

City of Eugene, EWEB Steam Plant December 2017



Memorandum

To: Bethany Steiner (*University of Oregon*)

Eric Mongan, Will Dowdy and Jason Dedrick (*City of Eugene Partners*)

Date: December 8th, 2017

From: Marisol Cervantes, Jake Boone, Indigo Larson, Syd Shoaf, and Patrick Garner

Subject: Final Deliverable

Executive Summary

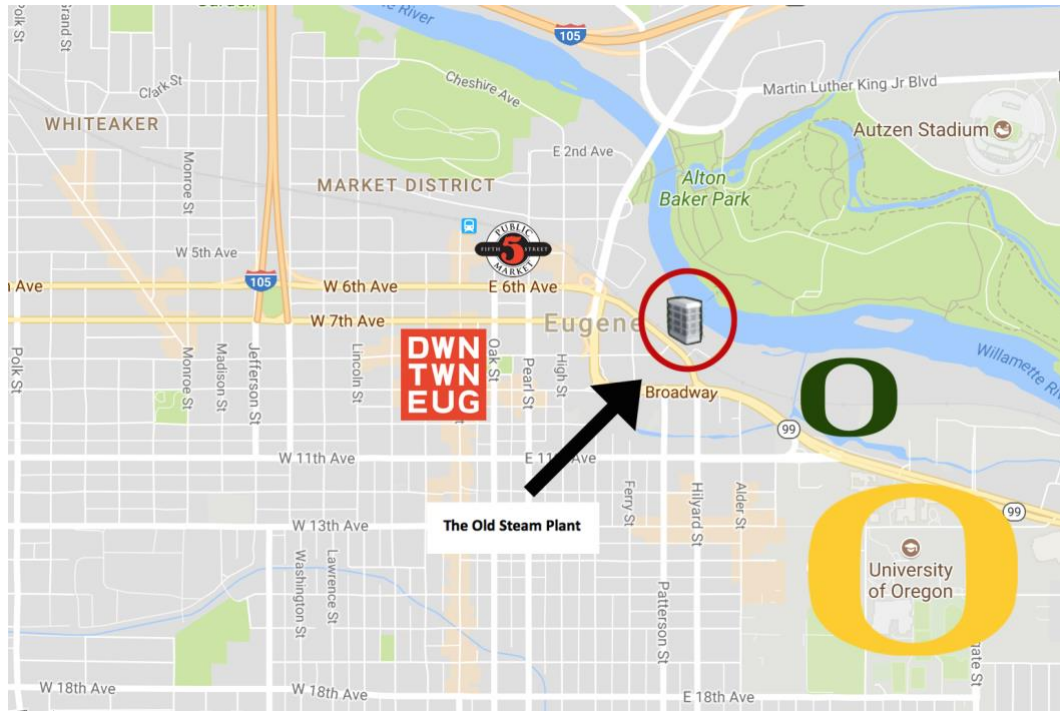
The City of Eugene prides itself as Track Town USA and has a rich history and unique small town feel that creates a sense of community. The EWEB Steam Plant is one of Eugene's unique historic building that can be redeveloped into Eugene's own landmark. This building's has the potential of creating a unique community space to bring Eugene's community together and people all over the world visiting. The research we have conducted and recommendations we are suggesting are examples of other cities repurposing a building through community connectivity such as redeveloping the EWEB Steam Plant as a multi-use place.

Background

The EWEB Steam Plant was constructed in 1930 and 1931, to provide both power generation and steam heat for downtown Eugene. It was expanded throughout the 1940s and 1950s, and remained in operation until its closure in 2012.

The Steam Plant occupies land situated directly between a railroad line and the Willamette River, and is adjacent to a power substation, which is unlikely to move in the foreseeable future. Its position along a bicycle/walking path puts it within easy walking distance of both the University of Oregon and the proposed EWEB redevelopment, as well as the eastern end of downtown.

The building itself is an exemplar of industrial construction styles and techniques of its time. Additionally, its interior still contains machinery, piping, and infrastructure from the building's early days. Its architecture and historical significance suggest that, all things being equal, preservation and revitalization should take precedence over any plan to raze the site and start from scratch.



