play

James Rojas is an urban planner from East Los Angeles who seeks ways to engage the Latino population and other marginalized communities in city planning. He developed the City as Play method, which asks participants to build their favorite memories with abstract objects to help the community open up about their experiences. The idea of City as Play is that by providing common objects to describe or imagine the city, the process unleashes creativity and helps people open up and share their stories. To do this, he places various abstract items, such as small toys, pipe cleaners, beads, blocks, or hair curlers, to give a variety of common objects to participants. We set up the models three times where the Latino community was present, such as Sante Fe and Mi Tierra grocery stores (Figure 4). We asked community members to use the objects to re-create a memory of their favorite place. Participants were not limited to memories of Seaside alone, they could be in a different city, state, or even country; our outreach did not discriminate one way or another. We used the model to allow people to build their favorite place and explain to us why they liked it so much. We were interested in knowing what made this place special and if some aspect of this place could be applied to the City of Seaside. The resulting models were photographed to document their memories (Figure 5), and we recorded participants ideas and comments using jottings during the sessions and more detailed notes after conclusion of each session.

Some participants had a difficult time thinking of and re-creating memories on the spot, and so we conducted informal interviews using open-ended questions with them instead. These questions included "What do you like about Seaside?" "What would you like to see in Seaside?" "What do you think needs improvement?" "How can the City of Seaside reach out to you?" and "What word comes to mind when you think about Seaside?"

In total we interviewed 39 people using City as Play and/or informal open-ended interviews. All the data obtained from the informal interviews was kept in a notebook and then entered in NVivo for analysis. NVivo is a qualitative software program in which we coded common terms used by the community to describe their city and then generated a word cloud that shows the frequency of community responses.

Figure 4: (Left) City as Play set up outside Sante Fe Grocery Store. Figure 5: (Right) Ranch in Mexico with rivers and tree created by a community member using the City as Play Method.

Results

City Demographics

Figure 6 shows that out of the total population in Seaside of 34,120 people, the Non-Hispanic or Latino community, any race, accounts for 56% out of the total population in Seaside. Hispanic or Latino, any race, accounts for 44% out of the total population in Seaside. In addition, White Alone accounts for 30% of the total population of Seaside. There were more ethnic groups than we expected, but the population is mostly made up of Hispanic or Latino, any race, Non-Hispanic or Latino any race, and White alone.

Figure 7 shows the population changes from 2000 to 2016. The Hispanic or Latino, any race community grew at a steady pace with a population of about 12,000 in 2000. In the years of 2006 to 2010 the population rose from 12,000 to 25,000. In contrast, most other racial and ethnic groups decreased during this same time period (Figure 7). From Figure 7 we can see that there has been a 38% increase in the Latino population in the last 15 years. Again this emphasizes that the Latino community is a big part of Seaside.

We also wanted to recognize the Seaside demographics as a whole. All of Seaside's ethnic groups are represented in the word cloud that shows the diversity of Seaside (Figure 9). The world cloud shows the frequency of the words and are categorized according to how each participant in the U.S. Census responded.

In terms of representation in government positions, out of 232 employees, 8% are in "high-influence" positions and identify as white, whereas 2.43% of employees are Latino and in "high-influence" positions (Figure 8). In total, 33% of city employees are Latino, which is not representative of the city as a whole (at 44%), and the vast majority of these positions are of low-influence in government decision-making (Figure 8).

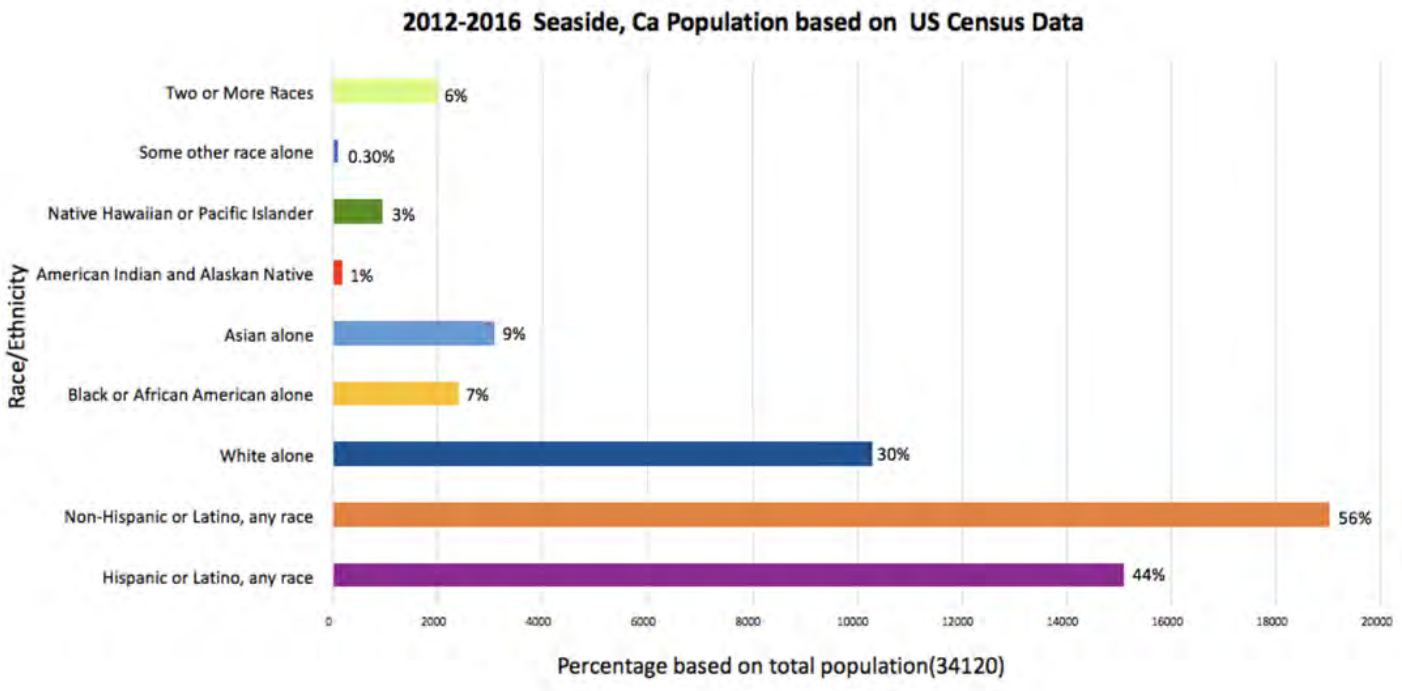


Figure 6: Seaside, Ca Population.

Results

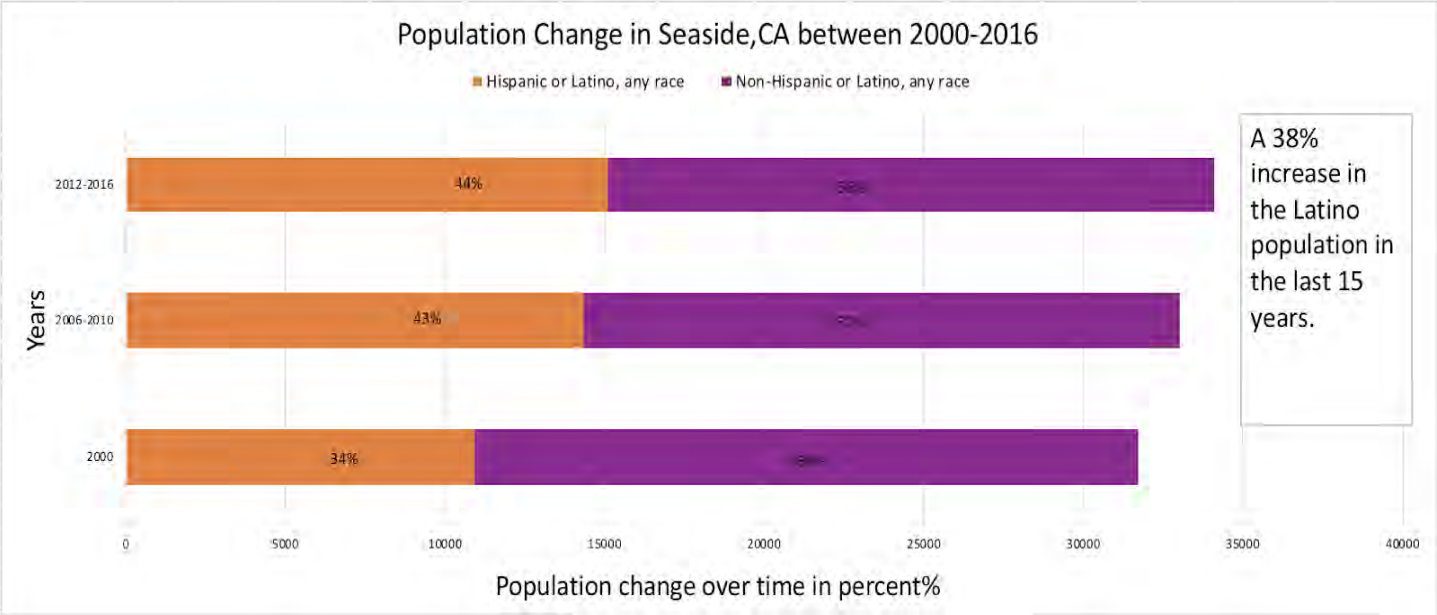


Figure 7. Population Changes in Seaside between 2000-2016.

