Community Building Sourcebook
Land use and transportation initiatives in Portland, Oregon

December 2007
Dear Colleague:

TriMet is pleased to provide this Community Building Sourcebook, which highlights the many land use and transportation accomplishments of the Portland, Oregon, region. This document is intended to provide snapshots of the innovative projects, plans and programs that shape our region’s growth.

As you will see, Portland’s successes have depended upon partnerships among neighborhoods, local municipalities, regional interests, state agencies, environmental groups, developers and private financial institutions. These partnerships are key to our successes.

This document was a collaborative effort among TriMet, Metro and 1000 Friends of Oregon, originally published in 1999. Now in 2007 we are proud to present a revised edition of the Community Building Sourcebook to include new projects, programs and up-to-date information. A new chapter includes two transit-oriented development tours.

We hope you find the information and contacts helpful in your own work. Please feel free to call any of the listed representatives for more information.

Sincerely,

Fred Hansen
General Manager
Acknowledgments

The 1999 edition of this report was a collaborative effort among 1000 Friends of Oregon, Metro and TriMet. The following individuals helped prepare and edit the 1999 Community Building Sourcebook: GB Arrington, Rob Bennett, Amy Carlsen-Kohnstamm, Phil Harris, Michael Kiser, Kim Knox, Barbara Linssen, Carlo Markewitz, Amy Norway, Lynn Peterson, Rhonda Ringering and Darcie White.

TriMet led the 2005 update of the Community Building Sourcebook. Jillian Detweiler was the project manager. Leah Wyatt and LeAnne Brown were responsible for fact-checking and creating new electronic files. Sine Adams researched new transit-oriented development projects.

TriMet initiated a third revision of the Community Building Sourcebook in 2007. Jillian Detweiler was the project manager. Arianna Chadwick-Saund was responsible for updating information, researching TODs and creating new electronic files. Production assistance was provided by Diane Goodwin, Patricia Williams and Monika Lackey. Geena Min designed the 2007 edition.

Thanks to all project participants for working to achieve transit-oriented development ideals and to many others who provided assistance in compiling information for this Sourcebook.
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TriMet provides transportation options for thousands of Portland-area residents every day.

TriMet operates more than 600 buses on 91 bus routes, with 7,625 bus stops and 1,100 bus shelters. The MAX light rail system stretches 44 miles. TriMet provides 8,112 parking spaces in 21 Park & Ride lots around the region, with 36 additional lots shared with churches, retail businesses and theaters. In addition to the fixed route service, TriMet meets the needs of elderly and disabled individuals with the LIFT and medical transportation programs.

**Compete to succeed**

During the 1960s and ’70s, many public transit systems were reduced to an extension of the welfare system. The low quality of service reflected the notion that transit riders had no other choice.

TriMet’s success is predicated on the idea that its riders have other choices, and the agency must compete to succeed. The concept of a “total transit experience” reflects the elements of a transit trip that must be addressed in order to attract riders to transit.

The transit patron’s “total transit experience” begins when planning a trip. A potential transit rider may need schedule and route information as well as stop locations. This includes the walk (or sometimes drive) to the station or stop and the quality of the station or stop environment. Transit frequency and ease of transfers are part of the experience, as is the ride itself. Then there’s the walk to the final destination and the ability to complete the round-trip with ease.

To meet transit needs as the region grows, TriMet is working to address all of these elements, in addition to the basic job of getting transit service on the street.

TriMet’s planning is grounded in the Region 2040 Framework Plan and the Regional Transportation Plan. This coordination assures land use and transportation will continue to be integrated and mutually supportive, allowing the region to grow smarter, to make best use of its infrastructure investments and to improve the livability for all citizens of this region.

The region works hard to maximize the significant transit investments by connecting transit with land use. Light rail stations generally have a station area zoning overlay. TriMet and Metro each manage transit-oriented development programs, with TriMet’s largely tied to the use of excess rights of way, joint use conversion of transit facilities or review of significant projects in consultation with partner jurisdictions. More than $6 billion in development has occurred along light rail since the first line opened in 1986.

TriMet’s focus on on-street bus stop amenities and customer information is another aspect of our attention to the total transit experience. TriMet and Metro prepared an inventory of the sidewalk infrastructure used to set priorities for sidewalk and crosswalk needs. New shelters are installed each year. Bus stop maintenance is promoted through an adopt-a-stop program, and new shelter designs help prevent graffiti. Innovations such as the web-based Trip Planner make planning transit trips easy. Transit Tracker provides real-time information about transit arrivals.

**Special district**

TriMet is a special district of the State of Oregon and is governed by a seven-member Board of Directors appointed by the governor. TriMet’s service area covers much of three counties, nearly 600 square miles with a population of 1.4 million. The Board appointed TriMet General Manager Fred Hansen in October 1998.

A regional payroll tax provided 57 percent of 2006 TriMet operating revenue. The tax is $6.52 per $1,000 on gross payroll. Passenger revenue accounted for 21 percent of the budget; state/federal operating grants 13 percent; and other sources 9 percent.

**HISTORY**

- **1969:** TriMet formed after Rose City Transit bankruptcy.
- **1976-1977:** The 22-block Portland Transit Mall is built — one of the first of its kind in the nation.
- **1982-1986:** The 15-mile Eastside MAX light rail line is built between downtown Portland and Gresham.
- **1989:** TriMet named “America’s Best Large Transit Agency” by the American Public Transit Association.
- **1994:** Transit Mall extended to Union Station.
- **1998:** The 18-mile Westside MAX extension begins service to Beaverton and Hillsboro.
- **2001:** Airport MAX line opens with service from downtown to the Portland International Airport.
- **2004:** Interstate MAX line opens with service to the Expo Center.
- **2007:** Construction of Portland Mall and I-205 MAX lines begins.
If 1960s highway plans had been implemented, Portland would have three times the number of freeway miles it has today—and no light rail system. Grass-roots opposition to the “Mount Hood Freeway,” which would have destroyed 1,750 homes in Portland’s eastside neighborhoods, established what is now Portland protocol: We define what kind of place we want to be and then identify the appropriate transportation options to serve it. Citizen activists did not want their city neighborhoods to be drilled out by a freeway and did not want suburbs to be wholly dependent on freeway capacity to be linked to the Central City. So Portland made a transportation choice appropriate for a vision of vital inner-city neighborhoods and integrated suburbs. The freeway proposal was officially pronounced “dead” in 1975, and the first light rail segment was born.

The first 15 miles

The 15-mile eastside Metropolitan Area Express (MAX) was constructed between March 1982 and September 1986. Funds previously slated for the Mt. Hood Freeway were redirected to Central City access improvements, including light rail. The total project cost was $214 million. Federal funding provided $178.3 million or 83 percent of project costs. State funding was $24.8 million and local funding was $10.9 million.

Part of the alignment runs in the right of way of the Banfield Freeway (I-84) and part is located in existing city or county streets, including East Burnside. The line connects downtown Portland with Gresham and serves neighborhoods in between with 26 stops. While the freeway constrains development opportunities at some stations, other station areas introduced new development patterns in the suburbs. As land values increase and transit is more valued as an amenity, even difficult sites adjacent to MAX are being redeveloped, as described in Chapter Four of this Sourcebook.

In FY 2004, the eastside segment of the Blue Line averaged an annual ridership of 12.11 million.

The next 18 miles

The westside segment of the Blue Line was planned to shape new development. This 18-mile extension runs from downtown Portland to Beaverton and Hillsboro. When construction began in 1992, the line traveled through stretches of undeveloped land; the line has since become a magnet for commercial and residential development. Westside station area planning is described in Chapter Three.

Federal funds contributed 73 percent of the $963 million project; state and local funds paid the $259 million balance. The project includes a three-mile, twin-tube tunnel through Portland’s West Hills. A station at Washington Park is the deepest transit station in North America at 260 feet underground.


The westside extension of the MAX Blue Line won numerous awards, including the 2000 Design Achievement Award from the National Endowment for the Arts, the Presidential Award for Design Excellence 2001 and the Design for Transportation National Award 2000.
The Portland area’s award-winning MAX light rail system expanded to Portland International Airport (PDX) with service beginning on Sept. 10, 2001. Continued passenger growth, limited road capacity to the airport and the cost of new parking structures created the impetus for bringing light rail to the airport. The addition of a private funding partner helped propel the project forward.

**Light rail to the airport** has been part of regional transportation plans and the PDX master plan since the mid-1980s. In 1997, Bechtel Enterprises came to the region and proposed a partnership in which Bechtel would build the MAX extension. Three local government agencies—the Port of Portland, TriMet and the City of Portland through the Portland Development Commission—capitalized on the private investment and the opportunity to extend light rail to the airport earlier than anticipated.

### Innovative financing

The unique public/private venture to finance the airport MAX line used funds from local jurisdictions and agencies. No federal dollars, state general funds or additional property taxes were required. This accelerated the project timeline. The Port’s $28.3 million contribution was raised by bonding against a $3-per-passenger facility charge. The City contributed $23 million from an existing urban renewal district. TriMet contributed $45.5 million in general funds and the sale of tax-exempt revenue bonds. The financing package was completed by giving Bechtel the development rights to 120 acres owned by the Port of Portland, which would be served by the new MAX extension. These rights were valued at $28.2 million.

The decision to enter into an agreement with a private partner required many formal procedures to protect the public investment. In all, about 85 agreements were signed, with nearly 20 formal approval steps, by various elected and appointed bodies. A Public Review Committee provided additional oversight during the decision-making process. TriMet held public hearings and received approval from its Board of Directors for a sole-source contract with Bechtel.

### Station area development

Bechtel proposed an ambitious master-planned development for 120 acres to be served by two light rail stations. Federal aviation rules prohibit new housing in close proximity to an airport, but Bechtel proposed a mix of office, retail and entertainment uses for the site. New hotels would provide a night-time population for the development. As light rail construction moved forward, Bechtel built a park feature and main street couplet to be the urban design spine of the new development. The post-9/11 economic downturn slowed development plans, particularly office and hospitality sectors.

Bechtel ultimately sold its interest in the property to Trammel Crow, which asked the City of Portland to lift a limitation on retail uses larger than 50,000 square feet in order to allow a major retail anchor to energize the development. The City amended the applicable station area zoning overlay in 2005, paving the way for Ikea, which opened in July 2007 and anchors a retail center. Sites for office and hotel uses remain in the plan, but are undeveloped.

Land use planners generally agree that Bechtel’s original concept underestimated the impact of the relative isolation of the site, which limited its attractiveness for office uses. “Light rail can make a good site great,” noted Metro TOD manager Phil Whitmore. “It can’t make a difficult site good. It can’t reverse market fundamentals.” Bechtel’s limited experience with commercial development was also a factor in creating unattainable aspirations for the site.

### Ridership flies

Daily ridership averages 2,600 people getting on or off at PDX. That’s more than three times the former bus ridership to the airport. The Red Line extended to Beaverton Transit Center in September 2003 to meet ridership demand. In 2006, about 1 million people got on or off the MAX line at the airport, an 11 percent increase over 2005.

The project was named the 2002 project of the year by the American Public Works Association. The project also won the U.S. Conference of Mayors Excellence Award in 2003.
Construction of this northerly addition to the MAX system opened four months ahead of schedule, on May 1, 2004, and millions under budget. MAX Yellow Line runs through a diverse landscape, primarily in the existing right of way of North Interstate Avenue.

The Rose Garden Arena and Memorial Coliseum anchor the segment. Heading north, it runs through a historic industrial district. The alignment then enters the Overlook neighborhood, where Kaiser Permanente has a major facility with more than 800 employees. Continuing north, redevelopment is taking shape among the motels, gas stations and other businesses that served travelers in the 1950s when Interstate Avenue was the primary route between Portland and Vancouver, Washington. The segment is anchored at the north end by the Expo Center.

Try, try again

Regional transportation plans long identified the need for north-south high-capacity transit. The region made two attempts at ballot measures to increase property taxes to support MAX construction. A 1998 vote would have extended MAX from Vancouver, Washington to Oregon City, Oregon. That vote passed in Oregon but failed in Clark County, Washington. A second attempt for an alignment in Oregon passed in the City of Portland, but failed in suburban Washington and Clackamas counties. MAX Yellow Line responded to these votes in the following ways:

- lower-cost project
- no increase in property taxes to pay for it
- no businesses or homes displaced
- route better serves neighborhoods

Business support program

Many of the businesses along Interstate Avenue are small, owner-operated enterprises. To offset possible construction impacts, the Interstate MAX Business Support Program created a marketing and advertising campaign to draw in business. The broad-based campaign included advertisements, direct mail, promotions, financial assistance, technical workshops for the businesses, and a “Lunch Bus” that brought 14,000 people to Interstate restaurants—resulting in nearly $12,000 in income to these businesses. The Business Support Program assisted more than 100 businesses during MAX Yellow Line construction, and more than 50 new businesses had opened on Interstate Avenue as of December 2004.

Joint development program

TriMet received FTA approval to use some of the project savings to increase station area development activities. $4 million was available for planning and site acquisition. After TriMet completed additional environmental analyses of potential development impacts, it proceeded with acquisition of two properties to be offered for transit-oriented redevelopment. The first site, which was the long-time home of the Crown Motel, was offered for development in March 2006. The site is now slated to become 54 units of affordable housing, with ground-floor retail to be developed by Reach Community Development. TriMet is working with the community to determine the development strategy for the second site.

MAX Yellow Line

Expo-Portland City Center

Length: 5.8 miles
Route: North from the Rose Quarter to the Expo Center along Interstate Avenue
Stations: 10
Cost: $350 million

Partners and funding

Interstate MAX Yellow Line was a TriMet project in partnership with the City of Portland, the Portland Development Commission, Metro, the Federal Transit Administration (FTA) and the communities of North and Northeast Portland. The FTA provided $257.5 million for the project. Local funds included $37.5 million in regional transportation funds, $30 million from the City of Portland raised through the formation of a new urban renewal (tax increment) district, and $25 million from TriMet.

Best practices

In addition to being ahead of schedule and below budget, Interstate MAX Yellow Line established new benchmarks in the areas of contracting with disadvantaged business enterprises, supporting businesses impacted by construction and incorporating environmental restoration.

The project received the 2005 Arbor Day Foundation Lady Bird Johnson Award for exemplary leadership in roadside beautification. The project tripled the number of trees along Interstate Avenue.
The Portland Streetcar began service in July 2001, bringing to fruition an idea for an “inner city circulator” first identified in Portland’s 1972 Downtown Plan. Dignitaries and 50,600 citizens participated in a weekend-long celebration of the opening of the first modern streetcar line in the U.S.

The streetcar, which shares a lane with cars for much of its alignment, provides an essential link from neighborhoods to the downtown business district, to shopping, to the arts community and to educational institutions. It has encouraged infill development, facilitating new housing in the emerging River District and South Waterfront areas and supporting other planned development in the Central City.

By providing a convenient connection to light rail, the streetcar also builds overall transit ridership.

**Eleven years in the making**

The project was initiated in 1990 when the City of Portland formed a citizens advisory committee comprised of neighborhood activists and business leaders and contracted for a feasibility study of providing rail-based transit as a circulator in the Central City. The study and community support helped secure a $900,000 grant from the U.S. Department of Housing and Urban Development in 1992, which led to the selection of an alignment in 1994. In 1995 the City of Portland issued a request for proposals to design the streetcar line, manage construction and possibly operate the streetcar. The successful bidder was Portland Streetcar, Inc. (PSI), a not-for-profit corporation guided by a board of directors representing both the public and private sectors. PSI, in turn, contracted with technical and project management/financial-planning firms.

The City approved a capital finance plan in 1997. The primary source of funds—$30.6 million—was the proceeds from revenue bonds sold by the City and backed by net revenues from City-owned parking garages and parking meter income. Other sources were $9.6 million from a Local Improvement District supported by property owners on the alignment; $7.5 million from tax increment financing; and $5 million in federal transportation funds, which were subsequently replaced with regional transportation funds.

Portland Streetcar initially provided service along a six-mile route. In January 2005, construction began in the South Waterfront District on the $15.8 million Gibbs extension. This 0.6-mile extension opened in October 2006 and connects directly with the Portland Aerial Tram. Construction on another 0.6-mile extension in the South Waterfront District began in August 2006. This $13.5 million extension (known as the Lowell extension) opened in August 2007 and encompasses even more of the South Waterfront District in its route.

**The Czech connection**

PSI selected Czech Republic company Skoda to produce Portland’s streetcars. The cars were made at the Skoda factory in Pilzen under a contract with the Inekon Group.

The low-floor, air conditioned cars are 66 feet long and eight feet wide, and can carry up to 140 passengers. Top speed is 31 mph.

**Operations**

The City of Portland contracts with TriMet to operate the streetcar, and there is a seamless fare system. TriMet pays two-thirds of operating costs, with the balance coming from parking meter revenue, fares and sponsorship promotions.

In Fall 2001, there were 3,715 average daily weekday boardings on the streetcar line. In Fall 2006, average daily weekday boardings increased to 8,817, which reflected both new development along the line and extensions to the route.

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**Portland Streetcar**

- **Length**: Eight-mile loop
- **Route**: Good Samaritan Hospital in Northwest Portland, east to the Pearl District, south through the west end of downtown on 12th Avenue to Portland State University, then east to RiverPlace and South Waterfront
- **Stations**: The streetcar stops approximately every two blocks. Curb extensions accommodate stops.
- **Cost of Initial Route**: $125 million
- **Travel Time**: Approximately 34 minutes from Good Samaritan Hospital to Portland State University

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With more than 11,000 employees, the Oregon Health Sciences University (OHSU) is one of Portland’s largest employers. The OHSU campus is located on Marquam Hill, south of downtown Portland. Although the hill is a beautiful setting, growth there is constrained by land availability, a limited road transportation network and potential environmental impacts. As OHSU began to plan its next 30 years of growth and its strategy to become one of the top 20 nationally ranked medical research institutions, it identified interest in creating a satellite campus less than a mile away in the South Waterfront District. Thus, the idea for the Portland Aerial Tram was born.

**Design and construction**

After years of studies on how to best connect the satellite South Waterfront campus with the central Marquam Hill campus (studies that included possible transportation methods such as shuttle buses, gondola lifts, tunnels and even funiculars), OHSU decided that an aerial tram would be the best approach. The City of Portland accepted OHSU’s tram proposal in July 2002, and designs for the tram began immediately afterward.


At a height of 500 feet and a length of 3,300 feet, the tram’s cables run between the South Waterfront terminal adjacent to the OHSU Center for Health & Healing and the upper terminal at the Kohler Pavilion on OHSU’s main campus. The tram cars depart every five minutes and take three minutes for a one-way trip at an average speed of 22 mph. These two tram cars can hold up to 78 passengers per car. The tram was designed by Angelil/Graham/Pfenniger/Scholl, based in Zurich, Switzerland, and Los Angeles. Gangloff Cabins of Bern, Switzerland, made the custom-designed cars, which meet rigorous Swiss standards for aerial tramways.