Project Framework

To begin this project we created a framework to direct the case studies and recommendations for the Steam Plant. This framework stemmed from the idea of placemaking. Placemaking “capitalizes on a local community’s assets, inspiration, and potential, with the intention of creating public spaces that promote people’s health, happiness, and well being” (Project for Public Spaces). To ensure that this is the case we built the remainder of the framework for the project is to include affordability, longevity, honoring the integrity of the building and triangulation. With these items defined as the core of our project from the beginning, we hoped to create an inclusive space for all members of the community to mingle for the 2021 Track and Field Championships and for years to come. This space will be uniquely Eugene and will cater to the needs of Eugene’s citizens in order to ensure it will hold up to this framework.

Survey Methodology

With the project framework and our main research question in mind we decided to conduct an online survey that targeted the student population. Eugene has a unique community dynamic consisting of the residents of Eugene and the student population at the University of Oregon. This population tends to be the population that is underrepresented through the City of Eugene’s outreach surveys and protocols. Although this is a small fraction of the Eugene community, and not encompassing the entire community, this a population and age demographic that remains constant. We distributed this survey through email, text messages, Facebook messages and class mailing lists and received 106 responses.

The survey consisted of the following 8 questions:

- 1) Prior to this survey, are you familiar with the EWEB Steam Plant?
Yes or No
- 2) In 100 characters or less, describe Eugene to you.
- 3) What amenities does the City of Eugene currently NOT have, but should? (Click on as many that apply). If it is not listed, check other.

The options for this consisted of:

- Retail (Shopping)
- Restaurants
- Bars
- Children Spaces
- Study Spaces
- Business Parks
- Museums
- Recreational Spaces (e.g. climbing gyms, yoga, etc.)

- 4) From the following, how likely would you frequent the EWEB Steam Plant if it had...
 - a) Rooftop Bar
 - b) Art Gallery
 - c) Food Carts/Market
 - d) Retail Stores
 - e) Recreational Space

This question was formatted in a Likert Scale with the options:

- Extremely unlikely
- Somewhat unlikely
- Neutral
- Somewhat likely
- Extremely likely

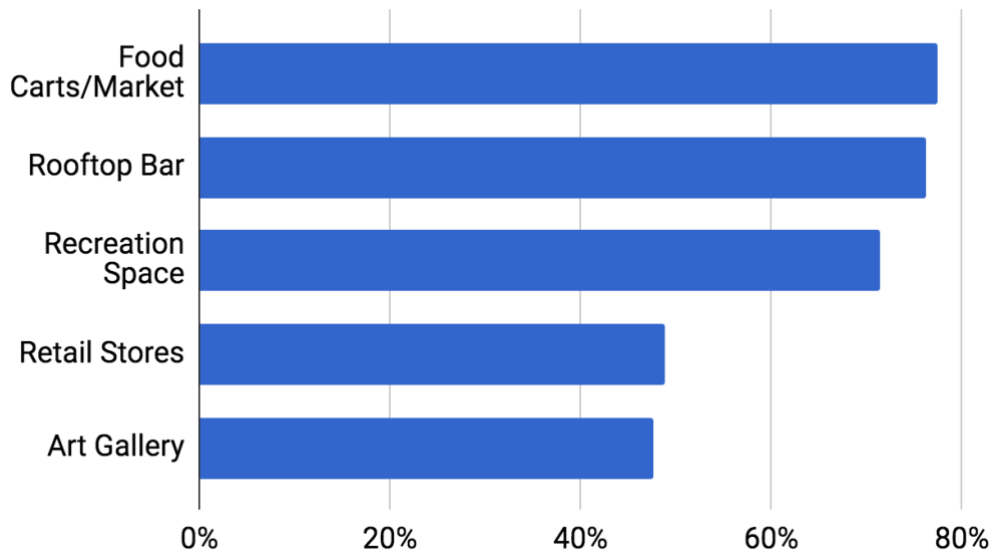
- 5) Is there anything else that should be in the EWEB Steam Plant that was not listed?
- 6) What three words best represent Eugene to you?
- 7) How old are you?
- 8) Are you a student?
Yes or No

