UNIVERSITY of WASHINGTON

LIVABLE CITY YEAR 2017–2018
IN PARTNERSHIP WITH CITY OF TACOMA

CITY OF TACOMA

SUMMARY OF PROJECTS
2017 – 2018

LIVABLE CITY YEAR

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Recommended citation: Livable City Year 2017–2018. Project Title. University of Washington, Seattle, WA. Prepared for City of Tacoma.

ABOUT LIVABLE CITY YEAR

The University of Washington's Livable City Year (LCY) initiative enables local governments to engage UW faculty and students for one academic year to work on city-defined projects that promote local sustainability and livability goals. Hundreds of students participate each year in high-priority projects, creating momentum on real-world challenges while serving and learning from communities. Partner cities benefit directly from bold and applied ideas that propel fresh thinking, improve livability for residents, and invigorate city staff.

Focus areas include environmental sustainability; economic viability; population health; and social equity, inclusion, and access. The program's 2017–2018 partner is the City of Tacoma; this follows a partnership with the City of Auburn in 2016–2017.

The LCY program is led by faculty directors Branden Born (Department of Urban Design and Planning), Jennifer Otten (School of Public Health) and Anne Taufen (Urban Studies Program, UW Tacoma), with support from Program Manager Teri Thomson Randall. The program was launched in 2016 in collaboration with UW Sustainability and Urban@UW, with foundational support from the Association of Washington Cities, the College of Built Environments, the Department of Urban Design and Planning, and Undergraduate Academic Affairs.

LCY is modeled after the University of Oregon's Sustainable City Year Program, and is a member of the Educational Partnerships for Innovation in Communities Network (EPIC-N), the collection of institutions that have successfully adopted this new model for community innovation and change.

For more information, contact the program at uwlcy@uw.edu.

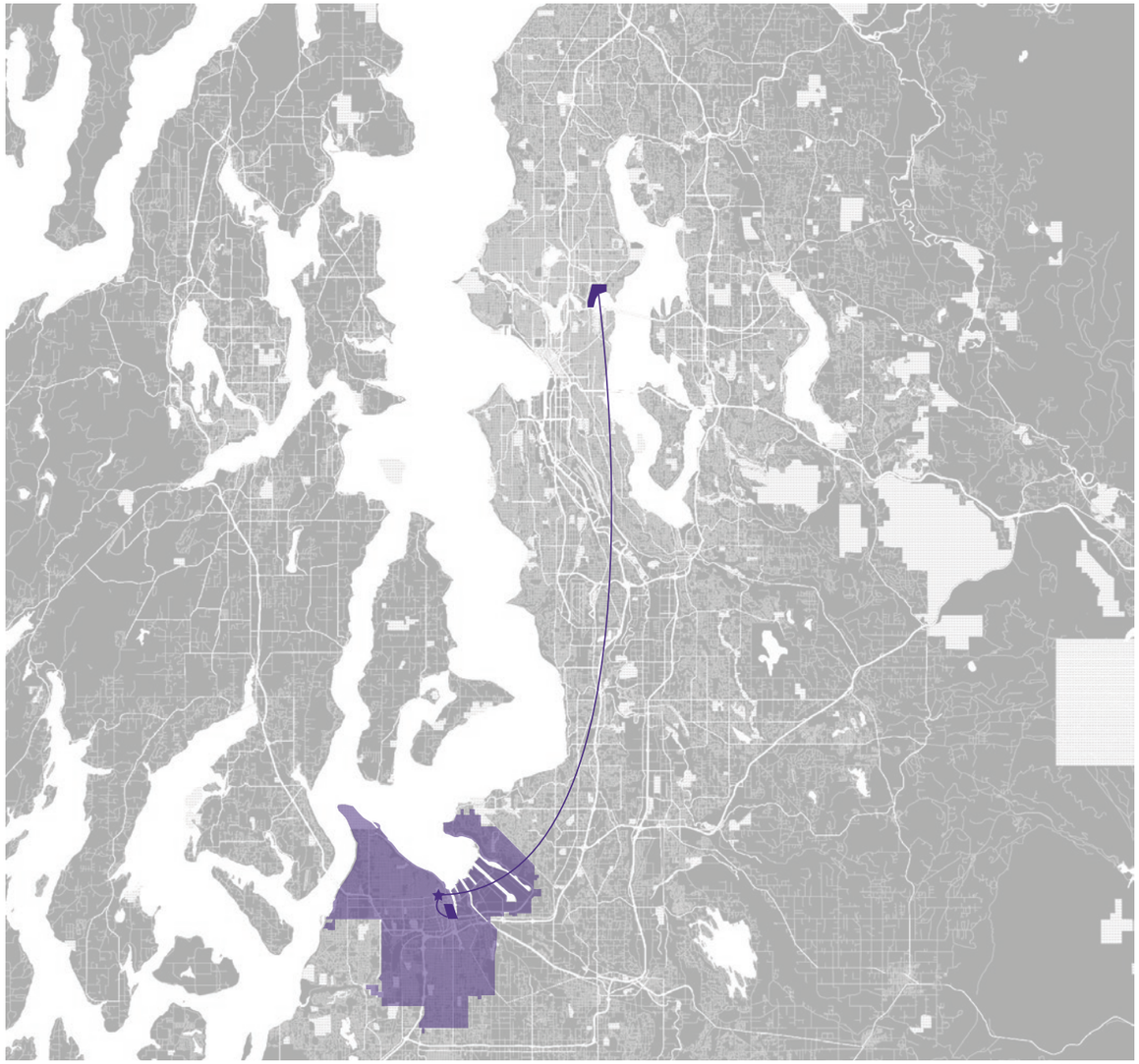
ABOUT TACOMA

The third largest city in the state of Washington, Tacoma is a diverse, progressive, international gateway to the Pacific Rim. The port city of more than 210,000 people has evolved considerably over the last two decades, propelled by significant development including the University of Washington Tacoma, the Tacoma Link light rail system, the restored urban waterfront of the Thea Foss Waterway, the expansions of both the MultiCare and CHI Franciscan health systems, and a significant influx of foreign direct investment in its downtown core.

Washington State's highest density of art and history museums are found in Tacoma, which is home to a flourishing creative community of writers, artists, musicians, photographers, filmmakers, chefs, entrepreneurs, and business owners who each add their unique flair to the city's vibrant commercial landscape. The iconic Tacoma Dome has endured as a high-demand venue for some of the largest names in the entertainment industry.

A magnet for families looking for affordable single-family homes in the Puget Sound area, Tacoma also draws those seeking a more urban downtown setting with competitively priced condos and apartments that feature panoramic mountain and water views. The city's natural beauty and proximity to the Puget Sound and Mount Rainier draws hikers, runners, bicyclists, and maritime enthusiasts to the area, while its lively social scene is infused with energy by thousands of students attending the University of Washington Tacoma and other academic institutions.

The City of Tacoma's strategic plan, Tacoma 2025, was adopted in January 2015 following unprecedented public participation and contribution. The plan articulates the City's core values of opportunity, equity, partnerships, and accountability, and expresses the City's deep commitment to apply these values in all of its decisions and programming. Each Livable City Year project ties into the principles and focus areas of this strategic plan. The City of Tacoma is proud of its 2017–2018 Livable City Year partnership with the University of Washington and of the opportunity this brings to its residents.



Credit: Ka Yan (Karen) Lee, Livable City Year

The two participating University of Washington campuses, Seattle and Tacoma (shown in dark purple), with the City of Tacoma and its boundaries (shown in lighter purple).

YEAR AT A GLANCE

2017 – 2018 Livable City Year
In Partnership with the City of Tacoma

27 projects
2 campuses
8 colleges/schools
17 departments

38 classes
26 faculty

349 student researchers
39 students writers
45,000+ student hours

*Estimated value of student hours = $1M**

10 city departments
25 city project leads

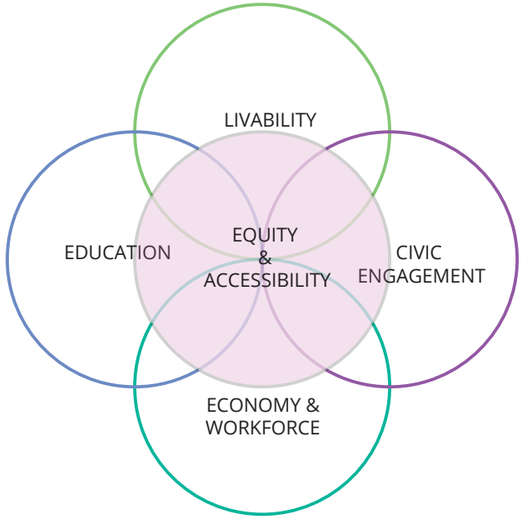
Hundreds of community stakeholders

** Office of Mayor Victoria Woodards*

LCY PROJECTS: BY CITY DEPARTMENT

TACOMA 2025 STRATEGIC PLAN

The City of Tacoma's strategic plan, Tacoma 2025, was adopted in January 2015 following unprecedented public participation and contribution. The plan articulates the City's core values of opportunity, equity, partnerships, and accountability, and expresses the City's deep commitment to apply these values in all of its decisions and programming. Each Livable City Year project ties into the principles and focus areas of this strategic plan. The City of Tacoma is proud of its 2017–2018 Livable City Year partnership with the University of Washington and of the opportunity this brings to its residents.



tacoma2025
shared vision | shared future

Look for the icons!

Goal #1 Livability
The City of Tacoma will be a city of choice in the region known for connected neighborhoods, accessible and efficient transportation transit options, and vibrant arts and culture. Residents will be healthy and have access to services and community amenities while maintaining affordability.

Goal #2 Economy and Workforce
By 2025, Tacoma will be a growing economy where Tacoma residents can find livable wage jobs in key industry areas. Tacoma will be a place of choice for employers, professionals, and new graduates.

Goal #3 Education
Tacoma will lead the region in educational attainment amongst youth and adults. In addition to producing more graduates from high school and college, more college graduates will find employment in the region. Lifelong learning and access to education will be prioritized and valued.

Goal #4 Civic Engagement
Tacoma residents will be engaged participants in making Tacoma a well-run city. The leadership of the city, both elected and volunteer, will reflect the diversity of the city and residents and will fully participate in community decision-making.

Goal #5 Equity and Accessibility
Tacoma will ensure that all residents are treated equitably and have access to services, facilities, and financial stability. Disaggregated data will be used to make decisions, direct funding, and develop strategies to address disparate outcomes.

CREDITS

For the City of Tacoma

Mayor (2010 – 2017): Marilyn Strickland
Mayor (2018 – present): Victoria Woodards
City Manager: Elizabeth Pauli
LCY Program Managers:
Tanisha Jumper
Stephen Atkinson
Lauren Flemister
LCY Liaison: Chris Bell

For the University of Washington LCY Program

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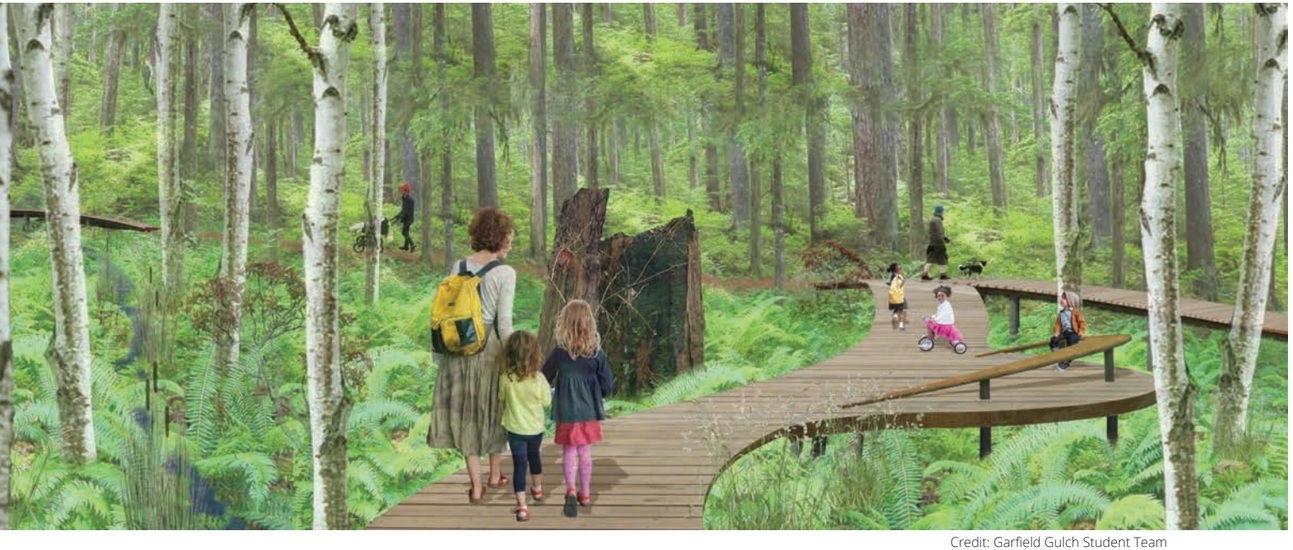


Credit: Garfield Gulch Student Team

Envisioned walkways through Garfield Gulch.

OVERVIEW

In 2017 – 2018, the City of Tacoma partnered with the University of Washington to help tackle the city's most pressing challenges around livability and sustainability. Through the university's Livable City Year initiative, two campuses, dozens of faculty members, and hundreds of students working in multiple disciplines mobilized and combined forces with City staff to advance the City's goals. The pages of this book demonstrate what can happen when a top-ranked public university and a city with a visionary strategic plan decide to work together on a large scale.

This fruitful partnership was made possible by the foresight and support of city leadership: Tacoma Mayors Marilyn Strickland (2010 – 2017) and Victoria Woodards (2018 – present); Tacoma City Council; Tacoma City Manager Elizabeth Pauli; and Tacoma LCY Program Managers Tanisha Jumper, Stephen Atkinson, and Lauren Flemister. In addition, 25 city staff members serving as Project Leads gave guidance, thoughtful direction, and feedback to students.

