

OREGON PLANNERS' JOURNAL

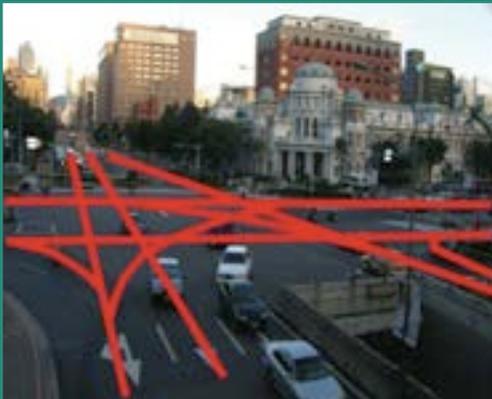
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The Sustainable City Year Program at the University of Oregon

500 students dedicate 80,000 hours of coursework to study planning and urban design issues in the City of Salem as part of the Sustainable City Year Program through the University of Oregon. > [Go to Story](#)

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The Sustainable City Year Program at the University of Oregon

BY CHRISTOPHER JONES, PROGRAM MANAGER, SUSTAINABLE CITIES INITIATIVE, UNIVERSITY OF OREGON

What would you do if you had 500 students in 10 different disciplines taking 28 courses and dedicating 80,000 hours of coursework to study problems in your city? The City of Salem found out last year, when it became the second city to experience the Sustainable City Year, a project spearheaded by the Sustainable Cities Initiative (SCI), a multi-disciplinary organization at the University of Oregon. SCI promotes sustainability through education, service, public outreach, and research on the design and development of sustainable cities. It is a startup organization that has been quickly expanding for the last 24-30 months, and has been recognized by the University of Oregon as one of its “Big Ideas” – a focal area for the institution.

SCI has created a program called the Sustainable City Year (SCY), in which students’ academic work in more than 25 courses in ten disciplines is directed to the benefit of a single city over a full academic year, with a focus on city-identified sustainability-based projects.

SCY is a simple, yet radical re-conceptualization of the public research university as catalyst for helping communities move toward sustainability. On August 23, 2010, the New York Times published an in-depth article on SCY, calling the program “...perhaps the most comprehensive effort by a U.S. university to infuse sustainability into its curricula and community outreach.” SCY’s innovative community outreach model helps cities transition to more sustainable city frameworks. The program is much more than technical assistance; it is direct engagement, knowledge transfer, and visioning.

Most cities and public agencies lack the capacity

– both in expertise and personnel – to meet the new demands of livability and sustainability. Communities often employ outdated problem framing and have a shortage of professionals with livability knowledge. As a result, the public is unable to envision what may be possible within their communities. SCY addresses this gap through a multi-disciplinary effort to assist partner cities with their sustainability and livability goals.

The SCY program is fulfilling the Sustainable Cities Initiative’s mission to enhance the livability of cities and address the critical needs of climate change and human health. SCY’s university-based approach is critical to advancing the range of conversations that cities can have with residents about promoting active, healthy, and sustainable communities.

SCY is a program that is both simple in concept and yet radical enough that we believe it warrants

Download the full reports

The two University of Oregon-authored articles on the following pages are condensed versions of reports that were submitted by each Sustainable City Year class to the City of Salem. Full reports for all of the classes are available from the Sustainable Cities Initiative web site. <http://sci.uoregon.edu/salem-reports>

replication in universities and communities across the country. In this model, existing faculty teach their existing courses in their existing ways, but direct student work to real projects in the partner city, with a focus on city-identified sustainability and livability projects.

Through the SCY program, students obtain a deep and broad education in sustainability by working with city staff, university faculty, local professionals, and community residents on sustainability and livability projects. Through this close collaboration, all partners gain a deeper awareness and knowledge about sustainability issues. City partners improve their ability to make informed environmental decisions and take responsible actions at a citywide scale. SCY creates opportunities for the broad application of the most current research on sustainability.

SCY City Partners: The First Three Years

The SCY program began in 2009 with a successful pilot partnership with the City of Gresham, Oregon. Based on the success and popularity of this partnership, SCI was able to recruit the City of Salem for the 2010-11 academic year through a competitive application process. The City of Salem was selected for this partnership because they demonstrated a commitment to the program at the highest levels of city staff and elected officials, and because of the broad array of sustainability projects they identified for student course work. In 2011-12, SCI is partnering with the City of Springfield for our third Sustainable City Year.

During 2010-11, the SCY partnership with the City of Salem, University of Oregon provided more than 80,000 hours of coursework by more than 500 students in 28 courses across 10 disciplines. Students worked on 15 sustainability and livability projects linked directly to Salem City Council goals.

The SCY program does not limit its scope to a single environmental issue. Instead, we focus on an integrated and multidisciplinary approach; the program is driven and defined by the needs of

each particular partner city. Disciplines involved in SCY have included architecture, landscape architecture, product design, interior architecture, planning and public policy, journalism, law, arts administration, civil engineering, and business.

Many SCY projects integrate course work and research across multiple disciplines. For example, this year in Salem, the city asked students to develop a plan to revitalize an area of the city adjacent to the downtown core. Students in a planning course analyzed zoning codes, economic development opportunities, and transportation routes. Students in an architecture studio developed multiple urban design options and designed potential buildings of various types that would contribute to the development of the area. Law students then followed up on the planning and architecture students' ideas, analyzing the city's municipal code and proposing revisions to regulations that would enhance water quality by encouraging on-site stormwater treatment.

Other projects have directly addressed the city's need to reduce energy use, increase bicycle and pedestrian transportation options, improve the availability and sustainability of affordable housing, and increase the city's engagement with its residents, especially underserved populations.

Benefits of the Sustainable City Year Program: For Cities

Universities have resources, and cities have needs. Early feedback indicates that our program is exceptionally effective at linking the two. SCI has won awards and received positive feedback from cities, students, and faculty. In an April address to the City Club of Salem, Linda Norris, Salem's City Manager, said this of the work by students in the SCY program: "It really has been successful – beyond my wildest dreams – I've been so pleased. I know we're going to be using this work for years and years to come... We're going to make as many of these projects happen as we possibly can."

One of the SCY program's main advantages for cities is expanding the conversation. Cities often end up "stuck" when trying to address civic,

social, economic, and environmental problems. SCY helps them get “unstuck” by expanding the conversation around these problems. SCY students take on city projects without preconceived notions about what is possible within the historical and political environment of a city. As a result, students present a wide array of ideas, often including ideas that would not be politically palatable if presented by city officials. Our partner cities benefit directly from bold ideas that propel fresh thinking in new directions, improve livability for residents, and invigorate city staff. The robust proposals offered by the students often spark community and staff discussions, broaden conversations around projects, and get “stuck” projects moving.

Universities are a hub of innovation, excitement, and creativity, and local communities are well-served by the SCY projects that initiate conversations and push local leaders to think about and employ sustainable practices. Linda Norris, Salem’s City Manager, said that “[SCY] really has helped energize city staff, helped us think of our issues in a new way, and it has helped us ... appreciate all of the natural amenities of Salem.”

SCY courses deliver content and models for best practice directly to city staff in the form of site analysis, research, design guidelines, architectural renderings, planning documents, GIS reporting and analysis, and other products that provide foundational information to support our city partners’ movement toward sustainability. For cities, the innovative ideas and strategies outlined in these deliverables are of particular value during this economic downturn, when smaller budgets create a need for a focus on development of more sustainable communities.

Benefits of the Sustainable City Year Program: For Students

The SCY model improves the educational system by teaching future leaders how to work across disciplines and infuse sustainability into the planning and operations of communities worldwide. Students leave our program with

knowledge of techniques that can be used to reduce greenhouse gas emissions, conserve energy, protect natural resources, and promote active transportation. They gain experience working with real clients. They learn how to collaborate with practitioners who work in fields different from their own. Through these projects, students see the tangible benefits of their work.

Students hunger for coursework that combines the theoretical with the applied, and desperately want to contribute their work toward real sustainability goals. In SCY, students work on real-world projects that the program provides. While building professional skills and gaining confidence, students work hands-on with city staff and local professionals, developing an understanding of real-world processes and the implications of their applied work. Connecting their regular coursework to projects and needs identified by city staff is incredibly motivating and satisfying.

Benefits of the Sustainable City Year Program: For the University

Many faculty engage in community work, but such work is often isolated, resulting in missed opportunities that may be captured through more coordinated, integrated, cross-disciplinary efforts. SCY enables these synergies to happen. For the University of Oregon, SCY is attracting high-quality faculty and students and advancing the UO’s mission of serving the public good in its position as a public institution of higher education.

The Sustainable Cities Initiative has aggressively broken through not only academic silos, but also the barriers between academia and large-scale, cross-disciplinary, on-the-ground implementation. This visionary program is training the next generation of livability experts while helping cities improve sustainability, prosperity, and quality of life for all residents.