Figure 8. Seaside Employees with Positions of Low-Influence (Cool Tones) and High Influence (Warm Tones) in Decision-Making. (Sources: U.S. Census Bureau and City of Seaside data).

Results

Figure 9 (Upper Right): Frequencies of ethnic identities in Seaside from U.S. Census data (Source: U.S. Census).

City as Play

We spoke with 39 Latino community members during our outreach in Seaside. Memories varied from family camping trips to a small ranch in Mexico (Figures 10-12). One man was very excited to see us do a project that incorporated art (City as Play). He said that it reminded him of when he used to build things with his father in Mexico. He feels that the community lacks creativity because community members are not exposed to art.

During the informal interviews, many community members expressed a need for safety, more parks, more inclusion of cultures, and more displays of art (Figure 13). The Latino community stressed that they are willing to talk with the city, but the city needs to come them. Community members feel that the city is not doing enough to include them in decisions that are being made in office. They stressed that informal means of outreach, such as tables outside the grocery stores, Spanish language flyers outside the shops, and Spanish language radio were all good forms of outreach. Participants specifically mentioned three radio stations as good media for outreach: 103.5 La Buena, 107.9 La Campesina, and 100.7 La Preciosa.

Figure 10: City as Play set-up with community members re-creating their memories.

Discussion

"Political bodies . . . should see their job as helping citizens construct their own narratives through their needs, interests and more largely their communities." - Rocio Ramirez, University of Colorado, Boulder

The City of Seaside is a continuously growing community. In 1944 the first chamber of commerce was created and contained all white male members, despite the mixed race population. However, the dynamics of representation has shifted over time to a more diverse representation today, but there are too few Latino members in office to be representative of the total Latino population. With more inhabitants being of Hispanic/ Latino descent than any other ethnicity, it is important that the city incorporates their needs and wants in decisions made for the city's future development.

Landscape architecture scholar Susan Dieterian, says that "the landscape of a city is part of the fabrication of inequality, and inclusion is important in growing cities" (Dieterlan, 2015). Through her research, Dieterlan describes two types of Mexican American communities in Midwest cities: those that are new and receive city

Figure 11 (Upper Left): Family Camping Trip
Figure 12 (Upper Right): Memory of the sea.
Figure 13 (Lower Left): Word cloud showing terms used by community members to describe Seaside.

resources, and older neighborhoods that are marginalized from the city as a whole and receive few resources. Dieterlan describes this latter community type as one that perpetuates deep inequalities over time. In the City of Seaside, we also saw evidence of the latter community type, where neighborhoods with high concentrations of Latinos receive few resources and are marginalized from city processes. Specifically, across from Mi Tierra, Broadway is being refurbished as part of the downtown revitalization, but this development did not extend to the Latino neighborhood on the other side of Fremont Avenue (Figures 14-16).

Dieterlan (2015) emphasizes that inclusion is important in growing cities. Bringing Seaside's community together can promote the well-being of the city and celebrate diverse heritages to create an inclusive city, rather than a marginalized enclave. Outreach within diverse neighborhoods of Seaside can help different ethnic groups to be celebrated and feel welcomed in their own community.

Figures 14-16: (Upper left) Road repairs on the lower portion of Broadway. (Lower left) Road repairs at the intersection next to Mi Tierra. (Upper right) Lower Broadway has been entirely repaved and repaired.

Recommendations

City of Seaside

To reach their goals, Seaside should continue its partnership with CSUMB, get to know the Latino population on a more personal level, and advertise events in the city through Latino media. Partnering with CSUMB provides the city with invaluable research conducted by eager local students. CSUMB has a high population of bilingual students that can provide relatable and friendly discourse with the Latino community. City officials need to be more visible in the Latino community because many Latinos work long hours and are not able to make it to city meetings. If the city officials came out to places where the Latino community congregates, the Latino residents would be willing to open up and give suggestions for the city. The city should continue to have events that are inclusive to all cultures. The Latino community suggested that these events should be advertised through radio stations or by setting up flyers at grocery stores where Latinos shop.

Future Capstone Projects

For future SCYP capstone students, or students in general who would like to continue this work, we recommend:

- Students contact Latino organizations for City as Play workshops
- Students attend community events to gather more community input
- Students partner with the city to gather information outside local Latino shops
- Further examine ethnic/racial representation changes in the city, since we only looked at government positions for the current year.

Working with organizations that have contact with Latinos can allow students to schedule workshops to gather more input. Having workshops where participants are informed beforehand of the types of questions they will be asked will allow them to have time to think about their answers. Attending community events offers great opportunities to find new participants for your study and share your research with others. Community events in Seaside are few and far between, so research and contact the city for a list of upcoming events so the project is prepared for issuing its surveys at the events. Finally, further analysis and collection of changes in representation within city employees over the years could provide valuable information on the city's goal of becoming inclusive.

Acknowledgements

Tori Derr, Assistant Professor, Environmental Studies, School of Natural Sciences
Gloria Stearns, Economic Development Program Manager for the City of Seaside
Roberta Greathouse, Human Resources Director for the City of Seaside
Latino/ Hispanic community who participated in the activity and provided information

Seaside Tactical Urbanism

Samuel Alvarez, Nicolo Di Jerlando, Iris Espinoza, Emily Jackson, Jack Martin, & Aaron Read

Introduction: Context and Goals

Tactical Urbanism is process of making low-cost and temporary changes to the built environment in order to experiment with and catalyze changes in a city. Seaside Tactical Urbanism (STU) was created by a group of six environmental studies students to explore street interventions on Echo Avenue, a large and underdeveloped street in Seaside (Figures 17-18). The project sought to experiment with changes to the physical infrastructure by adding a crosswalk, curb extension, and a parklet the day of the event. After numerous design iterations and community outreach, these interventions were installed just prior to Earth Day. The community day included six food and plant vendors, art and games, and a Return of the Natives seed give-aways. A survey at the event and behavior mapping before and after the event were used to gather information about the installations. The survey and informal conversations with community members at the event suggest that the community would like to see more tactical urbanism, increased street safety, art, and community events. They liked the idea of holding a weekly event, such as a farmers market, on Echo Avenue. They particularly liked the crosswalk as a safety feature and colorful addition to the neighborhood. Behavior mapping results showed a large increase in usage of the crosswalk, but no significant changes in pedestrian behavior were observed at the curb extension. Levels of jaywalking were high both before and after the event. This group recommends that the city consider an additional crosswalk with pedestrian-activated light feature in the middle of Echo Avenue to address this issue.

Figures 17-18: (Left) From left to right: Emily Jackson, Samuel Alvarez, Aaron Read, Iris Espinoza, Nicolo Di Jerlando, & Jack Martin. (Right) Seaside Tactical Urbanism logo created by Emily Jackson & Nicole Jackson

Why Echo Avenue?

Located in the heart of Seaside, Echo Avenue was used as a staging ground for the parades hosted by Fort Ord Military Base when it was still active. To accommodate the large military vehicles, the city made Echo Avenue wide (four lanes of traffic, plus space for parking on both sides) and reinforced with an extra thick layer of asphalt, meaning tearing up the street for large scale permanent fixes is too expensive for the city to complete (Overmeyer Personal Communication). Today, the Fremont end of Echo Avenue is mainly retail and restaurant locations, but towards the other end of the street near Baker Street, it is a residential zone (Figure 19). Kurt Overmeyer, one of the city's Economic Development Managers, suggested Echo Avenue as a location for tactical urbanism since the changes to experiment with changes to the street before more permanent changes could be made. Mr. Overmeyer also was concerned about safety on the street since there is a lot of foot traffic and jaywalking on Echo Avenue, and there was not a crosswalk at the Baker St. and Echo Ave. intersection. Traffic moving along Echo Ave. also tends to be fast. While the speed limit is 25 miles per hour, cars traveling along Echo often exceed the speed limit.