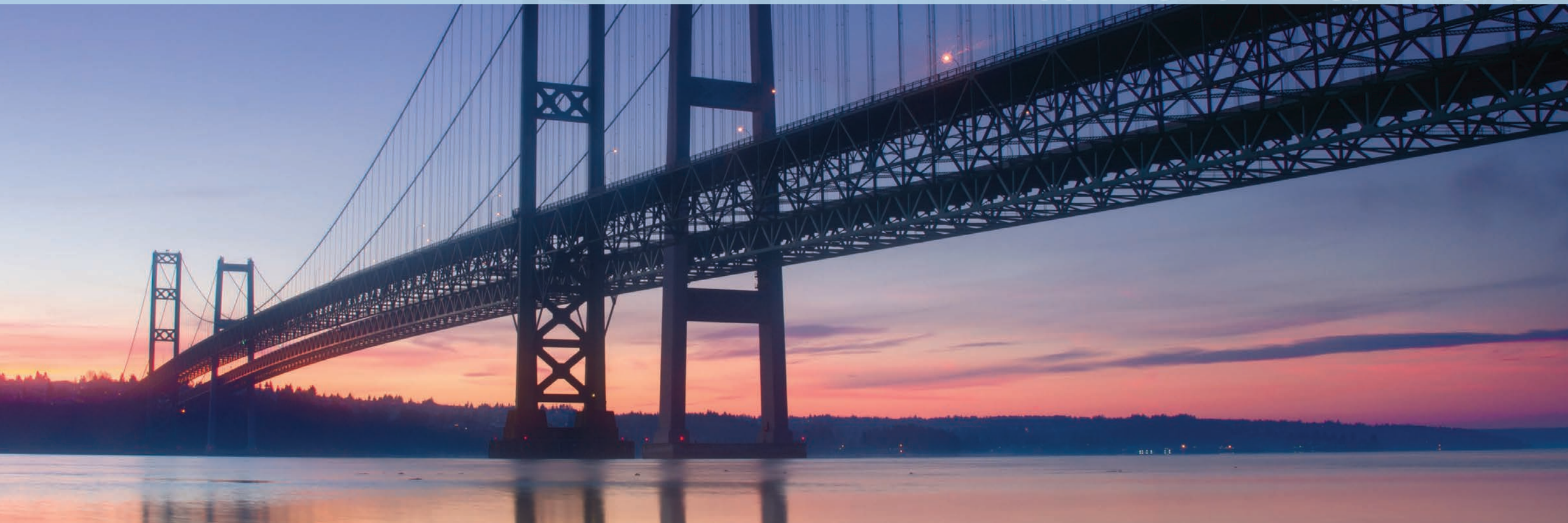
The projects summarized here reveal the unfettered creativity, energy, and commitment of students. In this book you'll hear from Architecture students whose passion for a lesser-recognized historic neighborhood in Tacoma brought out dozens of community members for a walking tour in the pouring rain. You'll see how Information Technology students are applying their knowledge to improve City service delivery and save lives. And you'll behold the imaginative drawings of Landscape Architecture students as they propose transforming four overgrown ravines into thriving habitats for humans and wildlife to enjoy.

Students are unafraid to ask the tough questions, to tackle that metaphorical closet where we put things we don't want company to see — this is their priceless gift to us. At Tacoma's request, students unearthed employment rights violations and explored why precarious workers struggle to claim their rights. Others delved into court data and found racial, mental health, and income-related disparities and biases in the prosecution of cases. And when many of us would just as soon ignore the possibility of a catastrophic natural disaster, students looked our vulnerabilities square in the eye and suggested ways to mitigate our risk.

What is livability? It is many things, including equity, inclusion, affordability, opportunity, health, human-centered buildings, and environmental resilience. It is not something we can look solely to government to provide. Rather, it is something the community creates together through civic engagement, intention, and hard work. What might livability look like in Tacoma in the future? Through Livable City Year, our students have given us a glimpse.

— The Livable City Year team

COLLEGE OF ENGINEERING

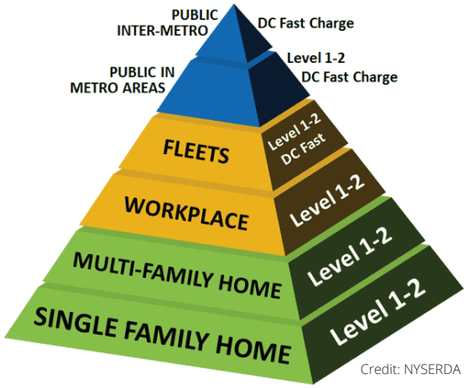


NEIGHBORHOOD AND WORKPLACE ELECTRIC VEHICLE CHARGING DEPLOYMENT

University of Washington
Civil and Environmental Engineering:
Transportation Engineering
CET 583: Transportation Energy & Sustainability
Instructor: Don MacKenzie
City of Tacoma Project Lead: Kristin Lynett

INTRODUCTION

As part of Washington State's goal of 50,000 electric vehicles (EVs) on the road by 2020, Tacoma is aiming to quadruple the number of EVs in the city from 500 to 2,000. A key to this goal is making cost-effective investments in charging infrastructure to encourage greater adoption of EVs. Student teams are developing strategies to maximize the effectiveness of future investments in charging stations for homes, workplaces, and public locations.



Credit: NYSERDA

Most electronic vehicle charging occurs at home, but charging opportunities at workplaces and public locations are key to encourage widespread adoption.

METHODS AND APPROACH

The objectives of this project are to help City of Tacoma staff to understand:

- Where should charging infrastructure be located?
- Given varied potential future funding levels, what types of investments in EV charging infrastructure should be prioritized at the local level in order to encourage further adoption of EVs?

Depending on the particular type and location of charging stations, different policies and levels of government involvement are required. Possible charging locations include:

- Single-family homes
- Multi-family homes
- Workplaces
- Public locations

Students are assessing both the best ways to invest within each of these categories, and the relative prioritization across categories.

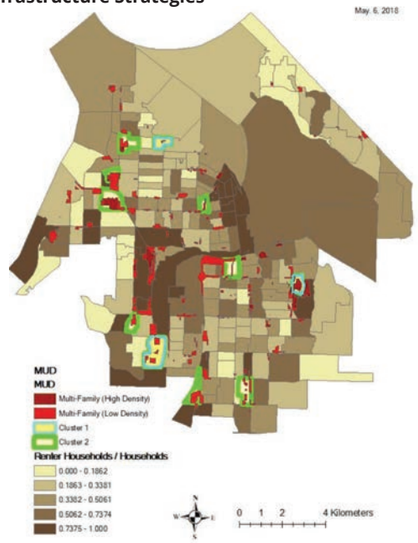
Analysis framework

Demand Estimation	Capacity Estimation	Infrastructure Needs	Location Analysis	Cost Estimation
Estimate the number of EVs attracted to each zone (zip code)	Estimate the capacity of current charging infrastructure	Identify the charging infrastructure demand in 2020	Analysis of site suitability with GIS to obtain candidate sites Study the feasibility of candidate sites Recommend site location and charging technology	Estimate cost of recommended charging infrastructure

RECOMMENDATIONS

Based on demographics and travel patterns of residents and visitors in different parts of Tacoma, student teams are identifying areas and specific sites that are the most promising for promoting EV adoption. Thus far, students have identified that costs and potential benefits for charging locations are highly site-specific, depending on existing facilities and electrical capacity, level of property owner commitment, and consumer interest. Because of this, policies for home and workplace charging should be designed to support informed and voluntary decisions by these parties. Public charging, particularly fast charging, may require more top-down coordination.

Tacoma Social Characteristics for EV Infrastructure Strategies



Key social indicators for suitability of multi-unit dwellings.

COLLEGE OF THE ENVIRONMENT

EQUITY IN THE URBAN FOREST: A SUSTAINABLE MODEL FOR GREEN REGIONAL GROWTH

University of Washington
School of Environmental and Forest Sciences
SSEFS 571/PUBPOL 592: Resource Policy and Administration
Instructor: Clare Ryan
City of Tacoma Project Lead: Michael Carey
Report Author: Scott Davis
Team: Scott Davis, Stephen Munro, Claire Pendergrast, Katie Woolsey, Marcia Rosenquist,

INTRODUCTION

The City of Tacoma has identified development of urban forests and urban green infrastructure as key issues, and has set a goal to achieve 40% canopy cover across Tacoma by 2040. The City identified the Tacoma Mall neighborhood as a particularly important area for achieving these goals due to its lack of green space, poor health outcomes, and socioeconomic status. In response to this, the students of SEFS 571: Resource Policy and Administration partnered with the City of Tacoma to develop a primer on green infrastructure and livability, a presentation summarizing their activities and findings, and a package of communication tools and media.

Photo Credit: Scott Davis

A rare remnant grove of Garry Oaks (Quercus garryana) in the Tacoma Mall Neighborhood. These oaks are now rare in Western Washington and are legally protected, and therefore provide the perfect start to a neighborhood green space.

A student generated flier for advertising the economic benefits of green space and green infrastructure, intended for businesses in the Tacoma Mall neighborhood.

KEY FINDINGS

The UW LCY team visited the Tacoma Mall neighborhood to explore potential green spaces as outlined in the 2040 Vision Plan, cultural resources, and livability. To gain further neighborhood perspectives related to this, students conducted telephone interviews with neighborhood stakeholders and reviewed relevant news articles and public comments on the proposed sub-area plan.

The students found that the Tacoma Mall neighborhood lacks basic resources such as schools, parks, green spaces, and walkable streets, which, along with safety and street maintenance issues, are sources of concern for residents. While residents generally support green infrastructure proposals, they also worry about bearing the costs of green development, and communicated that meeting basic needs takes precedent in their lives.

The UW LCY team additionally conducted a literature review to document the ways urban green infrastructure might benefit key neighborhood constituencies: residents, business owners, and property owners.

RECOMMENDATIONS

Based on our discovery process, the UW LCY team makes the following recommendations to the City of Tacoma:

- Improve communication about the benefits of green infrastructure, especially those benefits most relevant to business and property owners. Use resources provided by the UW LCY student team, including the report, media and communication tools, and the neighborhood master contact list.
- Recognize the goals of local residents: increased quality of life and basic community space and resources.
- Use the provided Social Marketing Process to guide outreach efforts. Focus community engagement efforts on exciting neighborhood events and achievements related to green infrastructure, and not on their technical benefits.
- Use the provided Contact Master Plan for reaching key community stakeholders.
- Implement demonstration projects. These demonstration projects might include planting of street trees, construction of street-side phytoremediation swales, greening of the Madison School and of the connection to community garden, and enhancement of existing oak groves.

Photo Credit: Clare Ryan

The Equity in the Urban Forest graduate student team at the Tacoma Municipal Building following a presentation to City of Tacoma staff. From Left to Right: Stephen Munro, Katie Woolsey, Claire Pendergrast, Marcia Rosenquist, and Scott Davis

IMPACT FEE POLICY OPTIONS STUDY

University of Washington
School of Environmental and Forest Sciences
SEFS 571/PUBPOL 592: Resource Policy & Administration
Instructor: Clare Ryan
City of Tacoma Project Leads: Josh Diekmann, Lihuang Wung, Lisa Spadoni
Report Author: Katherine Walton
Team: Claire Baron, Emily Coleman, Micah Stanovsky, Katherine Walton

INTRODUCTION

In the face of anticipated growth and the expansion of the Link light rail in 2022, Tacoma has identified a need to develop more transportation infrastructure capacity to meet the demands of a growing population.

Transportation impact fees are one-time charges assessed by a local government against a new development project to help pay for new or expanded transportation infrastructure that will directly address the increased demand created by the development. Established in Washington State in 1990 following the Growth Management Act, more than 70 municipalities in Western Washington have transportation impact fees in place. The City of Tacoma's Transportation Engineering Department requested a study assessing the feasibility of implementing transportation impact fees in Tacoma. The report we created includes an overview of transportation impact fee policy, structural considerations, economic implications, and Tacoma-specific context regarding the City's current revenue streams for transportation infrastructure projects.

> Strong growth trends in the area indicate that development would have a strong resiliency to transportation impact fees.

KEY FINDINGS

- Tacoma has a significant funding gap for capital projects related to transportation. Impact fees can likely cover a portion of the unfunded partial costs related to projects directly caused by new growth and development.
- Transportation impact fees have become common in Western Washington: more than 70 municipalities that have seen significant growth over the past five years have transportation impact fees in place—suggesting that the area's market resiliency has created a climate in which transportation impact fees and urban growth are not mutually exclusive.
- There are a variety of structural considerations and modifications that the City of Tacoma can incorporate when instituting impact fees to alleviate constituent concerns: exemptions can be used to incentivize the development of mixed-use-centers, affordable housing, green infrastructure, and other projects that might further Tacoma's priorities.

RECOMMENDATIONS

We believe, based on our findings, that transportation impact fees are a good fit for the city of Tacoma. The growing number of municipalities in Washington that have already adopted transportation impact fees have shown continued success and community buy-in. We believe that possible housing cost increases from transportation impact fees are unlikely to stymie the positive effects from economic and population growth and that strong growth trends in the area indicate development would have a strong resiliency to transportation impact fees. Should Tacoma decide to take action on transportation impact fees, the next steps would include:

- Conduct a trip rate analysis assessing the number of trips per hour along different roadways to determine the maximum allowable base rate for developers.
- Bring base rate estimate to public and developers and pro-actively work to address and mitigate any prevalent concerns.
- Construct the transportation impact fee structure that includes a schedule of rates that categorizes the separate building categories and offers distinct units of measures for these categories.
- Use one service area rather than multiple throughout the city to keep administrative costs low.
- Include exemptions for affordable housing and environmental justice.
- Incentivize multi-modal transportation projects that support non-motorized transportation.
- Create a streamlined system for developers to introduce their own trip rate data for mixed-use structures.