Real-World Outcomes

Impact on SCY partner cities is still being measured, but reports from both Gresham

and Salem indicate a new sense of momentum, civic engagement, and possibility around city sustainability agendas generated through the partnerships. Tangible results such as increased community involvement (via public meetings and presentations) and the increase in capacity to move “stuck” projects forward are key outcomes of our work. In Salem, for example, a difficult traffic circulation problem was solved by engineering students to the delight of city staff. (This solution has not yet been implemented, but the city intends to move it forward.) Other impacts that Salem anticipates from the work performed so far include improved zoning and development codes, applications to HUD for sustainable affordable housing, an improved bicycle network, and increased civic engagement of underrepresented populations.

In January 2011, the Salem Business Journal noted the financial benefit to the City of Salem, comparing the project to the hiring of consultants: “We’ll invest just over \$300,000 to support a one year research and design project that will leave Salem \$12 million richer! ... [S]tudents ... will expend more than 80,000 hours into Salem’s SCY package. Consider the ‘normal’ cost for that kind of consulting and you see how quickly the value mounts into the millions of dollars.”

Next Steps and Replication of the SCY Model

It is clear from the accolades of our peers, cities, and the press that the SCY model has ignited interest and excitement across a wide spectrum of audiences. Our work provides value to local communities and future leaders, and contributes to the larger conversation around sustainability. We hope to improve and disseminate this model to other institutions so that they, too, can improve their students’ educational experiences and motivate local communities to think about sustainability in a whole new context.

We believe that the SCY model is compelling and valuable. The SCY model is readily replicable to other universities across the nation and world. It

is a transferable model of service learning based on maximizing the output of existing university resources, and it does not require a significant administrative overhead. SCI is compiling a set of documents, best practices, budgets, timelines, and insights, with the goal of creating a toolkit that will enable other universities to develop similar programs.

The SCY model is flexible and scalable, as it takes advantage of existing university expertise and existing academic courses. The program is administratively streamlined, as no new administrative processes or overlays are required, and it is culturally appropriate, as local university expertise is applied to local needs.

In April 2012, SCI expects to convene a small conference of representatives from universities who are interested in replicating and adapting the SCY model of large-scale, multi-disciplinary service learning at their own universities. There is an urgent need in communities across the country to tangibly address issues of livable and sustainable community design, yet there is a fundamental lack of knowledge and capacity within cities on how to move forward on these issues. Universities from San Diego, California, to Dalian, China have contacted us with an interest in implementing similar programs at their home institutions. Universities who want to use this idea should not have to reinvent the wheel; we want to provide them with the materials and tools to seamlessly adapt our model to their own communities.

Universities who are interested in adapting the SCY model, or who have any other questions about SCY, are welcome to contact the author through the University of Oregon’s Sustainable Cities Initiative web site, <http://sci.uoregon.edu>. The web site also contains information for Oregon cities that are interested in becoming next year’s Sustainable City Year partner city.

Chris Jones is a Program Manager for the Sustainable Cities Initiative at the University of Oregon.

A Review of Salem's Sustainable City Year Program Implementation

BY VICKIE HARDIN WOODS, AICP, DIRECTOR OF COMMUNITY DEVELOPMENT, CITY OF SALEM

In the Spring of 2010, the City of Salem was presented with an opportunity to bring University of Oregon graduate-level students and faculty and City of Salem staff together to examine and address sustainability goals and issues for Salem. As the Community Development Director for Salem, I was asked to sit in on the discussions between the City and the University.

The Sustainable City Year (SCY) program utilizes University staff and hundreds of students, from a variety of disciplines, to develop multiple classes focused on a city, based on a menu of the City's suggested projects. I guess we did a good job creating a menu of needs, because by summer, we were selected as the 2010-11 partner city for the Sustainable City Year Program.

Once selected, I started to get nervous. What would the community think of hundreds of students swarming our streets and asking a lot of questions? How much work would City staff have to do to support the students in their class work? What kind of crazy ideas might come out in the end?

Salem Project Selection and Development

We were fortunate to have a very competent and excited staff person, Courtney Knox, in our Urban Development Department, available to serve as our SCY project manager and City coordinator and liaison to the University. With her help, almost every department in the City worked on identifying possible projects and developing scopes of work for each project chosen. Each of the fifteen selected were the

focus of at least one University course.

The projects ranged from street lighting, to civic engagement and communications; from looking at police facility options, to writing an Economic Prosperity Strategic Action Plan; and from developing ideas for a warehouse district adjacent to the river, to plotting out a plan of interpretive trails for our premier natural area park. Some of these ideas and goals had been on our shelf for many years, some were brand new, and some were a reflection of current City Council goals and priorities.

The more complex projects were covered in multiple classes, by a variety of disciplines; sometimes over several terms. One of my favorite projects involved students from three different Planning classes (Introduction to Planning Practice, Planning Analysis, and Human Settlement) working with Advanced Architecture and Design students on the redevelopment of properties on the riverfront, north of downtown (see article on page 9). In the fall, Planning students identified barriers to redevelopment and worked with Architecture students to develop concepts for the area. In the winter and spring, the Architecture students continued on the

project; designing and refining proposals for specific sites. Final project concepts for the area included proposals for a research facility focused on the Willamette River, a train museum, and a movie theater where people could watch people, watching people, watching a movie.

City Feedback and Project Follow-up

In the end, over 500 students invested nearly 80,000 hours worth of work into our City. Did my fears turn out to be justified? Mostly not. In fact, City staff experienced a refreshing breeze of enthusiasm from the students which helped to offset any additional workload requests and carried over to other activities. While not every idea was broadly embraced by the community, the

students always received a warm and welcoming reception. The projects opened our eyes to possibilities that we had not thought of before, a few of which may even become a reality.

As result of the projects, we have already budgeted to develop a new overlay zone south of downtown. The City is installing some LED lighting in Riverfront Park. Our City Council has a more solid base from which to consider funding a new police facility and we're putting up new directional signs at Minto-Brown Island Park.

Vickie Hardin Woods, AICP is the Community Development Director for the City of Salem.

North Downtown Waterfront Development

BY ELIZABETH M. SCHMIDT, ARCHITECTURE AND NICO LARCO, ASSOCIATE PROFESSOR OF ARCHITECTURE, UNIVERSITY OF OREGON

As part of the year-long Sustainable City Year partnership between the University of Oregon and the City of Salem, five groups of three students in an architecture studio course worked with the City of Salem to develop five schemes for the redevelopment of the North Downtown Waterfront. The subject area is located north of Union Street, south of Mill Creek, east of the Willamette River, and west of High Street.

This North Downtown Waterfront site contains industrial buildings, car lots, and other stand-alone businesses that do not make full use of the value and possibility of the area. Currently the riverfront is zoned for high-density residential, but progress in that direction has been minimal. The City of Salem is in a unique position to help move the neighborhood in a new direction.

The students in the North Downtown Waterfront Development studio set out to generate big ideas and an overall vision for what the neighborhood could be. During the fall 2010 academic term at the University of Oregon, students in the architecture studio course worked with students in a planning, public policy, and management course, particularly during the beginning context investigations.

This article is a summary of the students' work and recommendations. The students investigated existing site conditions and a variety of factors influencing development of this part of Salem. These investigations led the students to focus on some key issues that would be addressed by the broad range of the groups' design schemes, including:

- The Commercial Street barrier, currently blocking access to the Willamette River, particularly for bicyclists and pedestrians
- A significantly underutilized Mill Creek



Site map showing the location of the North Downtown Waterfront site within downtown Salem.

CREDIT: IMAGE PROVIDED BY THE UNIVERSITY OF OREGON.

- The rail line on Front Street
- The potential for direct connections to other parts of Salem, via bike paths along waterways, Union Street for east/west connections, or Liberty Street for downtown accessibility

With these issues in mind, groups began to branch out into their own particular visions of what the area could become in the future. Each group took an individualized approach and worked toward a unique scheme, but all students stressed the importance of a few common elements:

- Including the special public places within the site
- Encouraging a more bicycle and pedestrian friendly environment
- Moving toward a more sustainable community, including green streets, bioswales, and ecological preservation of the creek and river habitat
- Creating a mixed-use district that would help to form a unique and inviting community for Salem residents and visitors

This article documents the students' investigations into current conditions and possible future scenarios.

Methodology

The design studio was divided into five groups of three students to work on urban design proposals for the North Downtown Waterfront area. The focus was to research and understand what the existing conditions are, what the community members would like to see in the area, and what the possibilities are for the future vision of the area. To accomplish these goals, students conducted a collaborative charrette with planning students, site visits, community engagement, and precedent research. In early October, nearly 60 students from the architecture and planning departments visited the site. Students listened as several city employees and community members shared their knowledge and vision for the site,

then the group toured the area on foot to get an in-depth feel for the place.

Design efforts were focused on the area between the Willamette River and Broadway Street on the west and east, and Mill Creek and Union Street on the north and south. All of the groups studied and considered how nearby downtown, parks, schools, and civic centers both affect the North Riverfront site and are affected by it. Students carefully examined current traffic conditions and investigated realistic possibilities for relieving congestion and improving access to the many amenities of the area.