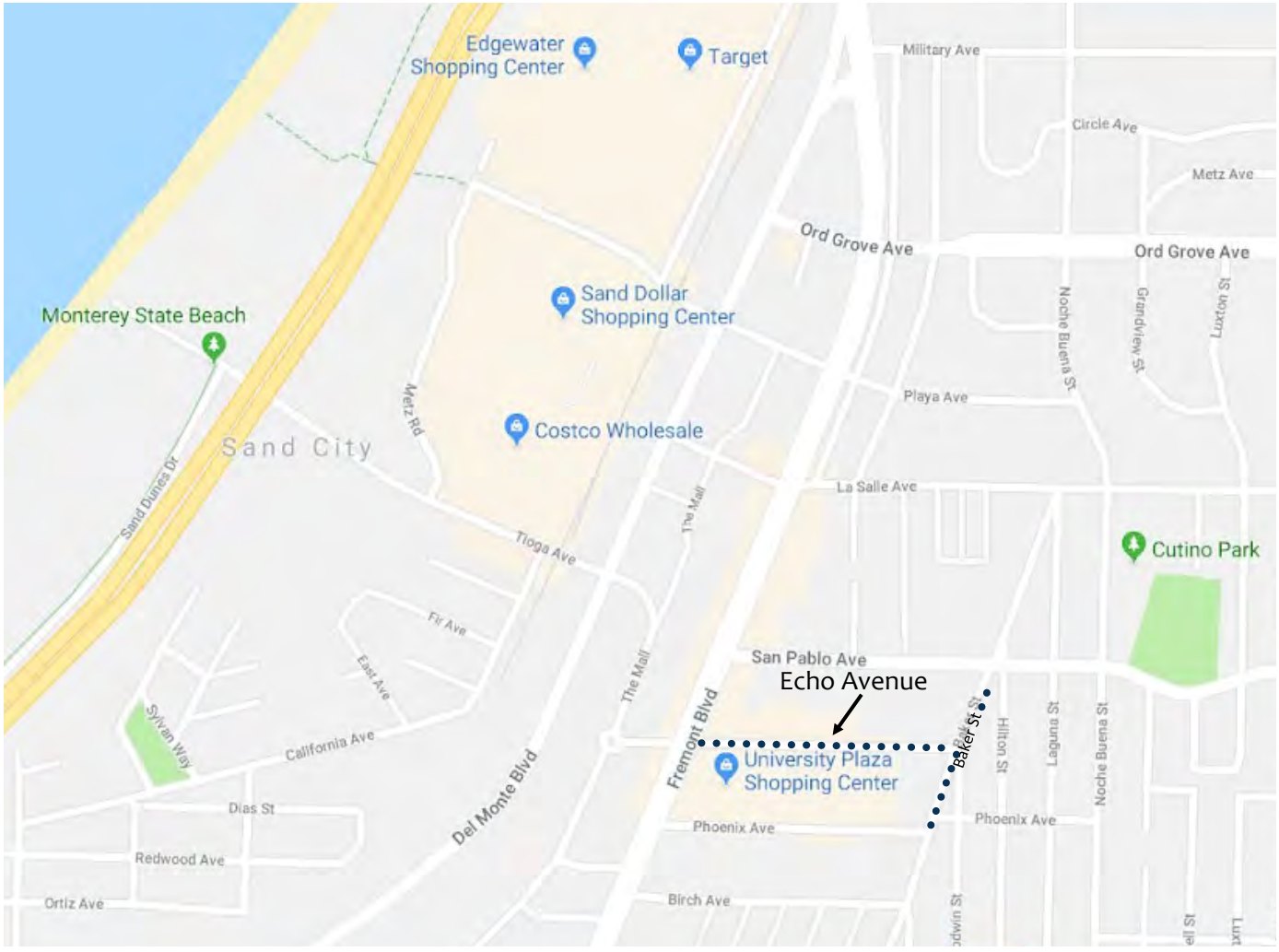


Figure 19: Echo Avenue in context with Seaside and Sand City.

Methods

To implement tactical urbanism, STU worked with the city to build a crosswalk and a crosswalk extension (Figure 20). STU also planned Seaside Community day, held on Echo Ave., where a parklet was built to add a green space to the street. Visitors to the event were invited to complete a survey to gather comments and suggestions for the improvement of Echo Ave. Before and after the event, STU also conducted a behavior mapping study to examine the walking and biking patterns on Echo Ave. To test out different placements of tactical urbanism elements, we printed out maps of Echo Avenue and drew multiple different options for review. The maps we determined were most feasible were shown to Kurt Overmeyer during and the Neighborhood Improvement Commission for feedback.

City Meetings

We worked with the city for project suggestions, sponsorship, materials, and safety measures. We had two meetings with Kurt Overmeyer early on in the semester who gave us the initial idea for this project. We made a presentation at the Neighborhood Improvement Commission's monthly meeting where we became sponsored by the commission. We made one presentation at a city council meeting to invite the council and the city to Seaside Community Day. We had one meeting with Rick Riedl, the City Engineer, to layout the plans for safety and traffic closures for the day we painted the street and the event.

Crosswalk

The goal of the crosswalk at the Echo Ave. and Baker St. intersection's was to provide pedestrians a safe place to cross the street instead of jaywalking. Rick Riedl offered to have city employees paint the white lines for the crosswalk, which allowed us to focus on creating an artistic design. Victoria Derr, our capstone professor, worked with the City to establish safety guidelines and road closures for our group to safely paint the crosswalk.

The crosswalk went through four different designs: a seahorse design, blue wavy lines design, geometric Design, and floral Stencils. The original idea was to use the new crosswalk as an opportunity to design and paint a mural on the street featuring seahorses, Seaside's mascot, and other sea life. The second design we suggested was blue wavy lines, to simulate ocean waves, such as the walking paths in Cannery Row. Ultimately, we decided designing and painting the mural or blue wavy lines was too complicated to be completed in the time allotted.

(Figure 20) This shows the locations of the crosswalk extension, parklet, event location, and crosswalk on Echo Avenue.

We settled on a geometric design for the crosswalk (Figure 21). STU created a blueprint to calculate the amount of paint and tape needed and have a plan for painting the street. We measured the width of the street in the program SketchUp, a 3D architecture software that allows for scaled measurements of locations from Google Maps screenshots. STU used the measurement of the street, 100 feet, and created a to scale design in Microsoft Publisher. STU calculated the length of each line using basic math and inputted the lengths into the blueprint. STU transferred the file into photoshop to add the different tints of turquoise we wanted to incorporate into the final design. The paint estimates and colors needed were emailed to the paint vendor we had lined up, but shortly before the installation date our vendor fell through. So we scrapped the geometric design and moved onto the idea of using stencils.

We bought three different floral and leaf stencils and paint brushes from a local craft store and Victoria Derr, our capstone professor, provided different shades of blue paint for the crosswalk. Following the safety guidelines and road closures, we painted the stencils between the white lines (Figure 22).