Survey Results

The survey was released for a week and we received 106 responses with a great amount of data. For the first question, we assumed students would not know what the building is, but we found that 59% of students knew the EWEB Steam Plant before the survey while 41% did not know what it was. When we initially received our data for the second question, we thought the data was bad and we could not use it for our final report. However, we realized that if we sifted

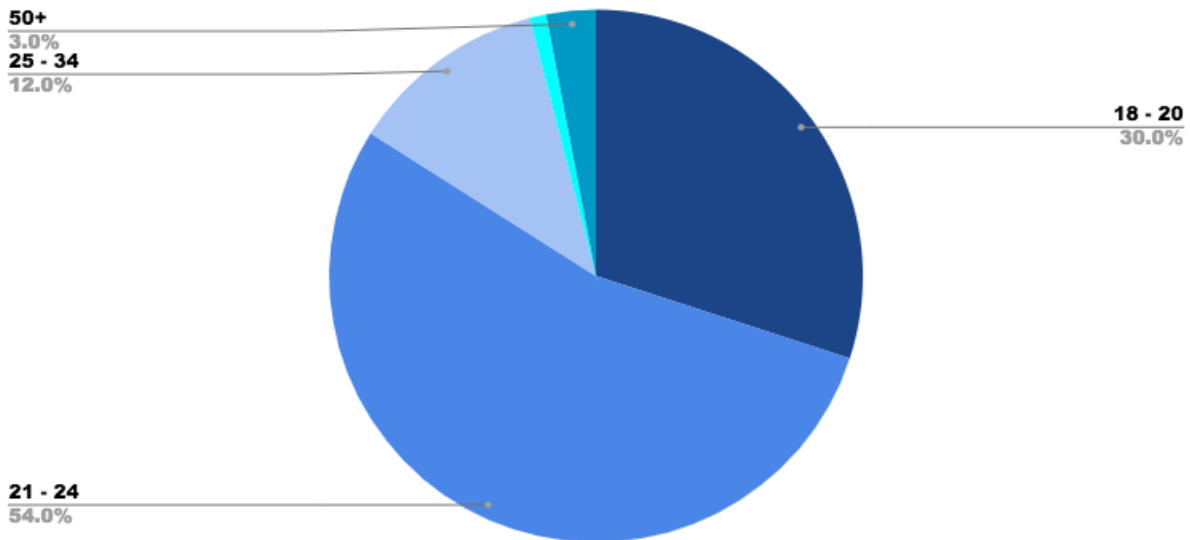
Results of question 4, combining the somewhat likely and extremely likely options together.

Somewhat or Extremely Likely to Visit



Food carts/market had a combined total of 77%, rooftop bars with 76%, recreational space 71% while retail stores and art gallery were both under 50%.

Questions 7 and 8 were utilized to understand the demographics of the people we surveyed.



Out of the 106 responses, over 80% were between 18 - 24 years old. We followed up this question with “Are you a college student?” to ensure that we were targeting that specific demographic. We ended up with 93% students and 7% non-students. We played around with the idea of examining if there were specific responses for age groups, however, due to the constraint of 10 weeks for this project, we dropped the idea.

Overall, the purpose of the survey was to target the student population and we successfully gathered data for the direction for our project. The data is useful in understanding what types of people like and the likeliness of them going to a given place.

Case studies and Recommendations

In combination of both our project framework and survey results, we found that historical preservation is critical and students are most likely to go to a fun, vibrant place that includes food, drinks and recreational space. Our case studies focus on repurposed buildings around the globe to draw different traits from each that can be implemented in EWEB Steam Plant in Eugene. The case studies show what works and we reference specific recommendations in our site for where traits of these case studies can be implemented.