**Sustainability**

The tram is integrated with other public transit. The Portland Streetcar stops at the corner of SW Moody Avenue and SW Gibbs Street, across the street from the South Waterfront tram terminal. TriMet riders may ride the bus or MAX downtown and transfer to the Portland Streetcar, and both TriMet annual or monthly passes and Portland Streetcar annual passes can be used as tram fare. The tram also accommodates bikes and mobility devices. Showcasing sustainability at its best, the tram will eliminate an estimated 2 million vehicle miles annually that otherwise would be traveled in the city, thereby saving 93,000 gallons of gas and reducing greenhouse emissions by more than 1,000 tons.

**Cost, ridership and economic growth**

The total construction cost of the tram was $57 million, with OHSU providing $40 million. A total of 125,158 people rode the Portland Aerial Tram in February 2007, nearly twice the 66,000 one-way riders expected based on preliminary projections. Through the end of April 2007, cumulative ridership on the tram exceeded 300,000. Twenty years from now, when the South Waterfront is more mature in its development, about 5,500 OHSU-related round trips are expected each day.

Almost $2 billion in new development at the South Waterfront District will be leveraged by the initial tram investment, resulting in 5,000 new jobs and 2,700 new housing units during the next decade, and 10,000 jobs and 5,000 housing units during the next 20 years. For more information on the development of the South Waterfront District, see Chapter Three: Transit-Oriented Developments.
The Washington County Commuter Rail line will offer a new transportation route within the heavily traveled Interstate 5 and Highway 217 corridor. Using existing freight tracks, it will connect to TriMet MAX light rail in Beaverton and serve Washington Square, Tigard, Tualatin and Wilsonville. This innovative project is one of the few suburb-to-suburb commuter rail projects in the country. Construction began in October 2006, and the line will open in September 2008.

**The route and stations**

The 14.7-mile project will share freight train tracks with the Portland and Western Railroad in eastern Washington County, thereby minimizing construction impacts for most of the new line. There will be five stations, which will include nearly 700 Park & Ride spaces at four stations:

- **Beaverton Transit Center:** This station will connect with 11 TriMet bus lines and MAX Blue and Red lines serving the Beaverton to Hillsboro corridor, downtown Portland and Portland International Airport.

- **Hall/Nimbus Station:** This station will be adjacent to Hall Boulevard and within walking distance of the Cascade Business Center. Bus service will connect riders to the Washington Square Mall and to the Transit Center. The station will have about 50 Park & Ride spaces.

- **Tigard Transit Center Station:** This station will be located in downtown Tigard. It will provide about 100 Park & Ride spaces and connect with five TriMet bus lines.

- **Tualatin Station:** This station will have about 130 Park & Ride spaces and will connect to local TriMet bus service.

- **Wilsonville Station:** This station will be located on Barber Street, will have about 400 parking spaces, and will connect with SMART buses serving residential and employment areas.

**Vehicles**

TriMet is working with Colorado Railcar, a U.S. manufacturer, to design and build the self-propelled diesel vehicle. Each railcar will seat 80 passengers.

**Partners and funding**

In 1996 Washington County, the cities of Beaverton, Tigard, Tualatin, Wilsonville and Sherwood, TriMet, Metro, and ODOT initiated a feasibility study of commuter rail. The project received unanimous support from all the partners, as well as strong public and business support. The $117.3 million project will be funded by $58.65 million in federal funding $35.34 million from State of Oregon Lottery bond proceeds, $15.56 million from TriMet and GARVEE bonds, and $7.75 million from local cities and Washington County. TriMet and Washington County will contribute a total of $4.1 million to annual operating costs.

**Travel time and ridership**

Washington County Commuter Rail will operate weekdays every 30 minutes during morning and afternoon rush hours. The trip from Beaverton Transit Center to Wilsonville will take 27 minutes. Train speeds will average 37 mph, with top speeds over 60 mph.

Average daily ridership is projected between 3,000 and 4,000 trips by 2020, with half of the riders new to transit.
This phase of the project is scheduled to open in September 2009 as the Green Line.

The route and stations
The 6.5 mile extension travels between Gateway Transit Center and Clackamas Town Center along I-205, connecting to existing MAX Blue Line tracks from Gateway to downtown Portland along I-84. Most of the line follows an existing transit way created when I-205 was originally constructed. The line connects two regional centers (Gateway and Clackamas) and a town center (Lents) identified in the Metro 2040 Growth Concept as areas that are to intensify and diversify as mixed-use centers grow.

The I-205 segment will have eight new stations and five Park & Ride lots providing more than 2,300 spaces. Every station except Fuller Road is located adjacent to streets with bus service, providing a link to destinations both east and west. Stations are:

- **SE Main Street Station:** This station will be located near Portland Adventist Medical Center. It will contain 420 Park & Ride spaces.
- **SE Division Street Station:** This station, located south of Division Street, will connect to the I-205 bike and pedestrian path.
- **SE Powell Boulevard Station:** This station will be located south of Powell Boulevard to serve surrounding commercial uses, a residential neighborhood and Marshall High School. 400 Park & Ride spaces are planned for this location.
- **SE Holgate Boulevard Station:** This station will be located on the north side of Holgate Boulevard, and will have 120 Park & Ride spaces.
- **Lents Town Center/SE Foster Road Station:** This station will be located between Foster Road and Ramona Street to serve the heart of downtown Lents.
- **SE Flavel Street Station:** This station will be located on the south side of Flavel Street.
- **SE Fuller Road Station:** This station will be located between Johnson Creek Boulevard and Otty Road, where it will serve the North Clackamas County Urban Renewal District. This site is planned to have 630 Park & Ride spaces.
- **Clackamas Town Center Station:** This station will anchor transit service by connecting MAX with 10 bus lines. It will be convenient to an adjacent regional mall and will include a 750-space garage.

Partners and funding
The I-205 segment of the South Corridor Project is estimated to cost $575.7 million. Federal dollars will pay 60 percent of the project cost. Local match will be contributed by Metro, the City of Portland, the Oregon Department of Transportation (ODOT) and TriMet. The source of the City’s contribution will be urban renewal funds.

Travel time and ridership
The MAX Green Line will travel every 15 minutes most of the day. The MAX ride from Clackamas Town Center to Gateway is estimated to take 15 minutes. Total travel time from Clackamas Town Center to Pioneer Courthouse Square will be 39 minutes.

Studies project approximately 46,500 daily boardings on I-205/Portland Mall MAX Light Rail between Clackamas Town Center and Portland State University by 2025. Of those riders, 84 percent are expected to start and/or end their trips within the I-205 corridor.
The Portland Mall Light Rail Project is part of the South Corridor Phase I Project, which connects downtown Portland to Clackamas County. The project features renovations that will enliven the Mall for retail business, pedestrians, transit and autos. Improvements such as refurbished streets and sidewalks, new transit shelters, better lighting and eye-catching public art will rejuvenate these signature downtown streets.

MAX on the Mall

MAX stations on the Mall will be located about every four to five blocks, with bus stops on different blocks and spaced every two to four blocks. Transit riders will board buses and trains on the right side of the street, allowing two travel lanes for transit and one through lane for autos.

The project will bring new life to downtown Portland. Here are some key elements:

- increased access within downtown, with trains that loop on the Mall every five minutes, ensuring a MAX train is always within sight during most of the day
- a continuous auto and bike lane along the entire left side of the Mall, offering greater access to office and retail locations
- four new auto pull-outs in the Central Mall area for timely business delivery services and customer access
- improvements to the Burnside intersections at 5th and 6th avenues to improve traffic flow on those two streets
- renovating sidewalks and other facilities to a “like new” condition
- better distribution of bus service throughout downtown

New vehicles

As part of the project, TriMet is unveiling 21 new MAX train cars with more seats and a sleek new look. The fourth-generation (“Type 4”) MAX cars are being built by Siemens Transportation Systems, Inc., and are scheduled to begin service throughout the MAX system in fall 2008.

The cars are seven feet longer, but will still fit within existing MAX stations and will weigh less than older MAX cars. An improved interior layout leaves space for 12-16 more seats per train, plus additional standing room. While existing MAX trains can carry up to 332 riders, the new trains will be able to carry 464. New trains will also brake and stop more smoothly than existing MAX trains.

Benefits

Public and private partners are investing nearly $9 million from 2006-2009 to promote downtown businesses and provide technical support and low-interest loans to small businesses along the construction zone on SW 5th and 6th avenues. When complete, the I-205/Portland Mall Light Rail Project will generate nearly 7,600 jobs and more than $260 million in personal income in the Portland area.

The Green Line will not only connect with the Blue and Red lines at Pioneer Square, it will also serve Portland State University (PSU), the top transit destination in downtown Portland. Approximately 40 percent of students, faculty and staff at PSU ride TriMet.
The Portland-Milwaukie Light Rail Project is Phase II of the South Corridor Project, which calls for a second MAX light rail line into Clackamas County. This proposed extension would bring MAX from the southern end of downtown Portland to downtown Milwaukie, serving neighborhoods in southeast Portland and Milwaukie.

The project is in the preliminary planning stages. Construction could begin as early as 2011, with service starting in 2014.

**Route, stations and parking**

The proposed 6.5-mile extension connects with light rail on the Portland Mall at Portland State University.

The extension will potentially have stations near:

- SW Lincoln Street, serving PSU and south downtown Portland
- South Waterfront District, serving OHSU’s satellite campus and the Portland Aerial Tram
- OMSI, serving the central eastside
- SE Clinton Street, serving the Hosford-Abernethy and Brooklyn neighborhoods
- SE Rhine Street, serving the Brooklyn neighborhood
- SE Holgate, serving the Brooklyn neighborhood
- SE Harold Street
- SE Bybee, serving Eastmoreland and Westmoreland
- SE Tacoma, serving Sellwood and Ardenwald

Other options are being considered such as stations at the former Southgate Theater, Harrison Street, Washington Street, Lake Road, Bluebird Street and Park Avenue.

A 1,000-space Park & Ride garage is proposed for the Tacoma Street Station. There is also a 1,000-space Park & Ride proposed at Park Avenue, a 600-space Park & Ride proposed at Southgate, and a 275-space Park & Ride proposed at Lake Road.

**Cost**

The cost is approximately $637 million in current dollars or $880 million in 2013, but cost estimates could change as a result of other options being studied. The construction of the new Willamette River light rail/pedestrian bridge is included in cost projections. Running buses on this new light rail bridge could prove travel time savings for more than 14,000 bus trips daily that currently use the Ross Island Bridge. Improving bus travel time would also make the project more competitive for federal funding.

The 2007 state legislature approved $250 million in Lottery bonds to be used for the project design and construction. Federal and other local sources will be sought to pay for the remainder of the project costs.

**Travel time**

A trip between Milwaukie and downtown Portland by light rail is forecast to take 14 minutes in 2020, compared to 19 minutes by automobile. The line would connect an estimated 20,000 to 25,000 daily riders to the existing MAX system in 2020.
A consortium of local jurisdictions and agencies (TriMet, Metro, Portland, Lake Oswego, Clackamas and Multnomah counties and the Oregon Department of Transportation) purchased the Willamette Shore Line right of way, a former freight line, from the Southern Pacific Railroad in 1988. The right of way was purchased to prevent abandonment of the line and to preserve it for future passenger rail service.

This right of way is approximately 6.2 miles long, with a southern terminus near downtown Lake Oswego and a northern terminus near the South Waterfront development in Portland. The line passes through the neighborhoods of John's Landing and Dunthorpe. Title is held by the City of Portland on behalf of the Consortium—in part by outright ownership and in part by railroad use easement. The line has seven trestles and an approximately 1,800-foot-long tunnel. The right of way width varies from 17 feet to 80 feet, with numerous private grade crossings. A trolley barn was constructed in Lake Oswego in 1998.

The line is leased by the City of Lake Oswego to a private operator for recreational operation between the terminus locations. The line is not electrified, but uses vintage trolleys powered by a diesel generator. This weekend and seasonal operation preserves the railroad use easements.

**Streetcar**

A potential upgrade to the line would create a seamless extension of the Portland Streetcar line, which terminates in the South Waterfront District. The extended line would operate to downtown Lake Oswego, perhaps remaining as a single track, but with passing tracks at stations. Stations are proposed at:

- SW Hamilton Court
- SW Boundary Street
- SW Nebraska Street
- SW Nevada Street
- Near the Sellwood Bridge
- SW Riverwood Road
- SW Briarwood Road
- E Avenue
- terminus at A Avenue and Fourth Street

Such an extension operating at 12-minute headways would require four additional streetcars. A bus transit center could be established at the southern terminus. There is also potential for a future commuter rail connection at the southern terminus.

**Bus Rapid Transit**

Another option for this transit project is a Bus Rapid Transit (BRT) system from Lake Oswego to Portland. While the capital costs for BRT are lower than the proposed streetcar line’s capital costs, operating and maintenance costs for BRT would be higher than that of a streetcar line. Proposed stops for the BRT system include:

- SW Bancroft Street
- SW Boundary Street
- SW Nebraska Street
- SW Nevada Street
- Near the Sellwood Bridge
- SW Military Road
- SW Briarwood Road
- E Avenue
- between A and B avenues

Both the streetcar and BRT plans have three different southern terminus options. Both plans also include proposals for a Park & Ride lot with 400 spaces at the southern terminus.

**Benefits**

A streetcar line or BRT system from Lake Oswego to Portland would provide access to downtown from the South Waterfront District. The district has a highly constrained roadway system and will rely on transit to carry large numbers of residents and workers. The Lake Oswego town center’s Foothills area has similar access constraints. The streetcar/BRT could provide access between Foothills and the rest of the town center area and would connect Lake Oswego and surrounding areas with the existing metropolitan transit system.
Columbia River Crossing is a bridge, transit and highway improvement project. The project is charged with enhancing accessibility, reducing congestion and improving safety problems on a five-mile segment of Interstate 5. The project area stretches from State Route 500 in Vancouver, Washington, to approximately Columbia Boulevard in Portland, Oregon, including the Interstate Bridge across the Columbia River.

The Columbia River Crossing is a joint project of the Washington State Department of Transportation and the Oregon Department of Transportation. Local project partners are Southwest Washington Regional Transportation Council, Metro Regional Government, C-TRAN, City of Vancouver, City of Portland and TriMet.

Issues

I-5 between Vancouver and Portland suffers six hours of traffic congestion each weekday. If no improvements are made, congestion will increase to more than 16 hours each weekday by 2030. In addition to congestion issues, this section of I-5 has accident rates two to three times higher than similar highways in Oregon and Washington. Problems include these elements:

- Bus travel times are increasingly impacted by congestion, bridge lifts and crashes on I-5.
- Merging and weaving problems lead to sideswipe crashes.
- Short on- and off-ramps at interchanges contribute to a high accident rate.
- Poor sight distance approaching the bridge leads to rear-end crashes.
- The path on the Interstate Bridge is dangerously narrow, and local street connections are confusing and circuitous.

Also, the existing I-5 bridges are located in a seismically active zone. They do not meet current seismic standards and are vulnerable to failure in an earthquake.

Costs

Early estimates in 2007 range from $2 billion to $6 billion to fund all three aspects of the project: bridge, highway and transit improvements. The Columbia River Crossing project will seek federal, state and local funding. In addition, tolling will be studied as a method to help finance the project.

Schedule

At the beginning of 2008, the project expects to publish a draft Environmental Impact Statement (EIS). Following a 60-day public comment period, local project partners will undergo a process to choose a Locally Preferred Alternative (LPA) that defines which of the alternatives the project will pursue for construction. That LPA will be chosen in summer 2008. Following the LPA, the project will produce a Final EIS, documenting all the potential impacts. Release of the Final EIS is scheduled for 2009, and construction could begin as early as 2010.
Oregon's Statewide Planning Goals:
1. Citizen Involvement
2. Land Use Planning
3. Agricultural Lands
4. Forest Lands
5. Natural Resources, Scenic and Historic Areas, and Open Spaces
6. Air, Water and Land Resources Quality
7. Areas Subject to Natural Disasters and Hazards
8. Recreation Needs
9. Economic Development
10. Housing
11. Public Facilities and Services
12. Transportation
13. Energy Conservation
14. Urbanization
15. Willamette River Greenway
16. Estuarine Resources
17. Coastal Shore Lands
18. Beaches and Dunes
19. Ocean Resources

Oregon's land use planning will celebrate its 35th anniversary in the spring of 2008. The state has received national and international recognition for its land use planning leadership. With urban growth boundaries, farmland protection, the Oregon Ocean Plan, the transportation planning rule and strict and innovative development guidelines, the Oregon program is providing a model for the nation.

Senate Bill 100
The passage of Senate Bill 100 in 1973 launched Oregon on a new, difficult and exciting program of statewide land use planning. The bill created a partnership in planning between the state and its 241 cities and 36 counties. It set standards for local plans, created an agency to administer them, and provided grants to help local governments meet those standards.

Oversight
The Department of Land Conservation and Development (DLCD) is the state agency responsible for monitoring and implementing the land use planning program. The department is directed by a seven-member citizen commission, appointed by the governor and called the Land Conservation and Development Commission (LCDC).

The mission of the program is to “Support all of our partners in creating and implementing comprehensive plans that reflect and balance the statewide planning goals, the vision of citizens, and the interests of local, state, federal and tribal governments.” It includes state legislation, the 19 statewide planning goals and local comprehensive plans.

There have been massive changes in Oregon and land use planning since SB 100 was enacted. Local plans and ordinances are in place, and farm and forest land is largely protected with zoning. DLCD now strives to see that urban development is done efficiently to minimize the expansion of urban land, to limit infrastructure costs and to assure that affordable housing is provided.

Measure 37
In 2004, Oregon voters approved Ballot Measure 37, which states that the owner of private property is entitled to receive just compensation when a land use regulation restricts the use of the property and reduces its fair market value. In lieu of compensation, the measure also states that the government responsible for the regulation may choose to “remove, modify or not apply” the regulation affecting the property. The provision applies only to those land use actions that occurred after the property owner or the owner’s family purchased the property.

DLCD has been responsible for providing information about Measure 37 to the public, assisting local governments to establish procedures, and processing claims involving state land use actions. Nearly 7,000 claims have been filed as of May 25, 2007.

The 2007 Oregon Legislature referred Measure 49 to the November 2007 ballot. Measure 49 limits development allowed by a Measure 37 claim. Voters approved the measure by 62 percent. DLCD will be responsible for determining how to apply the new limits.
Urban Growth Boundaries (UGBs) are a central tenet of the Oregon Land Use Planning Program adopted in 1973. The main intent of the boundaries was to ensure the preservation and viability of farmland by limiting city growth and preventing leap-frogging suburbs. The Portland metropolitan area boundary encompasses 24 cities and the urban portions of three counties. The Portland UGB is administered by Metro, the area’s regional government.

The objectives of UGBs are to:

- plan for and promote a compact and efficient urban form
- improve the efficiency of public facilities and services
- preserve prime farm and forest lands outside the boundary

UGBs limit urban sprawl and reduce the cost of providing urban services. They also assure agricultural uses outside the boundary and enable farmers to make longterm investments.