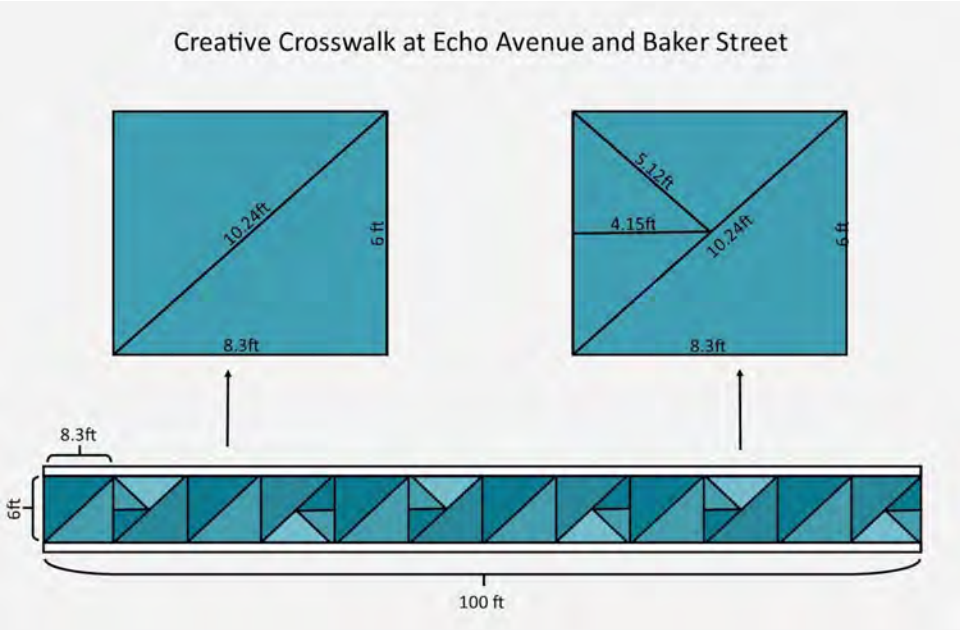


Figure 21 (Left) Geometric crosswalk design blueprints. *Created by Emily Jackson.*

Figure 22 (Right) The finished crosswalk.

Curb Extensions

Curb extensions are designed to improve pedestrian visibility as they are entering the street. We followed the design and materials used in the Tactical Urbanism Guide (Street Plans Collaborative 2016). We used SketchUp to get the rough dimensions of the bump out and design potential barriers which included cones and potted flowers (Figures 23-24). The city provided us with blue paint, used to paint handicapped markings, and the rest of the painting supplies needed. On the implementation day, the city set up traffic barrier to allow for the safe painting of the street for both the curb extension and crosswalk.

Parklet at Seaside Community Day

The parklet was installed for the Seaside Community Day event in April. The parklet consisted of native plants, upcycled wood pallet custom planters, tables, and chairs that provided seating in the "green space" during the event. The event featured five food, produce, and plant vendors that were selected by our business liaison group consisting of five business students from CSUMB. We also had fun activities such as coloring, bubbles, bean bag toss (cornhole), and an educational booth provided by Return of the Natives.
The plans for the parklet were created in SketchUp using 3D design elements, such as planters and chairs, from the programs database.

Figure 23-24 (Upper) This is our dream parklet. It shows what we would have done if we had unlimited time and resources. (Below) This is a more realistic parklet design created after we had a better idea of the materials we had available to us. (SketchUp images: Emily Jackson)

Bilingual Survey at Seaside Community Day

During the Seaside Community Day event, we passed out surveys to those who attended the event. The survey took data on demographics, beliefs about safety on Echo, and thoughts about the crosswalk, curb extensions, and parklet. The surveys were then collected and entered into a Google Forms document for data analysis.

Behavior Mapping

We observed and coded walking behaviors along Echo Avenue. The behavior mapping technique we used was based on *How to Study Public Life*, by Jan Gehl and Birgitte Svarre (2013). For each individual observed, we recorded whether the individual was male or female, adult or child, the type of movement (walking, biking, jaywalking), and the location and direction of movement. We made these observations at 15 minute intervals and recorded them on an aerial photograph for a total of five times before the event and four times after the event.

Results

Survey Results

Approximately 50 people attended the event and 33 people completed the survey. Not all respondents to the survey completed all questions, so response numbers vary by question. In sum:

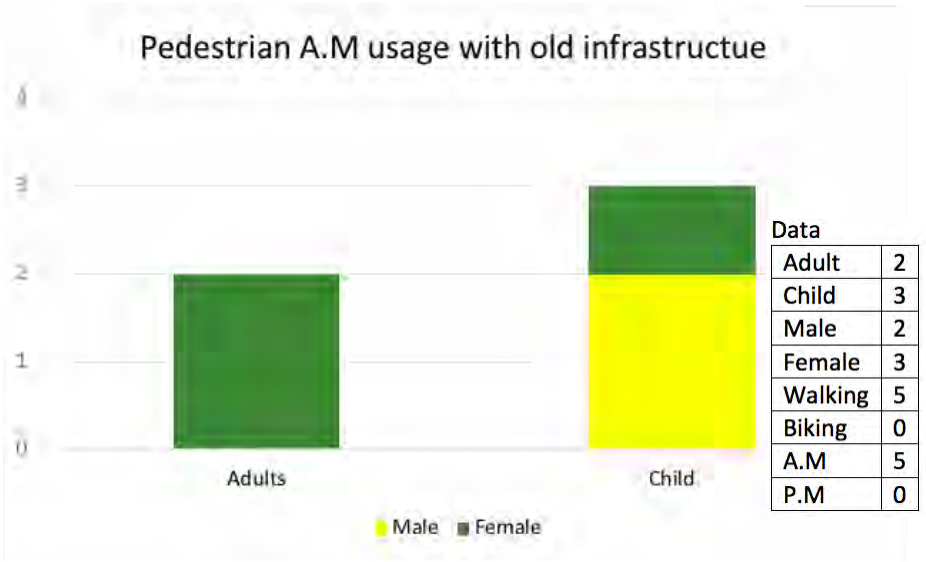
- Out of 26 responses, 65% agreed safety is an issue on Echo Ave.
- Out of 14 responses, 79% believe the crosswalk will improve pedestrian safety
- Out of 12 responses, 100% agreed they would like to see more events like this in the City of Seaside

Behavior Mapping Results

Before install the crosswalk weeks before the event, we observed a total of five pedestrians, three children and two adults, crossing the street in the morning (Figures 25-26). The amount of pedestrians and bikers using the crosswalk quadrupled after installing the crosswalk (Figure 27). We observed 10 jaywalkers before the improvements and 14 after (Figure 28). Given our limited observations, our data is not statistically significant. The red represents pedestrians traffic flow a week after transforming a simple stop line into a crosswalk.

Legend

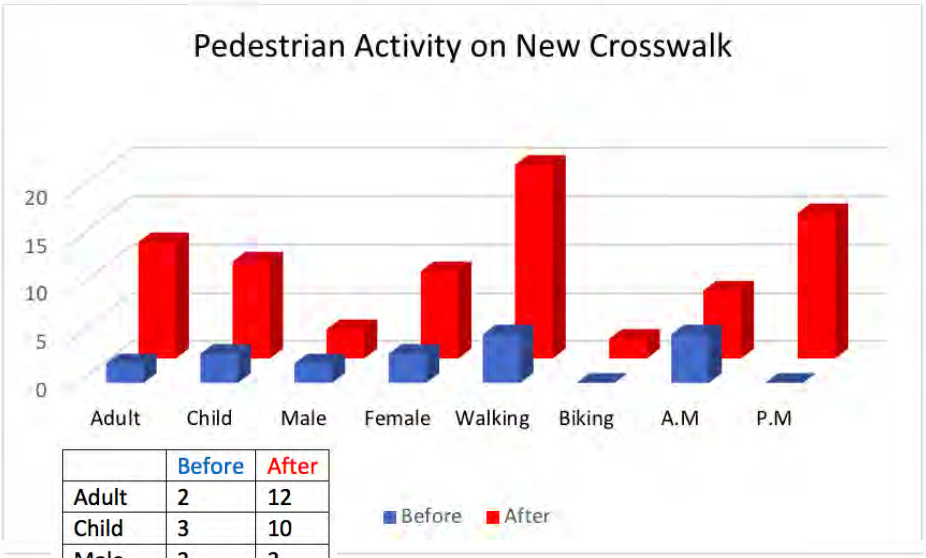
Blue	Before event
W	Walking
B	Biking



Figures 25-26 (Left) The blue markers show the direction and amount of pedestrians who jaywalked across Echo Avenue at the Baker Street intersection. (Above) Pedestrian morning usage before the installation of the crosswalk shows more children than adults used the intersection to cross.

Results after the Crosswalk was installed

Legend	
Blue	Before event
Red	After event
W	Walking
B	Biking



	Before	After
Adult	2	12
Child	3	10
Male	2	3
Female	3	9
Walking	5	20
Biking	0	2
A.M	5	7
P.M	0	15

Figure 27 (Left) The red markers represent the pedestrians who crossed the street after the crosswalk was installed. (Above) The graph illustrates the change in usage at the new crosswalk.

Jaywalkers before and after the event

Legend	
Blue	Before event
Red	After event
J	Jaywalking
B	Biking

Data

	Before	After
Jaywalking	10	14
Biking	3	3

Figure 28. The amount of jaywalkers and bikers on Echo Avenue before (blue) and after (red) the installation.