Through site analysis, community input, cooperative charrettes, and a lot of creative thought, the five groups documented plans for the future of the North Downtown Waterfront. While the ideas for these plans were to consider physical and economic viability, the students were also encouraged to think big and look at the site with a 30-year time horizon in mind. With this long-term vision, students could understand and examine short-term needs and starting points, while not necessarily being tied to current conditions and previous design assumptions in the area.

Existing Conditions and Key Observations

Salem is the state capital of Oregon, and with a population of 157,000, it competes with Eugene for the second or third most populous city in Oregon. Salem is located in the heart of the Willamette Valley and straddles the Willamette River and the border of Marion and Polk Counties. The downtown core offers retail and other commercial amenities and is closely connected with vital historic neighborhoods, the campus-like Capitol Mall, and Willamette University. There is a vibrant agricultural community in the surrounding area.

Student groups made and recorded some key observations during the research and analysis phase and throughout the entire design process. The observations below gave students an understanding of the opportunities and constraints of the project and helped to shape the

goals of the final scenarios.

STUDENT SCENARIO ALTERNATIVES

The five Scenario Alternatives found on the following pages represent the work of five different teams of three students each. All five of these scenarios addressed sustainability on a multitude of scales. Broad ideas such as density, bike and pedestrian friendly environments, livability, and transportation significantly influenced the programming and layout ideas for the North Downtown Waterfront redevelopment site. Smaller-scale ideas such as public places to sit and gather, waterfront connections, and permeable paving can also be seen in many of the scenarios. With the energy and input from community members, planners, developers, professors, and architects, the students of the North Downtown Waterfront redevelopment

Scenario I site plan.

CREDIT: FIGURE PROVIDED BY THE UNIVERSITY OF OREGON.



View of the "hinge" from Union Street.

CREDIT: FIGURE PROVIDED BY THE UNIVERSITY OF OREGON.



studio produced five different approaches to how this site can be transformed into a vibrant, beautiful, and sustainability-minded community spot.

SCENARIO I: THE WAREHOUSE DISTRICT

This scenario seeks to create a mixed-use district that contains housing for varied economic classes; daily services; commercial real estate for local shops, local artisans, and local producers; entertainment opportunities along the river and Front Street; and natural spaces that support ecological awareness and appreciation. The overall feel of the place tries to respect the current and historic structures and uses of the neighborhood by reusing existing structures while maintaining a location in Salem for production of tangible goods.

Goals

One of the main goals in creating the Warehouse District is to create a hub of activity along the riverfront, paying particular attention to the intersection of Front and Union Streets, and the Union Street Railroad Bridge access point. The "hinge" located at this point will signify the entrance to the heart of the district, the main spot for entertainment and nightlife. The area along the river, and the buildings facing Front Street, will support local businesses, encouraging the production and provision of goods and services. Storefronts might include print shops, furniture studios, and artists' studios, with the inclusion of breweries, restaurants, bars, and stages for live performances, which will help to support a 24-hour district.

Scenario I also focuses on walkability and creating a pedestrian and bike friendly environment. Along with the major sites of commercial activity along the river and Union Street, the overall plan is one that tries to encourage a mixed-use neighborhood.

Design Recommendations

As part of this "hinge" area, the block of Division Street that lies between Front Street and the river will act as a pedestrian street and provide service access for the businesses in that area. The street

will be capable of supporting outdoor seating and gathering spots for the commercial businesses along it, and will terminate in a public viewing and gathering area in conjunction with the river path. The north portion of the riverfront zone offers enormous potential to include an indoor/outdoor market or an outdoor activity center, bringing awareness to local food production and riparian ecology. The outdoor activity center could provide equipment rentals, educational classes, and activities, and it could serve as a community center for the people who enjoy its services.

SCENARIO II: LIBERTY PLAZA

Scenario II focuses on sustainability, walkability, and public engagement through the connection of major public places via a waterfront boardwalk and Liberty Plaza, a new center for activity in the North Downtown Waterfront site.

Scenario II site plan.

CREDIT: FIGURE PROVIDED BY THE UNIVERSITY OF OREGON.



View of Liberty Plaza from the south entry

CREDIT: FIGURE PROVIDED BY THE UNIVERSITY OF OREGON.



Goals

Scenario II increases the visibility of, interaction with, and access to a sustainability-focused and ecologically friendly environment. Street character and design are driven by the desire to encourage multi-modal transportation while providing features that can improve the health of ecological amenities. The proposed Liberty Plaza would provide a new center for activity and directly connect to the current commercial hub in downtown Salem. The proposal seeks to provide multiple connections to a variety of city features via many modes of transportation: pedestrian, bicycle, automotive, bus, and light rail.

Design Recommendations

The Boardwalk

The boardwalk embodies the idea of a living laboratory. It is an interpretive trail taking visitors around the borders of the site, along the Willamette River, down Mill Creek to Liberty Street. It progresses through ecological areas into industrial areas and illustrates the idea of using ecology to improve the urban condition.

Development along the riverfront begins with a public facility such as a research institute or a university-based laboratory. The rest of the riverfront is high-density housing with retail and commercial activity permitted on the ground floor. The riverfront development would include buildings of three to four stories, with housing densities of 20 units per acre or more, and would maintain a minimum 50-foot setback from the river.

Liberty Plaza

Liberty Plaza is an extension of the commercial development located in downtown Salem. It is created by widening a portion of Liberty Street between Union Street and Mill Creek.

The space and landscape of Liberty Plaza seeks to represent the collision of industry and ecology. At Union Street, the landscape mimics the street trees of Salem on a grid, beginning with a European Beech that mirrors an existing one in the 1600 block of Liberty Street. This zone then blends into an “orchard” style planting group of

sedges, referencing the legacy of fruit orchards in Salem. The next zone is an oak savanna that blends across Division Street into the riparian zone. The riparian zone is represented with bioswales drawn along existing topographic lines.

The big changes to the current traffic flow focus on diverting traffic from the Front Street / Commercial Street interchange. To do this, High Street becomes a two-way street all the way through downtown. Front Street also becomes two-way through downtown, with the addition of two lanes (one each direction), and the rail line is moved to the west side of the street. Commercial Street becomes a two-way street between Marion and Center Streets. These changes, along with the addition of light rail, bike lanes, street trees, and pavement changes, will help to create a pedestrian friendly, multi-modal environment.

SCENARIO III: LIVING LIGHTLY ON THE WATERFRONT

Through the use of mixed-use buildings, Scenario III attempts to transform the waterfront into a lively, active area that encourages a multitude of activities, day and night. The design scheme provides a strong view axis toward the river, with a proposed new North Street that terminates at a fountain. This axis will help to create civic areas that are open to the public along the

waterfront and form a public “Town Square” at the intersection of Front and North Streets with ample space for seating, a public market, a performance space, and other public activities.

Goals

Scenario III seeks to create a safe area that encourages walking and biking without reducing or obstructing vehicle access. Housing on upper floors along the river will help to maintain a presence at night and to highlight the river within the neighborhood. Office spaces along the river will help to maintain a daytime presence and support local businesses. A new bike/pedestrian trail looping around the site will increase access independent of roadways and increase exposure to the creek.

The neighborhood will provide a variety of housing options, allowing for a mix of apartment and condominium sizes, and live-work units, to accommodate a wider demographic, encouraging people to move closer to downtown.

Scenario III also seeks to create a strong extension of the downtown area, using Liberty Street as a continuation of retail from the downtown area, connecting to the creek and turning toward Front Street.

Design Recommendations

In Scenario III, the riverfront zone is conceived as a mixed-use area. While housing and local businesses will make up a large part of the space, the inclusion of an interpretive center or museum, along with a clear connection from North Downtown to the river, will help to make the riverfront a destination for Salem visitors as well as Salem residents. The potential for a recreation center at the south end of the waterfront also creates a local draw and provides activity that ties into the existing park system.

A greenbelt system along the river and creek will help create a framework for pocket parks and bike/pedestrian trails, while linking into existing paths to create a larger network. This system provides an opportunity to improve the ecology of the waterfront and creek. The possibilities to improve the ecological habitat include the

Scenario III site plan.

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reintroduction of native plant species and community education about ecological restoration and the importance of healthy ecosystems.

Pedestrian access and comfort is enhanced via street trees to slow traffic, and through crossing islands and improved crosswalks at large intersections. Generous planting strips and on-street parking with a network of on-street bike lanes and sharrows will help to create multiple buffers, improve pedestrian safety and walkability, and give bike commuters easy access to all parts of the city.

Parking is addressed on a neighborhood scale with the hope of reducing surface lots throughout. By encouraging internalized parking, accessible by a series of alleys, a strong street presence can be maintained. One public parking structure along with significant on-street parking will help meet parking demands of commercial uses. Residential developments are responsible for their own parking needs, but are prohibited from building surface lots on major streets.

SCENARIO IV: NEW TOWN CENTER

In this scenario, Salem’s Vision 2020 planning

process was a major influence in the decision to create a new town center. That document reports that the people of Salem are looking for the following amenities to be brought into their city:

- A new town square
- New downtown housing
- Additional restaurants
- Pedestrian-friendly streets
- Improved bike facilities
- More riverfront and creekside corridors

Scenario IV proposes the North Downtown site as an ideal location to incorporate all of these ideas. North Downtown is a highly underutilized space in a prime location. Creating public spaces such as parks and a town square is a high priority, as they provide an opportunity for the public to enjoy the Willamette River and Mill Creek and would be within easy walking and biking distance of downtown.