Oregon state law requires jurisdictions to provide a 20-year supply of residential land for the metropolitan area inside the UGB. The land supply and growth rates are re-examined every five years to check capacity.

Expansions

Metro is responsible for managing the Portland metropolitan region’s UGB. Since the late 1970s, the boundary has been moved about 35 times. Most of those moves involved 20 acres or less. Recently, Metro authorized more substantial additions:

- In 1998, about 3,500 acres were added to make room for approximately 23,000 housing units and 14,000 jobs. Acreage included areas around the Dammash State Hospital site near Wilsonville, the Pleasant Valley area in east Multnomah county, the Sunnyside Road area in Clackamas County, and a parcel of land south of Tualatin.
- In 1999, 380 acres were added based on the concept of “subregional need.” “Subregional need” occurs when a community needs land to balance the number of homes with jobs available in the area.
- In 2002, an unprecedented 18,638 acres were added to the UGB to provide 38,657 housing units and 2,671 acres for additional jobs. This action also created important regional policies to support neighborhoods, protect industrial areas and enhance regional and town centers. These expansions represented an increase of about 2 percent, though the population of the greater Portland metropolitan area increased by about 17 percent since 1990.
- In 2004, 1,940 acres were added to the boundary to address the need for industrial lands identified as part of a 2002 planning process.
- In 2005, an additional 345 acres of land were added for industrial purposes which will complete the 2002 planning process.

2040 Growth Concept

The 2040 Growth Concept Plan is the region’s growth management policy; it defines development in the metropolitan region through the year 2040. The 2040 Growth Concept Plan guides how the UGB is managed in order to protect the community characteristics valued by the people who live here, to enhance a transportation system that ensures the mobility of people and goods throughout the region, and to preserve access to nature. The 2040 Growth Concept Plan:

- encourages efficient land use, directing most development to existing urban centers and along existing major transportation corridors
- promotes a balanced transportation system within the region that accommodates a variety of transportation options such as bicycling, walking, driving and public transit
- supports the region’s goal of building complete communities by providing jobs and shopping close to where people live
The Oregon Bicycle and Pedestrian Plan is one of the modal elements of the Oregon Transportation Plan. An extensive public involvement process generated many comments and suggestions by the public at large. As such, the plan carries considerable authority, as it establishes the Oregon Department of Transportation (ODOT)'s policies regarding bicycling and walking. It sets construction standards for ODOT, and offers guidelines to local jurisdictions in establishing their bicycle and pedestrian networks.

The Oregon Bicycle and Pedestrian Advisory Committee is appointed by the governor to advise the Oregon Department of Transportation. It originated with the Oregon Bicycle Bill (ORS 366.514), passed by the legislature in 1971. The Bicycle Bill requires development of bikeways and walkways when roads are constructed, and enables the Oregon Department of Transportation, cities and counties to use road funds for constructing bikeways and walkways along existing roads. Many improvements for pedestrians and bicyclists are made as roads are built or rebuilt as part of a "modernization" project.

The Bicycle and Pedestrian Plan is driven by the Bicycle Bill's mandates and goals. The program's responsibilities include ensuring that ODOT constructs its road projects to meet the needs of pedestrians and bicyclists; developing standards for both ODOT and local jurisdictions to adopt; and establishing funding programs to pursue improvements outside of modernization projects. These programs include grants to cities and counties for projects along local streets or state highways.

The Bicycle and Pedestrian Plan also sets up training programs for engineers and planners, advises cities and counties on their programs and projects, and develops maps for touring bicyclists.

A 2007 update of the Plan is incorporating new designs for bike and pedestrian facilities.
The Transportation Planning Rule (TPR), adopted by the Land Conservation and Development Commission (LCDC) in 1991, clarifies the relationship between transportation and land use. It defines the characteristics of acceptable transportation plans, establishes standards for transportation system performance, and requires explicit links between local land use and transportation planning processes. At the same time the metropolitan planning organizations are implementing the TPR requirements, they must also address the Oregon Transportation Plan, Oregon state benchmarks, and federal Intermodal Surface Transportation Efficiency Act of 1991 and Clean Air Act amendments.

One of the major requirements in the TPR is that metropolitan areas adopt specific targets and plans to reduce reliance on the automobile. Metropolitan areas must either meet the state mandate to reduce vehicle miles traveled (VMT) by 5 percent during the 20-year planning period or obtain state approval of an alternative measure. Plans to achieve the target must include a combination of measures to improve the availability and convenience of alternative modes, including transit, walking, cycling, transportation demand management measures and parking management plans. The TPR also directs metropolitan areas to implement land use changes to promote compact, mixed-use, pedestrian-friendly development as a way to achieve reduced automobile reliance.

The TPR requires cities and counties throughout the state to prepare and adopt transportation system plans (TSPs) to meet long-range transportation needs. These must include planned roadway improvements as well as plans for bike and pedestrian facilities. Larger communities must include planning for transit.
Two plans, the Regional Framework Plan and the Urban Growth Management Functional Plan, implement Metro’s 2040 Growth Concept Plan to manage expected growth in the Portland metropolitan region through the year 2040.

It doesn’t take long to see that the Portland metropolitan area is a special place. While other urban areas have sprawled, our region has managed urban development. Communities near our Central City have not suffered from abandonment and decline. We are restoring creeks, wetlands and natural areas, acquiring public open spaces, and witnessing healthy economies in communities all over the region. Redevelopment of existing buildings and new development of underutilized land account for about one-third of new development. Mass transit use is increasing at a faster rate than auto use.

Things look different here because of our commitment to statewide and regional planning since the late 1960s.

Regional Framework Plan

The Regional Framework Plan, adopted in December 1997, contains the policies that direct our region’s future growth. It results from years of work with citizens and governments of this region. The plan provides specific guidelines that city and county governments will use to create and preserve livable communities. The Regional Framework Plan brings together these elements and contents of previous regional policies to create an integrated framework and to ensure a coordinated, consistent approach. Issues addressed include the following:

- managing and amending the Urban Growth Boundary
- protecting natural resource lands outside the Urban Growth Boundary
- determining urban design, settlement patterns and housing densities
- planning transportation and mass transit systems
- protecting and acquiring parks, open spaces and recreational facilities, water sources and storage
- coordinating plans and details with Clark County, Washington
- integrating planning responsibilities mandated by state law
- addressing other issues of metropolitan concern

New Look

To keep Portland a great place to live in the 21st century, the Metro Council launched a project called the New Look at Regional Choices, through which a re-examination of the region’s long-range plan will take place. In general, the New Look is divided into three broad policy categories:

- investing in our communities – steer growth into existing commercial areas and promote vibrant mixed-use centers that use land most efficiently and provide more housing and transportation options for residents
- the shape of the region – manage expansion of the Urban Growth Boundary in a way that protects valuable agricultural land, but also allows for responsible growth in outlying areas
- the Regional Transportation Plan – an update of the plan to make it financially realistic and support the region’s growth management values within the Portland metropolitan area. They include standards and guidelines for protecting streams and riverbank vegetation; implementing new minimum and maximum parking standards for particular uses; limiting big-box retail in industrial areas; allowing accessory dwelling units in all single-family zones; and applying a minimum standard for frequency of street connections.

Regional Functional Plan

The Regional Functional Plan is where the rubber meets the road, where the principles of the 2040 Growth Concept Plan are implemented. The Functional Plan, adopted in December 1997, contains very specific land use and transportation requirements, which must be addressed by the 28 jurisdictions...
The Regional Transportation Plan (RTP) is a 20-year blueprint to ensure the ability to get “from here to there” as the Portland region grows. The RTP establishes transportation policies for all forms of travel—motor vehicle, transit, pedestrian, bicycle and freight—and includes specific objectives, strategies and projects to guide local and regional implementation of each policy. The plan was first adopted by the Metro Council in 1983, and is updated periodically to reflect changing conditions and new planning priorities.

A 1995 update responded to new federal requirements in the Intermodal Surface Transportation Efficiency Act (ISTEA), the Clean Air Act and the Americans with Disabilities Act. Between 1996 and 2000, the RTP was updated to implement the 2040 Growth Concept Plan and the state Transportation Planning Rule. Development of the new plan was guided by input from a 21-member citizen advisory committee, officials and staff from the region’s cities, counties and state agencies, and residents, community groups and businesses.

**Transportation choice**

The policies in the RTP place a new emphasis on transportation alternatives for travel to work, shopping and recreation. While the policies recognize that most travel in the region will continue to be by auto, alternatives to auto travel such as transit, walking and bicycling are also recognized as important. In addition, the policies recognize the importance of the movement of goods and services to our regional economy. The overall strategy is to tie transportation to land use in the most efficient way possible.

The 2040 Growth Concept Plan provides the land use direction for the RTP, with planned improvements closely tied to the needs of different areas. For example, areas with concentrated development, such as downtown Portland and regional centers such as Gresham and Beaverton, are targeted with a balance of high-quality transit, pedestrian and bicycle projects to complement needed auto improvements. In contrast, projects in industrial areas and along freeways and highways are largely oriented toward auto and truck travel.

In addition to focusing on strategies to improve everyday transportation needs, the RTP provides a vision for new ways to get around, such as commuter rail and vanpools. This vision also includes telecommuting, ride-sharing and other programs designed to reduce demand on the transportation system. The plan includes specific policies related to street design, elderly and disabled transportation needs and increasing walking, biking and use of transit in the region.

The policies established in the Regional Transportation Plan guide local governments as they develop their local transportation plans. Local transportation plans are required by state law to be consistent with the RTP.

**Beyond congestion**

In 2004, Metro completed an RTP update addressing federal planning requirements. In 2006, a more expansive effort involving broader public discussion of plans, policies and projects got underway. New policies would look at corridor-wide improvements to enhance transportation choices and the distribution of trips rather than simply responding to congestion “hot spots” when prioritizing transportation investments.
The Total Transit System

The Total Transit System is TriMet’s term for the elements that make transit an attractive choice for riders. The Total Transit System includes frequent, reliable service during all times of the day and every day of the week; clear customer information; easy access to stops; comfortable places to wait for transit; and modern vehicles. TriMet and its partners need to invest in the Total Transit System to not only meet the current demand for service, but also to attract the level of ridership called for in the RTP.

Regional partnerships and focused investments

TriMet partners with local, regional and state governments and agencies to provide many of the important elements that enhance access to transit, such as roadways, sidewalks, safe pedestrian crossings, priority for transit vehicles, and building codes that promote and enhance pedestrian-friendly areas.

The TIP provides the framework for forming regional partnerships between TriMet and other agencies to improve access to transit and encourage transit-oriented development. TriMet works with local jurisdictions to develop criteria for expanding transit service.

TIP priorities

Within available financial resources, TriMet and its partners balance needs to guide where, when and how to invest transit-related dollars. The TIP priorities:

1. Build the Total Transit System
   Enhance customer information, access to transit, stop amenities, frequency, reliability, passenger comfort, safety and security

2. Expand high-capacity transit
   Invest in MAX light rail, commuter rail and streetcar service along key corridors to connect regional centers

3. Expand frequent service
   Add routes to TriMet’s 164-mile network of bus lines that run every 15 minutes or better, every day

4. Improve local services
   Partner with local jurisdictions to improve transit service in specific local areas
Streets are an important key to community livability. The Regional Framework Plan, the Regional Transportation Plan (RTP), the Transportation Planning Rule, the Intermodal Surface Transportation Efficiency Act of 1991, the Clean Water Act and the listing of salmon and steelhead as endangered species have all elevated the importance of street design in regional planning. Metro addressed these mandates with street design policies that support implementation of the 2040 Growth Concept Plan by linking the way a street is designed to the land uses it serves. The policies were adopted in the Regional Transportation Plan.

Metro developed three handbooks that provide practical guidelines for designing safe and healthy city streets in the Portland region. All of the guidelines are consistent with RTP street design policies, making the handbooks important tools for local governments that will implement regional street design policies through state and local codes.

Creating Livable Streets:
Street Design Guidelines for 2040 (second edition)

This handbook describes how communities can design streets to better serve walking, biking and transit while also preserving the region’s mobility needs. Street design elements such as wide sidewalks, marked crosswalks, landscaped buffers, bikeways, on-street parking, street trees, pedestrian-scale lighting, bus shelters, benches and corner curb extensions provide an environment that is not only attractive, but can slow traffic speeds and encourage walking, bicycling and use of transit. The guidelines described in the handbook serve as tools for improving existing streets and designing new streets, and reflect the fact that streets perform many — and often conflicting — functions and the need to reconcile conflicts among travel modes. A section of the handbook provides guidance for making tradeoffs among design elements to respond to changes in land use or when right of way is limited.

Green Streets:
Innovative Solutions for Stormwater and Stream Crossings

This handbook describes basic stormwater management strategies and illustrates “green” street designs with features such as street trees, landscaped swales and special paving materials that allow infiltration and limit stormwater runoff, helping protect stream habitats. The handbook also provides guidance on balancing the needs of protecting streams and wildlife corridors from urban impacts and providing access across those streams as part of good transportation design. The design and construction of green streets is one component of a larger watershed approach to improving the region’s water quality.

Trees for Green Streets:
An Illustrated Guide

This handbook describes the role of street trees in managing stormwater. Appropriate tree species are illustrated in the book, with a list of major characteristics. The street tree guide focuses on the Portland region, but tree suggestions apply to any West Coast temperate climate from Vancouver, B.C., to parts of Northern California. The handbook is intended for use in conjunction with the Creating Livable Streets and Green Streets handbooks.
In 1972, air pollution from cars in downtown Portland violated federal standards one day out of every three. To reduce auto emissions and manage traffic growth, the City of Portland adopted the “Downtown Parking Lid,” which placed a limit on the total number of parking spaces downtown. Additional measures included limits on surface parking lots and parking ratios for new development.

Between 1972 and 1985, the number of carbon monoxide violations dropped to zero, and there has not been a violation since. Most of the improvement was due to advances in auto emissions technology, implementation of vehicle inspections, improved traffic management, parking policies and increased transit service.

In the early 1990s the City began to look for a more sophisticated replacement of the parking lid. While the parking lid helped address localized air quality, it constrained downtown growth. Portland needed transportation policies that supported its land use vision, which called for a vibrant central city with 75,000 new jobs and 15,000 new housing units by the year 2010.

The Central City Transportation Plan (CCTMP), adopted in 1995, expanded parking regulations to the Central City area. The CCTMP established an overall policy framework to support growth in the Central City while managing the parking and transportation system. Three central concepts guided the development of the CCTMP: assuring livability with growth and assuring mobility with growth, assuring livable streets with growth. The CCTMP employs many tools in an aggressive strategy to use transportation strategies to simulate Central City development while shifting mode choice away from single-occupancy-vehicle trips to other modes.

The CCTMP expanded the parking ratio and limitation on surface parking lots to the Central City. Ratios are based on the availability of transit, which will be lowered as transit service improves. The CCTMP also addressed the unique parking needs of older office buildings that were built without parking. These buildings were having increased difficulties competing with new office buildings for tenants, putting the older buildings’ resources at risk.

Other tools, including infrastructure investments, support walking, biking, carpooling and alternative work hours.

One key strategy is to promote development of new dwelling units in the central city. These residents can walk, bike or utilize the extensive web of transit serving the central city, with the added benefit of making the central city more lively and more diverse. As a result of the CCTMP, most central city housing can be built without an on-site parking requirement.

The policy framework established by the CCTMP resulted in the successful redevelopment of the Pearl District, the implementation of the Lloyd District Transportation Management Association and the South Waterfront Development Plan.
The Gresham Civic Neighborhood Plan (GCN) represents years of consideration and collaboration among parties with diverse interests. The plan adoption represents the commitment of the City of Gresham, the primary landowners, Center Oak Properties, American Properties, the Robertson Trust, TriMet, Metro and other regional partners.

In July 1995, the Gresham City Council adopted the GCN Plan, which included these essential features:

- creates a public street grid
- establishes relatively small parcels
- establishes four mixed-use zones with minimum densities and floor area ratios
- requires ground-floor activity and two-story building height along priority streets
- establishes public spaces such as the civic center, light rail station plaza, open space and local parks

**Landowner agreement**

The City negotiated a development and financing agreement with Center Oak Properties, which obligates landowners to do the following:

- develop mixed-use structures around the MAX station and plaza
- construct basic infrastructure
- contribute to local match funds for street and station improvements
- dedicate rights of way and easements at no cost to the City
- submit annual schedules indicating project build-out

**Project Description**

- **Residential Site Area:** 30.3 acres
- **Total Housing Units:** 1,500 units in two- to six-story buildings
- **Commercial Site Area:** 20.6 acres
- **Commercial Space:** 439,000 sq. ft.

**Timeline**

- **July 1995:** City Council adopts Plan District
- **September 1995:** Council adopts property tax abatement for multi-family housing
- **August 1996:** City/landowner financing agreement and amendments to City CIP
- **June 1999:** Design review of Phase I of GCN (Gresham Station)
- **November 2000:** Grand opening of Phase I of GCN (Gresham Station)
- **May 2002:** Pre-application review for Phase II of GCN
- **2004-2005:** Ongoing development of Phase II (mix of commercial, residential and institutional uses on 80 acres)
- **Fall 2009:** Development of new light rail station and public plaza
The Gateway District is identified as a regional center in the Portland region's 2040 Framework Plan. It is at the confluence of two interstate freeways and two light rail lines. A third light rail line, the Green Line, will begin service to Gateway in September 2009. By 2015, Gateway is projected to be one of the most accessible locations in the Portland metropolitan area.

After extensive community involvement and creation of a concept plan for the Gateway District, the Portland Development Commission created the Gateway Urban Renewal District in June 2001. This established Gateway as a tax increment district capable of financing up to $164 million for public improvements over 20 years. The plan estimates approximately $11 million will be available during the first five years. The urban renewal planning process has been guided by a citizens' Program Advisory Committee and subcommittees covering parks, economic development, housing design and development, and transportation.

In addition to developing new parks, housing and commercial space, the plan calls for the transformation of 102nd Avenue into a boulevard and for focused redevelopment at the Gateway Transit Center.

Parking becomes TOD

In the fall of 2006, an exciting redevelopment emerged at the Gateway Transit Center, which is located near the intersection of NE 99th Avenue and Pacific Street in Gateway: the Oregon Clinic. A garage with 480 Park & Ride spaces was constructed to free up four acres of land originally occupied by a surface Park & Ride lot. The clinic was designed and constructed in a joint effort by TriMet, the Portland Development Commission and Gerding Edlen Development. This is the first instance in the Portland area of converting Park & Ride capacity into transit-oriented development. For more information on the Oregon Clinic, please see Chapter Three.

Long-term plans for the Gateway Transit Center call for additions to the clinic building, adding two more levels to the adjacent three-level parking garage, and additional mixed-use facilities.