Discussion

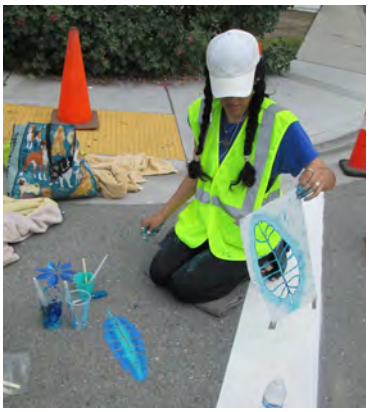
Successes

We had many successes this semester during this project. The greatest success was having the city paint the white crosswalk lines at Echo Ave. and Baker St. because this is now a permanent feature in the neighborhood. We expected to paint the white lines and the creative design ourselves and hoped that the city would eventually make the lines permanent, but we were able to skip that step making it permanent from the start. As we were setting up for our event, the city's public works employees, who were aiding with the street closures and equipment, also came out with asphalt to fill the potholes in the street, improving the road because we were holding an event.

While we were painting the crosswalk interior, we had many community members walk by and tell us how nice it looked and many cars slowed down to check out what we were doing and smiled and waved at us. Some asked if there would be more events like this and shared memories of times when Echo had been closed weekly for block parties. After the crosswalk reopened, we saw people immediately using it, and their continuation of using the crosswalk was reflected in our data.

Challenges

Putting together an event and three different physical tactical urbanism installations in a semester presented many challenges. The greatest obstacle was communication to coordinate with the different groups within this project (i.e., inside the group, with the business liaison students, the different city workers, and the vendors). Due to a limited budget, we relied on donations for materials, such as paint, plants, chairs, tables, traffic devices, etc., which led to large amounts of uncertainty of what would be available for the event. While it was frustrating at times, we were able to work together to come up with creative ways to solve many unpredicted problems. For example, we wanted to have raised boxes to set native plants in, so one of our group members found free wood pallets, broke them down, and used the wood and hardware to create the planters. This creativity lead to focal point of our parklet.



Figures 29-32 (Above left) The Parklet during Seaside Community Day. (Above Right) The planter boxes upcycled from wood pallets featuring the native plants borrowed from Seaside Garden Center. *Created by Aaron Read.* (Below left) The finished curb extension. (Below right) Iris removing the stencil after painting a leaf on the crosswalk.

Recommendations

Seaside Residents Recommendations

From our survey and personal communication with Seaside residents, their suggestions are:

- Improve pedestrian safety throughout the city
- Better maintain roads and bike lanes.
- Provide a weekly farmers markets on Echo Avenue.
- Create more green spaces on or near Echo Avenue.

STU Recommendations

Based on our experience as a capstone group, we suggest the city install a crosswalk with pedestrian-activated traffic light near the center of Echo Avenue. We believe this will reduce the temptation to jaywalk across Echo Avenue and will also slow traffic.

Figures 33-35: (Top) Suggested location for a crosswalk to reduce temptation to jaywalk since Echo Avenue is so long. (Lower Left) STU painting stencils on the crosswalk. (Lower Right) Jack, Iris, Nico, Emily, Sam, and Aaron resting after painting the crosswalk extension.,

Acknowledgements

CSU Monterey Bay

Sustainable City Year Program

City of Seaside

Neighborhood Improvement Commission

Victoria Derr
Capstone Professor

Dan Fernandez
Environmental Studies Program Chair
Sustainable City Year Program Coordinator

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City Engineer

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Economic Development Program Manager

Gloria Sterns
Economic Development Program Manager

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3-Pop Kettle Corn

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Gallardo's Organic Farm

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To the friends, family, mentors, and community members who supported us, Thank you.

Fort Ord Assimilation

Kirk Gharda, Nicolas Del Buono, and Nathan Morrison

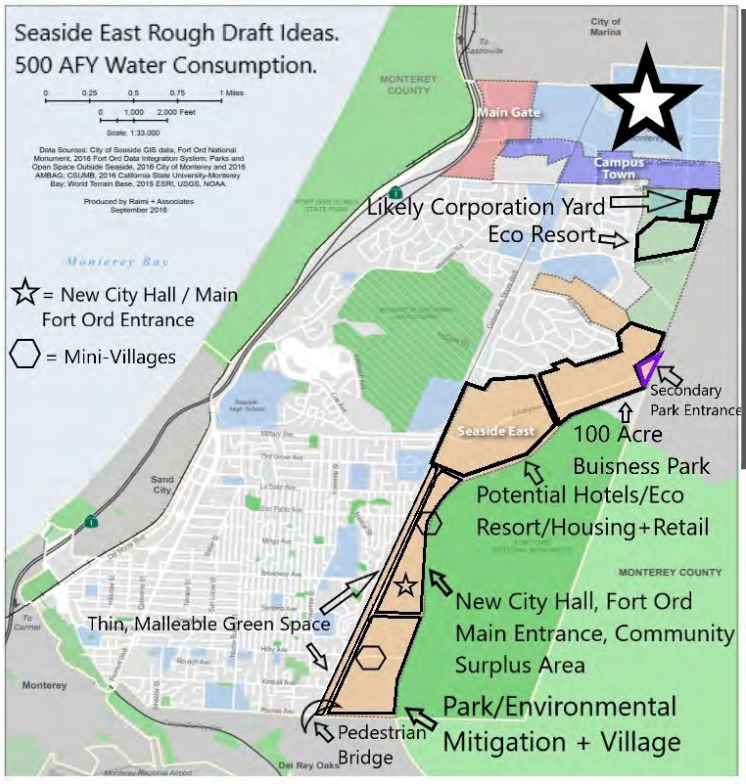
Introduction: Context and Goals

The Fort Ord Army Base, located between Marina and Seaside, California, was closed in 1994. The land was divided into sections to be managed by Seaside, Marina, and Monterey County, among other entities, as designated by the Fort Ord Base Reuse Plan. Seaside East (Figure 36), is a strip of the old army base that will be developed by the City of Seaside. The overall goal of this capstone project was to gather community feedback, interview a variety of stakeholders, and develop a report with concrete ideas and a vision for the use of the land.

When Fort Ord Army base shut down, Seaside was left with a substantial economic void and 28,000 acres of land (the size of San Francisco) to develop. Under the Fort Ord Base Reuse Plan, 20,700 acres were set aside for conservation in the Fort Ord National Monument, while 7,300 acres, named Seaside East, were designated for future development (Figure 4). Seaside East, the portion of land proposed for development in this plan, is environmentally offset by the 20,700 acres set aside for conservation so, legally, the 7,300 acres can be cleared for residential or economic development.

This capstone project identified two potential uses for the Seaside East land: The Seaside East plan (Figure 36) and a Fort Ord Assimilation plan (Figure 37). The Seaside East plan turns a portion of the land into residential, retail, and business zones, while the ecotourism plan builds environmentally friendly tourist and education infrastructure for the Fort Ord National Monument and adjacent lands.

Figure 12: Former Fort Ord lands



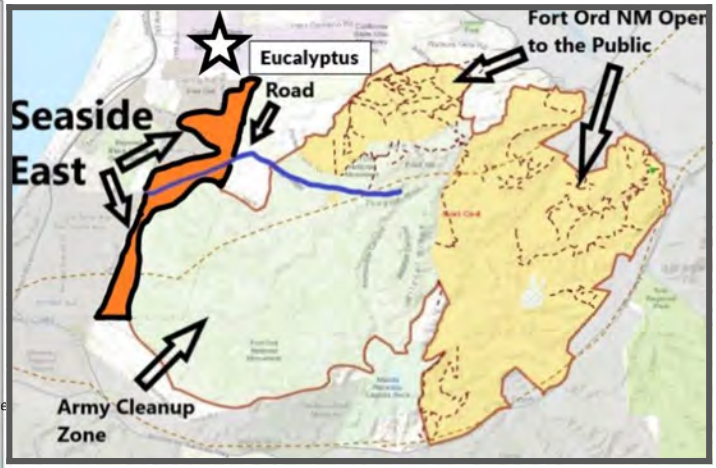


Figure 36 (Left) Shows the layout of the business, ecotourism, city hall, and environmental mitigation areas in Seaside East. Figure 37 (Above) Seaside East is a small portion of land located closest to Seaside bordering an army cleanup zone.