Credit: Student Team

Potential, street-specific impact-fee-eligible projects are outlined in yellow above. As evidenced by this illustration, Tacoma's planned transportation infrastructure projects span the geographic range of the city, suggesting that a single zone might work best for Tacoma, as projects — and consequently, growth — are not limited to one neighborhood.

COLLEGE OF BUILT ENVIRONMENTS

EASTSIDE FOOD INNOVATION DISTRICT

University of Washington, Seattle and Tacoma campuses
Urban Design and Planning
URBDP 598/TURB 494 Neighborhood Planning Practicum: Advancing a Tacoma Eastside Food Innovation District
Instructor: Richard Conlin
City of Tacoma Project Lead: Carol Wolfe
Report Author: Hope Freije
Community Partners: Marty Campbell (Salishan Association, Former City Council Member), Eastside Neighborhood Advisory Council, East Tacoma Collaborative, Eastside Tacoma community members, Puyallup Watershed Initiative, Lynnette Scheidt (Eastside Neighborhood Advisory Council President), Tacoma-Pierce County Health Department, Catherine Ushka (City Council Member)

INTRODUCTION

A child born in East Tacoma has a life expectancy 7–12 years shorter than someone born in other parts of the city. Data from the Tacoma-Pierce County Health Department suggests that lack of access to healthy food is a strong contributor to this disparity. While Eastside Tacoma's assets include a strong network of faith-based organizations, diversity of backgrounds among residents, and a growing contingent of food and garden resources, the neighborhood still grapples with wealth disparity and poor health outcomes for many residents.

The goal of our project is to provide a set of recommendations for creating a local food economy in Eastside Tacoma that will stimulate better access to healthy food and create local employment opportunities. Local food entrepreneurship is seen as a way of creating fulfilling job opportunities for residents while simultaneously increasing healthy food options for their community. In addition, our recommendations will include strategies for encouraging healthy food choices, especially for young people.

METHODS AND APPROACH

We began this project by reviewing literature and precedents in neighborhood, food policy, and community engagement planning strategies. We met early on with representatives from the City of Tacoma and Tacoma-Pierce County Health Department, who provided background on the health metrics of Eastside Tacoma and helped frame what a Food Innovation District would look like for this neighborhood.

Precedents such as the City of Riverside's Food and Agriculture Policy Action Plan provided guidance as we moved forward with researching best practices. Through meetings with local organizations and research into existing assets and structures, we are developing initial recommendations.

Photo Credit: Hope Freije

Increasing access and education around community gardens can improve health metrics in Eastside Tacoma.

Because of time constraints, our project did not include extensive community engagement, but our report outlines potential strategies for engaging community members and determining how they envision these changes taking place.

RECOMMENDATIONS

Connect Key Partners. Through our research we have identified dozens of people and organizations who are doing work related to food and equity in Eastside Tacoma. There are multiple community gardens, a seasonal farmer's market, and programs that provide healthy food to kids during the summer. Thus, two of our primary goals are to increase the use of these resources and to encourage collaborative partnerships between them.

Use Vacant Land. Vacant land stands out as an opportunity for urban agriculture and business development. Growing food would not only provide people with access to healthy produce, it would serve as an educational tool for raising nutrition-minded youth. Identifying locations and strategies for expanding urban agriculture, as well as exploring ways to make them culturally relevant, are priorities.

Promote Food Cultures. Because cultural and ethnic diversity is such a strong asset of this community, we are examining ways for residents to share their food cultures and build food businesses. Cottage Food Laws offer the opportunity to sell goods made in the home, and can offer significant income while also serving the community with locally-made goods.

Photo Credit: Karen Meyer

A community engagement event with Eastside Tacoma residents, business owners and organization staff.

FOUR GULCHES: RESTORING HUMAN AND ECOLOGICAL CONNECTIONS TO TACOMA'S RUSTON WAY AND WATERFRONT

University of Washington
Landscape Architecture
LARCH 402/503: Community Design Studio
Instructor: Nancy Rottle
City of Tacoma Project Leads: Stephen Atkinson, Ian Munce
Report Author: Jinkun Li
Community Partner: Metro Parks Tacoma, Robert Girvin

INTRODUCTION

Over Winter 2018, the LARCH 402/503 Ruston Way design studio in the University of Washington Department of Landscape Architecture partnered with the City of Tacoma and Metro Parks Tacoma to design usable green spaces within the four gulches found along Ruston Way: Garfield Gulch, Buckley Gulch, Puget Gulch, and Mason Gulch. The students aimed to propose designs that would make each gulch usable and ecologically functional for residents and wildlife. The student teams also placed a high priority on connecting the gulches to the waterfront and the larger Tacoma area.

SITE ANALYSIS

The studio class began by conducting research and analysis on the greater Ruston Way area. The class then split into groups to examine existing conditions of the individual gulches.

Garfield Gulch has ongoing restoration projects, and has received government funding for future development. Formerly used trails on the slopes are no longer accessible.

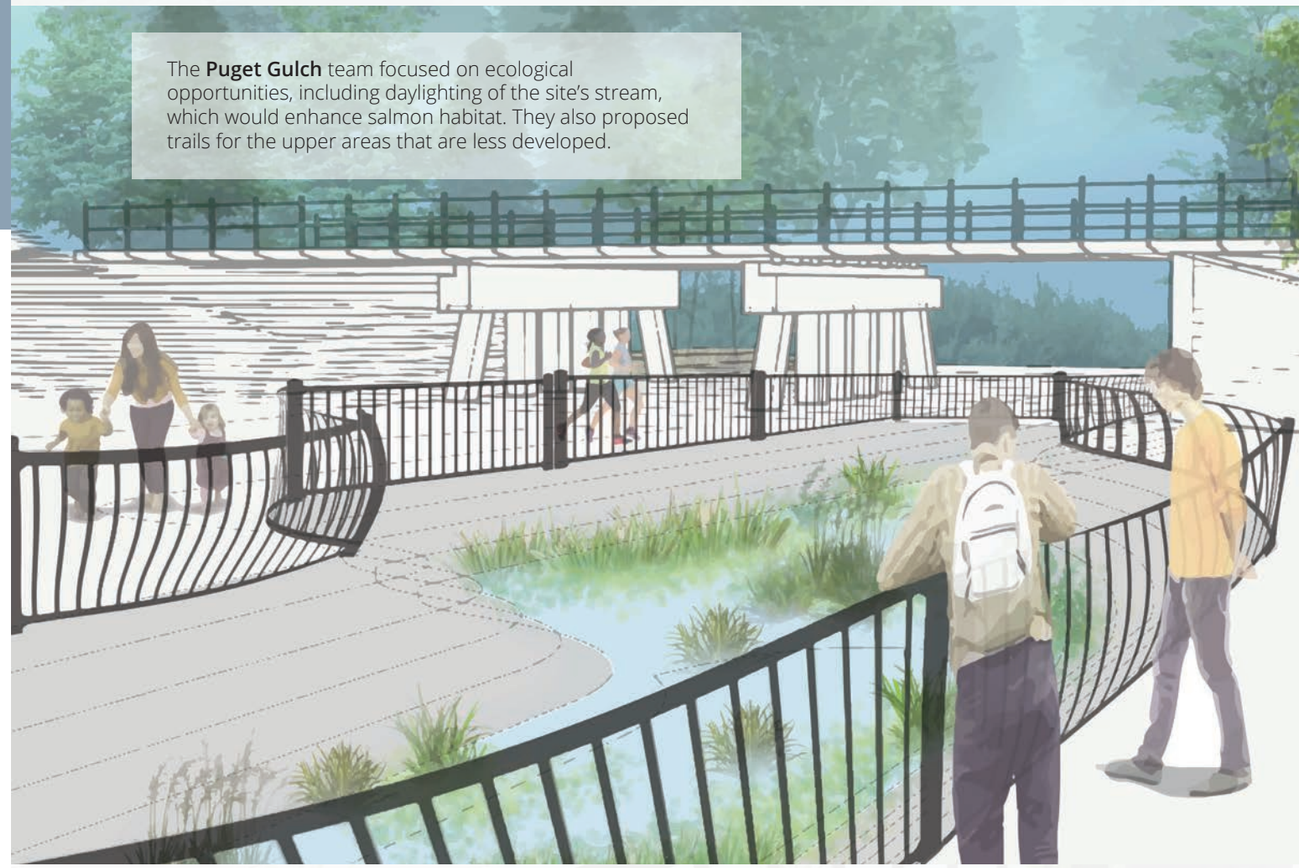
Puget Gulch is the most developed gulch, and includes mature trails and active restoration efforts. Salmon are also found in the gulch. The Puget Creek Restoration Society, a volunteer-led group that once spearheaded restoration efforts, is no longer active.

Mason Gulch, the largest of the four gulches, is home to a wide diversity of tree species, which provide habitat for many bird species. It has a generous creek flow year-round, and is home to a sewage treatment plant at its base.

Buckley Gulch is a home healthy habitat. About half of the gulch is owned by private residents, which currently serves as a barrier to future actions. Connectivity is also an issue, as there are railroad tracks between the gulch and the waterfront.

DESIGN RECOMMENDATIONS

With the help of feedback from representative of the City of Tacoma and Metro Parks, each team proposed designs that seek to address the challenges and opportunities of each gulch.



The **Puget Gulch** team focused on ecological opportunities, including daylighting of the site's stream, which would enhance salmon habitat. They also proposed trails for the upper areas that are less developed.

The **Buckley Gulch** team focused on connectivity. They expanded their scope to include the Old Town neighborhood, and proposed a bridge over Ruston way railroad to provide a safer passage between the gulch and waterfront.

The **Garfield Gulch** team aimed to create an educational and recreational space for all ages, especially children. They included tadpole and frog habitat for ecological, educational, and recreational purposes. The team also proposed a pavilion that would serve as an outdoor classroom.

The **Mason Gulch** team also proposed stream daylighting, as well as enhancements to the tree canopy. In order to provide connection to the waterfront, the team designed a boardwalk bridge that extends out and over Commencement Bay.

INFILL HOUSING PROGRAM DEVELOPMENT

University of Washington
Urban Design and Planning
URBDP 506/507: Planning Studio
Instructor: Branden Born
City of Tacoma Project Lead: Lauren Flemister
Report Authors: Clara Cheeves, Qi Chen, Morgan Cowick, Anthony De Simone, Marlo Kapsa, Jackson Keenan-Koch, Ishmael Nuñez, Lucas Simons, Helen Stanton

INTRODUCTION

The City of Tacoma is experiencing rapid increases in rent and property prices, alongside a rise in the unsheltered homeless population. Residents of Tacoma have cited challenges associated with housing affordability, including gentrification, generational continuity, and accessibility to good wages. As one response to housing affordability concerns, the City of Tacoma is working to incentivize the development of certain housing types by piloting the Residential Infill Pilot Program.

As students of URBDP 507A Planning Studio, our research tasks were to identify process improvements for the program and to understand what the potential growth and impact of the project would be once codified. We were particularly interested in creating incentive zones for infill development, looking at subsidy and affordability, and creating a stronger process for community engagement and neighbor feedback.

> "Affordability is more than just a number or percentage of income; it's dignity, location, safety. It's that which does not burden you."
> — Tacoma Resident

Under the new pilot program, the development of new homes in established neighborhoods has the potential to allow more people to live where they want, in the type of housing most sensible for them and their families.

METHODS AND APPROACH

Our team's approach to the project has been an inductive process. Each stage has informed the next.

Community Meeting
The feedback we heard from local residents helped us to identify priorities, establish a study question, and frame the scope of our work.

Precedent Studies
We examined infill programs in other cities in the Northwest, which generated ideas that could potentially apply to Tacoma.

Policy Analysis
We explored the feasibility of financial incentives and process improvements to strengthen the long-term success of the program.

Mapping Techniques
We placed a priority on visualizing and communicating findings as they relate spatially to regions and neighborhoods of interest.

Stakeholder Meeting
We presented final recommendations to City of Tacoma staff and other invested housing representatives.

RECOMMENDATIONS

Following our research and analysis, we determined three categories of process improvements: code changes, information resources, and financial tools. Adapted from precedent programs, the items under these categories represent tools that we determine to be most applicable to Tacoma and the Residential Infill Pilot Program.

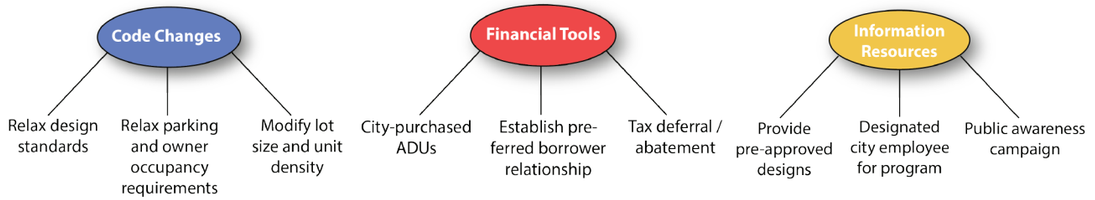


Photo Credit: Teri Thomson Randall

Master of Urban Planning graduate students with Professor Branden Born (far right) and City of Tacoma Project Lead Lauren Flemister (far left) at the final review on the University of Washington Tacoma campus.

MITIGATING THE IMPACTS FOR PORT-RELATED VULNERABILITIES

University of Washington
Urban Design and Planning
URBDP 549: Hazard Mitigation Planning
Instructor: Bob Freitag
City of Tacoma Project Lead: Tory Green
Report Author: Zoe van Duivenbode

INTRODUCTION

The Port of Tacoma encompasses more than 2,700 acres of industrial tide flat land at the mouth of the Puyallup River in Puget Sound. Local, national and international businesses rely heavily upon the Port for trade, financial revenue, and employment. The Port is vulnerable to multiple natural hazards: it is located near an active volcano, adjacent to several major earthquake faults, and lies within the tsunami inundation zone. In addition, the area has man-made hazards resulting from historical landfill techniques and building materials used as Tacoma developed. The University of Washington graduate students participating in URBDP Hazard Mitigation Planning course collaborated with the Port of Tacoma and the City of Tacoma to research ways to increase Port safety and protect the viability of Port operations following a hazard event.