With the addition of a light rail extension from Gateway south along I-205 to Clackamas, Gateway will indeed become a Portland crossroads with an attractive mix of transit-oriented redevelopment.
Westside Station Area Planning

The extension of the MAX Blue Line to the west side of the metro region sited 20 new MAX stations adjacent to 1,500 acres available for development or redevelopment. Planners saw an unparalleled opportunity for "new urbanism" to thrive. This type of development wouldn't just happen automatically, especially in suburban areas where people are accustomed to low-density development and traveling by automobile.

Development around MAX stations was the focus of the $2 million Westside Light Rail Station Area Planning and Development Project. Station communities were envisioned as places for "People-friendly" development for compact, lively neighborhoods.

Process

The Westside Light Rail Station Area Planning Program began as a mechanism for a coordinated approach to planning for new development around light rail stations in the affected communities. Each local government implemented its own station community planning process consistent with existing land use, zoning and development regulatory procedures. Conferences, seminars and media outreach educated citizens, developers, builders and the financial-lending community about the new market-driven possibilities for less dependence upon the automobile.

The two-step implementation process began with creating interim ordinances to prohibit counter productive uses in the station areas during the longer planning process. Working with the development community, landowners and citizens, the local agencies spent the next four years writing and adopting standards for zoning, design and transportation access. Each station plan bears the stamp and character of its individual community, yet works in concert with others due to the oversight of the Transit Station Area Planning Management Committee.

Each jurisdiction and community had its own image of appropriate development. Plans were also affected by the positions of major landholders, which in some cases controlled several hundred acres around stations. To resolve differences, standards were generally worked out on a station-by-station basis.

Station area plans

- Establish a list of auto-oriented uses that are prohibited in station areas.
- Establish minimum residential and commercial densities.
- Create maximum parking limits.
- Apply a design overlay that requires pedestrian connections and building orientation to the MAX station.

Core objectives

- Reinforce the public's investment in light rail by assuring that only transit-friendly development occurs near the stations.
- Recognize that station areas are special places; the balance of the region is available for traditional development.
- Rezone the influence area around stations to transit-supportive uses,
- Build a broad-based core of support for transit-oriented development with elected officials, local government staff, landowners and neighborhoods.
- Setup a self-sustaining framework to promote and encourage transit-oriented development once the planning is complete.

Lessons learned

- Public/private partnerships in master plans can reflect the reality of the financial concerns of developers as well as the development patterns desired by communities.
- Technical support is indispensable to address issues such as parking ratios, traffic circulation, building design standards and analysis of existing development regulations.
- The private sector needs incentives to "do the right thing."
- Planning must be followed by implementation if concrete results are expected.
Planning process

In April 1994, Portland’s City Council adopted interim regulations to the station areas in the Goose Hollow neighborhood, immediately west of downtown Portland. The Portland Planning Bureau coordinated meetings with both Goose Hollow and the broader group of Northwest Portland neighborhood committees. City Council adopted the Goose Hollow Station Community Plan in January 1996. The following month, the City Council adopted the Goose Hollow Station Community Design Guidelines.

Community impacts

Key right of way improvements established a high design standard for the area, including enhanced paving, decorative light fixtures, curb extensions, street crossings, signals, buried utilities and public art. There has also been a rebirth in development momentum in the neighborhood. The Plan has guided these improvements by listing actions to encourage more housing units, better design, and priorities for public and private capital improvements.

Issues

A major point of contention was the City's recommendation to create “Required Residential Development Areas.” These are commerciallyzoned areas, but where new development must include housing at the minimum rate of one unit per 2,900 square feet of net site area. Since the Plan’s adoption, several new housing units have been constructed in commercial zones. Assuring good, compatible design is an ongoing discussion among the City, the neighborhoods, and the development community. Although the City’s adopted standards include limits on parking, balancing the parking needs of new development remains a key issue on a project-by-project basis.

Funding

Metro, TriMet and the State of Oregon shared funding responsibilities for the planning process through a combination of the Intermodal Surface Transportation Efficiency Act of 1991 and Westside Light Rail Project sources. The City's total contract amount for station area planning was approximately $250,000 for the three station areas.

Lessons learned

Station area land use, transportation and design standards should be adopted prior to light rail construction. Doing the planning and community involvement while construction was underway brought up a number of issues that could have been resolved if identified earlier in the system design process.
Station Community Planning in Hillsboro became the catalyst for identifying, building and adopting a set of unique plans. Each was crafted for the singular characteristics of nine distinct areas, all linked by the common thread of the MAX line.

Station Community Planning was an intense three-year effort to plan the 6.2- by 1.5-mile corridor running from one edge of Hillsboro to the other, neatly forming the axis for development on either side. The exercise directly involved thousands of hours of labor from nearby residents and landowners as they crafted concepts, drew maps, designed guidelines and formulated language to create 13 new zoning districts. They amended the City's Comprehensive Plan and Transportation Plan and established new standards for street construction and lighting, sidewalks, public landscaping, stormwater and water quality facilities, usable open space and urban design.

Private development master plans laid the groundwork for developing more than 3,600 new dwelling units and more than 6,000 new jobs in Hillsboro since the Station Community Plans were adopted in early 1997. A nearly equal contribution of public dollars and private resources paid for four Station Community Plans.

185th/Quatama

Bound on the east by a five-lane arterial spotted with shopping centers and on the west by more than 600 acres of green fields, this community:

- planned a 2.5 million-square-foot business center
- laid out a 200+ acre medical and scientific research and development park
- retained a 100+ acre wooded wetland
- shifted to neighborhood-scale commercial development
- zoned land for more than 2,000 dwelling units ranging from small-lot neo-traditional single-family dwellings to three-story apartments, with more than 50% classified as affordable housing

Since adoption, more than 800,000 square feet of flex space has been constructed, a 100,000-square-foot medical research laboratory is in the final phase of construction, more than 1,100 dwelling units have been constructed, and a portion of the wetland has been enhanced to mitigate impacts of the MAX project.

Now more than 10 years old, Hillsboro is revisiting plans for the 185th/Quatama area, now more than 10 years old. A new concept plan calls for infill of the AmberGlen business park with a mix of mid- to high-rise residential and commercial buildings. A street grid would transform the office park to an urban setting. A streetcar or another form of circulator is proposed to link new development to light rail.

Hawthorn Farm/Fair Complex

Hillsboro’s first business park is nearly filled with high-tech companies, including Intel, Lattice Semiconductor and Soloflex. Adjoining is the state’s second-busiest airport and a 300+ acre county fairground. The area has been rezoned to accommodate a hotel/conference center, a residential neighborhood, an upscale commercial shopping center and a revitalized and relocated county fair/exposition center.

Downtown: 12th/Tuality/Central/Government Center

Downtown Hillsboro is small-town America, not Portland suburban. The Downtown Station Community Plan capitalizes on that tradition and maintains the single-family character of its neighborhoods while allowing increased density immediately adjacent to the MAX line and dense mixed-use Central Business District redevelopment. The Hillsboro Civic Center Project has a new city hall and a public plaza, more than 125 affordable housing units and a branch library on 6.2 acres.

Orenco

Orenco is a unique blend of old and new. A new 225+ acre residential village, a 60-acre shopping center and a Class A office development are snug against an older portion of Hillsboro, which has retained its early 1900s tree-lined, gravel-road company-town atmosphere. Both are within a stone’s throw of more than 8,000 existing or soon-to-be-ready high technology jobs. Orenco is featured in the Projects section of this publication.
As part of Washington County’s commitment to light rail, the County Board of Commissioners adopted four ordinances that created new land use designations, development standards and local circulation plans for unincorporated properties around four light rail stations. These include the Sunset Transit Center, Merlo/158th, Elmonica/170th and Willow Creek/185th light rail stations. Ordinances 483, 484, 485 and 486 amended several elements of the County Comprehensive Plan, including the Comprehensive Framework Plan for the Urban Area, the Transportation Plan, the Cedar Hills–Cedar Mill and Sunset West community plans, and the Community Development Code.

The ordinances were the result of a three-year planning process involving many public meetings and broad public discussion. A number of issues were resolved as part of the planning process, including proposed connections of local streets, protection of natural resources and the design and density of new development. The County continues to work with interested property owners, businesses and residents to resolve issues.

Developers encouraged

A Metro survey showed that 30 percent of tri-county-area households were ripe for the type of smaller-lot, higher-density development coming on line in the station areas. These developments trade larger lots for the neighborhood amenities and convenience of services that transit-oriented developments provide. Another plus is that such projects make home (or condominium or townhouse) ownership more affordable. The private sector has been rushing to fill this niche.

The following projects were completed by 2004 within half a mile of the Washington County light rail stations.

Cortland Village
600 apartments

Peterkort Medical Office Complex
72,000-square-foot medical office building

El-Square
10 single-family detached homes and one duplex

Elmonica Court
144-unit apartment

D'Ann Manor
15 small-lot common-wall units

Aubrey Meadows
63 small-lot single-family homes

Steele Park
74 small-lot single-family homes
The imminent arrival of Interstate MAX in North and Northeast Portland created concerns about the nature of change this $350 million public investment would bring. Would MAX fuel gentrification? Would it cause displacement of low-income households? Would it create employment opportunities? Would it displace businesses? Would it provide goods and services currently unavailable in the neighborhood? Would it support community institutions? Can the urban renewal district created to fund Interstate MAX provide other investments to benefit the community?

The Station Area Revitalization Strategy was a community involvement and planning process intended to help the community direct the course of change. It engaged more than 500 community members to articulate a community vision for redevelopment of key parcels at six station areas. In five work sessions held during an eight-month process, participants walked the station areas, brainstormed ideas, studied market conditions, worked with architects, reviewed plans and established priorities. Funding for the Strategy was provided by the State of Oregon’s Transportation Growth Management Program, the City of Portland and TriMet.

**Striking a balance**

The Strategy attempts to strike a balance between wealth-creating revitalization activities and protection of those who are most at risk of displacement. The vision calls for the creation of more than 1,700 housing units, serving a variety of income levels in a variety of housing types. It calls for commercial development to provide more than 2,000 new employment opportunities for area residents.

The Strategy includes a “Displacement Protocol” that requires the City redevelopment agency, the Portland Development Commission, to provide special relocation services to persons or businesses displaced due to a development proposal called for in the Strategy. It also identifies properties that are not candidates for change—either because the community values the existing use or because the property owner has no interest in redevelopment.

The Strategy identifies projects ranging from moderately sized mixed-use buildings providing housing over commercial space to rehabilitation of existing housing to simple park improvements. Many of the projects identified by the community would require public subsidies. The “wish list” for all six station areas exceeds the public resources available in the next few years. The Strategy recommends focusing on demonstration projects to help seed the market, and removing regulatory barriers to the types of projects the community would like but that current zoning makes difficult.

**Implementation**

TriMet was able to use MAX project funds to purchase two sites identified by the Strategy as desirable for redevelopment. TriMet will use the Federal Transit Administration’s joint development guidance to offer incentives to developers to develop the sites in a manner consistent with the Strategy.

In 2007, the City of Portland initiated a zoning project to review the regulatory barriers identified in the Strategy and to propose up-zoning in station areas.
Surface parking lots are a “land bank” in inner-city neighborhoods where infill development is taking place. A commercial surface parking lot owned by TriMet is on its way to becoming a mixed-use high-rise now that land values are sufficient to support underground parking.

Parking becomes paradise

The 76-space parking lot across from a MAX station was a result of an effort to mitigate on-street parking displaced by the MAX Blue Line. Fortunately, agreements governing the lot were forward-thinking. They allowed temporary closure of the lot to allow development of the site. Inner-city residential construction is booming in Portland. TriMet received an unsolicited proposal to develop the lot to its full potential and to replace the mitigation parking in an underground garage as part of the project. TriMet’s unsolicited proposal policy allows the private sector to initiate projects. If TriMet deems a proposal is in its interest, the receipt of the proposal is advertised and others may respond. Proposals are then evaluated according to benefits to TriMet.

Too much of a good thing?

The developers of the proposal were so confident of the market for housing served by MAX that they proposed a 231-unit project and intended to transfer development rights from another site. Although approved by the Design Commission, the proposal was rejected by the City Council. A smaller building was subsequently approved.

Lessons learned

TriMet offered two nearby sites for development several years earlier. (See Arbor Vista and Collins Circle.) At that time, TriMet sponsored extensive neighborhood involvement in development planning. When the Allegro proposal came in, staff had changed, funding had been reduced and institutional memory was weak. Neighborhood opposition could have been reduced if previous involvement processes had been revived.

A project of this scale takes a long time. The development agreement did not capture the uptick in property values during the development period.
The Arbor Vista Condominiums are 27 for-sale units located adjacent to the Jefferson Street MAX station in Portland’s Goose Hollow neighborhood. The project is located on a very constrained urban infill site, which includes two mature historic trees, and is immediately adjacent to the Kamm House, which is on the National Register of Historic Places.

TriMet, the City of Portland Planning Bureau and the Goose Hollow Foothills League neighborhood association formed a partnership to guide development on three parcels owned by TriMet at light rail stations. The partnership created a local development committee, which hired consultants to provide project management, design, market evaluation and legal assistance. This team then established the development goals for the site.

Innovative Housing, Inc. was selected as the developer through a competitive bid process. TriMet was responsible for getting Federal Transit Administration (FTA) approval for the joint development.

The project is designed to accommodate development goals established by the committee, including:

- maintaining views to and from adjacent properties
- preserving historic trees
- respecting the adjacent historic building

Demonstration value

The Arbor Vista Condominiums were affordable to first-time home buyers at median income without public subsidy. Approximately two-thirds of the units were sold at market rate, while the other one-third were reserved for a special financing program in which Innovative Housing provided a second mortgage that made the unit more affordable than it would otherwise be. Each homeowner purchasing below-market units received a 10-year property tax abatement on the improved value of the home.

The project also broke new ground in applying FTA’s joint development policy. TriMet was able to provide a discount on the value of the property by demonstrating that the fares that would be generated by the new development would provide a return to the transit system.

Neighborhood issues

The Goose Hollow local development committee guided the project through the neighborhood association before selecting the developer, thus minimizing political conflict with the neighborhood. The owner of an adjacent historic building appealed to the State Office of Historic Preservation. The appeal was denied, but it caused delays at the outset of the project.

Lessons learned

The mixed-income requirements were not a disincentive for market-rate buyers. The project appealed to four distinct market tiers, rather than a more typical two tiers, thus complicating build-out of the interior finishes. With so many unit plans and sizes in such a small project, the buyers’ expectation levels about unit amenities and interior finishes varied widely. This dynamic complicated marketing.
The Belmont Dairy established a new standard for inner-city redevelopment in Portland. The first phase of the project reused part of a 70-year-old former dairy building and added five stories of apartments over a parking podium. The project recycled major building elements and incorporated Portland General Electric’s (PGE) Earth Smart™ building standards throughout the development process. When this phase was completed in 1996 it demonstrated that projects of this type enhance neighborhood vitality, provide housing people want, support transit usage and offer viable commercial space. The popular specialty grocery store and lively restaurant on the ground floor brought new life and much-needed services to the neighborhood.

The 30 row houses constructed in Phase 2 are another model for high-quality infill development. The project features pedestrian-oriented streetscapes characterized by front porches, bay windows and landscaped garden spaces, with garages tucked away in private alleys. The scale and design of the project respect the character of the old, single-family neighborhood that surrounds it. The row house project was completed in 1999 and demonstrates that with thoughtful and inspired design, higher densities can be achieved without compromising livability.

In the words of one local banker, this model of urban redevelopment represents "land uses for the 21st century that promote the preservation of history, urban density, affordability and utilization of existing infrastructure that provides easy access to public transit, bicycle and pedestrian corridors."

The project is located within an established residential neighborhood and fronts on a commercial neighborhood main street. After sitting vacant for five years and attracting squatters and graffiti, the Belmont Dairy is now the cornerstone and impetus for the revitalization of the Sunnyside Neighborhood and Belmont Business District. The projects have been recognized regionally and nationally as model infill and mixed-use developments and have received various awards including the Governor’s Livability Award, BEST Innovation Award and an Ahwanee Award.

A third phase of the Belmont Dairy project, which will renovate another vacant warehouse into creative live/work spaces, is currently in the planning stages.

### Financing

**Phase 1**: As the first major redevelopment of its type, the project encountered numerous barriers to traditional financing. The project also had added costs and perceived risk associated with preserving and refitting an existing building, providing structured parking and achieving higher densities. Land improvement costs for the project were $400,000; construction costs were $14 million. Project financing came from a variety of sources:

- Bank of America construction loan
- Network for Oregon Affordable Housing loan
- City of Portland Livable City Housing Council loan
- City of Portland Community Development Block Grant loan
- State Department of Environmental Quality CMAQ grant
- FNMA tax credit investment
- City of Portland Multifamily Housing Tax Credit Bonds

**Phase 2**: This $6 million project was financed by US Bank. More than 33 percent of the units were pre-sold.
Buckman Heights is a 3.7-acre mixed-use redevelopment by Prendergast and Associates, Inc. The site was formerly used as a car dealership. Prendergast found a commercial user for the 41,000-square-foot dealership building and then developed 274 units of rental and owner-occupied housing and one additional commercial space on the remaining 2.5 acres of parking lots.

Through careful design of the buildings, the landscaping and the site, the developer created a small neighborhood where none existed before. The project received widespread recognition for innovative techniques for on-site treatment of stormwater and for other environmental features.

The two apartment buildings (Buckman Terrace at 122 units and Buckman Heights at 144 units) set a new standard for transit-oriented development by combining convenient access to bus lines and light rail, a pedestrian-friendly design and extensive interior bike-storage facilities. The developer also provided curb extensions on NE 16th Avenue from Sandy Boulevard to Glisan Street and landscaping and hardscape improvements to Buckman Field, a city park located directly behind Buckman Terrace.

For residents who sometimes need a car, the buildings have a partnership with Flexcar (formerly CarSharing Portland, Inc.) to provide two cars on site for use by tenants who become Flexcar members. Cars are available at a rate charged by the hour and the mile.
When the Portland region planned its first light rail line in the late 1970s, the suburban community of Gresham opposed locating the line to serve its historic downtown. By the 1990s, Gresham leadership realized that light rail would be an asset to downtown revitalization, and undertook a series of actions that have effectively allowed downtown to reach out to the light rail station on its northern edge. These actions include street and sidewalk improvements and rezoning to allow a mix of transit-supportive uses. Gresham also implemented a TOD property tax and fee exemption program to encourage mixed-use development downtown.

Central Point

Central Point Phase I was the first high-density, mixed-use, urban revitalization project in downtown Gresham. The contemporary design successfully ignited interest in creating a new downtown redevelopment master plan for the City of Gresham. Built with the help of tax concessions by both the City and County, the building opened in 2001. That same year Myhre Group Architects, the firm that designed the building, received a Governor’s Livability Award for their involvement in the project. The Oregon Department of Environmental Quality has also praised the building as an environmentally friendly development.

The Béranger

Originally known as Central Point Phase II, The Béranger condominiums project is a welcome newcomer to the quickly evolving Gresham downtown area. Scheduled for completion in fall 2007, The Béranger will offer the first mid-rise luxury condominiums in Gresham. Only one block away from Central Point, the building is within walking distance to most anything, including MAX and bus lines, the farmers market and the future site of the Gresham Center for the Performing Arts.