Methods

Our capstone group identified stakeholders while working with the City of Seaside's Economic Development Program Manager, Kurt Overmeyer. We interviewed stakeholders using snowball sampling to gather information (Given, 2008). In our case, faced with scarce information, we interviewed an expert, gathered knowledge, and reached out to another expert based on the new knowledge and questions we acquired. We used a qualitative research approach to understand the underlying motivations of the various identified stakeholders. In addition to interviewing stakeholders, we used geospatial analysis to determine the land use planning of Fort Ord and Seaside East.

Results

We grouped stakeholder perspectives from our interviews into two different groups for analysis: Seaside East (Table 1) and Fort Ord Assimilation (Table 2). All four of the Seaside East stakeholders shared the perspectives, which include that:

- City Hall should be relocated to Seaside East
- Del Rey Oaks and Seaside should be socially connected to Seaside East
- Apartments, community fields, business park development is appropriate
- The new Seaside corporation yard shouldn't be in Seaside East
- Chaparral land in Seaside East can be developed (Table 1).

Table 1: Seaside East Stakeholder Perspectives

Kurt Overmeyer *Seaside Economic Development Program Manager*	**Neal Payton** *Campus Town Architect*	**James Bogan** *Veteran and African American Leader*	**Fred Watson** *CSUMB Professor Environmentalist*
• City Hall Relocation • Recreational Fields • Business Park • Residential • "Villages" & Retail • Fort Ord Main Entrance	• Use Campus Town model for Seaside East • Convenient "5 min" walking range from villages • Environmentalists need to negotiate in good faith	• Economic Development over green space • Maximize economic opportunity for all • Affordable housing that everyone can afford	• Low visibility development • Incorporate FORTAG trail • Protection of unique oak woodlands • Favors development in brushlands

The Fort Ord Assimilation Stakeholders agree that:

- County land needs long term ownership
- Partnerships are needed for long term management solutions
- Ecotourism should be a long term goal (Table 2).

As well, three out of four stakeholders interviewed said there was an opportunity to use some of the Fort Ord lands for specialized educational opportunities, such as at Cal Poly's living laboratory at Swanton Ranch. This development could provide students with hands-on learning in the biological and environmental sciences as well as ecological interpretation.

Table 2: Fort Ord Assimilation Stakeholder Perspectives			
Matt McCluney *CSUMB Senior Campus Planner*	**Nick Nichols** *Monterey County Engineer*	**Eric Morgan** *BLM Head of Development*	**Grey Hayes** *Cal Poly Education and Research Coordinator*
• Focused on CSUMB jurisdiction • CSUMB already owns 300 acres of recently transferred oak woodland • Open to partnership with MPC to manage current county land • Interested in a space for student research • Wants a more formal proposal	• County very flexible with land title transfers • County is not interested in expanding park services. • Use Campus Town model for Seaside East • Convenient "5 min" walking range villages • Environmentalists need to negotiate in good faith	• BLM is the agency in charge of Fort Ord National Monument • Hesitant to expand public access because of leftover munitions • Army is planning to finish up cleaning up munitions by 2040 • Potential early access from guided tours • Open to partnerships with surrounding stakeholders to manage land	• 3200 acre Cal Poly operated land. • 1.2 million/year to operate, profitable • 90% of budget comes from endowment • Student cost is small % of total budget. • SR staff comes from regular faculty

Discussion

Ecotourism & Education at Fort Ord

There is also an opportunity for the ecotourism industry to be supported through Fort Ord assimilation. Ecotourism is used by governing bodies, agencies, and non-profit organizations to manage regional environments through tourism. Ecotourism can lessen impacts on the environment, implement environmentally sustainable methods at certified cites, and provide conservation funding for endangered habitats (Cater & Cater, 2007). For Seaside East and Fort Ord our team envisioned:

- Hotels
- Well managed parks
- Bike rentals
- Camping
- Co-resorts

The county land at the base of Fort Ord should be operated by CSU Monterey Bay (CSUMB) and Monterey Peninsula College (MPC) to offer unique educational opportunities for their students. Developing county land for CSUMB and MPC would provide hands on education, improve majors, and offer potential job opportunities for students, particularly as related to natural resources management, ecotourism, and ecological interpretation (Figure 40).

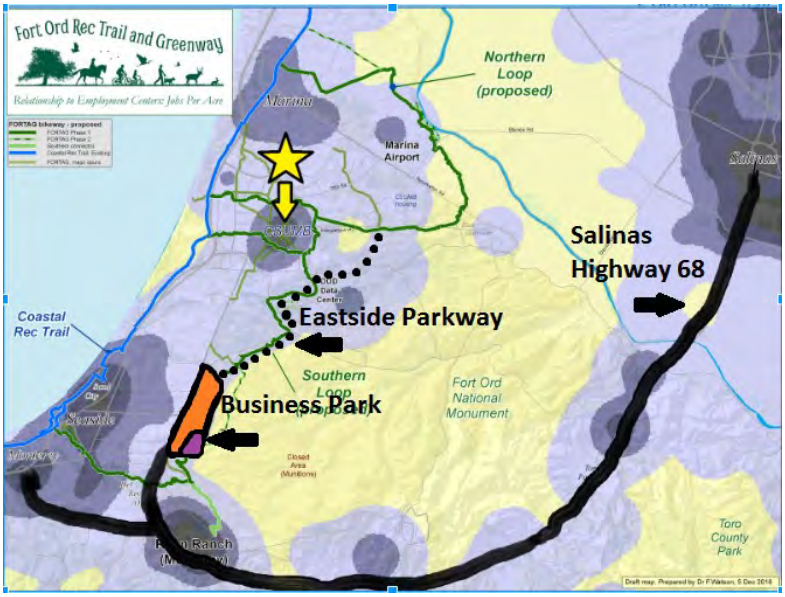
Seaside East

We established three foci pertaining to the development south of Eucalyptus Road and General Jim Moore Road. The three main ideas are:

- Relocate Seaside's city hall and corporate yard
- Introduce a business-technology office park
- Develop affordable residential housing supported by retail.

The Seaside East Project uses a portion of the offset Fort Ord land to develop 800+ residential units with retail locations to support the population. The business park will create 2,000-2,300 new jobs in the medical research or light industrial fields. In both the residential and business parks there will be connected green space that will include flexible community fields for various uses, such as youth soccer and other community gatherings (Figure 39).

From stakeholder interviews, we believe that the new city hall should be located between Seaside's active Broadway Avenue and General Jim Moore Road. The city hall would be accompanied by green space allowing for events and community gatherings. The business technology park will allow Seaside to expand its technology sector and increase economic revenue by employing more educated graduates with high paying salaries. This strip would be best utilized if put along Seaside's current job heat sector south of the city and stretching potentially eastward (Figure 38). There is a demand for more affordable housing in the community so development of residential housing with retail could potentially provide affordable housing with close walking distance to retail centers and the city hall green space for events and recreational sports.



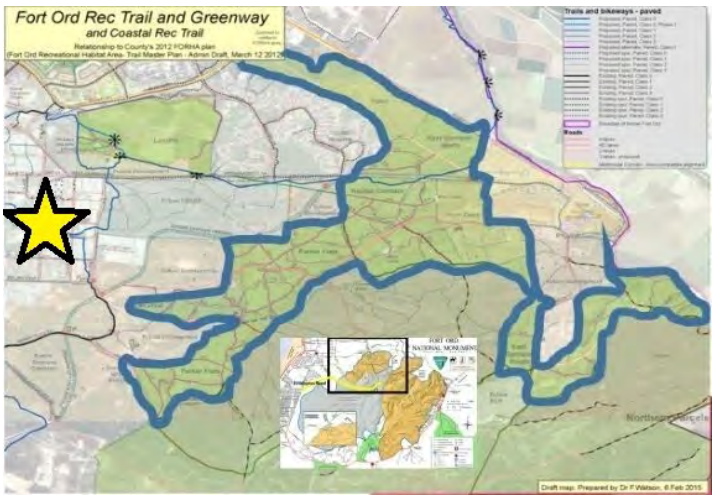


Figure 38 (Top Left) Seaside's job heat map shows the jobs are located along highway 68 and Seaside. Figure 39 (Top Right) Markers show our proposed locations of the city hall, green space/parks, villages, and the business park. Figure 40 (Lower left) County land located in Fort Ord National monument that could be used by CSU Monterey Bay and Monterey Peninsula College for educational opportunities.