Steel Stacks

Steel Stacks is located in Bethlehem, Pennsylvania and was founded in 1863, by the Bethlehem Iron Company. The Bethlehem Iron Company is famous for providing much of the iron used to construct the Golden Gate Bridge, as well as a major supplier of iron/steel during WWII, employing over 31,000 people at its height. The Bethlehem Iron Company was once the nation's second largest steel producer. 1995 unfortunately marked the official close of the steel giant, it wasn't until 15 years later, 2010, that the of Bethlehem, PA began construction on the 65,000 square foot, 10 acre, four-story footprint. \$70 million dollars later, the site was officially open in 2011, originally built as an arts center. The site was originally to be demolished, or left to rot, if it weren't for the community to rally, and vote in a (TIF) Tax Incremental Financing to drive the city to use that space, it would have been forgotten. Levitt-Pavilion Steel Stacks now serves many demographics, employing thousands of concerts a year, eight festivals, center for food, and culture. The site is unique and very similar, much like the EWEB steam plant we have. Steel Stacks lies between Lehigh University, a major university, and adjacent to the Lehigh River and railway, a major waterway and thoroughfare, for community and commerce. The university creates a vibrant and constant draw of a youthful crowd, the location is prime, via twenty-minute walk, or nine-minute bike ride from the university, to Steel Stacks. The EWEB steam plant shares similar travel times, with a twenty-eight minute walk, and a ten-minute bike ride. The site utilizes arts and culture to revitalize and economically developed once blighted neighborhood. Steel stacks serves over \$1.8 million people in the Lehigh Valley. Steel Stacks boasts over 40% of their programming being free, and has over \$137 million of annual economic impact, and has 800,000+ annual visitors.



Paper Island, Copenhagen, Denmark

Papirøen or Paper Island is a 24,800 square foot old paper warehouse sitting on the waterfront near the famous Opera House and royal family Playhouse in Copenhagen, Denmark. This building was built in the 1930s as a paper factory and played a role in WWII when the Germans stored weapons during its invasion of Denmark. Prior to 2012, the paper press company decided to terminate its lease and the city was left to decide what to do with the property. Due to its location and size, the real estate value of the property was set high and was a desirable place for developers to capitalize on this pristine waterfront property. A development firm had plans to redevelop the property, however, Copenhagen's city government wanted to use this opportunity to use this space as a creative space for the city and that they must wait 5 years until they could redevelop. Led by the creative ideas of the city government and creative entrepreneurial groups, the paper factory turned into a mecca for food cart lovers and became a global kitchen.

Today, it has nearly 39 food trucks, food stalls, containers and bars while using sustainable materials for the inside and outside. Reclaimed material is utilized throughout the building for chairs, tables and the overall structure of the food stalls. Outside of the building, on the waterfront, shipping containers are utilized for protection and wood pallets have been turned into seating and tables for all.

Paper Island is a prime example of how to turn an industrial building into a creative space that creates place making and builds on the development and identity of a community. Paper Island is known as "Copenhagen Food Trucks", a place where community, creativity and culture all perfectly coexist together.



The Salt Building, Vancouver, British Columbia

When beginning our research based off of our online survey results we decided to look into case studies that encompassed students top three preferences (food, drinks, recreational space and repurposed buildings). One of the case studies we focused on was repurposed buildings that have changed use from industrial to community space, as our main goal of the EWEB Steam Plant is to provide a safe community space. The Salt Building in Vancouver B.C. is a great example of a changed use building. It was built in the 1930s as a salt refinery building than repurposed into a historic landmark and opened in 2010 for the Vancouver Olympics as a event space. 75% of this building was reused keeping its historic preservation of a refinery, it now sits as a multi-use space for community event space, a restaurant and craft beer market overlooking the Vancouver waterfront. This building's unique preservation also encompasses skylights in the top of the roof letting natural daylight stream down through the rafters and natural ventilation keeping the space cool when necessary. This is a great example of preserving a historic landmark that can also be done with EWEB steam plant in future years to come.



Tate Modern Museum, London

The Tate Modern museum in London is another great example of a repurposed building that was a power station before it was repurposed into a museum. Through our survey findings one of the things students suggested that Eugene does not have a lot of was art and museums in general. The Tate Museum is a perfect example of bringing the community together through different forms of art. The EWEB steam plant does not have to be completely a museum but incorporating some type of art is a way of bringing different demographics of people to this site. This museum also sits on the waterfront and most of the material inside was reused to encompass art, the material used inside of the museum can also be of used for some type of recreational space. These two examples are a great comparison of preserving the EWEB steam plant history and making sure it's a community space everyone can enjoy whether living in Eugene or just visiting for a weekend.