The building itself is made of dark-toned slate from the ground up, with large, wood-clad canopies hung overhead to create a dramatic effect on the exterior facade. Special consideration was taken to address stormwater-related site constraints. Porous pavement, flow-through planters and an eco-roof were utilized to reduce the environmental impact to the City’s stormwater system. The eco-roof or “green roof” is especially innovative, since it is viewable by residents from a rooftop community patio to act as an educational tool for the residents and guests.
Project description

This 18-unit, owner-occupied project sits on a 40,000-square-foot site in an established inner Portland residential neighborhood. The site is one-half block from two bus lines and within walking distance of neighborhood services including the elementary school across the street.

The project costs were $91/square foot and $1.92 million total. Homes were sold to first-time home buyers for $60,000 to $85,000 and at market rates for $95,000 to $125,000.

Demonstration value

The AIA/Portland Chapter sponsored a design competition to demonstrate that architecturally designed, medium-density housing could be economically feasible. The competition provided the opportunity for the public to focus potential neighborhood concerns on design issues instead of density issues.

Financing

Permanent financing included conventional mortgages and State of Oregon Mortgage Bonds. One million dollars in single-family loan funds was reserved for individual low-income buyers at a reduced rate. The City’s Livable City Housing Council provided a $193,000 bridge loan. Other financial considerations included city planning staff donation of in-kind services, City Bureau of Buildings fee waivers, a one percent discount on realtor fees, and an 11 percent discount on the land price by Portland General Electric.

Lessons learned

• Early meetings with the City helped determine infrastructure requirements to incorporate into initial design and pro forma.
• Design competition with three separate housing types added to expenses, time delays and controversy.
• City Life showed the Bureau of Planning how to revise the subdivision code so that future projects of this type could be approved more quickly.
• Using electric instead of gas heating lowered costs, as did scaling back some window design and building material features.
Collins Circle is a 124-unit mixed-use project located 200 feet from the Jefferson Street MAX station in Portland’s Goose Hollow neighborhood. The building is within walking distance of downtown Portland and Washington Park. The project is comprised of ground-floor retail with five floors of housing above and below-grade parking.

**Innovation**

TriMet’s goal for Goose Hollow was to attract innovative infill housing solutions that could be replicated near high-quality transit service throughout the region. Three key demonstration values of the Collins Circle project:

- mixed-income residents
- new higher-density wood-frame construction methods
- pre-development work completed prior to developer selection

**Lessons learned**

Proactive partnering among the City, neighborhood, transit agency and developer are critical in keeping a project moving forward. This enhances the desirability of repeating this type of process elsewhere.

The goals of public and community interests can be best integrated into a project through clear criteria at the front end of a project, allowing the developer to focus its resources on getting the building built with minimal interference.

**From construction staging**

The 23,000-square-foot site for the Collins Circle apartments was purchased by TriMet as part of the Westside Light Rail Project in 1995 and used as a staging area for the duration of light rail construction. In 1996, a four-member local development committee of neighborhood, City and TriMet interests began work to identify goals and criteria for development of the site, including:

- 60 housing units minimum (more than 100 units/acre)
- mixed income
- 7,500 sq. ft. of ground-floor commercial uses
- maximum parking of one space/studio, one and two-bedroom units
- use a minimum number of public subsidies
- sell the land at a value reflecting these requirements.

Under the Federal Transit Administration’s Joint Development Policy adopted in 1997, TriMet was able to sell the property to the selected developer, Gerding Edlen, at a cost that reflected the “highest and best transit use” as established by an independent appraisal.
The project also had to overcome concerns about parking.

Today, a 13,000-square-foot library occupies the ground floor of a four-story mixed-use building. The ground floor also has a small retail space occupied by a locally owned coffee shop and a lobby for the Bookmark Apartments. The 47 residential units occupy the building’s three upper floors. Nineteen of the apartments are restricted to households at or below 60% of the area median income. The development includes 37 parking spaces.

Multnomah County funds and owns the library. Sockeye Hollywood LLC, an affiliate of the Portland firm Shiels Obletz Johnsen Inc., financed and owns the housing and retail space.

### Hollywood Library/Bookmark Apartments

Hollywood is a neighborhood commercial district in NE Portland that has struggled to maintain its vitality as big-box retail and multiplex theaters have made the survival of the local grocery store and historic movie house difficult. The City of Portland worked with businesses and residents of the surrounding neighborhoods to create a plan to revitalize Hollywood. The prospect of a new library became an important piece of the plan.

County officials and a local development team worked closely with the city planners and citizens to create zoning and development standards for the library site that would maximize the opportunity for development while respecting the site’s proximity to smaller commercial and residential structures. Requirements such as a setback for upper stories and a strong pedestrian orientation helped shape the project.

In 1996 Multnomah County voters approved a $29 million general obligation bond measure to fund the repair and renovation of library buildings. Two projects in particular demonstrate how public facilities can anchor neighborhoods and establish new development models.

### Hollywood Library/Bookmark Apartments

Hollywood Library/Bookmark Apartments

4040 NE Tillamook Street, two blocks east of Line 75; two blocks north of Line 12

### Sellwood-Moreland Library/Library Lofts

Sellwood-Moreland Library/Library Lofts

7860 SE 13th Avenue, Line 70

Today, a 13,000-square-foot library opened as the anchor tenant in a mixed-use building completed in 2002. The building includes additional retail space and 16 condominium units. Residential sales prices ranged between $225,000 and $850,000. Sellwood Lofts, LLC, will continue to own the ground floor. The library lease is for 30 years with a 10-year renewal option.

### Lessons learned

Public entities with space needs can play a critical role in mixed-use projects. Ground-floor commercial space is often the most speculative aspect of a mixed-use building. The participation of a credit-worthy entity such as a county government with a long-term space need can make all the difference. Libraries provide a particularly attractive combination with housing; it’s difficult to imagine a better neighbor. However, rental housing construction costs were higher than typical in order to create a “civic quality” building.

At times, the challenges of negotiating with private developers and taking on neighborhood opposition to new development seemed beyond the mission of the library program. Without the leadership of elected officials and progressive developers, the projects might have reverted to stand-alone library projects. Once complete, both buildings have been extremely well-received by the neighborhood and the market—paving the way for additional mixed-use and higher-density development envisioned by local land use plans.

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**Location and Transit Access**

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Hollywood Library/Bookmark Apartments

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**Hollywood Library/Bookmark Apartments**

Hollywood is a neighborhood commercial district in NE Portland that has struggled to maintain its vitality as big-box retail and multiplex theaters have made the survival of the local grocery store and historic movie house difficult. The City of Portland worked with businesses and residents of the surrounding neighborhoods to create a plan to revitalize Hollywood. The prospect of a new library became an important piece of the plan.

County officials and a local development team worked closely with the city planners and citizens to create zoning and development standards for the library site that would maximize the opportunity for development while respecting the site’s proximity to smaller commercial and residential structures. Requirements such as a setback for upper stories and a strong pedestrian orientation helped shape the project.

The project also had to overcome concerns about parking.

Today, a 13,000-square-foot library occupies the ground floor of a four-story mixed-use building. The ground floor also has a small retail space occupied by a locally owned coffee shop and a lobby for the Bookmark Apartments. The 47 residential units occupy the building’s three upper floors. Nineteen of the apartments are restricted to households at or below 60% of the area median income. The development includes 37 parking spaces.

Multnomah County funds and owns the library. Sockeye Hollywood LLC, an affiliate of the Portland firm Shiels Obletz Johnsen Inc., financed and owns the housing and retail space.

**Sellwood-Moreland Library/Library Lofts**

The neighborhood plan for Sellwood-Moreland in SE Portland called for housing and locally oriented businesses and service on SE 13th Avenue, a commercial street becoming dominated by antique shops with a regional draw. A brownfields factory site on SE 13th Avenue emerged as a possible library site. Although the original library bond budget was based on the expansion of the library at its old location, the opportunity to address multiple public goals caused county officials to consider a new building.

As the development proposal began to take shape, the developer and county officials had to address concerns about clean-up of the site, a former plating factory, as well as the size and design of the development. Some citizens were also concerned that because of the budget, the library would lease rather than own its space. They believed the library might be less permanent or that the private developer would receive an unfair benefit.

A 4,375-square-foot library opened as the anchor tenant in a mixed-use building completed in 2002. The building includes additional retail space and 16 condominium units. Residential sales prices ranged between $225,000 and $850,000. Sellwood Lofts, LLC, will continue to own the ground floor. The library lease is for 30 years with a 10-year renewal option.

**Lessons learned**

Public entities with space needs can play a critical role in mixed-use projects. Ground-floor commercial space is often the most speculative aspect of a mixed-use building. The participation of a credit-worthy entity such as a county government with a long-term space need can make all the difference. Libraries provide a particularly attractive combination with housing; it’s difficult to imagine a better neighbor. However, rental housing construction costs were higher than typical in order to create a “civic quality” building.

At times, the challenges of negotiating with private developers and taking on neighborhood opposition to new development seemed beyond the mission of the library program. Without the leadership of elected officials and progressive developers, the projects might have reverted to stand-alone library projects. Once complete, both buildings have been extremely well-received by the neighborhood and the market—paving the way for additional mixed-use and higher-density development envisioned by local land use plans.
The Crossings

The Crossings at Gresham Station combines retail, residential and office activities to create a diverse, high-density, mixed-use building. Located immediately adjacent to the future Gresham Civic light rail station, the project will encourage the use of mass transit, increase bicycle and walking trips, help mitigate traffic congestion, improve air quality, influence surrounding land use patterns and promote urban living.

From plan to reality

The Crossings is the first of several projects to be constructed on a 13-acre parcel purchased by Metro through its Transit-Oriented Development Implementation Program. Metro’s goal was to make certain that the land around the planned rail station would be developed in a manner that would enhance the success both of Gresham Civic Station and the light rail system. The greater station area had already been developed as a fairly standard retail center, albeit with improvements such as a coherent pedestrian network. Metro’s site control enabled the agency to require housing, which the market was not providing on its own.

Metro provided Peak Development LLC with a land discount and other financial assistance. Tax concessions from both the city and county also helped make it possible to undertake the expensive structure envisioned by Metro. TriMet contributed excess right of way along the adjacent MAX line to the project.

The building is four and five stories in height and is constructed of post-tensioned concrete slab and traditional wood framing. The design includes a structured, below-grade parking garage, surface parking, harvested rainwater landscape features, and 20,000 square feet of ground-floor retail. The main five-story building is a fusion of old-world charm and contemporary urban architecture, with façades facing Civic Drive that make the structure appear to be made up of seven separate buildings. These façades, built to the edge of the sidewalk, push forward and back in an alternating fashion, and provide pockets of activity for sidewalk cafés and interactive retail spaces to flourish.

Myhre Group Architects was responsible for the building’s unique architectural design, master planning, interior design and planning entitlements.

Looking forward

Mixed-use, transit-friendly projects like The Crossings typically have residents that ride transit 10 times more than the average. These residents also contribute to a more pedestrian-friendly environment. Metro has selected developers for its remaining land in the area and is working with them to integrate the future MAX station with new development. The new station is anticipated to open in fall 2009.
When the Interstate MAX (Yellow Line) light rail project was anticipated to be completed under budget (and ahead of schedule!), TriMet sought FTA approval to move $4 million from contingency into the project’s transit-oriented development budget.

Working with local partners, TriMet identified two key parcels for purchase. The Crown Motel was identified in an earlier planning process as a site where the neighborhood would welcome change. (See Interstate MAX Station Area Revitalization Strategy in Chapter two.) Based on TriMet’s analysis of the impacts of future development, FTA granted a documented categorical exclusion from NEPA to allow the purchase and later approved the sales agreement with a willing seller.

Address gentrification

The MAX Yellow Line serves neighborhoods that historically had lower incomes and a larger percentage of minority households than the region as a whole. While these were important drivers for investing in high-quality transit service, some residents feared the public investment would bring gentrification. Public agencies were challenged to develop policies and programs to prevent displacement. TriMet chose to require permanently affordable housing as part of the redevelopment of the Crown Motel site.

Solicitation innovation

Traditional “request for proposals” are expensive for the respondents and sometimes cause a project to be selected because of attractive renderings versus sound development fundamentals. TriMet issued a “request for qualifications” and evaluated proposals based on the respondent’s understanding of the agency’s goals for transit-oriented development. Ten proposals were received. The robust response reflected both the solicitation approach and the desirability of the site. REACH Community Development was the winning development team.

The project is expected to break ground in spring 2008.
There is no other development like Fairview Village in the Portland region or the Northwest. Not quite a city, yet decidedly not a suburb, Fairview Village is a town in the classic sense—a cohesive network of individual neighborhoods built around a community shopping center, anchored by civic buildings and public parks and scaled to people rather than to their cars.

Located in east Multnomah County, Fairview Village contains 600 residential units with more than 150,000 square feet of retail space and more than 70,000 square feet of office space. The Village borders the original residential core of the City of Fairview.

**The process**

Because Fairview Village is an expansion of an existing community, engaging the public and key decision-makers was essential in creating a consensus-based Village plan. More than 75 stakeholders participated in a three-day design workshop that produced a regulating plan, zoning code and architectural guidelines, and a strong shared vision.

Fairview’s zoning code, as with many other cities across the country, segregated retail and office space from residences. Rather than amending the existing code, the City approved a new Village Code. The Village multi-use zoning allows a mix of retail, business and residential activity.

**Design**

Holt & Haugh, developers of Fairview Village, knew that for the project to succeed as a community, it would have to break the established pattern of disjointed development. While different, it must not be entirely removed from accepted models of livability. Village streets are designed to be safe and inviting for walkers and bicycle riders as well as motorists. Another component of community is strong identification with specific neighborhoods. Each home has at least one pocket park located within a two-minute walk, and all streets end with a vista, not a garage door.

**Market**

Because real estate marketing studies generally focus on past performance rather than on future trends, the developers did not rely on traditional marketing analysis to project demand. The project targets a diverse mix of middle-income buyers and multiple age and demographic groups. Fairview Village offers an additional investment attraction: diversification. By offering diverse real estate products, the developers spread out their market risk. Diversity allows the amount of any single product offering to be limited so that absorption of each product type will be relatively fast.

**Innovation**

- Stone pedestrian bridges create a convenient walking environment while integrating the natural environment.
- Hierarchy of streets
- Narrower streets
- Retail oriented to an enhanced bus stop
- Shared parking
- Garages at rear of homes on alleys
The Gresham Central Apartments is a 90-unit housing development located at the Gresham Central MAX Station. The buildings are built out to the street with front porches, like historic townhouses, with one frontage facing a pedestrian promenade to the transit station. Parking is located in the interior of the site so that garage-door openings and parking lots do not conflict with pedestrian flow. The design creates a pedestrian-friendly street that facilitates the residents’ access to downtown by walking, bike or transit. Additionally, the completed project forms a land-use bridge between the downtown and the transit station, in effect shortening the distance by several blocks.

**Demonstration value**
A major public objective of the project was to offer the region a built example of transit-supportive development in a suburban environment. The project differs from traditional suburban apartments in the Gresham area because of its density (35 units/acre as compared with 17 to 22 units/acre), building massing, parking ratios (1.5 spaces/unit as compared with 2 spaces/unit), and pedestrian-oriented design.

**Political issues**
Any type of public/private partnership in which the public sector invests in a private development has potential to be politically sensitive—even if that private development has a myriad of public benefits. Additionally, during the planning phase of the project, the City was debating new policies to determine an appropriate mix of affordable and market-rate housing in its downtown. These discussions affected the product mix, design and economics of the project.

**Project financing**
The total project budget was $4.5 million, financed through:

- sales of excess right of way by the transit agency through a development agreement for a transit-oriented development (TOD)
- $332,000 from a Department of Environmental Quality’s CMAQ grant
- utility easement relocation and consolidation
- Downtown Gresham housing tax abatement
- public/private joint use of the stormwater sewer system
LaSalle Apartments

Location and Transit Access
SW Millikan Way & SW 153rd
immediately south of Beaverton
Creek MAX Station

At a Glance
Site Area: 23 acres
Total Housing Units: 554
apartments
Density: 24 units/acre
Parking Ratio: 1.8 spaces/unit
Housing Types and Sizes:
one- and two-bedroom European
flats, one-, two- and three-bedroom
townhouses, and one, two, and
three-bedroom garden villas
Total Retail/Commercial Space:
10,000 sq. ft.

When Trammel Crow Residential
(TCR) first considered purchasing 38
acres from US Bank, a primary draw
was the MAX station next to the
property. In addition, the proximity
to Nike’s world headquarters and
Tektronix made a ready-made market
for the rental project. LaSalle is the
second phase of the total 830-unit
project. The main challenge was
to create a residential identity on a
site surrounded by concrete tilt-up
campus industrial buildings and
undeveloped land.

Process
TriMet established a master-planning
process to create a transit village for
the entire 124 acres surrounding the
Beaverton Creek Station on the MAX
Blue Line. The northern portion of
TCR’s land was within the master-
planning area and was slated for
primarily residential uses. North of
the station was targeted for a mix of
commercial, retail and residential. TCR
supported the plan’s concepts and
proceeded with approvals for its 554-
unit second-phase project, LaSalle.

Nike purchased the parcel north of
the station to control development
there. The north side of station
remains undeveloped. This has hurt
the retail component of the TCR
project by reducing the anticipated
number of residents in the station
area.

Design
LaSalle’s design departs significantly
from typical suburban apartments as
well as past TCR projects. The garden
apartments are clustered around
grassy courtyards rather than parking
lots. The buildings are laid out in a
grid pattern with interconnection
streets/driveways and a
comprehensive pedestrian network.
Multiple pathways link the project to
the MAX station, with a 10-foot-wide
pedestrian spine connecting the heart
of the project with both Centerpointe
to the south and the light rail station
to the north.

Joint development
While TCR was planning LaSalle/
Centerpointe, TriMet was finalizing
plans for its Park & Ride lot at the
station. TCR asked TriMet to move
the Park & Ride 300 feet east to
allow buildings to locate closer to
the station. TriMet redesigned the lot
and allowed some of the spaces to
be converted to short-term parking
to support the neighborhood retail
shops on the west edge of the Park
& Ride. Co-locating retail activity with
the Park & Ride adds to the safety of
the lot by providing more oversight
and visibility. TriMet and TCR also
shared costs of building the public
roads and sidewalks that border
each of the two properties to ensure
a cohesive design and allow for
potential future development on the
TriMet property.

Density
TCR could not meet the public
agencies’ goals for the highest
densities on the site. At that time, rent
structures did not support the mid-
rise construction needed to achieve
high-density thresholds. Instead,
the densest part of the project is
the mixed-use, mid-rise building
across from the station platform. The
three-story frame structure above a
concrete parking platform achieves a
density of 53 units per acre. Within a
quarter-mile of the MAX platform, the
554 town homes and a garden are
built at 35 units/acre. The phase-one
development, Centerpointe, is located
within a half-mile radius of the station
and averages 24 units per acre.