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Thank you to the City of Seaside staff and partners for the opportunity for collaboration:

Kurt Overmeyer and Gloria Sterns
Economic Development Managers

Neal Payton
Campus Town Project Manager

James Bogan
Veteran and African American Leader

Dr. Fred Watson
CSUMB Professor

Matt McCluney
CSUMB Senior Campus Planner

Nick Nichols
Monterey County Engineer

Eric Morgan
BLM Head of Development

Grey Hayes
Cal Poly Education and Research Coordinator

Dr. Victoria Derr
CSUMB Capstone Professor

Tiny Home Development for a More Sustainable and Inclusive Community in Seaside, California

Stephani Smith

Introduction: Context and Goals

As the world faces climate change and increasing social and economic polarities, countries are taking the pledge to reduce their carbon footprint and invest in sustainable development to satisfy the needs of people and ensure ecological stability. In 2015 the United Nations set Sustainable Development goals, which include ending poverty, protecting the planet, and ensuring prosperity for all (United Nations, 2017). The United States has decided to take up the goals and leave it up to the individual states to determine what the goals mean for them. California is one of the leading states in developing legislature to try and satisfy sustainable development goals. Sustainable development is an organizing principle for humans to meet our own development goals without compromising natural systems that of which our economy and society depend upon. The concept is often depicted as the balancing of social wellbeing, economic gains and environmental protection, which is reflective of the U.N.'s main goals (United Nations, 2017, 1).

For my capstone project I researched homeless statistics within the nation, state and Monterey county. I found prevalent trends within cities that experience homelessness - inequitable access to resources and numerous anti -homeless laws. Disproportionate shelters to the homeless population as well as strict requirements for entry are social barriers in most cases. Furthermore, California has been ranked the highest in the nation for having the most anti-homeless laws. I then looked into what cities have been to doing to address this issue. Tiny home villages have proven to be the most inclusive, sustainable and successful projects.

In order to achieve sustainable development, it is imperative that new infrastructure addresses both environmental protection and social basic needs while providing economic value. To implement these goals in Seaside, this capstone project conducted a literature review about Tiny Home developments that address homelessness or housing insecurity. Based on my review of literature, and analysis of Seaside, I suggest that the City of Seaside invest in Tiny Home developments for homeless and low income populations in the city through three types of development: tiny home transitional village in Seaside East, a tiny home eco-village at CSU Monterey Bay, and a Parker Flats Tiny Home Park.

Social Sustainability—Homelessness

Basic needs, such as food, water, rest and security, often go unmet in economically disadvantaged populations. When unmet, adverse mental health (Blazer et al., 2007), physical health (Sachs-Ericsson et al., 2006). and mortality outcomes are more likely. It is also a strong predictor of psychological stress (Ng, 2014). A particular demographic experiencing these effects disproportionately are low-income and minority populations (Carr & Sloan, 2003).

In California, low-income residents are increasingly susceptible to homelessness (Henry et al., 2017). Homelessness takes on many forms including: unsheltered, sheltered and doubling up.

- Unsheltered: living on the street, in a car or in an abandoned building
- Sheltered: staying in emergency shelters or transitional housing
- Doubling up: staying with friends or family temporarily

California's Department of Housing and Community Development reported that in a single night in 2016, more than 118,000 people experienced unsheltered homelessness in California — 22 percent of the entire nation's homeless population. The number of unaccompanied youth, veterans and chronically homeless individuals are the highest in the nation.

To address homelessness, some local governments have invested in shelters, transitional housing and social services. Often there are high requirements to enter into these facilities and a limited amount of resources, leaving anyone 'unfit' unsheltered. Unsheltered populations are faced with a wide range of laws and codes that disproportionately affect the homeless—often worsening the situation (Fisher et al., 2015).

A recent research report published by Berkeley Law looked at the history and current trends of homeless within California and discovered three key findings:

- California cities continue to enact new anti-homeless laws in record numbers.
- Arrests of people experiencing homelessness continue to rise in spite of an improving economy.
- Arrests of people experiencing homelessness are increasingly based on status, not behavior (Fisher et al., 2015)

This Californian narrative rings true in Monterey. With limited shelters and high qualification standards for transitional housing, over a thousand individuals are left unsheltered resulting in unnecessary fines and arrests. A biennial Point-in-Time Census and Survey Count, required by the U.S. Department of Housing and Urban Development, is the standard survey tool used to identify the number of unsheltered and sheltered individuals. As of the 2017 Homeless Census of Monterey County, 724 persons are sheltered and 1,692 persons are living unsheltered (Coalition of Homeless Services Providers, 2015). The methodology used for this survey is often described as a "blitz count" since it is conducted over a short period of time by a large group of volunteers. The results are observations based by the count of individuals and families who appear to be homeless. This type of survey isn't entirely representative of the homeless population because it doesn't account for 1) car-living and/or couch surfing housing insecure individuals or families, including students, 2) is based on appearance and 3) does not count anyone not seen during the time of the survey.

There are a total of eight shelters for the homeless or housing insecure within Monterey County, which encompases twenty-seven cities (Monterey County, 2017). Five of the eight shelters are specifically for women and children, two are for families, and one, located in Salinas, is for men. The only shelters in Seaside are the Women and Children Shelter for domestic violence victims and the Salvation Army Transitional Housing. Both are for families only and have strict qualifications found commonly in homeless shelters across the nation that prohibit many people from utilizing these services. The accessibility of these shelters are exclusive and often unpredictable, leaving hundreds out on the street and/or on waiting lists for several months (Crutchfield & McQuire, 2018).

Students are also facing challenges with housing stability. Within the California State University (CSU) system, The Office of the Chancellor conducted a Basic Needs survey in 2017 to quantify the number of CSU students experiencing housing insecurity. Across the state, nearly 11 percent of students experienced homelessness within the last year (Crutchfield & McQuire, 2018). At CSU Monterey Bay, that statistic is nearly 15 percent. Monterey housing for students is particularly difficult due to stagnant developmental growth, increasing housing market prices and sprawled resources.

I have heard multiple accounts of students having to double up with friends and live in their vehicles; utilizing the gyms' showers and bathrooms in extreme scenarios. Students who need to work nearly full-time to pay for rent and other necessities often do so at the expense of their grades and academic success.

The CSU Office of the Chancellor defined student basic needs required for student success. The goal is to ensure equitable and affordable access to resources while working with Associated Students to alleviate any barriers students may face on their particular campuses, including housing, physical health, mental well-being, sense of belonging, financial support, and food security. Lack of access to housing and food often leads to failure in all other categories.

Discussion

Tiny Homes

To better serve and represent these vulnerable populations, innovative, inclusive and sustainable accommodations must be adopted by cities. Social barriers and lack of resources can be prevented to better aid the unsheltered. Over the last decade, counties and organizations across the U.S. have initiated the erection of tiny home villages for the homeless. These villages can either serve as transitional housing, rent-then-own programs or a blend of the two. Housing insecure individuals or families are able to stay in these homes for longer periods of time versus traditional shelters; allowing more time for people to form physical and emotional stability. These villages often have little-to-no requirements for housing, creating an inclusive and diverse community.

Tiny homes are a relatively new concept, conceived in the late 80's and popularized in the early 2000's. Common themes as to why companies and individuals construct tiny homes is to simplify living standards, reduce financial burdens and decrease ones carbon footprint.
These homes were coined 'tiny' when compared to America's median home size. In 2013, the Census Bureau found the average single-family home size is 2,384 square feet, which is a about a 800 square feet increase from 1973 (U.S. Census Bureau, n.d.).

The true square footage of a 'tiny home' is still ambiguous, and differs from business to business and owner to owner. The Tiny Life Blog states a tiny home should be 100-400 square feet. A popular tiny home company, Tumbleweed Tiny House Company, claims that homes should have at least 220 square feet of interior space to be legal (Weissmann 2014). The International Code Council specifies: "Every dwelling unit shall have at least one room that shall have not less than 120 square feet of net floor area" (International Code Council, 2012). The tiny home original creation was on a trailer bed, which is maxed out at 48' in length, 8'6" in width and 10' in height for all states. For the purpose of this report, I will define a tiny home as a dwelling unit between 120 – 400 square feet to satisfy all definitions of a tiny home.

Tiny homes can be stationary or transportable units based on the occupants needs because of the versatile dimensions. Often these homes are constructed on top of trailer beds, making it easy for transportation purposes. In the tiny home villages there can be both types of units – the stationary units would serve as transitional housing for a maximum of $30 a month and a two-year stay, the transportable units could serve as a rent-to-own model for about $200 to $400 a month over the period of time it takes to pay off the original price of construction. Both types of units should be built on a trailer bed to circumvent construction and zoning codes.