> The Port is vulnerable to multiple natural hazards: it is located near an active volcano, adjacent to several major earthquake faults, and lies within the tsunami inundation zone.

KEY FINDINGS

With guidance from professor Bob Freitag, students explored novel solutions for hazard mitigation at the Port, centering on the concerns and priorities of the City and Port. Student teams focused on the following topics: hazard mitigation planning; evacuation and safety; Unreinforced Masonry (URM) Structures and landfill development; and implementation of green infrastructure. In order to develop valuable and effective recommendations for the City and the Port, the groups used a number of research approaches, including GIS mapping, evacuation modeling, and graphic design.

Photo Credit: Wikimedia Commons

Mount Rainier overlooking the Port of Tacoma.

Photo Credit: Wikimedia Commons

Shipping containers at the Port of Tacoma.

RECOMMENDATIONS

Each team developed recommendations for the City and the Port related to the social, economic, and ecological impacts of hazard events. Strategies shared between teams included hazard education for Port employees and the public, development and implementation of a business continuity plan, relocation of non-essential and non-location dependent facilities and activities off of Port property, zoning based on hazards, and improvement to evacuation routes. Finally, students highlighted potentials for the Port and the City to more expediently implement hazard mitigation measures, and for improved coordination and communication between regional jurisdictions.

Photo Credit: Wikimedia Commons

Aerial photo of the Port of Tacoma.

PDS COMMUNICATIONS PLAN IMPLEMENTATION: SOCIAL MEDIA

University of Washington
Urban Design and Planning
CEP 460: Planning in Context
Instructors: Rachel Berney, Branden Born
City of Tacoma Project Lead: Jana Magoon
Student Authors: Katheran McCarrol, Eugenie Hsueh, Carlie Stowe

INTRODUCTION

As social media becomes an increasingly prevalent form of communication, it offers a new opportunity for government agencies and departments to engage with the public.

The LCY team's Social Media report offers a handbook for Planning and Development Services (PDS) staff, based on a survey of peer city social media accounts, the City of Tacoma's Social Media guidelines, and social media best practices.

By establishing a new social media presence, PDS can expand their communications strategy to deliver updates on city-related projects, provide help and support to residents, and learn about community priorities.

> With effective use of social media, PDS can actively market Tacoma as a forward-thinking city and share the important work that PDS is performing for the city.

Photo Credit: Social Media Team

An example of posting a photo on Twitter and tagging another account in the tweet.

METHODS

Through a review of peer cities and their social media operations, as well as a review of social media demographics and reach, we focused on two social media platforms for PDS to use as they engage with Tacoma residents: Facebook and Twitter.

The report offers case studies of other jurisdictions' official social media accounts: Seattle, Los Angeles, Las Vegas, and Honolulu. We also examined a local account, Tacoma Untapped.

Seattle's Office of Planning and Community Development:
610 Facebook followers,
936 Twitter followers

Planning4LA:
1880 Facebook followers,
1060 Twitter followers

The City and County of Honolulu:
4167 Facebook followers,
734 Twitter followers
(Planning and Permitting Department)

City of Las Vegas:
71,364 Facebook followers

Tacoma Untapped:
4865 Facebook followers,
3419 Twitter followers

RECOMMENDATIONS

The Social Media report serves as a handbook for PDS staff to use as they launch and maintain a regular online presence, including graphic mockups to demonstrate how Facebook and Twitter can be used most effectively.

We conclude by recommending that staff dedicate time to social media to expand the department's outreach capacity. With effective use of social media, PDS can better connect with Tacoma residents, keep them engaged in city government, and promote a more livable city.

Some of the key recommendations of our handbook include:

- **Maintain a social media audience** through frequent, coordinated, visually interesting posts.
- **Post a diverse array of content related to local planning issues** — not only those related to City projects.
- **Ensure that all posts are aligned with citywide goals and guidelines**.
- **Respond to messages** in a timely manner.
- **Use analytics** to track and guide PDS social media posts.

Photo Credit: Teri Thomson Randall

City of Tacoma staff participating in the students' final presentation at UW Seattle on December 6, 2017. From right: PDS Project Lead Jana Magoon, Latasha Santos (PDS), Chris Bell (LCY Liaison), and Tanisha Jumper (LCY Program Manager).

PLANNING VIDEO LIBRARY

University of Washington
Urban Design and Planning
CEP 460: Planning in Context
Instructors: Rachel Berney, Branden Born
City of Tacoma Project Lead: Stephen Atkinson
Report Authors: Zoe Frumin, Benjamin Peabody

INTRODUCTION

Urban planning and development are complex processes, and it can be difficult for municipalities to effectively communicate with the public about them. For this reason, the City of Tacoma's Planning and Development Services Department (PDS) asked our class to help them build a video library. Our goal was to create short, legible videos explaining the goals and operations of the PDS. The hope is that these videos will help PDS explain their planning and development principles, and how their work builds bridges between the City of Tacoma and its communities.

In the end, three video teams created three separate videos. The three teams employed a similar set of methodologies to complete their respective projects. The three videos provided 1) an introduction to PDS, 2) a description of the One Tacoma Comprehensive Plan, and 3) an explanation of mixed-use development in Tacoma.

OVERVIEW OF VIDEOS

The three final videos worked in tandem to articulate PDS' values. **The first was an introduction to the department**, its staff, their primary role in Tacoma, and their goals for city growth in the coming years. The video team for this project focused on explaining the department's works through the faces and names of those who work in PDS. Interviews with the men and women of the PDS office provided a personality and dialogue to those Tacomans unable to attend town hall meetings.

The second video tackled the department's most important publication: the One Tacoma Comprehensive Plan. This document outlines PDS' long-range planning goals for their city as it embraces a substantial population growth. The video team separated their presentation into three chapters. They first explained the how the city was changing. They then outlined the ways in which PDS will help ensure that the city develops in a way that benefits all. Finally, they demonstrated the ways in which Tacoma already has adapted their city infrastructure for the better.

The final video focused on mixed-use centers, a type of development that is often seen as a threat in communities. The video team first explained the concept of a mixed-use development. They then clarified the ways in which this density-driven building approach can encourage equitable development of affordable housing, local businesses, and public transportation. The team ended by highlighting development along Pacific Avenue that serves as an example of how mixed-use centers can be respectfully integrated into community.

> Videos can extend the reach of PDS by providing an alternate means of communication beyond public meetings, planning documents, and codes.

RECOMMENDATIONS

We have three essential recommendations for any city administration who wants to begin a video library for its constituency. The first is to ensure that at least one individual in each team (i.e., filming, graphic design, scriptwriting, editing) specializes in that area of the production process. The second is to establish consistent guidelines for the structure and aesthetic of the video library so that each video fits into a consistent collection. Our final recommendation is that PDS create a resource library of images and footage for use in future videos. That may include material we used in our videos, much of which captured the exceptional and unique character of Tacoma.

Photo Credit: Teri Thomson Randall

Photo Credit: Kiana Ballo

Left: Professor Rachel Berney, Urban Design and Planning, conducts background research with students for the LCY project Planning Video Library, Fall 2017.
Right: Students visited Tacoma throughout the process to collect footage.

TACOMA 2025 BASELINE DATA COLLECTION

University of Washington
Urban Design and Planning
CEP 460/URBDP 499: Baseline Data Collection
Instructor: Branden Born
City of Tacoma Project Lead: Tanisha Jumper
Report Author: Christoph Von Strouse

INTRODUCTION

Tacoma's Citywide Strategic Plan and Vision, known as Tacoma 2025, was developed to guide the City in decision making and resource allocation, as well as in performance tracking and reporting. The purpose of this LCY project is to develop the baseline data indicators that track progress toward meeting the Tacoma 2025 goals. In order to create specific goals, an implementation strategy, and viable targets, the City must begin collecting, analyzing, and reporting baseline data. Students in the Autumn 2017 course CEP 460 Planning in Context began the project by analyzing current indicators. In the course URBDP 499, an independent study student conducted further research during the Spring 2018 academic quarter. This project is the synthesis of that work, which will culminate in a final report and recommendations to the City of Tacoma.

METHODS AND APPROACH

In approaching this project, the five steps of design thinking were developed into a sequential process for generating the following methodological system to achieve the project deliverables:

Scope - Understanding the Client's Challenge
Define the scope, client goals, and project deliverables

Research of Policy Frameworks
Examine how regional policies align with the Tacoma 2025 Plan

Analysis of Sustainability Metrics
Design a method for analysis of potential sustainability metrics that achieve 2025 goals

Development of Sustainability Indicators
Develop indicators that are relevant, cost effective, achievable, and comparable to other local cities

Conclusions and Recommendations
Synthesize research into recommendations, a proposed system of data collection, and an implementation strategy

RECOMMENDATIONS

Research of Policy Frameworks
The following regional policies were examined:
- Washington Growth Management Act (GMA) mandates statutes for county and city planning that determine land use and growth boundaries for the state.
- Puget Sound Regional Council's Vision 2050 is the multi-county planning policy that aligns the GMA with regional transportation, and economic development.
- One Tacoma Comprehensive Plan aligns state and county plans with the Tacoma 2025 Strategic Plan but is more focused on the built environment.
- Tacoma 2025 has seven focus areas that shape the community priorities and the city's goals for determining which indicators are most significant.

Analysis of Sustainability Metrics
Twenty-three sustainability metrics were evaluated, ranked, and narrowed down to the following four metrics based on how well they aligned with the goals of Tacoma 2025.

1. STAR Communities
2. LEED for Cities
3. EcoDistricts
4. ISO (International System)

Conclusions and Recommendations
Student research recommends that the City of Tacoma use the STAR Communities method.
- STAR Communitiies aligns with the seven focus areas of Tacoma 2025 Plan.
- Tacoma used the previous version of STAR (now in V2.0).
- Sustainability indicators are valid, realizable, cost effective, and comparable.

STAR COMMUNITIES
SUSTAINABILITY TOOLS FOR ASSESSING & RATING COMMUNITIES

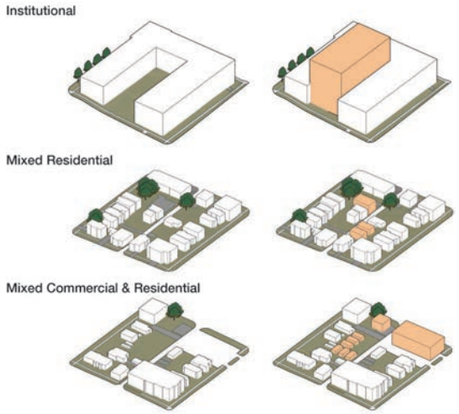
City Project Lead Stephen Atkinson (far right) discusses the project with Community, Environment, and Planning students on October 2, 2017. Photo Credit: Teri Thomson Randall

URBAN DESIGN PROGRAM GRAPHICS PACKAGE

University of Washington
Urban Design and Planning
URBDP 507/423/523: General Urban Planning Laboratory (Studio)
Instructor: Dan Abramson
City of Tacoma Project Lead: Lauren Flemister
Report Author: Laura Durgerian

INTRODUCTION

The City of Tacoma is launching an Urban Design Program in 2018. To enhance the roll-out of that program, our LCY studio class is providing the City with a graphics package to explain the basics of urban design, zoning, land use, and other spatial planning concepts. "Graphics" include maps, diagrams, sketches, photographs and infographics used to convey concepts and best practices of design for a healthy, vital and resilient urban public realm, especially in the "20-minute neighborhood" walking radius of three of Tacoma's emerging "mixed-use corridors:" Proctor, at N 26th St.; Hilltop, along MLK Jr. Way, between Kaiser Permanente and St. Joseph Medical Centers; and along South Tacoma Way near the Sounder commuter train station. We sought to acknowledge the challenges of accommodating growth and investment while also protecting and amplifying community and neighborhood character. Another challenge is that of enhancing the environment for pedestrian, bicycle, and transit travel.



Opportunities for density and vitality in Tacoma's built form.

Credit: Laura Durgerian

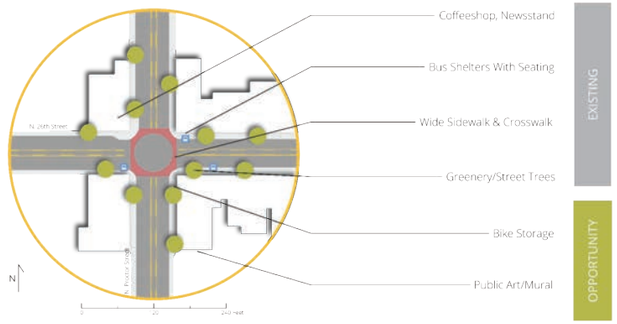
We sought to acknowledge the challenges of accommodating growth and investment while also protecting and amplifying community and neighborhood character.

PROCTOR

1 Minute Radius

WHY 1 MINUTE?

A 1 minute walk is an ideal distance for grabbing a coffee or newspaper while waiting for a bus, or making a transfer.

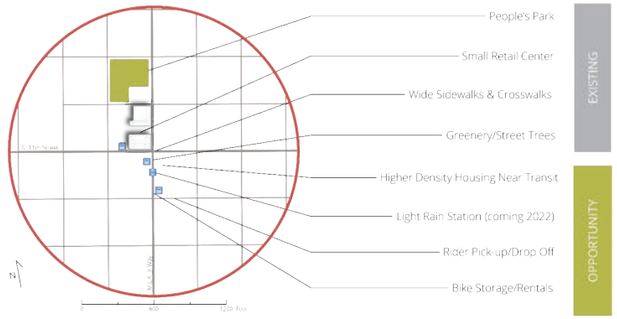


HILLTOP

5 Minute Radius

WHY 5 MINUTES?

A 5 minute walk is a preferred distance for stopping at a corner store, renting a bike or transfering between transit modes.