City Museum, St. Louis, Missouri

The City Museum, in St. Louis, Missouri, is a prime example of a repurposed industrial building. Originally a factory and warehouse owned by the International Shoe Company, the building was purchased by a private party in 1993, and renovated into a unique playground and museum.

Reconstructed to feature reclaimed architectural and industrial elements, the chutes that once transported completed shoes to the warehouse now serve as multi-story slides for museum visitors. Visitors can also climb along ceilings and over gaps in floors inside of tubes made from old refrigeration coils or rebar. Many other amenities, including an aquarium, an artificial cave system, a circus ring, and a rooftop Ferris wheel, work in concert to draw in over 700,000 visitors each year.



Rooftop Bars

From our survey data, rooftop bars were the second highest place students would frequent. Since rooftop bars are popular throughout the country and the world, we decided to research rooftop bars in areas of harsh weather conditions since it rains in Eugene, Oregon half of the year.

Smith Bros. Hardware Company

This building is located in the historic Italian Village of Columbus, Ohio and was constructed in 1929. It easily recognizable when looking at Columbus' skyline because of its distinct industrial architecture and rooftop water tower. The Smith Bros. Hardware Company reached its peak in the 1940s and 50s as the largest hardware company distributor in the Midwest, but took eventually crashed in the 1980s due to the dwindling of the hardware business. For 17 years the building sat vacant, but a city redevelopment project led its revitalization to become a place for office and event spaces. Eventually, big businesses began to move into this building's office spaces such as Wells Fargo Insurance and Lextant Insurance.

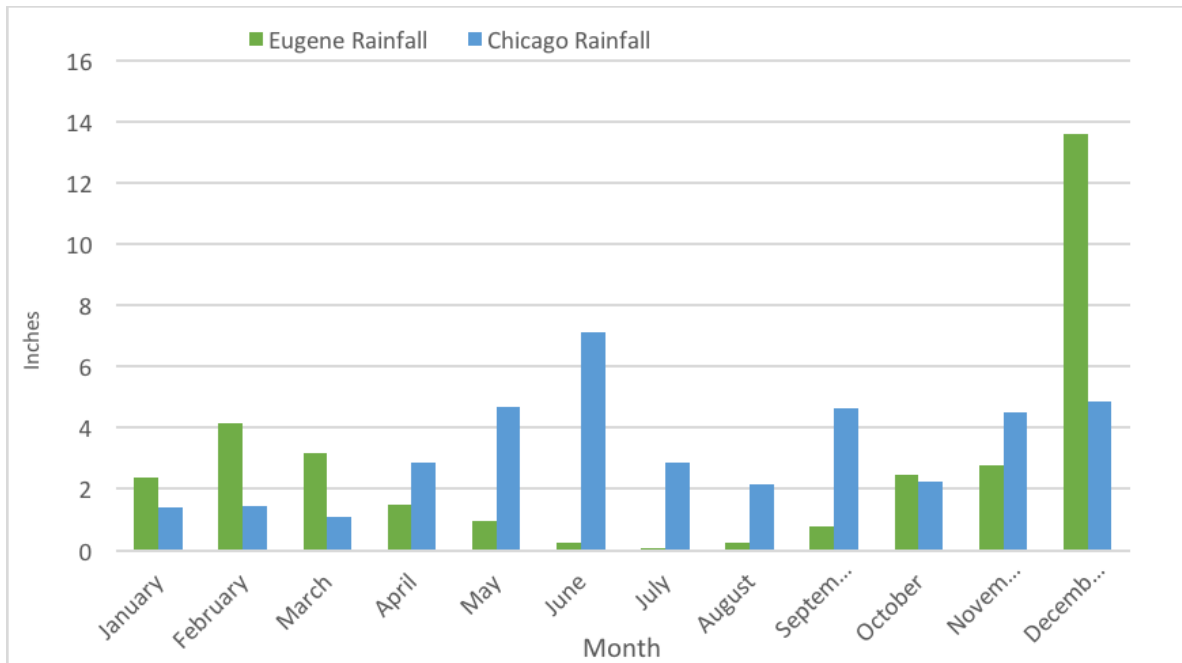
As of November 2017, a 12,000 square foot rooftop bar opened called the Juniper. The Juniper referenced the Godfrey Hotel in Chicago for successful all weather proof materials. From this, a retractable insulated glass roof was implemented to showcase the city's skyline along with heated floors and heated lamps. The use of these materials protects people from harsh weather conditions allowing for maximize use of the building and the rooftop bar year round, rather than when it is sunny weather outside.