Tiny homes are less expensive than the average American home and the construction of traditional shelters and transitional housing. The cost of the average tiny home varies and is often dependent on size, amenities, materials and labor. According to Ryan Mitchell of the tinylife.com and the Tiny House Conference, the average cost of 350-square foot home is $23,000. This price is reflective of homes built from new materials and have a bathroom, kitchen, washer, dryer as well as a dining area.

The tiny homes often seen in transitional villages are much smaller and lack large appliances. Dependent on the materials the home is made out of and whether or not it is constructed by a non-profit or a developer, homes can cost anywhere between $2,000 to $8,000. Tiny homes provide a space large enough for a bed, a desk and basic amenities, including a mini-fridge and storage trunks with locks. Without a kitchen, washer, dryer or bathroom, many tiny home villages share these amenities with their neighbors. With utilities being shared, there are no utility bills and exceptionally low energy-impacts. Most villages are based on communal living, or 'cohousing', maximizing sustainable living styles. This includes a communal restroom, a kitchen, a garden , and off-grid hook-up. Villages are linked to the cities infrastructure grid but have off-grid resources

In Oregon, there are three villages: Nickelsville, Dignity Village and Opportunity Village. All three are self-governed and are built on city-sanctioned land, designated to homeless encampments. To make this possible cities adopted resolutions, passed zoning provisions and created partnerships with organizations.
The tiny homes are crafted by volunteers and residents using recycled materials derived from lumber stores and developers. To promote self-sufficiency, sustainable practices and to reduce barriers these villages include a shared garden, kitchen, shower and toilet. The houses are often transitional, only costing about $30 a month at a two-year maximum stay. The rent-to-own models cost anywhere between $200 to $300 a month and can be paid off in less than eight years.

These sites have minimal rules regarding requirements for occupancy and behavior. For example, Dignity Village outlines rules of non-violence, no substances, stealing, or disruptive behavior and where everyone contributes to the upkeep and welfare of the community. Seattle, Oregon, Portland and Washington have been cited in the blog-sphere as the most successful cities to erect tiny home 'encampments' throughout the United States. These cities can pose as models for future development.

Recommendations

Proposal for Seaside

In respect to sustainable development and in an effort to alleviate social barriers, the city of Seaside should i) designate a parcel of land, by forming an ordinance, in the up-and-coming Seaside East assimilation for a tiny home transitional village, ii) develop an eco-village for students east of CSU Monterey Bay main campus (similar functionality to the transitional village) and iii) designate Parker Flats as a tiny home park for travelers and stationary units as a potential to generate tourism.

Tiny Home Transitional Village – Seaside East

The creation of tiny home transitional villages can be achieved in many ways. The placement of this village should be mixed in with regular residential sectors, a transit center, grocery stores and pharmacies to eliminate marginalization and inequitable access to resources (Joseph et al., 2007). To ensure adequate space and optimized planning, the new village should be placed in the up-and-coming Seaside East development (Figure 41).

Another route for a Seaside East village is through a buy-one-get-one program. Kurt Overmeyer, the city of Seaside's Economic Development Program Manager, proposed the city make a contract with a developer that produces two tiny homes for the cost of one.

Figure 41: Proposed location for tiny home transitional village.

Tiny Home Eco– Village — CSU Monterey Bay

A tiny home village would be highly beneficial to low-income and housing insecure students. The village should have a transitional model and a rent-to-own model, as mentioned earlier. The eco-village would be configured into communal living spaces, reducing financial costs, environmental impacts and increasing social outlets. The location can be disputed, however, I identified an open parcel of land east of main campus and west of east campus that can be a potential location (Refer to top arrow, Figure 42).

Smaller, less equipped homes can be transitional ($30/month) while potentially larger more equipped homes could be rent-to-own ($500/month). Both units can be developed by a city selected developer. The rent-to-own would still be the least expensive housing option for CSUMB students, and a home is guaranteed after graduation.

Madalyn Price, a student at CSU Monterey Bay, researched the cost difference between a traditional path of student housing versus purchasing a rent-to-own model tiny home for CSUMB students. Her cited tiny home is priced at $37,000; this includes amenities such as a kitchen, bathroom, washer and dryer. Her paper looked at nine years of inhabitants in a tiny home, including utility and property costs after graduation, compared to traditional four-year housing on campus and found $26,000 worth of savings. It also meant housing security after graduation and the ability to save money, offering a quicker path to paying off student loans (Price, 2018).

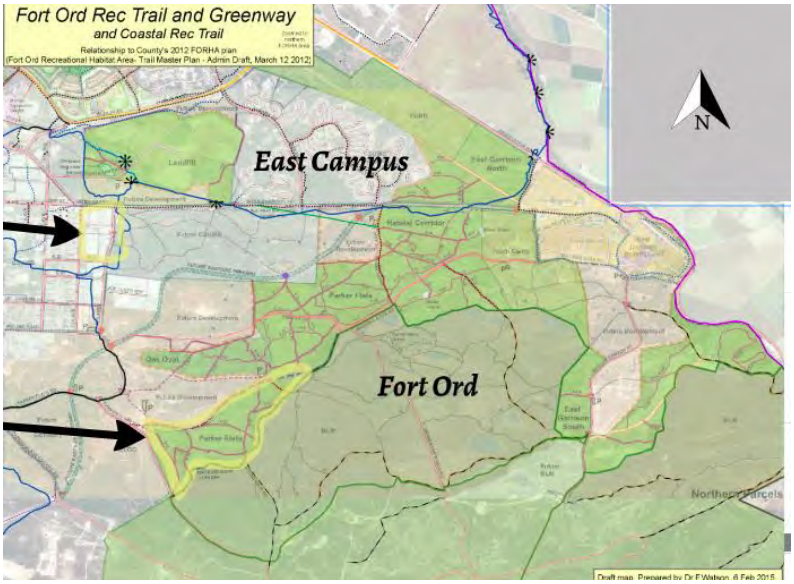

Figure 42: Proposed locations for tiny home eco-village for CSUMB students (top arrow) and for Parker Flats tiny home park (bottom arrow).

Parker Flats Tiny Home Park

Designating Parker Flats as a tiny home park can potentially provide revenue and ecotourism for the city and Fort Ord National Monument (Refer to bottom arrow, Figure 42). A common barrier tiny home owners face when looking to live or travel in a tiny home is identifying a stationary location. Parker Flats, boarding Fort Ord, would be an opportune place to develop a tiny home park to promote sustainable development and eco-tourism. Because tiny homes are minimally energy-intensive and small, the placement between Fort Ord and more dense development would be a nice ecologic transition and would not require much clear-cutting.

The minimal development this park would necessitate is electricity and water hookups, unless they are off-grid homes. Tiny homes and cohousing units relieve financial burdens, reduce environmental impacts and provide physical and emotional stability. In order to achieve compliance with state legislature, such as SB 32, and continue to develop sustainable infrastructure, in accordance to the U.N. Summit of Sustainable Development Goals of 2015, it is crucial to consider tiny home villages and continue to maximize its' potential for the community's health and happiness.

Table 3: The amount of space and amenities necessary to house . . .*	
The homeless population of Seaside (>50): • ½ an acre • 60 homes • 5 toilets • 2 showers • 1 kitchen • 1 garden	**The homeless students of CSU Monterey Bay (>1,050):** • 8 acres • 1,050 units - in 3 villages **Amenities per village:** • 350 homes • 30 toilets • 5 showers • 3 kitchens • 1 garden
** These statistics were estimated based on other tiny home village examples and pre-existing on-campus housing resources*	

Suggestions for Future Capstone Projects

For Tiny Home Transitional Village:

1. Interview other tiny home village management sites – identify best methodologies and village structures through others successes and failures.
2. Host a charrette – gather community (including homeless and housing insecure populations), developer and city input and create a draft plan for the city.
3. Meet regularly with city officials until details are perfected for all stakeholders.
4. Develop a non-profit organization that builds tiny homes with community support

For Student Eco-Village:

1. Meet with the Basic Needs Senator and Sustainability Senator in Associated Students to ask for advocacy and support in your project – you can apply to the CSU 'Greenovation Fund' for financial support, as well.
2. Meet with stakeholder faculty and staff that can help formulate this project and bring it to decision-makers.
3. Meet with the city of Seaside and Marina to identify potential developers.

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