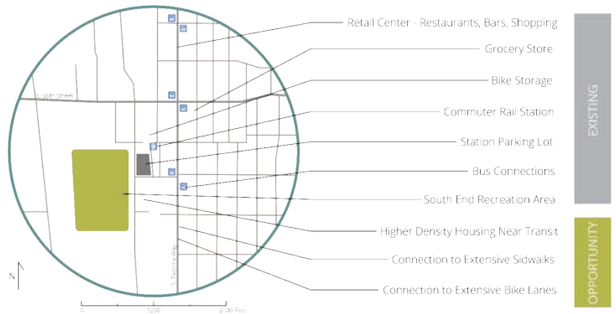


SOUTH TACOMA

10 Minute Radius

WHY 10 MINUTES?

A 10 minute walk is a perfect distance for exploring a park, stopping by a grocery store, or connecting to commuter rail for a trip around town.



Re-considering the walkable public realm surrounding transit stops.

METHODS AND APPROACH

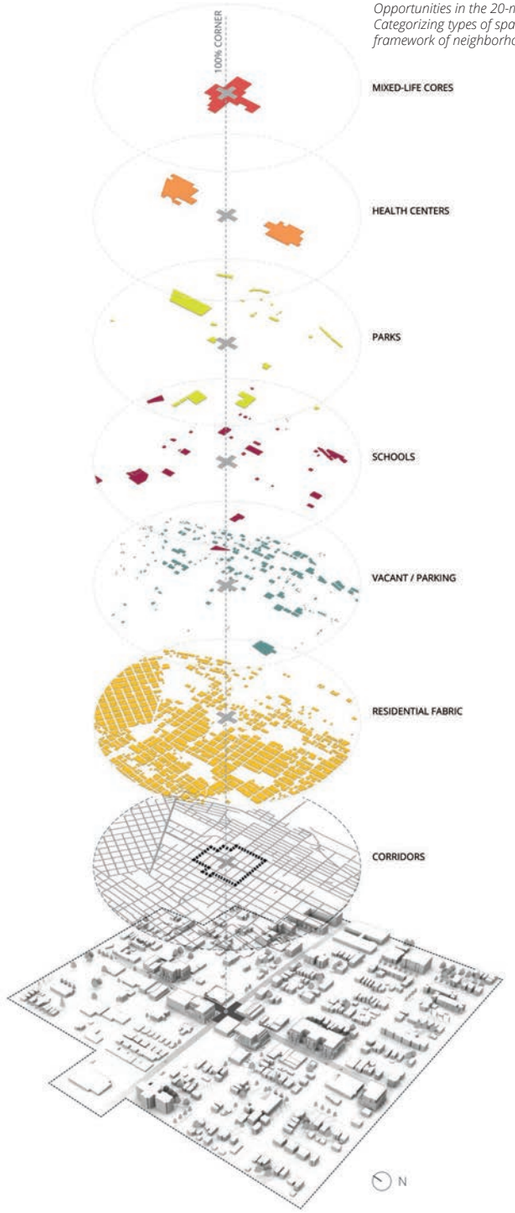
Multiple graduate-level courses contributed to this project over two quarters: Urban Planning Lab, Introduction to Urban Design, and Digital Design Practicum. The students initially formed three teams based on a focus neighborhood, and observed the built environment and social activity in public spaces. They then reorganized into thematic teams to create graphics on four broad topics: (1) systems of resilience assets, intermodal mobility transfers, green infrastructure, and legibility and wayfinding; (2) right-of-way design for pedestrians, bikes and transit; (3) neighborhood and building typomorphology; and (4) activation of underused public space.

RECOMMENDATIONS

Images show how students have begun to conceptualize systems and typologies within the framework of the "20-minute neighborhood," as well as represent potential opportunities in the existing built form of different neighborhoods.

Photo Credit: Teri Thomson Randall

Mid-term review with city staff in Gould Hall, University of Washington, April 26, 2018.



Opportunities in the 20-minute neighborhood: Categorizing types of space for a resilient framework of neighborhood adaptation.

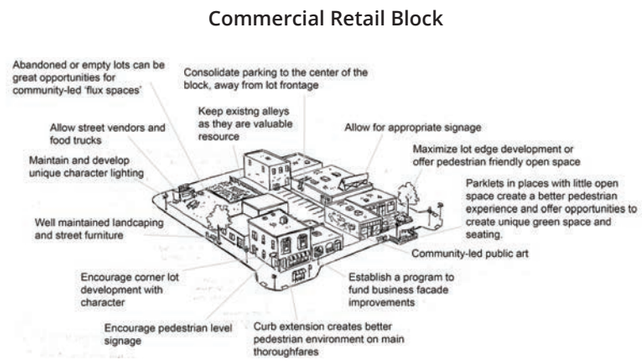


Photo Credit: Teri Thomson Randall

City of Tacoma Project Lead Lauren Flemister reviews student work with colleague Stephen Atkinson during the final presentation on June 7, 2018.

WORKING TOWARDS EQUITY AND INCLUSION THROUGH HISTORIC DISTRICT DEVELOPMENT

University of Washington
Architecture
ARCH 498/598: Special Projects
Instructor: Kathryn Rogers Merlino
City of Tacoma Project Lead: Reuben McKnight
Report Authors: Meagan Scott, Ian Macleod

INTRODUCTION

The City of Tacoma currently has eight historic districts at the local, state, and national level, all concentrated in the city's north end and downtown. However, there are several other neighborhoods that retain a high degree of architectural and cultural integrity. Our two-quarter class gathered data on two of these neighborhoods, South Tacoma and McKinley Hill, with the ultimate goal of creating National Register Historic District nominations. While these neighborhoods do not contain the high-style, large houses present in some other districts, they hold important historic and cultural value for Tacoma, as well as showcasing important examples of vernacular architecture.

METHODS AND APPROACH

During winter quarter, we focused on identifying proposed historic district boundaries and developing neighborhood histories for the two areas. These neighborhood context statements emerged from a combination of fieldwork and historic research, which covered factors such as topography, key landmarks, major infrastructure development, and original neighborhood boundaries. At the end of the quarter, we briefed the Tacoma Landmarks Preservation Commission on these findings.

Following narrated neighborhood tours, students met with neighborhood residents to gather community input and oral histories and inform the public about the project.

The second quarter has focused on refining district boundaries and inventorying individual properties, a step that is required for the formation of a National Historic District. In order to learn from the community about important historic assets and inform neighborhood groups of the historic district consideration, students participated in two walking tours and held a neighborhood workshop in each study area. Students also presented initial findings to neighborhood councils.

RECOMMENDATIONS

Between the two neighborhoods, there are approximately 775 properties, and students have researched and documented each parcel's construction year, original owners and builders/architects, and cultural and physical descriptions of the properties.

McKinley Hill. In McKinley, 62% of properties appear to qualify as historically contributing, exceeding the 60% threshold required for designation of historic districts.

The build dates peak between the 1890s and 1920s, in connection with development trends of the city at-large during the railroad-spurred economic boom. Though the ubiquitous Craftsman style is well-represented, a breadth of architectural styles and forms are found in both study areas.

South Tacoma. While McKinley is primarily a residential district, the South Tacoma study area encompasses industrial properties, a business strip, and some residential fabric. Structures in this district vary considerably more in typology and integrity, but are tied to the neighborhood's origin as a Northern Pacific Railway company town.

Through the remainder of the quarter, we will continue to catalog and photograph properties and refine district boundaries to better illustrate each neighborhood's historic narrative.

Photo Credit: South End Cultural Resources Survey, 1977, Tacoma Public Library; Google Street View, August 2017

Carl Erickson House (built 1904), 5241 S. Birmingham Street, seen in 1977 and 2017. Much of the housing stock in the two districts remains functionally unaltered and faithful to original built appearance.

Photo credit: Kathryn Rogers Merlino

Dozens of community members responded to the invitation to share their knowledge of the history of the McKinley Hill neighborhood in East Tacoma with students in Kathryn Rogers Merlino's architecture class. On a cold, rainy afternoon in April, they participated in a walking tour highlighting the neighborhood's historic and cultural significance and attended a student presentation on a possible National Register Historic District nomination.

EVANS SCHOOL OF PUBLIC POLICY AND GOVERNANCE

ADDRESSING IMPLICIT BIAS IN THE PROSECUTION OF CASES

University of Washington
Evans School of Public Policy & Governance
PUBPOL 608: Capstone Project Seminar
Instructor: Karin Martin
City of Tacoma Project Lead: Jean Hayes
Report Authors: Kaitlin Dunn, Matt Munoz, Andrew Taylor

INTRODUCTION

Racial, mental health, and socioeconomic-related disparities are well-documented in the criminal justice system, and can occur at many decision points from initial arrest to incarceration and probation for misdemeanor offenses. Explicit bias, implicit bias, or the implementation of laws and practices with disparate effects can exacerbate these disparities. In addition, prosecutors and judges have a large amount of discretion in charging and sentencing, especially for misdemeanors, and court actor implicit bias can affect these decisions.

The Tacoma City Prosecutor's Office requested that we examine racial, mental health and income-related disparities, and the presence of implicit bias within the Tacoma Municipal Court system. In particular, the City Attorney's Office requested that we:

- Quantify racial disparities in sentencing outcomes for misdemeanor cases in Tacoma Municipal Court.
- Provide a qualitative assessment of disparities and biases due to race, mental health and socioeconomic status.
- Examine implicit bias among prosecutors and defense attorneys.
- Provide recommendations to the City Attorney's Office and the City of Tacoma that address racial, mental health, and socioeconomic related disparities, and implicit bias in the Tacoma Municipal Court.

METHODS AND APPROACH

We used three methods in our project analysis:

Quantitative analyses to examine the effect of race on the quantity of a fine imposed, jail time, the odds of having a charge dismissed or amended, a guilty conviction, and the odds of having fines decreased or increased.

Semi-structured interviews with prosecutors and defense attorneys to gain insight into their perceptions of racial, mental health, and socioeconomic disparities and biases in charging and sentencing, as well as barriers to achieving "fair" charging, sentencing, and post-disposition outcomes.

The Implicit Association Test (IAT) to assess prosecutor and defense attorney's implicit bias or strengths of automatic associations between White and Black names and good and bad words.

> "In my experience, bias applies largely against the poor."
> —Defense Attorney

FINDINGS

Our findings suggest that racial disparities exist for multiple sentencing outcomes in the City of Tacoma Municipal Court. Depending on the presiding official, Native American defendants were more likely than similarly situated White defendants to incur higher fines and serve jail time, and less likely to have their fines reduced from the citation. Similarly, depending on presiding official, Black and Asian defendants were more likely than similarly situated White defendants to incur higher citation costs.

Anecdotally, while socioeconomic disparities are most common, they are intimately linked to racial disparities. Based on our interviews, various incidents of racial and socioeconomic biases, including microaggressions, have occurred within the Tacoma Municipal Court system, as well as from other actors in the Tacoma criminal justice system, including police officers. Barriers to fair outcomes include: the courtroom in which defendants find themselves; differing philosophies of fairness among the attorneys and the judges; and the inability to post bail, pay court fines and fees, and afford treatment.

Based on our findings from the Implicit Association Test, the City Attorney's Office has an overall moderate preference for distinctive White names and the Department of Assigned Counsel has an overall slight preference for distinctive White names, demonstrating that the implicit bias of prosecutors and defense attorneys in Tacoma is consistent with broader patterns that have been observed nationally.

> "It's a known fact that our criminal justice system in general tends to be one that is racist by criminalizing the activities of people of color, in particular Black males."
> —Prosecutor

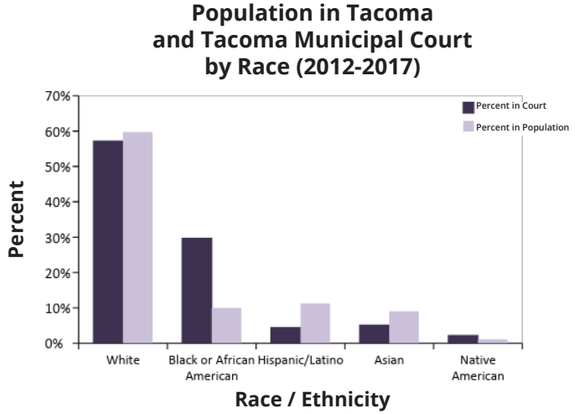


Photo Credit: Brian Cox, City of Tacoma

Kaitlin Dunn (center) and Andrew Taylor (left) discuss their project at the LCY year-end celebration, May 2018.

BUSINESS RECRUITMENT: A MILLENNIAL PERSPECTIVE

University of Washington
Evans School of Public Policy & Governance
PubPol 566: Community Economic Development
Instructor: Joaquin Herranz Jr.
City of Tacoma Project Lead: India J. Adams
Report Authors: Kelly Buethe, Douglas Minkler, Bucoda Warren

INTRODUCTION

This project, sponsored by staff in Community and Economic Development (CEDD), sought to uncover millennial perspectives and help shape strategies for attracting and keeping millennials in Tacoma.

As the baby boomer generation retires, millennials (individuals aged 18 to 35) have become a critical component of sustainable economies in communities across the country. Therefore, like many cities in the US, Tacoma is seeking new ways to secure millennials' place in the city's growth.

The overarching research question driving this report is: How does Tacoma attract and keep millennials in its city? And, more specifically, what amenities or retail destinations are missing in downtown Tacoma that would attract millennials?

METHODS

To answer these questions, the researchers conducted two semi-structured focus groups composed of young professionals and college students between the ages of 18 and 34. Next, the researchers used a Quadruple Bottom Line (QBL) Framework, a model that considers financial, social, environmental, and cultural bottom lines as critical components to community economic development (Herranz Jr., 2016).

To further distill focus group responses, researchers used a QBL lens to identify the following major themes:

- Cultural vibrancy and engagement
- Diversity
- Convenience
- Marketing improvement

These themes were evident across many participant responses and emerged as a unifying thread running through each of the four bottom lines, setting context for the study's recommendations.

> Tacoma must consider the critical roles that housing affordability and job opportunities play in millennial recruitment and retention.