Part of TCR’s strategy for creating
a more compact, walkable
development involved reducing the
amount of land for parking. TCR’s
goal was to provide 1.1 parking
spaces per unit. The City of Beaverton
agreed to a variance to drop the
required number of spaces from 2
to 1.6 spaces per unit; however, an
adjacent property owner objected. A
compromise of 1.8 spaces per unit
was reached.
Located adjacent to the 7th Avenue MAX Station in Portland’s Lloyd District, Liberty Centre is one of the newest additions to the skyline in the Lloyd District. Completed in October 1997, the building has 280,000 square feet of office space, 5,000 square feet of ground-floor retail business, a 26,000-square-foot outdoor plaza and a 600-space parking structure. Ashforth Pacific Inc. and Liberty Northwest teamed to develop the office tower, which became the headquarters of Liberty Northwest Insurance Companies.

In creating the two-block development site, NE Pacific Street was vacated to allow a more cohesive connection among the building, the outdoor plaza and the parking garage. Pedestrian connections were maintained through the vacated street, and the outdoor plaza is accessible to the public. The $45 million project was designed by GBD Architects of Portland.

Stuart A. Hall, president and CEO of Liberty Northwest, stated that, “Our goal is to relocate to a first-class project in a location that would be convenient for our customers and employees, with ready access to mass transit.” The company determined that it would lose a significant number of employees if it relocated to a suburban location without light rail service. It concluded the higher cost of inner-city high-rise offices would be balanced by workforce retention.

The 17-story building has views of both Mt. Hood and downtown Portland. Amenities within the building include a 24-hour lobby attendant, on-site property management and visitor parking, an ATM, a shower and a locker room. The building is within walking distance of day care centers, restaurants, hotels, business services, the Lloyd Center Mall, the Oregon Convention Center and the Rose Garden Arena.
Museum Place

Eliot Tower
Site area: 46,000 sq. ft.
Housing type: 223 condominium units
Density: 210 units/acre
Commercial: 3,350 sq. ft. ground-floor retail
Completion: Summer 2006

Madison Place
Site area: 6,500 sq. ft.
Building: 32,000 sq. ft.
Uses: Ground-floor retail, four floors of office condominiums
Completion: Fall 2006

Located in the heart of Portland’s cultural district and the western portion of the South Park Blocks Urban Renewal District, this multi-development project satisfied a need for increased density and more diverse uses within these once underutilized downtown blocks. The projects include a new urban grocery store that’s part of a seven-story building with 140 apartments; a 132-unit apartment building for very-low-income people, to replace dilapidated housing; an extensively renovated YWCA; and a 223-unit luxury condominium. Portland Streetcar and nearby bus service connects the project to the greater downtown area.

Development was jump-started when Safeway’s management approached Sockeye Development LLC with the desire to replace its old downtown grocery store. The outdated store was considered by many residents to detract from the residential experience downtown. Sockeye and GBD Architects worked with Safeway to create a LEED-certified mixed-use building with Safeway Food and Drug occupying the ground floor, mezzanine level and underground parking. The new building is one block south of the old store. The project was phased to provide uninterrupted grocery service.

Safeway is topped with 140 market-rate rental units; 28 are restricted to households earning less than 50 percent of area median income.

The St. Francis Apartments and YWCA Downtown Center shared the block north of the old Safeway. The St. Francis provides studio apartments for very-low-income people. The old apartments were demolished and new units constructed while preserving the same affordability. During construction residents were relocated and offered first opportunity to move back to the St. Francis.

The YWCA conducted a private campaign to raise $8 million to renovate its facility, which now provides a full-scale health and fitness facility, a Loaves & Fishes meal site and a senior center.

The Eliot Tower was constructed on the old Safeway site. This project introduces luxury condominiums to the downtown. A new pedestrian plaza spans the north side of the Eliot Tower to provide mid-block access to the Portland Art Museum’s plaza.

Completed in 2006, Madison Place is a five-story condominium office building with ground-level retail. Touted as Portland’s first office condominium project, it completes this landmark three-block redevelopment project.
TriMet’s Gateway Transit Center is located in the Gateway District, midway along the MAX Blue and Red lines. The Gateway District is designated a Regional Center in the Metro 2040 Plan and is also an urban renewal district.

The Transit Center included a 5.5-acre, 830-space Park & Ride lot. Transit-oriented development of this site will strengthen commercial vitality in the Gateway District, while capitalizing on the excellent transit and freeway access consistent with the adopted Gateway Regional Center Urban Renewal Plan, Opportunity Gateway Concept Plan and Redevelopment Strategy, which calls for pedestrian-oriented development with direct connections to the Transit Center.

Development phases

TriMet and the Portland Development Commission (PDC) worked together for several years to initiate redevelopment. TriMet agreed to make one acre of the parking lot available for development when PDC was approached by a private developer looking to site a medical office building in Gateway. The Oregon Clinic facility required at least three acres. To keep these medical jobs in the city, PDC agreed to help finance a garage to make more land available for development.

The first phase of development includes a 101,600-square foot medical office building and an adjacent 650-space parking garage to replace the Park & Ride capacity and to supplement surface parking for the medical office building. Phase 1 broke ground in July 2005 and was completed in October 2006. Phase 2 of the construction will add up to 10 floors to the medical office building and up to seven levels to the parking structure. When the second phase is complete, the project will generate an estimated 900 daily transit trips. Subsequent phases could include commercial space, a hotel and 200 residential units with a public plaza.

Benefits

The Oregon Clinic in the Gateway District provides numerous benefits:

- It is accessible through multiple modes of mass transit.
- It brings high-quality jobs to an area in need of new employment opportunities.
- It creates new retail space to provide goods and services.
- It provides medical services to an underserved community.

In addition, the new building received an LEED Gold rating for its energy-saving technologies, such as its innovative rainwater collection system. All the rainwater collected on the roof is utilized for the building’s irrigation and sewage system.

Accomplishments

- The project featured a unique partnership between private development, PDC and TriMet
- It is the first conversion of a TriMet surface Park & Ride facility for transit-oriented development
- This project is a potential catalyst for further redevelopment in this regional center
The old Oregon Nursery Company, which gave its name to the area at the turn of the century, never foresaw such a crop as is springing up at Orenco today. Orenco Station is a 199-acre pedestrian-oriented community featuring traditional architecture. Located near the Orenco MAX Station in Hillsboro and Intel's $2 billion Ronler Acres facility, Orenco Station is the largest master-planned community on the MAX system. It features a connected network of local streets and a variety of community amenities, including a commercial and retail center and community parks.

Master plan

PacTrust's Orenco Station master plan was approved by the City of Hillsboro in September 1997. It features a neighborhood “main street” retail area connected to a series of surrounding residential neighborhoods via tree-lined streets with wide sidewalks, parks and open spaces. The development will eventually provide housing for 4,000 Hillsboro residents in 1,834 single-family homes, townhouses and apartments. The master plan is designed to capture the essence of small-town business and residential districts with traditional neighborhood services, retail shops below apartments, small residential lots with front porches and minimal setbacks, and well-distributed parks and open space.

Orenco Station is a complicated development, involving several partnerships. Originally zoned for industrial uses, Orenco Station's code was changed to mostly mixed-use and residential when the construction of Westside MAX was announced. Working together, PacTrust and the City of Hillsboro developed a code that balanced project feasibility with regional goals of higher-density, mixed-use development around MAX station areas. The complex negotiations to change the code were made easier by close collaboration between stakeholders.

Nearby

At the eastern portion of the site, Fairfield Investment Company constructed the 360-unit Cortland Village and 264-unit Seneca Village. Between Campus Court and Cornell Road, Simpson Housing L.P. built 800 apartments featuring neo-traditional row houses in the brownstone tradition. North of Cornell Road and south of Butler Avenue is the 68-acre neighborhood of for-sale housing by Costa Pacific in partnership with PacTrust that includes, townhouses and single-family cottage homes. Orenco Station community was voted the Best Planned Community by the National Association of Home Builders in 1999.
The Pearl District

December 1994 and a development agreement adopted in 1998. The development agreement tied increased housing density to public improvements as follows:

- removal of a bridge off-ramp bisecting the rail yard property triggered an increase in minimum housing density from 15 units per acre to 87 units per acre
- construction of the Portland Streetcar required housing density to increase another 22 units an acre
- completion of park improvements on land conveyed by the developer added another 22 units per acre to any remaining undeveloped land, bringing the total housing density to 131 units per acre

In addition to increasing density, the development agreement required the developer to donate 1.5 acres of park land and approximately six acres necessary to create a public street grid. The developer was also responsible for the cost and construction of local streets. Finally, the developer agreed to be a partner in meeting the City's affordable housing goals. New development is also subject to design review.

From plan to reality

Planning and investment in Hoyt Street Yards spurred interest in adjacent blocks. The Pacific Northwest College of Art moved to the Pearl in 1998, energizing the Pearl's emerging art gallery scene. Portland advertising firm Weiden+Kennedy completed its headquarters in a renovated warehouse building in 1999. The same year, Powell's Books—one of the nation's largest independent booksellers—completed an expansion. Six residential projects comprising 370 rental and condominium units were completed in 2000, with the majority of the units pre-leased or pre-sold. The Portland Streetcar, which runs on NW 10th and 11th through the Pearl District, opened for service in 2001. In 2002, Jamison Square was completed and a Whole Foods market opened as part of a multi-block redevelopment of a former Blitz-Weinhard brewery.

Since 1994, more than 7,400 new housing units served by transit and local services and adjacent to the traditional central business district have been created. The reuse of these blocks makes a major contribution to Portland's growth management efforts. Densities across the district generally exceed 120 units per acre. While condominiums in the Pearl established some of Portland's highest housing prices, three projects serve low-and very-low-income households.

Moreover, the Pearl District presents an urban lifestyle not previously available in Portland, but perfectly suited to single and small households, including so-called "empty-nesters" who are leading the renaissance of cities. Far from forcing people out of traditional single-family homes or an auto-dominated lifestyle, the Pearl demonstrates a market hungry for a pedestrian-friendly alternative that might not have been realized without thoughtful growth management and transportation strategy.
Richmond Place

The Housing Authority of Portland purchased a site in the Richmond neighborhood to develop transitional housing for homeless families. The concept was to build the housing to fit into the neighborhood and to provide retail on SE Division. The site is zoned for mixed-use development.

The Housing Authority of Portland, in partnership with the City of Portland and the architect, had several meetings with the Richmond Neighborhood Association and received substantial input on the development of Richmond Place from the beginning.

The building is wood-frame. The parking is located in the rear off an existing alley, and the building is built up to the sidewalk for easy pedestrian access to the storefronts.

**Financing**

Total project costs were $2.821 million. The project was financed almost entirely with debt-free grants, with the exception of a $575,000 bank loan to cover the retail construction and a bridge loan to allow time for the retail to lease up.

With a development of this size, and with six grants starting at just $75,000, procuring and tracking these funds was challenging. It took over two years to obtain financing including grant applications, marketing the project to banks, information to funders, etc. The Housing Authority was involved in the development of housing but had little experience with retail/commercial development. For this reason, a real estate broker was solicited to market the retail space.

**Development**

The site was purchased in 1994 and the planning started. It took two years to secure financing. In May through June 1996, the contractor cleared the site and designed the office building. Construction began in July 1996 and was completed in January 1997, on schedule. As of June 2002, 6,485 square feet of retail is fully leased.

**Programs**

Portland Impact, Inc., an agency that works with homeless families, runs the program at Richmond Place.

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**Location and Transit Access**

SE Division & 41st Avenue
Line 4-Division

**At a Glance**

- Site Area: 21,000 sq. ft.
- Total Housing Units: 21 apartments
- Density: 43 units/acre
- Parking Ratio: 0.7 unit spaces
- Unit Types: Studio, one- and two-bedroom
- Total Commercial Space: 6,500 sq. ft.
The Round

The Round at Beaverton Central was among ambitious plans for transit-oriented development on the westside extension of the MAX Blue Line. Although the project has been a long time in the making, it is now on course to be the most intensively developed station on the line.

The project was initiated by the City of Beaverton, which owned the 8.5-acre property, formerly a sewage treatment plant. Development at this site would anchor the relationship between MAX and the City’s traditional downtown. The City released a request for proposals to develop the project in 1996. The winning development team proposed a mixed-use project with office buildings, 100 units of housing, a theater and a small hotel. The crescent-shaped buildings would bracket an impressive public plaza adjacent to the MAX station platform.

The development team began construction with private resources, but was unable to secure full construction and permanent financing. Construction of the project ground to a halt in 1998, and the developer ultimately declared bankruptcy. Two partially constructed buildings sat dormant for more than three years.

Lessons learned

In 2001, the City and Microclimates bought the property out of bankruptcy court. Subsequently, they sold the property to developer Dorn Platz Properties. The new developer completed construction of the two buildings started in 1998 and modified the project design to create more intensity around the station. A third building is complete and houses a two-level 24-Hour Fitness and Cambridge College. The parking structure opened for business in 2006. In addition to the health club and college, The Round houses restaurants, a bank, residential condominium units and several office tenants, including Coldwell Banker and Open Source Development Labs.

Residents of The Round say they feel lucky to have found The Round’s combination of urban shopping and transit with suburban location and prices. “It was everything I was looking for,” say condo owner Jeff Sanford. “I have really simplified my life.”

Three more buildings and an additional parking structure are scheduled for completion by summer 2008. Ultimately, The Round will have some 350,000 square feet of Class A office in four buildings, 120,000 square feet of retail, and up to 164 units of housing.

Success

Dorn Platz representative John Morrow’s assessment of the first developer’s attempt was quoted in The Business Journal: “There’s no reason it should have failed and every reason it did fail.” The project demonstrates that leadership projects face a multitude of challenges, from finding the right developer to securing conventional financing to achieving critical mass. Transit service and the sense of place established by the project design played an important role in ultimately attracting tenants to the project.

Beaverton intends to bolster The Round with development of an adjacent movie theater site purchased by the City in 2005 and offered for redevelopment in 2007. Restaurants at The Round are particularly keen to increase the population in the immediate area.

Location and Transit Access

Beaverton Central MAX Station

At a Glance

Site Area: 8.5 acres total; 6.2 buildable acres
Total Housing Units: Up to 260
Total Commercial Space: 470,000 sq. ft.
Parking Spaces: approx. 860

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Russellville is an 11-acre site that was once a public school and is now a 550-unit residential neighborhood adjacent to light rail.

The site is divided into five separate blocks by extending the public street grid. This creates an open connection between new development and existing neighborhoods. The focus of the pedestrian circulation system is linear green space that connects the new blocks with Burnside Street and the MAX station.

Russellville Commons, a 283-unit market-rate apartment project, has three different building designs to respond to a variety of household preferences. The first type is a double townhouse. Either a two- or a three-bedroom townhouse is placed above a one-bedroom split-level unit. Each unit has a private, street-level front door. These units are attractive to people who do not want to live in buildings with shared corridors, stairs and elevators. These townhouses create double the density of a typical townhouse project. Independently rented private garages are located under the split-level first-floor units. There are 222 units of this type in buildings ranging from six to 16 units each.

The building character changes substantially on the two blocks facing Burnside and the light rail. This portion of the project has higher densities than the first apartment phase in order to maximize the location adjacent to light rail. The “east” block houses an interior-corridor five-story independent-senior apartment building with a day care and a service component at street level and parking behind. This building has 154 units. A second 122-unit senior-oriented building is currently planned for the “west” block.

Location and Transit Access
SE 102nd & Burnside Avenue  
SE 102nd Avenue MAX Station

At a Glance
Site Area: 11 acres  
Total Housing Units: approximately 550, when fully developed  
Density: 46 units/acre, when fully developed  
Parking Ratio: 0.98 spaces/unit, not including on-street parking, when fully developed  
Housing Types and Sizes:
One-, two- and three-bedroom townhouses  
One- and two-bedroom apartments, 607-1,348 sq. ft.  
Studios, one- and two-bedroom senior living apartments, 546 - 985 sq. ft.  
Total Commercial Space:
Potentially 30,000 sq. ft. when fully developed
In addition to the tram, the South Waterfront District boasts several modes of convenient transportation, including Portland Streetcar and bus routes. Light rail service to the area is being studied as part of the Portland-Milwaukie Light Rail project. Because the zoning code for the area imposes limits on the creation of parking, alternative transportation is vital to the South Waterfront District.

Keeping it green
The plan calls for benefits to the environment by:
- capping and development of abandoned and contaminated industrial land
- stabilizing the riverbank that protects the Willamette River from potential contamination in the event of a flood
- improving air quality by removing contaminated piles of industrial fill and sawdust materials

The revitalization of the area goes even further than the initial clean-up process and includes plans for several environmentally friendly projects. For instance, the Willamette River Greenway, proposed by Governor Tom McCall in 1973, will average 100 feet in width along its 1.2 miles in South Waterfront. It will be accessible to the public via two trails: one for pedestrian traffic and one for bicycle traffic. The greenway will encourage alternate modes of transportation, create recreation opportunities, allow for residents and office workers to enjoy the beauty of the river and its ecosystems, and improve aquatic and wildlife habitat.

When OHSU broke ground in 2003 for its first building in the South Waterfront District, it paved the way for other eco-friendly developments to emerge in the area. OHSU’s Center for Health and Healing earned the United States Green Building Council LEED (Leadership in Energy and Environmental Design) Platinum rating, the highest LEED rating a building can receive. This $145.4 million building, opened in October 2006, is a 400,000-square-foot, 16-story, mixed-use facility, which includes laboratory space for the biomedical engineering program, eight floors of physician practices, surgery suites and imaging facilities, and a health and wellness center complete with a gym, lap pool, therapy pool and spa. Thanks to innovative construction techniques, the building’s operations have energy savings of 60 percent, as well as a bio-treatment system that treats up to 30,000 gallons a day and an extensive utilization of eco-friendly roofs.

Looking forward
Spring 2006 saw the completion of the Meriwether Condominiums, and more mixed-use buildings are scheduled to open, including the John Ross Condominiums in late 2007 and the Atwater Place Condominiums in early 2008. Studies show that in a space that covers less than 1 percent of the area of Portland, the South Waterfront District will assume 4.7 percent of the city’s job growth and 2.5 percent of housing and residents, and potentially add more than 4.4 acres of open space for the public. These figures demonstrate terrific potential for helping to accommodate growth consistent with the Metro 2040 Growth Concepts Plan’s focus on strong centers.
West Gresham Apartments

West Gresham Apartments is located on a surplus portion of property that TriMet acquired to locate a new substation for the light rail system, should the system’s power demands increase. TriMet’s land development staff determined that only a portion of the site would be needed for the substation, and sought a developer for the remainder of the property. TriMet policy directs staff to manage the agency’s real estate to increase ridership and create partnerships in the community. It also gives special consideration for development for low-income people.