Goals

Mixed demographic housing within the site is essential to provide for the diverse needs of the people of Salem as well as to create a vibrant neighborhood. Commercial uses, including, but not limited to, restaurants and shops would be carefully phased into the neighborhood to meet demand. A one-block “Main Street” commercial core embraced at either end by a town square and park would be the ideal spot for phase one development. An improved bike system would be a key element of Scenario IV to increase sustainable transportation and reduce traffic congestion. The North Downtown site is

Scenario IV site plan.

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Detailed plan of Fir Street.

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centrally located in the city and has tremendous potential to support and encourage bike and pedestrian pathways.

Design Recommendations

In order to create a Town Center that has life and vitality, a core of activity would be created along an east/west axis between the Willamette River and Mill Creek, connecting the two waterways and serving as a central hub for the commercial and civic functions of the neighborhood. All other programmatic functions in the neighborhood connect back to this central area.

To help support the vitality of this neighborhood, a mix of housing types would be present. Part of the vibrancy of the neighborhood would be a restaurant culture not currently found in Salem. An all-hours restaurant district with morning, lunch, evening, and after-hours eating establishments would populate the area, with a focus on a “Town Center Axis” along the proposed new Fir Street, supported by the heavy pedestrian traffic and the visual and spatial proximity to the civic spaces at either end of the axis. A small performing arts venue is also envisioned.

Improving pedestrian walkability was a major part of this project. The plan to increase walkability incorporated the “greenbelt” transportation way, which would connect the site to the rest of Salem and downtown while providing pedestrian infrastructure throughout the site. Pedestrian-friendly crossings were added to Commercial and Front Streets, and bike lanes, on-street parking, and landscaping help to separate the sidewalks from the streets, allowing for a more comfortable, walkable neighborhood.

SCENARIO V: ARBOR LANE

Scenario V focuses on the ideas of connectivity, diversity, and sustainability. It supports a connection between the North Downtown Waterfront site, the heart of downtown, and the city as a whole. Scenario V encourages a diverse range of building uses, including a range of economic housing types. It also incorporates a variety of sustainable features, helping to

improve and highlight natural features, as well as supporting bike and pedestrian transportation.

Scenario V was driven by a desire to provide places that encourage interaction between people at all income levels. This brings culture and diversity to the area, opening it up for more possibilities.

Goals

One of the main goals in Scenario V is to enhance the connectivity across and through the entire site while providing clear and easily accessible paths to and from other parts of the city. The Willamette River and Mill Creek are major amenities for the site and are treated as such in this scenario. By enhancing visibility and accessibility to the waterways, Scenario V increases the connection to important ecological habitats and provides places for visitors to physically interact with the natural environment. Increasing the connection between individual visitors is also a goal of this particular proposal. Arbor Lane creates a community scale gathering space in the heart of the neighborhood, providing commercial fronts for local businesses, space for artistic displays, and a place for outdoor events.

Design Recommendations

A river walk along the Willamette River takes advantage of the riverbank, opening it up to the community and providing an extension of the pedestrian and bicycle loop. Commercial businesses, such as small local shops, restaurants, cafes, local food markets, and a bicycle repair shop, would be located along the river. A promenade with a river overlook supports large outdoor events, such as a Saturday market.

The proposed Arbor Lane is perpendicular to the promenade and is characterized by wide sidewalks, water features, and sculptures. Just off Arbor Lane is an intimate, covered alley allowing for shopping and strolling in all seasons.

A pedestrian and bike path along Mill Creek connects to the single family residences east of the site. This path was designed to bring the existing community together and provide an outdoor amenity for all. A sculptural walk is intended

to bring local artists and Salem manufacturing companies together. In the early phases, the walk would connect High Street to the Willamette River, but it could easily be extended farther east in the future.

Front Street's design is a celebration and

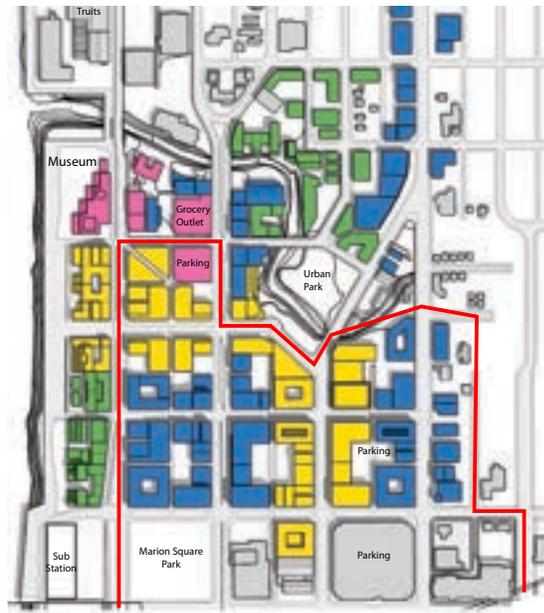


Scenario V site plan.

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Uses diagram.

CREDIT: FIGURE PROVIDED BY THE UNIVERSITY OF OREGON.



USES

- | | | | |
|---|---|---|--|
|  | Medium to High Density Residential |  | Other |
|  | Mixed Use (by building) |  | Off - Site Buildings |
|  | Cultural Mixed Use with ground floor retail |  | Extension of the Central business district |

integration of the train. The sidewalks are 15 feet wide, and trees provide a barrier between the train and pedestrian traffic. The wide sidewalks are meant to allow for bike traffic as well. A two-foot wide median provides a buffer between the train on the west side and automotive traffic. Locating the train on the west side of Front Street limits the train's disruption of automotive traffic. Parking is located on the interior of most blocks, helping to minimize negative interactions between pedestrians and vehicles, and opening the street facades to foot traffic.

Conclusions

The City of Salem currently has interest, energy, and involvement in the North Downtown Waterfront site. There are multiple opportunity sites within the area and an active community engaged in a process to create a clear and exciting vision for the neighborhood. The site is directly bordered by both the Willamette River and Mill Creek, both major ecological amenities. While high traffic volumes currently provide barriers to parts of the site, opportunities for commercial and natural visibility are high. The North Downtown Waterfront site is a prime location for the expansion of urban development, the highlighting of ecological habitat and sustainable strategies, and the creation of a unique Salem district.

This architecture studio's urban design project was followed by a second term, in which the same students chose a single block within one of the above urban design scenarios on which to design a building that fit within the scenario. The summary report for that course, along with all of the other Sustainable City Year courses, is available on the University of Oregon Sustainable Cities Initiative web site.

Downtown Parks Connectivity Analysis with Geographic Information Systems (GIS)

BY TRAFTON BEAN, PLANNING, PUBLIC POLICY AND MANAGEMENT AND MARC SCHLOSSBERG, ASSOCIATE PROFESSOR, PLANNING, PUBLIC POLICY AND MANAGEMENT, UNIVERSITY OF OREGON

The City of Salem's goal for this project was to connect the City's downtown parks using a system of urban trails and bicycle routes. This new transportation network could improve pedestrian and bicycle accessibility and enhance the recreational potential of the parks system and enjoyment of parks patrons. Updated in 2009, Salem's Comprehensive Parks and Recreation System Master Plan (CPRSMP) emphasizes the parks and recreation system as a means to "preserve and enhance the quality of life for Salem residents by ensuring ample natural opportunities for leisure, education, and recreation" (City of Salem, 2008). The CPRSMP also notes that equity among citizens of all ages and ethnic backgrounds is critically important to the city's ideals, and long-term, goal-oriented planning is required to create a successful parks and recreation system (McIntyre, 2007).

The Salem Transportation System Plan (TSP) is the city's master plan to guide transportation policy and planning actions needed to provide safe and efficient transportation in the 21st century. Of particular importance to this SCI project, the city is currently updating the TSP's Bicycle and Pedestrian Elements, which means that Salem is dedicated to upgrading bicycle and pedestrian infrastructure to connect the population and neighborhoods to schools, activity centers, and employment centers.

The projects documented in this report are a sample of students' attempts to use research and analysis to recommend tangible improvements for the people of Salem. Students addressed issues of connectivity and community development

through classroom discussion and GIS research.

The Social Planning with GIS course was structured as an application of GIS in urban transportation planning. The strength of this course was its emphasis on using GIS as a means to better understand how planners and community members can create a more welcoming environment and livable community for Salem's residents.

Project members were encouraged to be innovative with their ideas and methodologies while using the vision of downtown parks connectivity as a guiding factor for their end product. As a result, this project produced a wide range of ideas spanning the fields of

transportation planning, civic engagement, and economic development. Project methodologies ranged from simple spatial analysis of city infrastructure to highly technical GIS data creation and manipulation.