RECOMMENDATIONS

Drawing upon the focus group themes, researchers developed three specific recommendations that the City of Tacoma could use to support millennial engagement and retention:

- Food trucks
- Urban supermarkets
- Lounges

In addition to their connection with the study's research findings, these recommendations align closely with the QBL criteria and have potential for short-term implementation. Finally, report findings indicate that selective advertising and effective marketing will also be critical for millennial attraction and retention for downtown Tacoma.

Photo Credit: Apothecary social media promotion.
The Apothecary Bar at Brent's Drugs offers a community gathering space in addition to serving as a bar.

Photo Credit: Boise Fry Co., AACngel Moran, Guru Donuts, LLC, 2017
Bustling, engaging, family-friendly space at the shared Guru Donuts/Boise Fry Company location in downtown Boise.

INSTITUTE OF TECHNOLOGY

CITY SERVICES ARTIFICIAL INTELLIGENCE

University of Washington Tacoma
Institute of Technology
TINFO 498/492: Undergraduate Research
Instructors: D.C. Grant, James West
City of Tacoma Project Lead: MK Larson
Report Author: Richard Yang

INTRODUCTION

Students in TINFO 499 developed a Tacoma FIRST 311 Alexa Customized Skill to improve access to Tacoma's city services. Our goal was to develop a new tool to provide a better user experience to Tacoma residents and make it more convenient to acquire information from the City of Tacoma government.

The Alexa Voice Service (AVS) is Amazon's intelligent voice recognition and natural language understanding service that allows one to voice-enable any connected device that has a microphone and speaker. Alexa runs on Amazon Echo, Dot or Tap, Amazon Fire TV and smart home devices and third-party devices.

Currently, residents can call 311, use the Tacoma FIRST 311 mobile app, or visit the City's website. This tool offers another way for citizens to access services from the City of Tacoma and keep pace with resident expectations for service delivery.

Every Alexa device can be used to serve Tacoma residents by enabling an Alexa Customized Skill. Instead of making phone calls or Googling city services, residents can obtain information by simply asking.

METHODS

Students used several development tools to build this new product for the City of Tacoma. At the planning stage of this project, we found out that Alexa was easier for university students like us to code for Alexa Skills. Thus, we decided to do a deep dive into coding for Alexa. We used the Alexa Software Development Kit (SDK) for Node.js and Amazon Web Service (AWS) SDK as our development kits. We ran backend code in AWS Lambda, a server-less computing service that runs code without managing underlying computer resources like system security and performance. Thus, AWS Voice User Interface gave us the opportunity to just focus on the application logic.

Other AWS services used in this project include Amazon Simple Email Service, Simple Notification Service, Cloud Watch, and Identity and Access Management. Our reference data was from the Tacoma 311 official website.

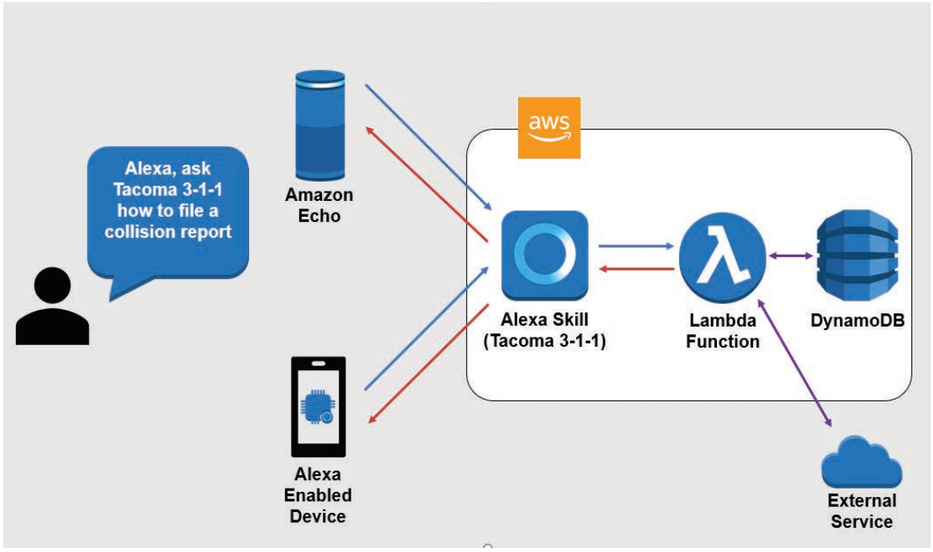
Photo Credit: Richard Yang
An Amazon Echo used for this project.

FINDINGS

As we were looking through the project list, this project caught our attention. Twenty or 30 years ago, people were using applications by interacting with primarily text-based user interfaces; as technology developed, people started building graphic user interfaces for most applications because it is easier for user interaction. Nowadays, a lot of companies use automated voice systems for their customer services or surveys. We realized that we could apply those voice user interfaces on the Alexa Smart Home system to benefit city services.

Getting familiar with Amazon AWS console user interface was a useful learning experience for us. After we gave a demonstration to the stakeholders and department leaders, they were very interested in our project and want to move to the next stage. The next step on this project is to connect our Alexa Customized Skill with the City of Tacoma's web application programming interface (API).

Photo Credit: Richard Yang
Following the presentation to stakeholders and department leaders, the team from left to right: Professor DC Grant, and students Zhou Lu, Wen Shu, Zhihao (Richard) Yang, and Zebin Zhou.



Credit: Student Team
A diagram explaining how the Alexa device communicates with AWS to give responses to users' questions.

PREVENTABLE CAUSES OF STRUCTURE FIRE: INCREASING AWARENESS AND EDUCATION

University of Washington Tacoma
Institute of Technology
TINFO 230 / 370: Web Design / Programming Managing Technical Teams
Instructors: D.C. Grant, James West
City of Tacoma Project Lead: James Duggan
Report Authors: James M. Andrews, Derek J. Miller, Jessica C. Singo

INTRODUCTION

Established in 1881, the Tacoma Fire Department services its community by continually developing advanced and approachable safety strategies that it communicates to the public. The goal for the project is to create an educational, web-based product on preventable structural fires, which will foster engagement, awareness, and knowledge in the greater Tacoma community. The students of TINFO 230/370 hope that this web-based application training will help the community to avert high-cost property damages, and to keep its citizens and community service officers safe.

METHODS AND APPROACH

As the world continues to advance its focus on technology, fire safety training programs have an opportunity to better utilize technology in their community training efforts. After attending meetings with the local fire department and performing research on three different demographic focus groups, the student team began prototyping web applications for fire safety and structural fire prevention. A major focus for the team was the goal of strengthening the connection between the Tacoma Fire Department and local elementary schools. We are currently developing a web application that engages students in Tacoma Fire Department fire prevention teachings. This web application reiterates Tacoma Fire Department safety lessons through a user-friendly interface that rewards students for their participation and completion of training.

RECOMMENDATIONS

After gaining feedback on a series of prototypes from both the Tacoma Fire Department and Boze Elementary School's fifth graders, we realized that the application will be most engaging if it is gamified, thereby making it both educational and entertaining. A question that arose during prototyping was whether the activities might be too challenging for the target age group. Fortunately, in our first testing at Boze Elementary School, there seemed to be alignment of student abilities and concept difficulty. The focus group rated the application highly and, using the gamified web application, requested further teaching on fire safety and prevention. For the final iteration of the product, the students will deliver an application that will provide rewards to students for their participation by connecting them with their local fire department. Our hope is that this fosters a more connected Tacoma community that is educated and involved in fire safety.

Fire Fighter Badge
Credit: Jessica Singo

Fire fighter badge graphic created for the online fire safety activities application.

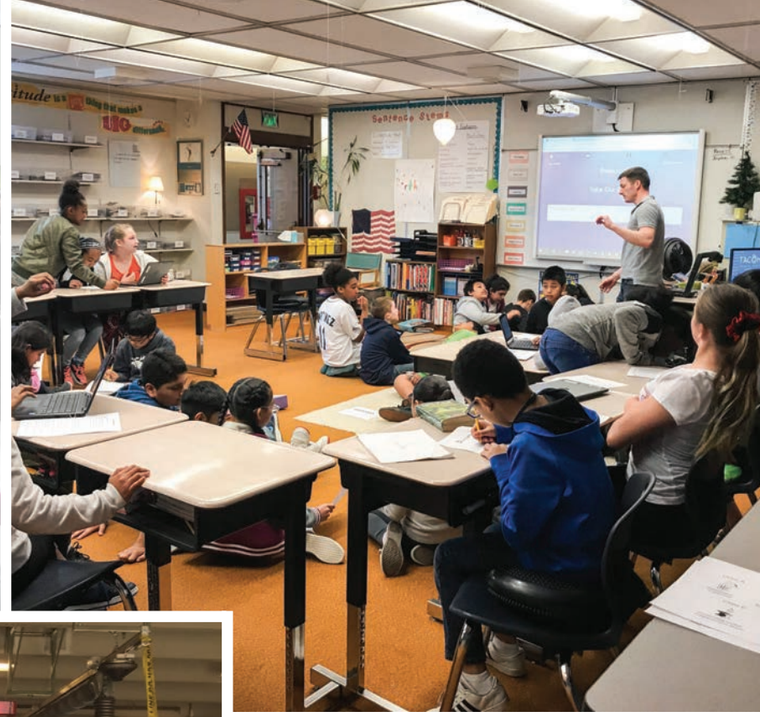


Photo Credit: Jessica Singo and Branden Born

Left: A local fire fighter interacts with Boze Elementary's fifth graders after demonstrating the safety features of his uniform and gear.

Right: UWT Institute of Technology student Derek Miller, lead developer of the online fire safety application, instructs Boze Elementary's fifth graders on how to use the app.

Bottom: Professor DC Grant (left), Jessica Singo, James Andrews, and Derek Miller at Fire Headquarters following their presentation to Fire Chief James P. Duggan.

INTERDISCIPLINARY ARTS AND SCIENCES

2018 NEIGHBORHOOD COUNCIL PROGRAM REVIEW AND ORDINANCE UPDATE

University of Washington Tacoma
Politics, Philosophy and Public Affairs
TLAW 486: Field Work in Law & Policy
Instructor: Lucas McMillan
City of Tacoma Project Lead: Carol Wolfe
Report Author: Amora Lenzi

INTRODUCTION

In 1992, The Tacoma City Council established the Neighborhood Council Program to promote citizen engagement with local government. In our project, we examined the development of the program since the last five-year review. In particular, we focused on how well the program operates with regard to bi-directional representation: how effectively the Neighborhood Councils represent their stakeholders, as well as how responsive the city is to the Neighborhood Council as the representatives of their communities. We also offer recommendations to the City and Neighborhood Councils to identify potential areas of opportunity.

METHODS AND APPROACH

In our research, we conducted interviews with Neighborhood Council board members, City staff, County staff, and faculty members at potential partner institutions, including University of Washington Tacoma and Tacoma Public Schools. Student researchers attended Neighborhood Council meetings and conducted literature reviews, precedent studies, and comparative research on programs in proximate and similar jurisdictions. Additionally, we examined comprehensive and other plans released by the City and other institutions, as well as the Tacoma 2018 Community Survey and recent demographics from the Pierce County Auditor.

Left: A Tacoma Police liaison takes questions and addresses recent concerns of South Tacoma residents.
Right: Washington State Representative Laurie Jinkins discusses property tax concerns with West End residents.

Photo Credit: Amora Lenzi

RECOMMENDATIONS

Our research investigates and makes suggestions surrounding fundamental elements of the Neighborhood Council program. We also envision potential programs that could enrich the connection between the City and its Neighborhood Councils. Some of our initial findings and recommendations include:

- Non-partisan voter literacy information in multiple languages.
- Examination of ways to build capacity and grow membership within each Neighborhood Council.
- Suggestions on the division of City funds among Councils to contribute to better equity.
- Developing avenues for voluntary associations, including the Neighborhood Council Program, to better interact with the City.
- The creation of a Youth Ambassador Program to engage high school students.
- A City-run volunteer program that coordinates a long-term partnership with anchor institutions, starting with UW Tacoma.
- An annual volunteer celebration that brings together community members to celebrate the spirit of service in an artistic and cultural way, encouraging more long-term engagement.
- Incorporating community development efforts into Neighborhood Council meetings to increase participation and positive engagement.

CITY OF TACOMA INNOVATION LABORATORY

University of Washington Tacoma
Culture, Arts and Communication
TWRT 350: Principles of User Centered Design
Instructor: Emma Rose
City of Tacoma Project Lead: Chris Bell
Report Author: Miranda Laberge

INTRODUCTION

For this LCY project, two teams of students created two unique design proposals intended to increase the use of the seventh-floor break room in the Tacoma Municipal Building. The two groups employed the process of user-centered design to design a space that promotes collaboration and increased productivity for City employees.

The user-centered design process included: surveys, interviews, background research, observations, and usability testing. Students identified the following user needs:

- The break room is currently underused.
- The City values the promotion of large events, such as the wellness fair, that are hosted in the room.
- The room also needs to be versatile for everyday use, such as a space for lunches and small-group work.

Based on these needs, students generated multiple layouts as a part of the iterative design process.

> The two groups used the process of user-centered design to design a space that promotes collaboration and increased productivity for City employees.

RECOMMENDATIONS

Both final designs are intended to accommodate three user needs: a functional lunch space, the accommodation of large groups of people, and a versatile layout to host larger events annually.

Design Option 1 proposes a biophilic design scheme for the room to increase productivity and employee happiness. The main design features are movable, soundproofed glass doors to the break-out rooms. This creates a flexible space that can be open during larger events.

Design Option 2 highlights the open seating areas and promotes relaxation with a variety of chairs and sofas. This design suggests a neutral color scheme such as greys and blues. The proposal would install physical walls to permanently close off the break-out rooms, including the installation of smart boards.

While the two teams generated separate designs, both proposed the following similarities:

- Composite flooring for durability.
- Construction of break-out rooms for individual discussions.
- Technology installation, such as smartboards or televisions.
- Calming design, such as biophilic elements or neutral tones.