Chicago vs. Eugene weather

Since the Smith Bros. Hardware Company referenced material from a Chicago rooftop bar and Chicago's image as being one of the harshest weather conditions in the country, we decided to analyze further the weather between Chicago and Eugene.

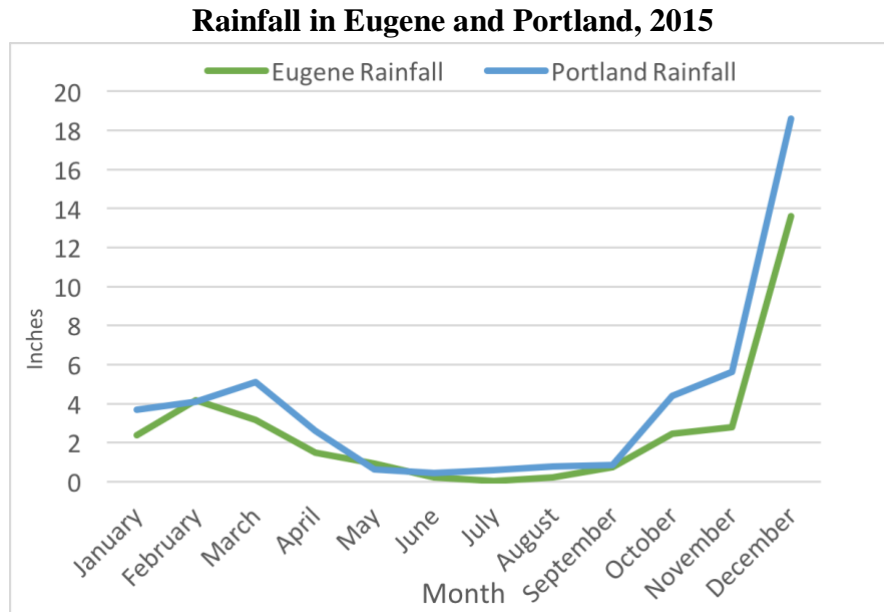
Eugene vs. Chicago, Annual Precipitation in 2015



Source: Weather.gov, U.S. Climate Data

In the year 2015, Eugene had 32 inches of rain while Chicago had 40 inches of rain. Eugene and Chicago had surprisingly similar rainfall amounts, but when adding in Chicago's snowfall in 2015 it was nearly 64 inches compared to its usual 36 inches per year. The average of sunny days in Eugene was 155 days and Chicago was 189 days. With the extreme weather in Chicago, rooftop bars are still popular and utilized with materials that protect its inhabitants from rain or snow. This proves that people are willing to go rooftop bars year round and this can be considered for the EWEB Steam Plant to maximize year round consistency.

For geographic comparison, we further compared Eugene and Portland rainfall patterns in 2015.



Source: Weather.gov, U.S. Climate Data

When compared to nearby Portland, Oregon, the numbers are similar since rainfall is most prevalent during the winter months. Eugene and Portland have similar population demographics that take pride in using multi-modal transportation to get around their respective towns. From this data, the EWEB Steam Plant developers can draw from successful rooftop businesses in Portland that attract people all year, especially focusing on the use of rooftop bars or patios. Eugene currently does not have an open roof top bar, yet Portland has a numerous amount that still attract customers all year.