To achieve these objectives TriMet turned to Cascadia Behavioral Healthcare Company, which provides housing and other services to low-income people with mental illness and addiction problems. TriMet was able to offer the property to Cascadia at a discount in order to achieve the goals of both agencies.

**Occupancy requirements**

The rental units provide housing for low-income individuals who have psychiatric disabilities. Tenants live independently with some community-based assistance. While single individuals occupy most units, couples can rent some units. Prospective tenants are referred by their case manager, hospital discharge planners, family, friends, and through self-referral. Cascadia’s housing services staff determines eligibility through income verification and a review of rental history and criminal records, ultimately determining whether to rent to the prospective tenant.

**Land use issues**

This property, located adjacent to the E. 172nd MAX Station, is zoned Station Center, which allows higher-density housing with a maximum of 60 units per acre. The City of Gresham recently revised its Station Center zoning to allow mixed-use development. TriMet asked Cascadia to incorporate a small retail space to provide an amenity for neighborhood pedestrians and MAX passengers into the project.

**Development timeline**

The project spent four years in pre-development due to a merger between Cascadia and two other community health organizations, which pushed the project to the back burner for two years. Once the dust settled from the merger, capital fundraising resumed in fall 2003, and the project quickly garnered a significant Low-Income Affordable Housing Tax Credit award. The balance of the capital fundraising from other grant and loan sources required an additional year of effort. Construction began in November 2004, and the apartments opened in October 2005.

**Funding sources**

Capital funding was obtained from multiple sources, including: Oregon Housing and Community Services, Oregon Office of Mental Health Services, the City of Portland through the Portland Development Commission, the Enterprise Social Investment Corporation, Bank of America, Network for Oregon Affordable Housing, Seattle Federal Home Loan Bank, the City of Gresham and Multnomah County. In addition, the Housing Authority of Portland committed to providing 26 Section 8 Project-Based Vouchers.

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**Location and Transit Access**

17257 East Burnside
E. 172nd Ave. MAX Station

**At a Glance**

- **Site Area:** 9,696 sq.ft.
- **Housing Types and Sizes:** 24 one-bedroom and three two-bedrooms, ranging from 734-817 sq. ft.
- **Density:** 60 units/acre
- **Total Commercial:** 635 sq. ft.
- **Parking Ratio:** 0.37 spaces/unit

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This brief annotated bibliography provides resources on topics related to transit-oriented development (TOD). This is not an exhaustive list, but simply a description of several informative articles and websites in the subject realm.

Transit-oriented development


  This manual was developed to assist San Jose, California's Valley Transportation Authority (VTA) implement the Valley Transportation Plan (VTP) 2020. It provides information on best practices for designing and implementing transportation and land use-related projects.


  This extensive literature review defines TOD and transit joint development (TJD) and describes the issues associated with TOD through examples and studies of impacts and benefits of these developments. The brief conclusions note a need for more studies on the topics of the formation of TODs and the effects on ridership, traffic conditions and air quality.


  This comprehensive report led by U.C. Berkeley’s Cervero, covers tools, barriers and impacts of TOD as well as 10 case studies contributed from around the country.


  This article explores and explains transit-oriented developments throughout U.S. history to develop and understand the practice. The authors contribute to TOD literature with a work that demonstrates how these developments can be designed and approached in communities to create a successful TOD.


  Chapters cover such topics as zoning and financing TOD. Case studies include detailed “lessons learned.”


  [www.apta.com/research/info/briefings](http://www.apta.com/research/info/briefings)

  This American Public Transportation Association (APTA) website is a resource guide to numerous topics within transportation; it provides Internet access to a number of transit documents including articles, papers and presentations regarding transit issues, practices, case studies and tools. Several of the sources cited in this bibliography can be found at the links provided by this website.


  Reconnecting America provides both the public and private sectors with an impartial, fact-based perspective on development-oriented transit and transit-oriented development, and seeks to reinvent the planning and delivery system for building regions and communities around transit and walking rather than solely around the automobile. The website provides information on recent reports and projects.
Light rail impact on land value


  This paper draws conclusions about rail transit impacts on adjacent property values from the study of 12 heavy-and light-rail projects in North America. In general, this study found that proximity to rail is shown to have positive impacts on property values.


  This report examines how the first decade of light rail transit in the Portland, Oregon, region has affected auto ownership, mode share, density and property values. The analysis provides evidence that light rail has had some early positive effects on single-family property values, transit use, and slower growth of two-car plus households in the outer part of the light rail transit corridor as compared to an outer part of a parallel bus corridor.


  This article examines apartment rent and property value for residential income properties located in close proximity to Washington, D.C., Metrorail stations. The article concludes that the distance away from Metrorail stations affects property values negatively; the farther away a property is located from a station results in a decrease in rent, which in turn is reflected in the property’s value.


  Chapter 9 of this publication, titled Real-Estate Market Impacts of TOD, examines TODs and the implications of this sort of development on the real estate market. Through describing specific experiences with rail and TODs in several North American cities, and through exploring research over the past two decades, this article describes the benefits of residential and commercial properties located near transit stops and within a TOD.


  This succinct article presents a broad overview of numerous rail transit studies that have found correlations between rail transit and property values. It provides an overview of the types of impacts revealed in various studies relating to commercial and residential property values influenced by rail transit implementation.


  The article provides a thorough description of how rail transit and land values are interrelated through TOD, and provides a history of Santa Clara County’s experience with rail transit. By studying Santa Clara County, California, this article confirms a significant increase in land values near light rail services.
Chapter Four
Programs
A grand vision of the model can foresee creating a self-sustaining non-profit that needs no external subsidization when enough volume is developed and when second mortgages begin to “mature” and are repaid.

Applications of the model
The model does not work for every site because it is sensitive to sub-market conditions. There must be sufficient market demand for high-density condominiums on the site, and the market prices must support the “affordable” units.

In order to assure that the project doesn’t become a glorified rental, the purchasers of the affordable units are offered an appreciation share in proportion to their investment (this can be formulated/structured in a variety of ways).

In the eyes of a lender, the model competes well against for-profit development because the lower prices on the affordable units reduce market absorption risks, and the model defers the “profit” through the second mortgages in a way that the private sector is unwilling to typically forgo.

The model breaks with Portland and non-profit “orthodoxy” in several ways. It is not necessarily committed to long-term affordability in a specific unit, and it serves a slightly higher income range (in the Goose Hollow case, up to 100 percent of median income). In this sense, it represents more of a “third sector” model rather than a traditional non-profit model.

Since completing Arbor Vista, developer Innovative Housing Inc., has chosen to pursue traditional non-profit rental development. The IHI Board considered the risks of ownership housing to be too risky compared to the affordability that can be provided. IHI’s experience revealed that the amount of affordability that can be provided is directly related to the sales absorption of the market-rate units. IHI’s retreat from the Arbor Vista approach does not mean that the model is not viable. IHI’s decision was based on the board’s vision of its future mission.

Success of the model elsewhere
The model is new to Portland, but variations have been used successfully in other markets that Portland is beginning to resemble. Bridge Housing in the Bay Area is one example. It builds mixed-income housing and is one of the country’s largest non-profit developers.
As Portland citizens’ advocacy for alternative transportation grew, the City created new positions and plans to help the transportation bureau evolve from traditional traffic engineering practices.

**Bike program**

Founded in the 1970s to respond to a pioneering state law requiring a minimum of 1 percent of all transportation expenditures be spent on bicycles and pedestrians, Portland’s bike program relies heavily on resident input and activism. Its main focus is implementing the Bicycle Master Plan, adopted in 1996 by the City Council. Specifically, the Master Plan calls for a comprehensive network of bikeways; end-of-trip facilities such as bicycle parking and showers; bikeway maintenance; safety education; and promotion of cycling as a means of transportation.

Portland is known nationwide for its creative implementation of bikeways on existing roadways, its innovative Bike Central program, its partnership with local businesses and community groups, its experimentation with European safety features such as colored pavement markings, and its success at increasing bicycle use. Portland has implemented more than 200 miles of bikeways, along with thousands of bicycle parking spaces; five Bike Central stations; and a progressive bicycle safety program for area children.

**Pedestrian Program**

The Office of Transportation created the Pedestrian Program in 1993 to develop the plans and to construct capital pedestrian projects. The Pedestrian Advisory Committee (PAC) was also formed in 1993. The Office of Transportation adopted the Pedestrian Master Plan and Pedestrian Design Guidelines in 1998. These documents guide the development of pedestrian projects and facilities in the city of Portland.

The goals and objectives of the Pedestrian Program were integrated into the organization as a whole as part of the reorganization of the Office of Transportation in 1999. All Office of Transportation staff are to implement policies and guidelines to develop a more pedestrian-friendly environment. The Office of Transportation continues to fund a separate pedestrian position, the Pedestrian Coordinator. The Street Systems Management Section also works on pedestrian facilities, especially as they relate to sidewalk cafes, sidewalk requirements as part of development, and other issues related to private use of the right of way, including the sidewalk.

**Pedestrian Master Plan and Design Guide**

The Pedestrian Master Plan is a 20-year vision for increasing opportunities to walk in the city of Portland. The plan includes policies, street classifications, a list of 159 capital projects, and strategies for funding the estimated $120 million cost of the recommended projects. The Pedestrian Master Plan project began in September 1994, and the final plan was adopted in 1998.

The Portland Pedestrian Design Guide establishes guidelines that integrate a wide range of design criteria and practices for elements in the public right of way. It seeks to place pedestrians on equal footing with other transportation modes and promote a better walking environment. The guidelines were developed with the assistance of affected city bureaus, other agencies interested in the right of way, and citizen working groups.

More than 150 Office of Transportation employees and other bureau employees were trained in the Pedestrian Design Guidelines. The Pedestrian Coordinator conducts training twice a year.

**Pedestrian access study**

This study established a planning and design framework to increase transit ridership by improving pedestrian access to transit. It analyzed factors that influence the use of transit and provides a set of design improvements that enhance transit access. The study also identified target areas with the best opportunity to increase transit use, as well as design ideas for prototype projects targeting areas within the city.

**ADA Curb Ramp Request Program**

The ADA Curb Ramp Request Program identifies and builds new curb ramps throughout the city to enhance accessibility. Each year staff and area residents identify locations that need ramps. The Pedestrian Coordinator works with Bureau of Maintenance staff, administrative staff and the Metropolitan Human Rights Center with outreach, database maintenance, site inspections, prioritization and construction of approximately 100 ramps each year.
The Oregon Legislature created the Business Energy Tax Credit to encourage Oregonians to save energy. The program, administered by the Oregon Department of Energy, promotes investments in energy conservation, renewable energy resources, recycling and less-polluting transportation fuels.

Any Oregon business may qualify. Projects may be in office buildings, stores, apartment buildings or manufacturing plants, or in transportation. A project owner may also be an Oregon non-profit organization, tribe or public entity that partners with an Oregon business or resident that has an Oregon tax liability. Projects must be located in Oregon, and project owners must apply for the tax credit before they start the project.

The Business Energy Tax Credit is 35 percent of eligible project costs, taken over five years: 10 percent in the first and second years and 5 percent in the last three years. If project costs are $20,000 or less, the business may take the tax credit in one year. The eligible costs for a single project may not exceed $10 million.

Transportation projects that reduce vehicle miles traveled may qualify for a tax credit. Three targeted projects:

- Telework. Telework is working at locations other than the traditional workplace one or more days a week. Businesses can get a tax credit for purchasing and installing new or used equipment that allows an employee to telework. Computers, fax machines, modems, phones, printers, software, copiers and other equipment necessary for telework are eligible costs for the tax credit. The employee must telework at least 45 days per calendar year.
  - Employers that subsidize transit passes for employees or provide vehicles for vanpooling or carpooling are eligible for the tax credit.
  - Business owners who buy a hybrid vehicle or one that uses alternative fuel may also be eligible for a tax credit.

The Oregon Department of Energy has issued more than 13,000 tax credits from 1980 through 2006. The energy projects receiving tax credits during this time period cost $618.6 million and saved 19,146 billion Btu as well as generating 3,531 billion Btu of energy per year.

One Btu (British thermal unit) is equal to the amount of heat required to raise the temperature of one pound of liquid water by 1 degree Fahrenheit at its maximum density, which occurs at a temperature of 39.1 degrees Fahrenheit. One Btu is equal to approximately 251.9 calories or 1,055 joules.
The incentives must have the potential to reduce commute trips by ten percent within three years.

The Employee Commute Options (ECO) rules (Oregon Administrative Rules 340-242-0100 through -0290) were adopted by the Environmental Quality Commission in July 1996. Renewed and revised in February 2007, the rules are intended to keep the air clean in the Portland area. The plan, which also includes the Vehicle Inspection Program and consumer products rules, will prevent illness due to air pollution, remove industrial growth impediments, avoid sanctions on federal transportation funds and reduce traffic congestion. Approximately 85 percent of affected employers have complied or are in the process of complying.

An advisory committee, comprised largely of business stakeholders, met for a year and a half before the 1996 rules were adopted. The biggest challenge during rule development was creating a program that was equitable within the business community and realistic in its goals, yet still provided a significant, positive impact on air quality in the region. The ECO program is currently reducing almost 40 million vehicle miles traveled annually.

Under the ECO program, employers in the Portland area with more than 100 employees reporting to a single work site are required to provide incentives for employee commute options other than driving alone. The incentives must have the potential to reduce commute trips to the work site by 10 percent within three years. Annual employee surveys measure progress toward this goal.

Typical incentives offered by employers include transit subsidies, carpool matching and preferential carpool parking, bike programs, compressed work weeks and telecommuting. Alternative compliance methods include reducing other vehicle traffic to or within the work site, reducing air pollution emissions from non-auto sources at the work site, or paying a fixed fee. New development may comply by limiting construction of new parking spaces.

In addition to meeting regional air quality requirements, the ECO rules are eliciting many secondary benefits. There is a heightened awareness of the impacts of driving on quality of life, on the ability to transport goods and people, and on the environment. Businesses and citizens are becoming more vocal about their needs and desires regarding transit service, and involving themselves in the process. Transportation management associations are forming to help employers understand and meet their transportation needs. Employers are initiating policies for telecommuting and flexible scheduling. In essence, the culture of the workplace is changing to accommodate the change in employee commuting behavior.
In 1974, a City staff report recommended a Fareless Square for transit service covering Portland’s entire Central Business District (CBD). The following benefits and objectives were cited in the report:

- promotes transit riding by providing people who do not currently use transit an opportunity to try it
- reduces auto-generated air pollution by eliminating short auto trips within the free fare zone
- helps provide higher mobility and coordination of travel within downtown

The Transportation Control Plan outlined methods for addressing air quality problems in the Portland airshed. Fareless Square was promoted as a component of this plan. Other elements of the plan included the downtown parking lid and staggered work hours. In addition, Fareless Square was promoted as an element of downtown revitalization.

**Commuters use transit**

Fareless Square encourages commuters to leave their cars at home and use transit by providing alternative transportation during the day. Once downtown, Fareless Square offers these transit riders free access to business and retail locations. About 50 percent of transit riders downtown use Fareless Square service and about 3,000–4,000 trips are made in Fareless Square each weekday.

**Business support**

Fareless Square is an attractive amenity for downtown businesses. Merchants and business groups in downtown Portland believe that the elimination of Fareless Square would have a negative effect on their businesses because transit provides an economic and convenient alternative to driving downtown.

Because the City limits commercial parking spaces allowed in downtown, transit service is critical to help carry the increased trips that result from new development and job growth. The highest density of development and the greatest restrictions on parking are along the Transit Mall. Fewer restrictions are placed on parking and lower-density development in the areas of the downtown that are not as accessible to transit as the Fareless Square area.

Portland benefits from TriMet’s service to downtown and the Fareless Square policy. At the same time, TriMet benefits from the City’s policies. The growth in TriMet ridership to downtown is directly related to the transit-supportive land use and parking policies of the City of Portland.

**State implementation plan**

In the mid-1970s, the air in downtown Portland violated federal health standards one day out of every three. To clean up the air, the region adopted the Carbon Monoxide and Ozone State Implementation Plan (SIP) in 1977. Key elements of the SIP were the federal motor vehicle emissions control standards for new automobiles, the DEQ’s vehicle inspection and maintenance program, and the City of Portland’s downtown parking lid.

Fareless Square was included as an element of the SIP for two reasons. By offering downtown workers and shoppers free transit service within the CBD, Fareless Square would reduce short auto trips made within the CBD, thereby reducing air pollution. In addition, Fareless Square was important for making the City of Portland’s parking policies work for the public by providing free intra-downtown mobility to workers and shoppers who take transit to downtown Portland. Downtown Portland air has not violated federal air quality standards since 1984.
Portland is the birthplace of car-sharing in the United States. Because the majority of the cost of owning a vehicle (insurance, car payments) is fixed and the cost of operating a vehicle (gas, repairs) is minor, once a person invests in car ownership he or she tends to drive more often than necessary. The unit pricing of vehicle use in car-sharing more accurately reflects the true cost of owning and operating a vehicle and provides an incentive to use transit, biking and walking. Car-sharing allows individuals to have the benefits of auto use for personal trips without the drawbacks of car ownership (high insurance, maintenance, etc.). This provides incentive to use the appropriate transportation mode depending on the nature of the trip.

Flexcar is a car-sharing company serving the Portland area. Flexcar can also provide car-sharing services to businesses. A company may offer it as a benefit to employees to use a car for personal trips when they take transit, walk or bike to work, or a company may choose Flexcar in lieu of owning and maintaining its own fleet.

Flexcar maintains a fleet of four-door sedans, including gas-electric hybrids, as well as specialty vehicles such as pickup trucks, minivans and two-seater convertibles. Vehicles are located in more than 20 locations in neighborhoods, downtown and soon at MAX stations in the suburbs. The cost of membership depends on hours and miles of vehicle usage; gas, insurance, maintenance and repairs are included. In 2007, active members paid a $35 lifetime membership and $9 to $11 an hour with gas and insurance included.

Members can quickly schedule any vehicle in the fleet by the half-hour using a simple telephone touch-tone system, or on the web. At the start of the trip, the member uses a special code to unlock the vehicle and takes a trip, returning the vehicle to the same location.

Flexcar members cite freedom, saving money, ease of use, increased options and mobility as reasons to join. Member David Fitzgerald explains, "I drove every day to work and paid for parking. I felt I always needed my car, just in case. With Flexcar, there is a car within blocks pretty much everywhere I go. So now I take the bus to work and reserve a car if I have a dentist appointment or a lunch meeting. In one month, I don't even spend on Flexcar what I spent parking downtown."

Flexcar Portland originally started as CarSharing Portland in March 1998 and merged with Flexcar, a Seattle-based company, in August 2001. Portland members can also drive vehicles in other Flexcar cities, including Vancouver (Wash.), Seattle, Washington, D.C., Chicago, Philadelphia, the San Francisco Bay Area, Long Beach and other Los Angeles areas.

“In one month, I don’t even spend on Flexcar what I spent parking downtown.”
The City of Gresham is the eastern terminus of the MAX Blue Line. The City has adopted several programs to promote transit-oriented development.