Left: Option 1 proposes a biophilic design to increase productivity and employee happiness.

Right: Option 2 highlights relaxation with open seating arrangements.

Credit: Student Team

SCHOOL OF PUBLIC HEALTH

NEIGHBORHOOD HEALTH LIVABILITY INDICATORS OR LIVABILITY INDEX

University of Washington
School of Public Health
HSERV 580: Social Determinants of Health
Instructor: India Ornelas
City of Tacoma Project Leads: Allyson Griffith, Lauren Flemister
Report Authors: Rohan Marrero, Students of HSERV 581

INTRODUCTION

The goal of this project was to develop a list of indicators, across a number of social determinants of health, that the City of Tacoma can use to track and monitor neighborhood health and livability.

The structural conditions under which people are born, live, work, and play share an important role in shaping individual and population-level health outcomes. These factors include the schools, grocery stores, parks, employment opportunities, rates of foreclosure, age, race, and ethnicity that can influence both individual and community-level health. When possible, the indicators developed for the City of Tacoma were pilot tested by collecting any available data for three neighborhoods of particular interest: Hilltop, Lincoln District, and the South End. By implementing usage of these indicators, City leadership and departments can analyze, interpret, and correlate indicators of social determinants of health and track efforts to promote neighborhood well-being.

METHODS

Students collaborated with representatives from Neighborhood and Community Services and Planning and Development Services to identify indicators across the following domains: housing, education, income/employment, food access, recreation and parks, arts and culture, and health and social services. The students worked together to assess the academic literature to better understand individual indicators. They also performed key-informant interviews with community leaders and neighborhood stakeholders to better understand experiences of living and working in Tacoma and to help prioritize their recommended indicators. Finally, the students generated a list of recommended indicators for each domain, and possible data sources available or plans for how indicators could be collected in the future by other UW students and/or City staff.

Improving access to quality and healthy foods by expanding locations and hours of stores with robust produce, fresh food, and ethnic food departments can improve accessibility to healthy food, help promote healthier lifestyles, and ultimately improve health outcomes, especially in areas with otherwise limited choices.

RECOMMENDATIONS

The following are a selection of the proposed domains and indicators of neighborhood livability that the City of Tacoma may consider as they move forward. Students developed these indicators by considering the feasibility and ease of measurement, the availability of similar data across city, state, and national levels, and the input of community stakeholders.

Housing:
Beyond the basic human need for shelter, housing is a social determinant of health that impacts access to health and social services, access to employment, education, food, and environmental exposures. Indicators include:

- Homelessness
- Affordability and Accessibility
- Gentrification
- Community Health

Education:
Not only are higher levels of education linked to better health outcomes, this social determinant of health also intersects with income, employment, and social status. Indicators include:

- Graduation Success
- Student Mobility
- Parent Engagement
- Extracurricular Activity Involvement

Income/Employment:
Economic opportunities play an important role in the health of a community and have a significant impact on all of the other domains. Indicators include:

- Unemployment
- Neighborhood Wealth Distribution
- Concentration of Poverty
- Perceived Job Security

Food Access:
Inadequate food access can impact health and lead to poor nutrition and chronic health conditions, but it can also have far-reaching consequences for other intersecting social determinants of health. Indicators include:

- Physical and Economic Access to Food
- Sociocultural Factors
- City Planning and Infrastructure

Parks & Recreation:
The quality and accessibility of parks and recreation can play a major role in promoting healthy behaviors within communities, improving physical and mental health, and community connection. Indicators include:

- Safety
- Number of Parks/Neighborhood
- Community Participation
- Park Utilization and Engagement

Arts & Culture:
Participation in arts and cultural events improves both physical and mental health outcomes and also fosters economic development, community building, and higher-quality education. Indicators include:

- Funding
- Employment
- Food
- Community Programs

Health and Social Services:
These critical services include health promotion activities, illness prevention, diagnosis and treatment, and rehabilitation. Indicators include:

- Burden of Chronic Illness (e.g.: smoking, obesity)
- Health Insurance Coverage
- Multilingual/Multicultural Health Facilities
- Geographic Availability of Healthcare Resources

As the city grows, combating gentrification of historic neighborhoods like the Hilltop will also become important for the health and livability of each neighborhood. Higher-density developments like this one can help increase supply of affordable units.

UNDERSTANDING THE NEEDS OF PRECARIOUS WORKERS IN TACOMA

University of Washington
Department of Environmental & Occupational Health Sciences
ENVH 499 / 600: Understanding the Needs of Precarious Workers in Tacoma
Instructor: Noah Seixas
City of Tacoma Project Lead: Sergio Flores
Report Authors: Iman Ahmed, Rachel Alger, Natasha Pietila
Community Partners: Career Path Services, Centro Latino, Korean Women's Association, Rainbow Center, Sound Outreach: Hilltop Center for Strong Families, Tacoma Community House, Tacoma Urban League, and WorkSource.

INTRODUCTIONS

In partnership with the City of Tacoma's Employment Standards Office (ES), this Livable City Year project seeks to address the needs of precarious workers in Tacoma. In our project, we define precarity as "the state of having insecure employment or income," which makes workers more vulnerable.

The City is particularly interested in learning how precarious workers engage with two newly adopted city ordinances: 1) paid family leave (PFL) and 2) minimum wage law.

These ordinances, enacted on January 1, 2018, require employers to provide a minimum wage of $12 per hour and a minimum of one hour of paid sick leave for every 40 hours worked. Both ordinances apply to all employees who work in Tacoma. These rights apply to all employees in Tacoma regardless of where the employer's headquarters are located. Additional ordinance information may be found on the City's website.

Although the Employment Standards Office has conducted outreach on these ordinances, they receive few requests for assistance from precarious workers. They believe this silence is due to systemic factors, rather than an absence of need for help.

METHODS

To collect qualitative data, the City connected the student researchers to community organizations that could speak to the barriers precarious workers experience.

The City identified approximately 10 organizations and the student researchers pursued interviews with their key staff. These interviews include five questions about the most pressing issues facing precarious workers, barriers to reporting rights violations, recommendations for improving outreach, and opportunities for collaboration between community organizations and the City.

> Centro Latino's clients struggle to report employment rights violations. "Having the information is one thing and having the confidence that there won't be retaliation against them for saying it's their right, are two different things." — Centro Latino

RECOMMENDATIONS

Interviews are still being conducted, but the following table summarizes the key messages provided by interviewees.

These organizations report that their constituents experience: wage theft, withheld paid sick leave, physical abuse, and discrimination. It seems likely that significant numbers of rights violations occur in the construction and service industries. Workers fail to report violations for a variety of reasons, including: fear of retaliation, ignorance of their rights, and lack of trust in the government. Community organizations also seem to be ignorant of the existence of the ES and confused about violations enforcement processes.

To reduce rights violation reporting barriers and build trust, based on our interviews and research thus far , we recommend the City:

- Release targeted marketing campaigns with enforcement data;
- Co-lead multilingual workers' rights trainings with trusted community organizations, being mindful of the historical, political, and institutional factors in government distrust when developing trainings;
- Regularly attend community organization meetings to build trust;
- Consider resourcing community organization partners to bolster their work in the community.

Name of Organization	Name of Organization	Issues addressed
Rainbow Center	LBGTQ Communities	Social services and resources for discrimination and harassment experiences
Sound Outreach: Hilltop Center for Strong Families	Unemployed and/or Underemployed	Employment skills coaching; interview skills; financial management; tax prep and Medicare support.
Tacoma Community House	Refugees and Immigrants	Education, immigration, housing and employment resources. Also, Domestic violence and sexual assault prevention.
Centro Latino	Latino and Indigenous communities	Family support, rape sexual assault prevention, wellness fort men of color and LGBTQ communities,, work support, ESL classes, translation services, technology education. Also employment support.

Other organizations interviewed:
Korean Women's Center, Tacoma Urban League, Career Path Services, and WorkSource.

Photo Credit: Teri Thomson Randall

MSW candidates Natasha Pietila (center) and Rachel Alger (left) discuss their findings with staff from City of Tacoma's Employment Standards Office.

URBAN STUDIES

ASSET-BASED COMMUNITY DEVELOPMENT TOOLKIT

University of Washington Tacoma
Urban Studies Program
TCMP 554: Community Development
Instructor: Linda Ishem
City of Tacoma Project Lead: Carol Wolfe
Report Authors: Nicholas Carr, Liza Higbee-Robinson

INTRODUCTION

This Livable City Year project represents a collaboration between City of Tacoma staff and graduate students of the University of Washington-Tacoma's Master in Community Planning program. The City of Tacoma asked the students of TCMP 554: Community Development to create a toolkit for neighborhood revitalization planning efforts that would spotlight best practices, with particular attention paid to community needs. Additionally, students summarized lessons learned from their reviews of existing comprehensive plans. The resulting toolkit uses a sustainable development framework that assumes a triple bottom line approach to evaluation of a community's growth trajectory, whereby the economic, social, and environmental components of that growth are examined with equal weight.

FINDINGS

Drawing from their research of local media reporting, blogs, City plans, and peer reviewed work, the students developed guiding principles for the Asset-based Community Development Toolkit. They concluded that development should be community-based, socially responsible, resource efficient, and sustainable. They examined the Hilltop Sub-area Plan through this lens, and highlighted concerns with the City of Tacoma's current approaches to "neighborhood revitalization." This included insufficient environmental assessments and associated Environmental Impact Statements (EIS), issues with approaches to cultural preservation and affordable housing, lack of concern about employment opportunities at Hilltop anchor institutions, and low participation of community members in the planning process.

Drawing upon this review, the students built protocols and policy recommendations that focus on strategies to engage the community in asset-based growth and development. These recommendations are built around the seven community capitals:

- Human
- Social
- Political
- Cultural
- Physical
- Natural
- Financial

> Tacoma can strengthen its commitment to gathering public comment and including community members in local government and planning initiatives by stepping beyond the traditional approaches to community engagement.

RECOMMENDATIONS

Three "top-line" protocols emerged from students' review of the seven community capitals. These form the foundation of the Asset-based Community Development Toolkit.

Asset Mapping: At the outset of every planning exercise, a community-driven asset mapping process would occur, with separate mapping exercises for each of the seven capitals.

Community Liaison Program: At the outset of specific planning actions, a community liaison would be assigned to coordinate and facilitate communication with the community about planning processes. They would help to bridge existing divides between community members and government officials involved in neighborhood and district development.

Environmental Equity Task Force: The task force would identify gaps in current City protocols and policies, and assess how those protocols and policies might negatively affect residents. It would also help departments to better incorporate environmental justice goals into their planning efforts.

> It is crucial to provide time for public comment following every development proposal potentially given a Determination of Non-Significance or an Environmental Assessment.

Credit: Ka Yan (Karen) Lee and student team

Together the seven capitals lead to a sustainable living community.

INNOVATIVE HOUSING OPTIONS TOOLKIT

University of Washington Tacoma
Urban Studies Program
TURB 480: Housing in America
Instructor: Anaid Yerena
City of Tacoma Project Leads: Lauren Flemister, Daniel Murillo, Josh Jorgensen, Roberta Schur
Report Author: Margot Knight

INTRODUCTION

The project's primary objectives were to

- research various approaches to affordable housing,
- evaluate the feasibility of implementing these strategies, and
- evaluate the capacity of these approaches to facilitate the creation of affordable housing within Tacoma.

The research teams examined the following innovative approaches to housing:

- **Land Banks**
- **Community Development Corporations**
- **Modular Construction**
- **Community Land Trusts**
- **Tiny Homes**

Students identified the processes, benefits, and challenges of employing each strategy in efforts to counteract the displacement impacting legacy residents within the city.

APPROACHES

Each innovative approach to housing facilitates the development of affordable housing in its own distinct way.

Land Banks purchase blighted or vacant properties and designate them as land for affordable housing to promote community stability.

Community Development Corporations stabilize neighborhoods and counteract displacement of legacy residents by developing affordable housing.

Community Land Trusts offer below-market housing opportunities by maintaining ownership of the land while allowing incremental gains on ownership of the housing unit during the tenure of the holding.

Modular Construction's streamlined construction process limits labor costs by assembling housing units within the factory.

The affordability of **Tiny Homes** stems from reduced material and land requirements.

RECOMMENDATIONS

Rising land costs, competition from outside interests, insufficient policies regarding affordable housing, lack of specific language in municipal code, and increased transportation costs due to distantly located factories, are some of the barriers hindering the implementation of these affordable housing strategies in Tacoma. To facilitate the development of affordable housing in Tacoma, we recommend:

- Review and revision of municipal codes;
- Clarification in municipal policy language regarding what qualifies as affordable or low-income housing;
- Adoption of policies that support the development of affordable housing; and
- Consideration of an expedited permitting process for modular housing.

Top Left: Prefabricated apartments at Twin Lakes Landing, developed by the nonprofit Housing Hope, house 50 families.
Top Right: The Cottages at Hickory Crossing are designed to house the 50 homeless people deemed the costliest to Dallas County, Texas.

Bottom Left: A community member discusses affordable housing options with students at the Housing Symposium, June 5, 2018.
Bottom Right: Tiny homes offer an affordable approach to community development.