Student Project Summaries and Recommendations

PEDESTRIAN CONNECTIVITY: DOWNTOWN PEDESTRIAN NETWORK AND WEB APPLICATION

By Tanner Semerad and Eric Stipe

The City of Salem provided several GIS data layers to aid in students' research, but project members quickly realized this information was more useful for analyzing automobile transportation than pedestrian transportation. This project's aim was to use ArcGIS to create a true pedestrian network for downtown Salem. The project also developed a web-based mapping tool to allow Salem's pedestrians to select walking routes based on time or safety. This web tool was created to make the complex GIS data set easy and useful for the general public and realistic enough for transportation planners to better model pedestrian transportation.

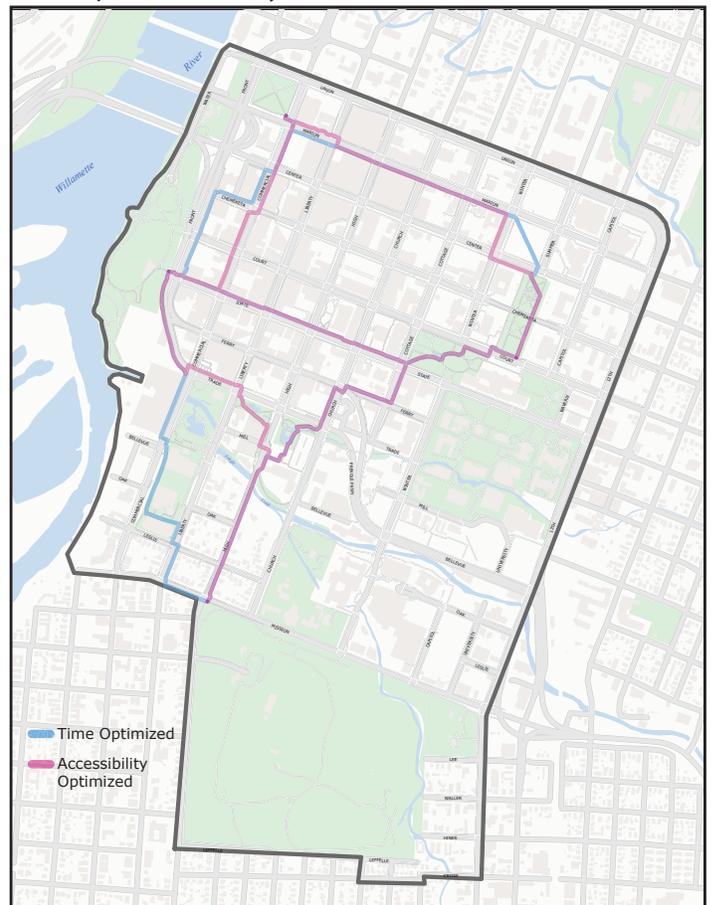
Method

Project members recognized the need to work with detailed data that illustrated real-life attributes of pedestrian routes – sidewalks, driveways, park trails, alleys, parking lots, and street crossings. Because such data did not exist, project members created a new pedestrian network data set. This method involved digitizing pedestrian paths into ArcGIS by tracing them from a high-resolution 2008 aerial photo of Salem. Each section of the route was classified with a specific title and integrated into a GIS attribute table,

essentially creating a "hierarchy" of pedestrian transit options based on safety and accessibility. The hierarchy consists of eight discrete classes of pedestrian transit: primary paths, alternate paths, painted crossings, driveways, crossings, alleys, parking lots, and dangerous crossings. These designated classes of street segments combine to form a comprehensive, digitized walking network.

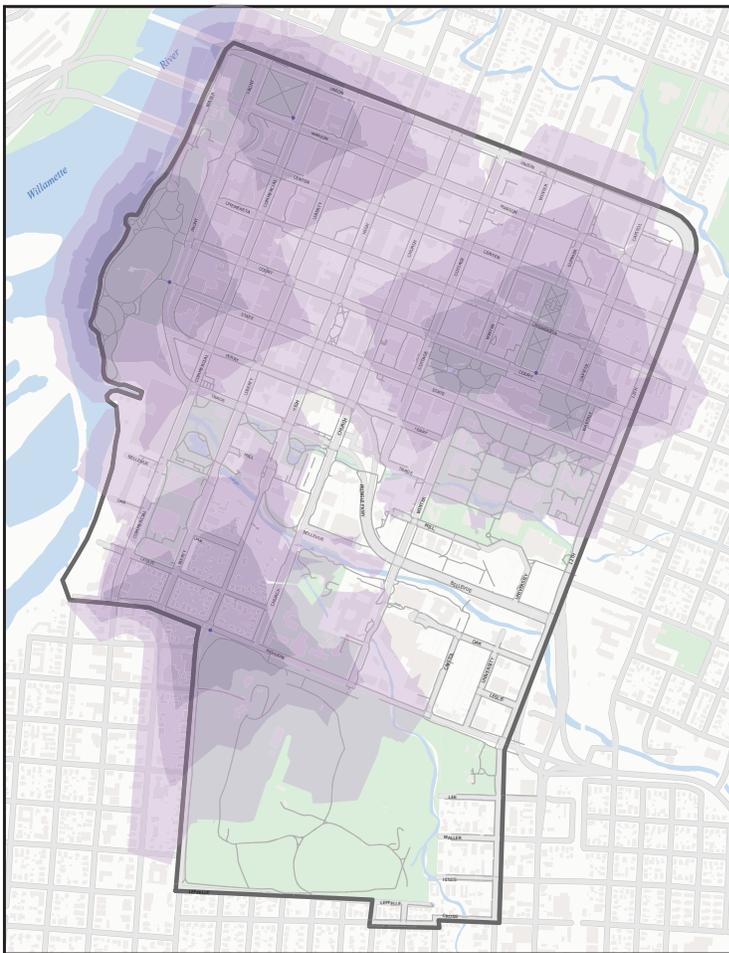
Analysis Applications

Planners can use this new pedestrian network to assess pedestrian connectivity within downtown Salem. People who regularly commute on foot can use this information to plan their walking route. There are two methods to analyze the pedestrian walking environment with this tool: route-optimized and time-area polygon.



Route-Optimized Analysis. The map above demonstrates pedestrian routes to and from a similar set of points using different variables to calculate each route. The time optimized route (blue) calculates the quickest path between each point, while the accessibility optimized route (pink) calculates the path that would be the best suited for pedestrian travel.

CREDIT: FIGURE PROVIDED BY THE UNIVERSITY OF OREGON.



Time-Area Analysis. The map above demonstrates the functionality of the walking network. The large purple polygons represent the distance one could travel in increments of 3, 5, and 7 minutes from the center.

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Web-Application Tool

The web-application tool allows people to access the same capabilities of the pedestrian network data without needing any prior GIS experience. The only difference between the GIS tool and the web-application tool is the user interface. Users can customize their walking route in downtown Salem by finding either the quickest or safest paths. Users of the web-application tool can also click a location on the map to perform a time-area analysis. The resulting map displays shaded polygons representing areas a pedestrian could walk to within three, five, and seven minutes.

Recommendations

Planners can use this new pedestrian network GIS layer as a tool to assess pedestrian connectivity within downtown Salem. Planners

can utilize the “Time Analysis” tool to focus on improving pedestrian accessibility around a particular intersection or site.

Residents, particularly those who regularly travel on foot, can use this information to plan their daily walking routes. City staff can encourage Salem residents to use this new web tool and request feedback on its usability and effectiveness.

The methods and applications of the pedestrian network can easily be replicated in other municipalities, regardless of differences in geographic location, pedestrian infrastructure, or population size. Sharing this framework with staff members and GIS specialists from other cities could lead to recognition for the City of Salem as a pioneer in active transportation planning and could create a more effective tool through successful collaboration.

BICYCLE CONNECTIVITY: DOWNTOWN BICYCLE NETWORK

By Michael Duncan, Kory Northrop, and Ted Sweeney

Similar to the analysis of pedestrian connectivity, this project recognized the need for a new digital bicycle network that shows Salem’s street network in terms of bicycle travel. The goal was to create a working model of Salem’s bicycle network and add it to the existing automobile network.

This new data set includes real-world information showing paths where bicycles actually travel, such as bicycle lanes, road shoulders, multi-use paths, and automobile roadways. The data accurately reflects challenges cyclists face in traveling on an auto-oriented road system, such as moving through intersections that do not have a designated bicycle lane.

This study and data set is based on the idea that not all bicyclists have the same level of comfort when interacting with automobile traffic. One bicyclist might feel comfortable riding on major arterials, such as Salem’s Commercial Street, while others might feel comfortable riding only on local, residential roads where vehicles do not

dominate the roadway. Riders' perceptions of bicycle infrastructure and connectivity depends on rider confidence.

Method

The new bicycle data set examines how intimidating it is to travel between any two locations within downtown Salem. Routes are modeled along lines drawn where bicycles legally travel, and each line segment has an associated "Fear Factor" score indicating the level of intimidation felt by a bicyclist riding there.

Fear Factor is a calculation based on four elements:

- Automobile speed limit: Sharing the road with fast cars is intimidating.
- Number of automobile lanes: Bicyclists feel more vulnerable on wide streets with more

automobile lanes.