Short Term Recommendations: 2021 Track and Field Championships

1. Food and brewery trucks
2. Outdoor screen and projector to watch events
3. Running tour connecting keys points in Eugene
4. Models and renderings of future Steam Plant plans

Recommendations for this event emphasize utilization of the outdoor space for patrons and creating a friendly and uniquely Eugene space for attendees of the Championships to gather. This will include spaces for sitting, eating and enjoying the waterfront park and space surrounding the Steam Plant. On the grounds there should be food and brewery trucks from Eugene for people to taste foods and beers from local businesses. To cater to the track and field attendees there should be a retractable screen on the West facing wall of the building showing the races and events of the day. There could also be a ‘Get to Know Eugene’ running tour that connects the University

and Hayward field along the waterfront to the Steam Plant and to downtown. Lastly, we recommend that the city use this opportunity to promote and market the longer term plan for the plant by having models and renderings inside, giving people the chance to see the building before and after without struggling against the time constraint of the closeness of 2021.

When repurposing a building it is key to keep in mind the sustainability aspect of a building. Just like the Salt building in Vancouver, B.C. is LEED certified and its heating is supplied through a radiant floor heating system that draws energy from a neighborhood energy utility reclaiming heat from a sewage wastewater. This may or may not be possible for the EWEB steam plant but keeping in mind that repurposing an industrial building into a sustainable building benefits the community as a whole. The possibility of creating a green building can be possible by landscaping grass and providing roof top green space to have an esthetic and sustainable feel.

Long Term Recommendations: City of Eugene

Our long term plans consist of not having another student dominated location, similar to the campus area bars and attractions. Primarily given that our top recommendation was access to food. The location is prime for a number of food trucks to come use the building design in a way that allows them to back into a spot, and serve the public during events, or as a semi-permanent location. The food can be served by walk-up window, or through the bottom floor, while patrons can walk back up to their joint-community table, via the original repurposed catwalks or steam pipes.

A rooftop bar, is another long-term idea which are a scarcity in the region. The only two in existence are at Downtown Athletic Club, and the new Hyatt on Coburg Road. The rooftop bar is a great attraction for community members to utilize the roof itself, while looking out upon the Eugene skyline. The rooftop bar can have retractable awnings, and propane heaters, and heated floors, for four-season use. Food could potentially be brought up via steam plant walkways or catwalks, keeping history and originality close by. The rooftop can also have a sustainability factor, using solar panels on top, powering all, or a portion of the building.

Family engagement is a must, if the families and all age groups of Eugene are not engaged, it won't be utilized to its full potential. The location has large walls, and pipes to be converted to slides for children to use, similar to the City Museum in St. Louis. The slides can be made out of the old pipes and boilers, and access to the slides can be reached from the old cat-walks. The large walls are a prime location for a rock wall(s), for children and adults to utilize and learn how to climb on. When events are taking place, there can be a running tour from either campus, or downtown, or both, to the EWEB steam plant site.

These short and long term recommendations are encompassing Eugene's unique history and hopefully bring the community together as a whole.

Appendices, Case Studies

City Museum, St. Louis, Missouri

<https://www.wsj.com/news/articles/SB10001424052702304159304575183463721620890>

<https://www.pps.org/reference/greatplaces2005/>

Paper Island, Copenhagen, Denmark

<https://www.citylab.com/solutions/2016/02/copenhagen-paper-island-waterfront-redevelopment-creative-business-copenhagene/463137/>

<http://copenhagenstreetfood.dk/en/about-copenhagen-street-food/>

<https://inhabitat.com/abandoned-island-reborn-as-a-shipping-container-street-food-mecca-in-copenhagen/>

Smith Bros Hardware Company, Columbus, Ohio

<http://www.columbusunderground.com/historic-smith-bros-hardware-building-continues-ongoing-rebirth>

<https://www.bizjournals.com/columbus/news/2016/01/25/first-look-smith-brothers-owner-proposing-rooftop.html>

Steelstacks, Bethlehem, Pennsylvania

<http://www.steelstacks.org/about/what-is-steelstacks/>

Salt Building, Vancouver B.C.

<http://www.actonostry.ca/project/salt-building-vancouver/>

<https://inhabitat.com/sea-salt-refinery-renovated-into-a-historic-landmark-event-building-in-vancouver/>

Tate Museum, London

<https://www.fodors.com/world/europe/england/london/things-to-do/sights/reviews/tate-modern-97084>

<https://www.fodors.com/news/photos/10-incredible-art-museums-in-repurposed-buildings>

<https://adaptivereuse.info/portfolio/tate-modern/>