A ROADMAP TO CIVIC ENGAGEMENT

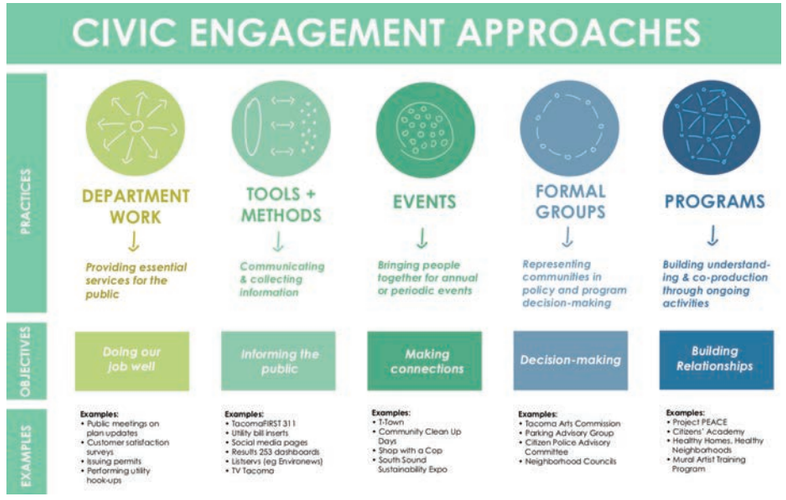
University of Washington Tacoma
Urban Studies Program
TCMP 591: Master of Arts in Community Planning Practicum Project
Instructors: Anne Taufen, Jennifer Arnold
City of Tacoma Project Lead: David Nash-Mendez
Report Authors: Marie Hofmann, Lauren Miles

INTRODUCTION

The Roadmap to Civic Engagement project was conducted by the first cohort of students in the Community Planning graduate program at the University of Washington Tacoma. This project was identified as a priority by the City Manager's Office to yield an internal inventory of civic engagement practices at the City of Tacoma. The project stems from the Equity recommendations made in Tacoma 2025, which was created with the participation and input of more than 2,000 residents. Generated from qualitative data directly from the City of Tacoma staff, students produced a report package of key findings, opportunities for investment, and a roadmap evaluation tool.

METHODS

Students conducted more than 60 interviews with City staff to gather data about their civic engagement practices across departments. Using grounded theory methodology, students analyzed and coded the data while allowing for the emergence of a thorough understanding of the organizational practices around civic engagement. In addition to the interviews and analysis, students also held two workshops with City staff to receive further input on these findings.



Credit: Student Team

Students developed these categories of civic engagement approaches based on interviews with City of Tacoma staff. This diagram helps to identify the specific objectives that particular civic engagement practices are often designed to achieve.

KEY FINDINGS

Values of Civic Engagement: Civic engagement is valued across departments as a path to building equity in the City of Tacoma, which is taking steps to align practices with its values. However, departments lack a consistent set of standards, support, or resources to carry this out.

Variation in Practice: In practice, civic engagement varies widely across City departments, reflecting differences in the core organizational roles, responsibilities, target populations, and goals. Recognizing this variability, uniform standardization of civic engagement across the city poses significant challenges in practice.

Access and Representation: The City struggles to have broad engagement in decision-making, and under-represented communities are often not heard. This discrepancy can skew the City's understanding of the public.

Understanding Each Other: Because of a perception that the public doesn't understand city government, significant resources are spent producing and distributing information. This one-way, transactional approach can limit the opportunity for two-way dialogue and collaboration.

Flashpoints and Catalysts: Flashpoints can emerge surrounding controversial issues, causing the City to invest considerable energy on specific decisions. However, these moments can also be catalysts for more meaningful engagement.

To help City staff meet these challenges, students have elicited opportunities and developed a tool tailored to the City of Tacoma, including:

Civic Engagement Steering Group: A cross-departmental group of staff to help guide and implement organization-wide civic engagement strategy.

Tools for More Inclusive Civic Engagement Practices:

- Statement of Values: A draft statement of organizational values.
- Designing Purposeful Civic Engagement: A reflective tool for staff to use when designing department-level engagement.

Recommendations for Increased Resourcing for Civic Engagement

Photo Credit: Marie Hoffman

Students held two meetings with City staff to further refine initial findings.

A City employee at T-Town, one example of civic engagement efforts at the City of Tacoma.

THEA FOSS PENINSULA MANUFACTURING AND INDUSTRIAL FUTURES STUDY

University of Washington Tacoma
Urban Studies Program
TURB 490: Special Topics: Urban Industry and Sustainability
Instructor: Mark Pendras
City of Tacoma Project Leads: Stephen Atkinson, Pat Beard
Report Authors: Emily Casebeer, Katie Whaley

INTRODUCTION

This project aims to inform the ongoing port/tideflats sub-area planning process in the City of Tacoma by providing lessons for creating and maintaining space for urban industry.

In order to support the City of Tacoma's planning process, student research focused on specific case studies of urban industry within the United States, as well as three of the common barriers to urban industry: **public opinion, financing, and brownfield redevelopment**. Through independent and group research, students identified a number of lessons related to planning for urban industry. These two primary lessons were:

- Creating and maintaining space for urban industry in the Tacoma tideflats is desirable, viable, and feasible.
- Other cities have most successfully created and maintained space for urban industry through the prioritization of industry, partnerships and collaborations, and protective policy.

FINDINGS

Students used both descriptive and analytical methods, depending on their research focus. Overall, the report addresses three common barriers to urban industry:

Public Opinion: Coded, sorted, and processed citizen comments regarding urban industry gathered over the past two years of planning meetings and public hearings, identifying themes in public attitudes towards industry.

Examples: Effective and innovative industrial planning in port districts:

- Workforce training: Port of San Antonio and Louisville, KY
- Green ports: European Eco-ports and LEED certified Green Ports
- Heritage and regional identity: Pittsburgh and Port of Liverpool
- Intermediaries and advocates: Brooklyn Navy Yard, SF Made, and The Pratt Center for Community Development

Photo Credit: Joe Mabel

The Port of Tacoma as seen from the Thea Foss Waterway.

Financing: Studied financial mechanisms and ideas for urban industry in Washington state and elsewhere.

Brownfield Redevelopment: Evaluated the role of brownfields in urban industrial planning:

- Identified revenue streams and strategies for brownfield remediation
- Identified and mapped existing brownfields in the tideflats sub-area

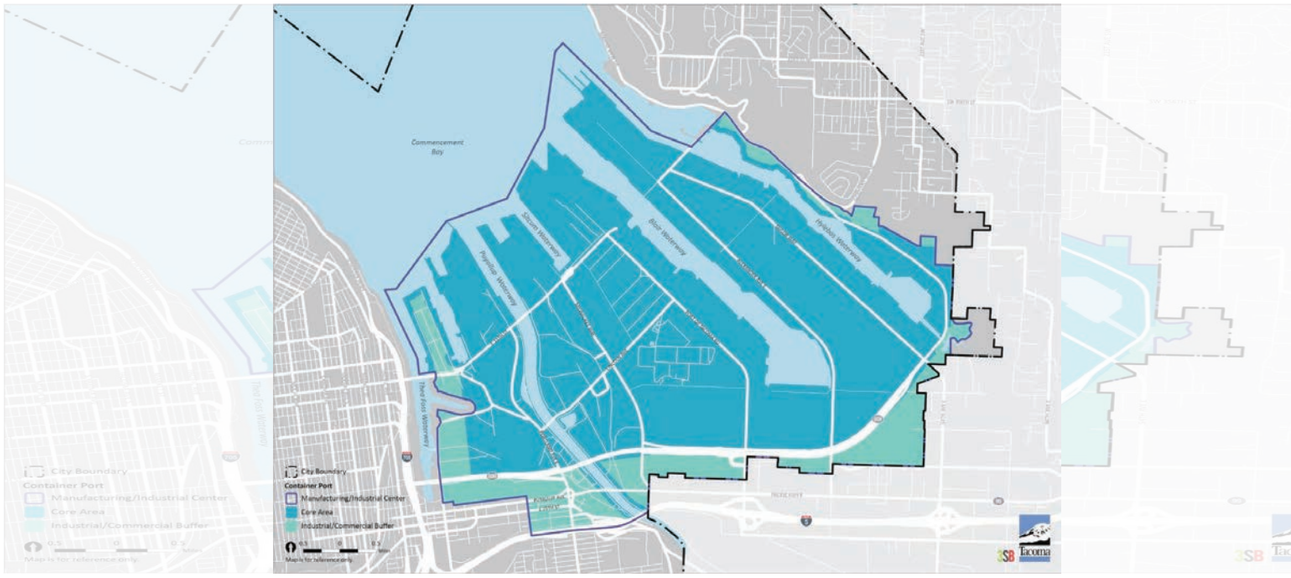
RECOMMENDATIONS

Our research suggests that creating and maintaining space for urban industry in Tacoma is desirable, viable, and feasible, and can be accomplished through the prioritization of industry, partnerships and collaboration, and protective policy. Students conducted a SWOT analysis of planning for urban industry in Tacoma with planning documents from The City of Tacoma and the Port of Tacoma.

Strength: Protective policies in Tacoma
The goals and policies listed in One Tacoma: Comprehensive Plan (City of Tacoma, 2017) protect industry from a variety of potential challenges outlined previously in our research.

Weakness: Partnerships and collaboration in Tacoma
Although the city expresses a desire for partnership, the Port of Tacoma's strategic plan does not reference the city.

Needs improvement: Prioritization of industry in Tacoma
The land use codes for industry and its barriers, specifically in the port, are not clearly defined in One Tacoma: Comprehensive Plan (City of Tacoma, 2017).



Credit: City of Tacoma

This map, from the City of Tacoma's Comprehensive Plan: One Tacoma, depicts the boundary of the designated Manufacturing and Industrial Center as well as the core and transition areas defined in the Container Port Element.

TRANSIT STATION AREA PLACEMAKING ON PACIFIC AVENUE

University of Washington Tacoma
Urban Studies Program
TCMP 557: Urban Spatial Design
Instructors: Anaid Yerena, Ali Modarres
City of Tacoma Project Leads: Stephen Atkinson, Jennifer Kammerzell
Report Author: Lauren Miles

INTRODUCTION

By 2040, the City of Tacoma anticipates major growth in population and jobs along the State Route 7 / Pacific Avenue corridor. To make and maintain a city that is livable for all, public transportation must increase, housing options need extensive consideration, and the city needs to take community input into account.

The goal of this Livable City Year partnership was to identify opportunities for placemaking along the Pacific Avenue corridor around two different sites: the intersection of 38th Street and Pacific Avenue, and the intersection 56th Street and Pacific Avenue. The students of TCMP 557: Urban Spatial Design, explored this approach through community placemaking sessions, field observations, and online surveys.

KEY FINDINGS

Key findings were derived from the community placemaking sessions, online surveys, field observations and resident feedback. Data highlighted a need for greater connectivity, more parks and green space, attention to unused lots and underused spaces, and a desire for creative engagement opportunities. Seeking to improve livability and connectivity through the themes identified from community input, we developed design guidelines and strategies to enhance the quality of life for community members.

DESIGN GUIDELINES

Pedestrian- and transit-oriented guidelines are recommended throughout the Pacific Avenue corridor in an effort to foster connectivity, boost active transportation use, and provide opportunities for placemaking, green space, and public art. Recommendations include streetscape improvements and renovations, traffic calming measures, the addition of pocket parks and other environmental features, and the revitalization of Lincoln Park. Recommendations were based on feedback from community, were site specific, and represent the type of cooperative placemaking that we hope the City of Tacoma implements for a stronger, empowered Pacific Avenue community.

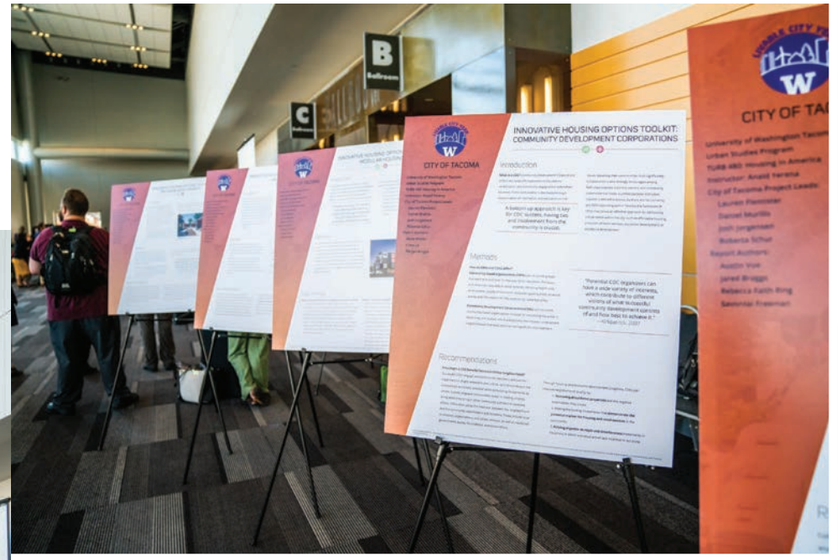
UWT students, City of Tacoma staff, and community members discuss community assets at a placemaking session held at Lincoln High School.

Maker's Quarter Pocket Park in San Diego serves as an example of a green intervention recommendation.

PHOTO GALLERY

YEAR-END CELEBRATION

Greater Tacoma Convention Center, May 2018



Left: Tacoma Mayor Victoria Woodards
Right: Fire Chief James P. Duggan

Photo Credit, both pages: Brian Cox, City of Tacoma

PHOTO GALLERY

UNIVERSITY OF WASHINGTON LCY TEAM 2017–2018

Photo Credit: Jayna Milan

From left: LCY Faculty Co-Director Branden Born (Urban Design and Planning), UW Sustainability Communications Coordinator Daimon Eklund, LCY Faculty Co-Director Jennifer Otten (School of Public Health), LCY Faculty Co-Director Anne Taufen (Urban Studies, UWT), and LCY Program Manager Teri Thomson Randall.

From left: LCY Editors Peter Samuels (MLA candidate) and Anneka Olson (MA candidate, Community Planning), LCY Program Manager Teri Thomson Randall, and LCY Graphic Designer Ka Yan (Karen) Lee (MArch candidate).

CITY OF TACOMA LCY TEAM 2017–2018

Photo Credit: Brian Cox (City of Tacoma) and Teri Thomson Randall

Top left: LCY Program Manager Stephen Atkinson, Principal Planner, City of Tacoma.
Top right: LCY Program Manager Tanisha Jumper, Interim Director of Media and Communications, City of Tacoma.
Bottom left: LCY Program Manager Lauren Flemister, Senior Planner, City of Tacoma.
Bottom right: LCY Liaison Chris Bell (right), Management Fellow, City of Tacoma.