- Type of Infrastructure: Types include bicycle lanes, highway shoulders, and multi-use paths.
- Cyclists being forced to "take the lane." Roads with less developed bicycle infrastructure force cyclists to occupy auto lanes, which is one of the most intimidating aspects of bicycle travel. This barrier is commonly seen in road intersections where "taking the lane" is the best logical or legal option for a cyclist.

Recommendations

This Fear Factor tool allows planners to identify possible infrastructure improvements and see the effects they might have on the bicycling environment. If a bike lane is proposed on a street, it can be added into the data set to see how it changes routes plotted through the area. Plotting routes based on Fear Factor could also

Downtown Salem Circulation Study

By Pamela C. Johnson • Civil Engineering and Dr. Chris Monsere • Assistant Professor • Civil and Environmental Engineering, Portland State University

Because solutions to sustainability problems span multiple disciplines, the Sustainable City Year partnership with the City of Salem included courses from ten academic departments and programs. When the city asked for detailed analysis of transportation projects, the program's directors recognized that civil engineering courses would be a perfect fit. Since the University of Oregon does not have an engineering school, the University of Oregon Sustainable Cities Initiative partnered with the Portland State University Department of Civil and Environmental and Engineering to explore the feasibility of various transportation network alternatives proposed by the City of Salem.

A Downtown Circulation Study was designed to analyze and evaluate proposed alternatives

for bicycle and pedestrian infrastructure improvements at eight locations of interest in Salem's transportation network. These locations were chosen because they lack safe and connected travel routes for pedestrians and cyclists along traffic corridors and between neighborhoods. The main purpose of the Downtown Circulation Study was to develop viable alternatives to enhance circulation of all modes of travel in a manner that encourages bicycle and pedestrian travel while simultaneously minimizing impact on motor vehicle circulation, freight movement, local businesses, and parking capacity.

The study was conducted in the fall of 2010 as the focus of a design course, Urban Transportation Systems. Sixty students divided into ten groups, and each group chose one site for analysis. Projects included evaluation of difficult pedestrian crossing zones; addition of bicycle lanes to three busy one-way streets; facilitating bicycle traffic through a tricky Y-intersection; conversion of a one-way couplet to a pair of two-way streets; and connecting an existing multi-use path with a neighborhood

across and adjacent to two busy highways.

A common method used by the students was first looking at the possibility of adding bike lanes on major arterial roads or, as a second choice, creating a bike boulevard or an alternative route. Many groups recommended new treatments such as bike boxes, sharrows, and new signals. Other groups suggested outside-the-box alternatives to proposed options, including modifying a parallel street to create an effective bicycle boulevard instead of adding bike lanes to a busy multi-lane road.

Although students used computational data and simulations to determine the feasibility of each alternative, the main variables affecting recommendations were human factors: safety, scale, environment, aesthetics, cost, and practicality. Some groups suggested that their recommendations were short-term solutions and that major reconstruction of systemic transportation problem areas will need to be considered to fulfill the goal of a sustainable transportation system in Salem.



Bicycle Route Tool. The bicycle route tool calculates the shortest distance (red) or lowest fear factor (blue) route for bicycle travel in downtown Salem.

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help indicate where new bike routes should be designated through neighborhoods in order to create a bicycle boulevard network. Similar to the Pedestrian Network from the previous section, this data set and its associated calculations can be used to plan out bicycle routes based on lowest Fear Factor or shortest distance (see Figure [3]). Also, this bike network could be shared online to help the public choose cycling routes that best meet their comfort levels.

A bicycle route-finding tool that provides options based on rider confidence would remove a barrier to cycling for many novices. These riders worry that if they try to use the official bike network, they will encounter places where they feel too intimidated to continue comfortably. A web-based routing tool based on this newly created bicycle network, expanded to include most or all streets in Salem, would give people confidence that the bike route they are embarking on would be one on which they would be comfortable for their entire trip.

TRANSIT CONNECTIVITY: PUBLIC TRANSIT CONNECTIONS TO DOWNTOWN PARKS

By Nicholas Garcia

The existence of a high quality, well-connected network of city parks promotes healthy and inexpensive recreation activities, fosters a resilient

urban ecosystem, and improves the beauty of the city environment. An extensive, convenient public transit network will encourage people to get out of their cars, decreasing congestion and pollution, and will provide transportation options for members of society who cannot or choose not to drive.

Connecting the transit system with the park system compounds the benefits of both networks, making each more valuable. Parks and public transit are both investments in the public good, with benefits to public health, the environment, accessibility, cost of living, and community aesthetics.

Criteria for Analysis

Each route was analyzed to determine its relationship to downtown parks.

- **Park Importance:** Some factors that might make one park more important than another include size, aesthetic qualities, unique assets, and public ownership/accessibility. A detailed assessment of these assets was not in the scope of this project. Park size and best-guess approximation of other attributes were used to identify high-priority areas for transit access.
- **Convenience of Bus Line Realignment:** In addition to prioritizing parks by importance, the city can get the most public benefit out of its money by trying to reconfigure transit routes so that park access is greatly expanded even though minimal changes are made. This can mean finding places where shifting or adding bus stops would improve access to a park, or where a slight route change or extension would increase park access. It can also mean identifying clusters of parks that could all be served by a single transit line.

Recommendations

As might be expected, the parks that are best served by Salem's transit system are the ones near the downtown, where most of the bus lines come together and there is a high density of bus stops. Outside of the downtown area, parks in the north and east of Salem tend to be better served

than parks in the south and west, due to a higher density of bus lines. Figure [4] shows a complete map of Salem's urban parks and associated scores for accessibility via public transit.

The project team made several recommendations for route realignment and extensions that would enhance access to several parks.

Salem's Cherriots do not run on weekends or holidays. If Salem is to provide high quality transit access to parks, weekend bus service is highly recommended. As parks are primarily used for leisure activities, the highest demand for park access likely comes on weekends, when potential bus riders are not at work or school.



Figure [4]: Composite Transit Access Index. This map shows all parks and open spaces within Salem and rates them on accessibility based on several indicators, including proximity to the nearest bus stop, number of bus lines within walking distance, and frequency of bus service to nearest lines. Metadata for GIS layers that went into creating this map are included in Appendix 3 of the full report.

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ECONOMIC DEVELOPMENT: SALEM MARATHON

By Kevin Belanger

The City of Salem suggested that students explore the viability of creating an entirely off-street marathon route using the city's existing trail system. Although an off-street trail route was not feasible, this project was able to create a mixed on-street and off-street marathon route within Salem. The following report details the proposed marathon course and recommendations to facilitate its development.

Community Benefits

Hosting a Salem Marathon would have significant benefits to the Salem area. Oregon, particularly the Willamette Valley, has a rich history of running in a temperate climate. With marathons in Eugene and Portland, Salem is currently missing the attention and economic benefits of a world-class marathon. The Salem Marathon could be a uniting event for the community as well as an opportunity to generate economic activity within Salem's vibrant downtown area.

The Salem Marathon would also provide benefits to walking and biking in Salem. In order to implement a world-class marathon, key connections would need to be created and upgraded; residents and visitors could use those connections for the other 364 days of the year.

Recommendations

Before the city could adopt this proposed marathon course, the proposed bicycle and pedestrian bridge connecting Riverfront Park to Minto-Brown Island Park would need to be completed. Currently, visitors to Minto-Brown Island Park need to access the park from the south, which often necessitates vehicle use because the entrance is located at a significant distance from downtown. A bicycle and pedestrian bridge would facilitate non-motorized traffic to more easily access the off-street trails within Minto-Brown Island Park.

The trails on Minto-Brown Island Park could be

upgraded and integrated into a system of trails for the marathon course. The existing trails are important and useful for those who desire to explore off-street trails, but they are not fully connected.

ACCESSIBILITY AND THE AMERICANS WITH DISABILITIES ACT

By Daniel Ronan

The Americans with Disabilities Act (ADA) was passed on July 26, 1990. The law was written to strike a balance between reasonable accommodation of citizens' needs and the capacity of private and public entities to respond. Title II of the ADA prohibits state and local governments from discriminating against disabled persons in their programs and activities, and mandates accessibility in all communities for those with disabilities, regardless of the size of a community's population or scope of its budget (MRSC, 2010).

This project attempted to create a Mobile GIS survey tool designed to collect meaningful information about pedestrian accessibility to and from downtown parks and green spaces. The data collected is intended to advance targeted investments for improving pedestrian transportation infrastructure and to further the conversation about accessibility to public spaces. The overall goal with these survey questions is to answer the question, "Does the given area encourage or discourage walking to the nearby park?" Variable questions were formulated from that overarching question that might be useful to engineers, transportation planners, or pedestrian advisory committees.

This study specifically aims to address the "last leg" of the journey to park entrances. This last 50-100 feet may seem irrelevant to typical pedestrian accessibility; however, obstacles such as poor ramp quality or incomplete sidewalk networks can pose obstacles for wheelchair access.

Recommendations

Data shows that downtown Salem parks are generally accessible to pedestrians, however accessibility could be improved in many instances.

Street corners are not standardized and vary in quality.

The data indicates that various policies have shaped accessibility standards over time. Some intersections include marked crosswalks in all directions, while others do not. By applying policies and standards toward the goal of a robust and continuous pedestrian system, more individuals would be inclined to choose walking as their preferred mode of travel.

After accessibility standards and guiding policies have been established, we recommend considering policy adjustments for current funding mechanisms. It is important that current traffic laws be enforced to create an environment that encourages walking as a cost-effective, healthy alternative to other travel modes.

COMMUNITY ENGAGEMENT IN PLANNING: BICYCLE-PEDESTRIAN MOBILITY

Public Opinion and Mobile GIS

Mobile GIS technology presents an opportunity to engage and integrate a wide variety of public opinion into planning projects. It allows participants to travel through the city answering questions to assess bicycle and pedestrian infrastructure. Planners can then use the information to formulate a transportation network based on these surveys that theoretically represent a collective public voice.

This Mobile GIS experiment employed the use of a digitized survey that asked questions pertaining to land use, roadway infrastructure, bicycle infrastructure, and pedestrian infrastructure of specific street segments. The answers to these questions were integrated into a formula that produces a comprehensive "Mobility Rating" score for each street segment.

Results

Project members conducted an experiment with the Mobile GIS rating tool on city streets surrounding Willamette University. The answers to each question were combined to create a composite "Mobility Rating" for each individual street segment surveyed. The results are displayed

in a color-coded map of the study showing the range of “Mobility Ratings” that were produced from the survey questions.

The mobility survey is also designed to target barriers to bicycle and pedestrian mobility. In the study area around Willamette University, common barriers include dangerous automobile speeds (noted as a problem on 56% of all streets), high traffic volumes (49%), dangerous lane shifts for bicycles (31%), and unacceptable surface conditions (25%).

Recommendations

Project members consulted “Complete Streets Assessment” tools and questionnaires to create the Mobile GIS survey. The survey could have been made more effective by customizing questions to the specific infrastructure and community needs of Salem.



Mobility Rating Map. The three ratings for these streets were calculated from the survey answers for each street segment, green streets were seen as having the greatest pedestrian and bicycle mobility, yellow streets had slightly lower mobility, and red streets had the lowest mobility.

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For example, project members noticed that bicyclists often preferred riding on sidewalks when no bicycle lane was present, which was a potential answer to the question, “Where is the most likely place to ride a bicycle?” The question, “Is there a buffer space between pedestrians and auto traffic?” had several possible answers including “Bicycle Lane,” “Parked Cars,” and “Planting Strip,” however only one answer was allowed. Most streets had multiple buffer spaces. More accurate data could have been obtained by allowing multiple answers to this question.

Mobile GIS assessments are useful not only for providing accurate and custom data, but also for their ability to engage a wide variety of citizens and integrate their opinions into planning projects. If used properly, Mobile GIS is a powerful civic engagement tool.

This report focuses only on street segments, but assessing intersections and crossings is equally important in the streets connectivity discussion. Given more time, the project team would have liked to include questions about street intersections in the survey and integrated them into the “Mobility Rating.”

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History, Humility and Prudence

BY EDWARD J. SULLIVAN

*A review of *Planning Paradise: Politics and Visioning of Land Use in Oregon* by Peter Walker and Patrick T. Hurley (2011, Tucson, University of Arizona Press).*

Mediaeval moral philosophy viewed pride, rather than lust or anger for example, as the worst sin, for pride ascribes more merit to oneself than is justified by the circumstances. The antidote to pride is humility – an honest assessment of one's strengths and weaknesses in order to predicate realistic choices in the future.

Planning Paradise suggests humility for Oregon's planning system through an extensive examination of the origins of that program, as well as a selective review of its successes and failures in dealing with certain high-profile issues. No work to date has attempted such a sweeping review of the Oregon planning program and the review may annoy supporters of that program. But self-examination, while therapeutic, does not necessarily lead to beneficial change. This unblinking look, particularly at the weaknesses of Oregon's vaunted planning system, is a good thing, but the work unfortunately does little beyond pointing out deficiencies, and is itself deficient in that respect.

The current version of Oregon planning is almost 40 years old. The authors' principal thesis is that the system, as well as its supporters, are on remote control, resistant to change, and unresponsive to the political and social realities of a state very different from that which existed in 1973. Indeed, they suggest that the program has "deep systemic faults" and is "in danger of blowing itself up."

The authors do a good job of explaining the

origins of the current planning system in terms of providential circumstance – the convergence in 1973 of background, happenstance and strong personalities. The general background of the state includes settlement by a fairly homogenous mix of white Protestants who were receptive to the popular democracy of municipal home rule, the initiative, referendum and recall. The more recent political and social background includes a strong public accommodations law, the beach and bottle bills and the cleanup of the Willamette River. The personalities included Governor Tom McCall, Senators Hector Macpherson and Ted Hallock, Representative Nancie Fadeley, and L.B. Day, who all contributed mightily to the new legislation. The immediate circumstances included farmer anxiety over the loss of farmland, urban sprawl, and the nascent environmental movement.

The authors contend that this celebration of the past contrasts with the present, that Oregon has lost its way and its planning system has failed to respond to economic, political and social changes over the past 40 years or to deal with "social equity." Why did politicians not respond to the warning of Measure 7 and, despite a better funded campaign, and why did nothing work to combat Measure 37? These are sufficiently troublesome questions on their own; however, the authors also rightly question the declared "victory" of Measure 49, passed as a "fix" the results of Measure 37's grant of expansive development, but which itself institutionalized the notion of "compensation" for land use regulations.

The authors portray the enactment of SB 100 in 1973 as the product of a number of forces, particularly that of farmers who feared the loss of farmland and the agricultural economy, which played a much bigger role than the environmental movement, and the neutrality or mildly positive reaction of other prominent political players, such as the homebuilders and the forest industry, who saw in the legislation a means of overcoming parochial local regulations. There was also significant contemporary commentary on environmental consciousness and the need for comprehensive planning as well, including Rachel Carson's *Silent Spring*, Ian McHarg's *Design with Nature*, Bosselman and Callies' *The Quiet Revolution in Land Use Control*, and Leo Halprin's *Project Foresight*. This was the time of Earth Day, the passage of the Coastal Zone Management and Endangered Species Acts, the creation of the Environmental Protection Agency, and consideration of a National Land Use Bill. With the beach and bottle bills and the cleanup of the Willamette River, Oregon demonstrated it shared these environmental and planning concerns.

The atmosphere immediately following enactment of SB 100 was no less exciting. The first 14 statewide planning goals were adopted after an extensive series of public workshops and established the framework for implementation of Oregon's land use decision making. In the same legislative session that enacted SB 100, farmers got the bargain they wished as the complement to statewide land use controls in SB 101 – the revamping of a preferential assessment system for farmland and limitation of non-farm uses that could occur on farmland. That system was challenged three times at the polls within the first ten years of its existence and survived all three challenges.

But, according to the authors, Oregon later lost its way. The authors use four topics to illustrate their point – the “Damascus Debacle” in the Portland Metro area in which an area refused to urbanize contrary to state policy, the Metolius Ranch controversy where raw political power terminated development of a destination resort, the ongoing Regional Problem Solving (“RPS”) process in

Southern Oregon pitting property rights activists against their “progressive” city neighbors, and the Measure 37\49 controversy. The RPS process has not yet resolved itself (and perhaps may never do so) and the Metolius Ranch case involved a lawful (though perhaps unfair) legislative determination. However, the other two topics are more troublesome.

The community of Damascus did not wish to grow and took an unusual path to that end – it incorporated itself as a city in order to have a voice in its future. Metro and LCDC had previously expanded the Portland urban growth boundary (UGB) to facilitate growth in Damascus and a stalemate occurred. The authors suggest the boundary may have been expanded in bad faith, with both agencies knowing that the growth would not actually occur, but the expansion responded to homebuilder pressure for expansion, at least on paper. Over time, it seems this standoff will hinder the balance the program requires – to preserve lands outside the UGB for resource and rural uses, while requiring growth needs to be met within the UGB. Achieving efficiency of urban land use sometimes meets the same level of local resistance as preservation of resource lands in rural areas. The state program now seems clueless as to the necessary next steps to deal with either phenomenon, a position consistent with the analysis of the authors.

Similarly, the authors catalogue the baneful histories of Measures 7, 37, and 49 and ask why Oregon voters approved these measures. In the case of Measure 37, several factors played into its passage – a confusing ballot title, its appearance at the end of a long series of ballot measures and a clever campaign using grandmotherly Dorothy English as its “poster child” who could not convey parts of her property to her children. But the authors also suggest a general amnesia about the need for and workings of the program, as well as the loss of positive support from forest landowners and the homebuilding industry also played a major role. Add to that mix the rise in land prices before the current recession, a general antagonism to government and the use of “fairness” (whatever that happened to mean at the time) and a fuller picture emerges. It is true that

“buyers’ remorse” turned the tide in enactment of Measure 49, but the result is more favorable to those who believe “government” should pay property owners for the loss of value regarding future land use regulations (but strangely do not see the reverse argument).

There might have been other topics chosen for this review – the constant battle over minimum lot sizes and additional dwellings in resource areas (even as UGB amendments have added 46,000 acres of urban land since 1987), the preemption of local regulation of forest practices, and the battle over affordable housing in urban areas; however, the limited topics examined do raise salient issues over the direction of the Oregon planning program.

The concentration on the RPS system as the example of the rural issues in the Oregon program was a mistake, rather than viewing it as part of a long battle over minimum lot sizes and standards for nonresource dwellings outside UGBs that occupied both LCDC and the legislature for the first 20 years of the program. The Oregon Legislature has constantly tinkered with the program to achieve the evanescent goal of “fairness,” which contradicts the authors’ view that it was out of touch with the voters.

Similarly, the authors do not give weight to the constant pressure to build houses outside the UGB through any pretext (such as “lots of record,” small scale” or “resource” dwellings). They also do not deal with the continuous attempts to evade program requirements for resource lands preservation, such as promises to meet income standards in the future (rather than at the time of application) and the impracticability of removing dwellings in violation of those promises later, or, on the urban side, the evasion by cities of their affordable housing obligations.

The breakdown of the alliances among farmers, the forest and high-tech industries is well noted, as is the role of the non-profit environmental organization 1000 Friends of Oregon, which almost always won in litigation and saw to it that much of the original program objectives were implemented. So too is the role of (mostly

Democratic) governors who vetoed radical changes to the program from (occasionally Republican-dominated) legislatures. The authors skewer the “Big Look” review of the program for attempting to direct the results, which were, after all, inconsequential. But these are incomplete portrayals of the program and may be misleading without a complete picture.

The authors’ choice not to deal with Goal 9 (Economy of the State) and 12 (Transportation) overlook the strong role of both in Oregon’s planning program. Also minimized is the rising role of administrative rules as a proxy for legislative action to maintain the program, the efforts of opponents of the program to subject those rules to legislative or popular approval, and the broken promises of assuring affordable housing within UGBs. But perhaps the biggest unexamined omission is the failure of Periodic Review to assure that local plans and regulations continue to meet the Goals. It is not enough for the authors to absolve themselves from providing a complete picture of the state planning program to say that the effort would make the book longer. The choice of topics itself sets the direction of the book. The choice largely not to deal with the period from the adoption of the goals to the late 1990s gives an incomplete portrait of the program and detracts from the usefulness of the work. There are also nits to pick with the book such as the citation of a non-existent statute on LUBA and the fact that Measure 49 was not referred to the voters as a political virtue, but because the proponents fell one vote short of outright adoption. But these smaller faults are minor, compared to the incomplete description of the program and prescriptions for its reform.

The authors state that proponents of the system failed to appreciate the lesson of the passage of Measure 7, which failed because of a technical constitutional deficiency, but leave no idea of what could have been done, as proponents of that Measure could not compromise, given the expectations of their base. From their viewpoint, the resultant Measure 49 was fortunate, as it institutionalized the principal of compensation for regulation. The “Damascus Debacle,” the RPS process, and the Measure 37\49 controversy

have not fully played out and may yet resolve themselves, so no harm is done to the program, but if there are “systemic faults” that may lead to the demise of the program, the authors might also look to program funding, especially for periodic review, and simple regulatory fatigue.

The recent demise of the Florida statewide planning system should be a caution for Oregon. The authors’ best points deal with the failure of the program to maintain its support and the resultant sclerosis in the program as farmers, the original principal proponents of the program, age and other constituencies take the program for granted. Most present-day Oregonians were either not born or in the state in 1973 and there is less enthusiasm for statewide planning among baby boomers.

The authors’ solution to this problem is “better politics” and removal of the PR consultants for the current program, but these vague bromides do nothing to illuminate a solution. The tendency of rural local governments to grant nonresource residences on resource lands led to resolution in 1993 in which there was a tradeoff of more lands available for rural home sites in exchange for stricter regulation of remaining resource lands. That did not satisfy rural landowners who pushed the passage of Measures 7 and 37 and led to the further grant of rural home sites. No doubt the

owners of these “houses in the country” will want urban-type services and do not appreciate the incremental costs and planning consequences of their presence. Those inside UGBs generally seek to retain the existing densities or to provide for single-family houses on larger lots, despite the planning consequences of their actions. The authors overlook these enduring conundrums and multiple efforts to accommodate them, perhaps because they are too difficult to resolve. But these are the realities faced by the underfunded, and tired, Oregon planning system.

It is true there is no Tom McCall to lead the way and the program is in a state of regulatory fatigue. The authors are correct in stating that program supporters simply accept the land use system, bad as it is, support it by instinct, but are unable or unwilling to consider meaningful reform. But simply stating that “positive and creative planning” should replace a defensive and conservative program adds nothing to the dialogue. The problems described by the authors are often real enough – it is the solutions to these problems that must be considered.

Ed Sullivan is an owner in the law firm of Garvey Schubert Barer in Portland and has written, practiced and taught planning law for over forty years.



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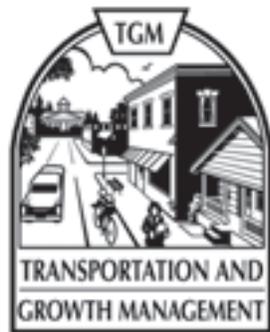


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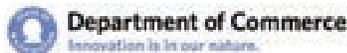
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Tackling Stormwater in Oregon's Small Cities

BY LINSEY PAYNE, UNIVERSITY OF OREGON

Linsey Payne, a graduate student in the Departments of Landscape Architecture and Community and Regional Planning at the University of Oregon, has been on a stormwater odyssey for the past year. Her ongoing study focuses on assisting small cities in the Willamette Basin to develop stormwater management plans that incorporate green infrastructure (bioswales, constructed wetlands, green roofs, infiltration planters, rainwater harvesting, etc.) in addition

Stormwater Management Plan Template

DEQ has requested that she create a template version of this management plan for distribution to small cities by 2013. The purpose of her summer internship with the City of Cottage Grove is to vet the template based on the specific needs of the city. The nearby city of Creswell is also interested in adapting the plan for its needs. A survey will be out in September 2011 to city staff members, watershed councils, and private businesses in order to determine what barriers exist to incorporating natural systems into the stormwater management plans of small cities in the Willamette Basin.

"The goal," she says, "is to empower small cities



Water quality impacts from watershed development.

CREDIT: L.R. KIMBALL, A DIVISION OF CDI-INFRASTRUCTURE, LLC.

to protect the streams, rivers, lakes, and natural features that make their community unique. Establishing stormwater management plans, particularly ones utilizing natural systems, will help them meet state and federal regulations, but almost more importantly, help them protect their drinking water sources, their recreation areas, and their fishing industries."

Using natural systems for stormwater management is not a new concept. Low impact development (LID) and green infrastructure (GI) are now commonplace terms, at least in the realm of water quality protection. The concept behind

these terms is to protect and restore natural landscape features and use natural systems (or systems engineered to mimic natural processes) to manage rain water as a resource. In April 2011, the US Environmental Protection Agency (EPA) published A Strategic Agenda to Protect Waters and Build More Livable Communities through Green Infrastructure, which promotes alternatives to the traditional curb and gutter stormwater facilities. The EPA's Agenda outlines key near-term activities to help make green infrastructure an available tool for meeting Clean Water Act requirements in sewer permitting and plans, enforcement orders and consent decrees, and other areas.

Barriers to Program Development

Oregon has been on the forefront of "green" stormwater management since the early 1990s when Portland developed an ambitious plan and supported innovative research to treat the city's polluted runoff before it entered into the Willamette River. The best management practices resulting from Portland's research use GI and LID techniques and have been a model for other large cities, such as Seattle, Chicago, Philadelphia, and New York.

Smaller cities have generally been slower to adopt formal stormwater management plans, let alone adopt natural systems treatment methods. Before Ms. Payne could move forward with her stormwater management template she had to identify the barriers keeping these cities from incorporating natural systems into their stormwater management programs. In 2006, Oregon State University's Sea Grant Extension Program conducted needs-assessment workshops with local decision makers and residents in three Oregon communities of vastly different populations—Portland metropolitan area, Grants Pass, and Brookings. The workshops addressed:

1. The biggest barriers to planning and implementing future development while minimizing impacts to water resources (that is, adopting natural systems practices);
2. Their needs for education, training, or other resources on these issues; and
3. The audience(s) to which these efforts should be directed.

The results from the workshops provided an excellent starting point for determining barriers to natural systems. However, the cities were too different in size and location to assume those barriers were also true for all cities in Oregon.



Disconnected Downspout, Rivereast Center, Portland, Oregon, by.

CREDIT: ALICE WEBB

Ms. Payne's survey continues to explore these three workshop topics, but focuses specifically on small cities (population 50,000 and fewer) within the Willamette River Basin. In this way the trends can be extrapolated as generally experienced and shared by most if not all small cities in the Willamette Basin.

To contact the author email: linseyp@uoregon.edu. To participate in the survey please follow this link: <https://www.surveymonkey.com/s/OregonStormwaterSmallCities>.

Linsey Payne is a dual master's student in the Landscape Architecture and the Community and Regional Planning Departments at the University of Oregon.

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