**Property tax exemption**

A property tax exemption program encourages transit-supportive housing and affordable mixed-use projects on vacant or underutilized sites within the city and within walking distance of transit.

All projects must meet the following conditions:

- minimum 10 units
- minimum 35 rental or 24 for-sale dwelling units per acre, or the district minimum, whichever is greater (may include structured residential parking)
- mixed-use projects with ground-level commercial uses must have a minimum of 20 (rental) or 18 (for-sale) dwelling units per acre average, or the district minimum commercial 0.25 floor area (may include structured residential parking)

**Key approval criteria:**

1. Every project must include enhanced Crime Prevention Through Environmental Design (CPTED), a security program and a maintenance plan. The plan must be developed by the applicant and Gresham Police and must be recommended by the police department.

2. Projects must include one or more of the following design elements that benefit the general public, in addition to any design review or other development requirements:
   - parks or public open spaces such as a landscaped plaza
   - public meeting rooms and offices
   - on-site day care open to the general public
   - enhanced transit or pedestrian access facilities
   - ground-floor commercial use that serves residents, neighbors and transit riders.

3. The following elements are guiding principles that also meet City goals for the Downtown and Civic Neighborhood districts and Gresham’s 2040 Regional Center:
   - mixed-use projects of residential and ground floor commercial
   - affordable housing
   - special-needs housing
   - residential density of at least 50 units per acre
   - on-site day care open to the general public.

4. Demonstrate that property tax exemption is necessary to achieve the proposal, including the costs incurred by program requirements.

5. Projects granted exemption must be constructed by January 1, 2006. Once constructed, the tax exemption is allowed for 10 years. Following this, the property goes on the tax rolls at market value. Only the improvements are exempted, not land. The estimated property tax exemption amount is $10.01 per $1,000 of assessed value.

**Fee reductions**

An automatic 26.9 percent discount is available as an incentive to locate new development in pedestrian and transit districts. New community services, commercial, industrial and mixed-use developments that front designated transit streets outside of transit and pedestrian districts receive an automatic 10 percent discount.

A Transportation Demand Management (TDM) program is available to all new development. This program encourages reduced trips during peak hours by using other modes of transportation, and by generating trips during alternate hours. A TDM plan can also be used to justify discounts in TIFs.
A portion of Hillsboro’s Central Business District (CBD) has been revitalized through the community’s investment in new infrastructure improvements at the heart of downtown. The project area is located along Main Street between First and Fourth avenues and along Second and Third avenues between Lincoln and Baseline Streets. These improvements match the street improvements that were constructed by the Westside Light Rail Project, which parallels Main Street one block to the south.

Connections to light rail

Although several downtown property owners already had benefited from the upgraded light rail frontage improvements, they voluntarily participated in the formation of a local improvement district (LID). A LID is a temporary property tax increase dedicated to specific improvements. Property owners saw the value of a cohesive downtown retail and commercial district visually linking the main retail street with light rail.

The project

The new streetscape reflects a coordinated effort between downtown property owners, merchants, design consultants and City staff. Brick patterned sidewalks are complemented by street trees and antique acorn-style luminaires accented with hanging flower baskets and banners. Intersections are narrowed with large landscaped sidewalk bulb-outs connected by red paved crosswalks. Mid-block benches, trash receptacles and drinking fountains provide a pedestrian-friendly atmosphere. The City’s capital improvements include street construction, water line replacement, sanitary sewer rehabilitation and storm sewer modifications. These upsized public utilities will accommodate future growth (density) in the Hillsboro Central Business District.

Timeline

The project encompassed years of planning by the Downtown Business Association (DBA), the Chamber of Commerce and the City of Hillsboro. The timeline established for the improvements assured completion before light rail service opened to downtown Hillsboro in September 1998.

The LID was formalized by the Hillsboro City council in August 1996, the contract was awarded in June 1997, and construction was completed by the summer of 1998.

The total construction contract was $3.8 million, with a maximum of $1.6 million for assessable LID improvements; the rest was funded through various capital improvement accounts.

The enhancement of downtown Hillsboro can be credited to a strong commitment to open communication, and the continuous efforts and patience of downtown merchants and property owners; City, County and light rail staff; and the public at large. These improvements have established the character of the CBD and a framework for future downtown development in accordance with the Downtown Hillsboro Light Rail Station Community Plan.
Portland Green Building Program

G/Rated's efforts have gained much local and national attention.

Development in Portland

Portland is growing, and the buildings going up so rapidly today will shape our lives for many years to come. As we continue to better understand the long-term impacts that buildings have on people and the environment, new tools are needed to create healthy, resource-efficient buildings. Green building takes a longer view of costs and quality by asking simple questions:

- Will this building be safe for workers and residents?
- What resources will the building use through its lifetime?
- How much waste will it create?
- Will the building be a good neighbor?

Building momentum

Development- and construction-related industries are main contributors to the depletion of natural resources and a major cause of unwanted side effects such as air and water pollution, solid waste, deforestation, toxic wastes, health hazards, global warming and other negative consequences. However, a handful of Portland developers, designers and building professionals are demonstrating that development can cost-effectively integrate ecological design and resource conservation in projects like the Brewery Blocks, Buckman Heights, Jean Vollum Natural Capital Center, Norm Thompson Outfitters, Viridian Place, Station Place and the South Waterfront District.

In 2000, the Office of Sustainable Development developed G/Rated, an innovative green building-outreach program. The program promotes the benefits of energy- and resource-efficient, healthy and durable buildings through policy development and program implementation. To encourage local leadership and put demonstration projects on the ground, G/Rated created an incentive program for commercial, residential and affordable housing projects and emerging technologies. Incentives include small grants awarded on a competitive basis. State tax credits and local utility programs are also available.

G/Rated is also compiling an expanding number of technical resources and information. Products include the Portland LEED™ Green Building Rating System, tenant improvement guidelines and an affordable housing resource guide. G/Rated staff are available to answer questions and track down information.

G/Rated's efforts have gained much local and national attention. Today, green building is gaining momentum throughout the U.S., helping to forge a strong link between environmental stewardship and livable communities.

G/Rated: Comprehensive services and resource

G/Rated provides tools and resources, practical information, design guidelines, case studies, research, technical assistance and incentives—to help developers, designers, contractors, businesses and homeowners achieve “greener” results when designing and constructing buildings. Services include:

- financial incentives
- personalized technical and design assistance
- a web-based resource center

For more information, visit the G/Rated website, a collection of resources and tools that reflect the evolving landscape of design: www.green-rated.org
The 1995 Oregon State Legislature amended legislation on the Core Area Tax Exemption to include transit-oriented developments (TODs). The legislative purpose is to promote higher-density residential and mixed-use development near major public transit facilities.

The City of Portland adopted this local option program in October 1996, guided by the following adopted policies:

- the livable City Housing Initiative, which established a goal of 50,000 new housing units in the City within the next 20 years
- the State Transportation Planning Rule, to reduce single-occupant-vehicle miles traveled.
- the Region 2040 Framework Plan to promote increased densities within the Urban Growth Boundary in strategically designated Town Centers and Transit Corridors
- Consolidated Plan policies to promote the construction of low- and moderate-income mixed-use development
- Outer Southeast Community Plan policies that designated Town Centers, Transit Corridors and Main Streets, and established residential and mixed-use zoning to promote transit-supportive densities of at least 35 units per acre.

Eligible projects

Eligible projects will be exempt from property taxation on the residential improvements for up to 10 consecutive years. Rental and for-sale housing are eligible. The exemption does not include the value of the land, nor any improvements that do not provide a public benefit.

Eligible sites must be located within light rail station areas within a quarter-mile radius of an existing light rail station. Maps showing these areas are available from the Portland Development Commission.

Projects must provide a residential unit-per-acre density equivalent to at least 80 percent of the applicable maximum density for the site, or meet affordability requirements or provide other public benefits such as child care. Projects seeking the exemption under the affordability requirements must designate 20 percent of units affordable to and occupied by tenants with household income of less than 60 percent of median family income, or 10 percent of units affordable to households earning 30 percent or less of area median income. In projects providing for-sale units, the units must be sold to households earning 100 percent or less of the median family income for a family of four, and the sales price may not exceed 95 percent of the minimum sales price established by FHA loan guidelines.

The applicant also must demonstrate that the property tax exemption is necessary to make the project financially feasible. The applicant must provide two operating pro formas detailing the financial performance of the project, with the same rent schedules. One should assume the property tax exemption and the other should not. The maximum allowed internal rate of return (IRR) is 10 percent.
The Portland metropolitan region’s adopted growth management plan (the 2040 Growth Concept Plan) calls for the region to grow up, rather than out into farmland and open space. Specifically, the plan limits expansion with an Urban Growth Boundary (UGB) and focuses growth around transit.

The Transit-Oriented Development (TOD) Implementation Program assists the construction of transit villages and projects that demonstrate TOD concepts at light rail transit stations throughout the Portland region. These compact, relatively dense, mixed-use, mixed-income developments concentrate retail, housing and jobs in pedestrian-scaled urban centers, increase non-auto use (transit, bikes, walking) and decrease regional congestion and air pollution.

Independent studies indicate that a TOD will reduce congestion and air pollution by up to 30 percent compared with typical suburban development and that joint development, is eight to 14 times more cost-effective than new rail starts or extensions. TOD Program projects will substantiate or refute these findings.

The TOD Program utilizes site control, financial participation and other “joint development” tools. It operates through a series of cooperative agreements between the region’s elected regional government (Metro) and local jurisdictions or private developers. It is funded with federal and local transportation funds.

### Program issues

At the federal level, officials are just beginning to understand the need for financial participation in development that surrounds light rail stations in order to help shape communities served by transit (as stated in current Federal Transit Administration policy on joint development). At a regional level, any type of public/private partnership in which the public sector invests specifically for the benefit of the private development—even if that private development has myriad public benefits—may be politically sensitive. At the local level, issues associated with TODs such as increased densities and mixed uses can be perceived negatively by stakeholders adjacent to a project.

At the project level, TODs face considerable financial and market hurdles. Three specific issues that must be addressed in the planning, design, construction and marketing of most TOD projects are: designing cost-effective buildings over 35 units per acre; securing construction and long-term debt financing for mixed-use elements; and defining and locating parking.

As of summer 2007, the TOD Program has provided funding to 12 projects.
The Transportation and Growth Management (TGM) program is a joint effort of the Oregon Department of Transportation and Land Conservation and Development. Initiated in 1993, the TGM program provides grants as well as direct community assistance to help local governments plan for balanced, multimodal transportation systems that support vibrant, livable communities. The program’s chief source of funding is the Federal Transportation Equity Act of the 21st Century (TEA-21).

Grants to local governments

The TGM grants are typically used by local governments to develop, update or refine transportation system plans, through which local transportation needs are examined. The grants are also used to support transportation-efficient land use plans for downtowns, residential neighborhoods or industrial, commercial and mixed-use districts.

Direct community assistance to local governments

Besides providing transportation planning grants, TGM offers three types of direct community assistance to local governments on transportation and land use issues:

- **TGM Quick Response projects** make transportation, land use and urban design specialists available to help local governments work with developers and neighborhood groups to solve problems and improve access to local destinations through better road, sidewalk, bike lanes and transit connections.
- **TGM Code Assistance projects** help local governments to reassess their planning and zoning codes with a view to identifying and adopting code revisions that yield greater transportation efficiencies in new development.
- **TGM Outreach projects** increase public awareness and understanding of transportation and growth management concepts that improve the mobility of Oregonians. Outreach typically occurs through workshops, public forums and conferences held in Oregon.

Publications

TGM has also developed a series of publications that address a wide range of common transportation and growth management issues. Some titles include:

- Main Street: When a Highway Runs Through It
- Model Development Code and User’s Guide for Small Cities
- Neighborhood Street Design Guidelines
- The Principles of a Balanced Transportation Network
- Parking Management Made Easy: A Guide to Taming the Downtown Parking Beast

Program successes

For the 2007-2009 biennium, the TGM program awarded just less than $2 million in grants. These grants went to local and regional agencies in the Portland metropolitan area to fund 27 projects. Projects included planning for streets and their connections; bike and pedestrian plans; transit plans; streetscape design plans; freight and other industrial access plans; capital improvement plans; and transportation-efficient land use plans for downtowns, residential neighborhoods, industrial, commercial and mixed-use districts.
TriMet's Regional Transit Demand Management (TDM) program reduces trips by expanding commute options for the region and by providing commuter support service for areas not served well by transit. Since 1990, the program has grown to include rideshare matching services, technical assistance to employers, planning and program assistance for area transportation partnerships, and newly forming Transportation Management Associations (TMAs). In addition, TriMet augments regional TDM programs and services to help employers and local jurisdictions comply with regulatory requirements such as the Employee Commute Option (ECO) Rule. The annual program budget is currently more than $51 million, and more than 70 percent comes from federal congestion mitigation and air quality (CMAQ) funds.

The program provides outreach to more than 700 employers who represent nearly 250,000 employees in the Portland metropolitan area. In addition, the program utilizes its resources in partnership with local and regional organizations to provide a variety of innovative transportation options in specific areas of the region.

Marquam Hill Partnership Plan

The Marquam Hill Partnership Plan involves three clustered major medical facilities with more than 10,000 employees, students, patients and visitors each day. Fixed-route transit service from downtown is frequent and reliable, but typically requires a transfer and does not provide direct, convenient service. Although each institution had implemented demand management measures in the past, this was the first effort to create a combined strategy involving the three facilities. The Plan established new express buses, a new coordinated carpool/vanpool database and substantially reduced transit pass rates. An extensive marketing program was funded using 30 percent public and 70 percent private dollars. In the first year, trips by employees and students driving alone declined by 15 percent, and transit ridership increased by 46 percent.

In the third year of the program, two additional express routes were added and the rate of drive-alone trips continued to decline.

Lloyd District Partnership Plan

The Lloyd District, a high-density employment and residential area, was identified by the City of Portland for new transportation strategies to enhance livability, reduce reliance on the single-occupancy vehicle, attract development and prevent traffic congestion. Transit service in the Lloyd District is both frequent and reliable, but is designed to target through or transfer trips rather than directly serve the growing business and retail core of the district. In January 1996, the Lloyd District TMA, TriMet and the City of Portland began work on the Lloyd District Partnership Plan. The adopted Plan now provides an employer-based fare program, which supports parking meter installation, rideshare and bicycle alternatives and transit improvements. The Plan is a unique agreement that ties service demand to service improvements. To date, employers representing about 40 percent of the total employees in the Lloyd District subsidize and distribute reduced-rate transit passes.
The goal of TriMet’s public art program is to promote increased transit usage and community pride by integrating temporary and permanent art into the public transit system. The art recognizes the cultural richness of the region served by TriMet and celebrates public transportation.

TriMet initiated the Public Art Program as part of the planning and construction of the westside extension of the MAX Blue Line in 1992. TriMet formalized its commitment to art by passing a resolution to establish an agency-wide program in 1997. Public art is now a component of all new rail projects and is also being introduced to the bus system.

MAX Blue Line

The vision of artists was incorporated into the planning and design of the westside extension of the MAX Blue Line. Two volunteer citizen committees (supported by TriMet Public Art Program staff) oversaw the work of eight design team artists and 15 project artists.

More than 100 permanent art elements bring individual identity to each of the 20 MAX stations and honor the history, culture and landscape along the line. For example, at several stations a photographer documented the station areas as they appeared in 1994 (mid-construction). The photos are etched on the windshield glass. These “time windows” allow riders to compare the present with the past.

Many more descriptions of station art can be found at trimet.org.

MAX Red Line

The most conspicuous art incorporated into the Airport MAX project is the “Fishbird” pedestrian bridge, which spans I-205 to link the light rail platform at the Parkrose/Sunnymede Transit Center stop to bus bays and Sandy Boulevard. Even the attention of drivers is drawn to the transit system by the unique bridge design.

Artists developed an Art Plan to guide the Airport MAX program and worked with project architects to design system-wide art elements. These elements include a shelter canopy form inspired by airplane wings, signal buildings painted “banner blue” and windsreen glass patterns that provide color and design on the platforms.

MAX Yellow Line

MAX Yellow Line runs through diverse neighborhoods. The Public Art Program established a unique identity for each of the 10 stations along the new line. The program is guided by an advisory committee comprised of citizens and art professionals who live or work in and near the Interstate corridor. Over 40 local artists and writers developed approximately 50 art elements that draw upon the history and culture of the individual station areas.

MAX Green Line

TriMet is continuing its commitment to public art with the I-205/Portland Mall MAX Light Rail Project, allocating approximately 1.5 percent of eligible project funds for the art program. An art advisory committee comprised of artists, community members and technical staff guides each segment of the program.

On the Portland Mall, the program will expand the existing sculpture collection in the Central Mall and commission artwork for station areas in the North Mall and South Mall. For I-205, the committee has selected seven artists to create a sculpture and one or more platform elements at each light rail station.

Bus shelters

The Public Art Program is leading an innovative pilot project to reuse graffiti-damaged glass bus shelter panels by sandblasting them into artwork that enhances communities, saves money and reduces waste. In the pilot project, vandalized panels are removed, sandblasted with an artist-designed motif and then reinstalled. Several designs are being implemented.

Each year, about 750 panels are so severely scratched by vandals that they must be replaced. Etching the glass by sandblasting removes the scratches and costs less than $20; a new panel costs about $200. The etching is expected to save TriMet at least $100,000 a year.
Chapter Five
Organizations
In its early years, staff of 1000 Friends were the watchdogs of SB 100.

1000 Friends of Oregon is a nonprofit tax-exempt organization founded in 1975 by Governor Tom McCall to act as the citizen’s advocate for planned growth. Governor McCall knew that it would take more than government action for Oregon’s land-use planning law-Senate Bill 100-to succeed. It would take the support and vigilance of Oregon’s citizens.

In its early years, staff of 1000 Friends were the watchdogs of SB 100. They reviewed hundreds of pages of plans and zoning regulations submitted by local jurisdictions to make sure the letter and spirit of the law were implemented at the local level. 1000 Friends challenged some submittals to make sure improvements were required before being accepted as compliant with SB 100.

By 1986, the last local land-use plan was adopted and approved. 1000 Friends shifted its focus to monitor the administration and performance of adopted plans. Deficiencies identified by 1000 Friends led to changes in land-use laws to provide better protection of resource land.

Today, 1000 Friends of Oregon focuses on several central objectives of the Oregon Planning Program: protecting Oregon’s productive farm and forest lands; promoting compact, livable cities with housing and transportation choices; protecting natural resources and areas of special beauty; and promoting the role of citizens in planning for the future of Oregon and its communities.

1000 Friends of Oregon carries out its mission through advocacy, research and educational activities:

- **Advocacy** includes presentations to local and regional governments, lobbying the Oregon legislature and strategic litigation. 1000 Friends has also helped campaign against statewide ballot initiatives that would gut land-use planning requirements. Voters have rejected most attempts to significantly diminish the requirements of SB 100.

- **Research activities** have included a major study of the relationship of land use, transportation and air quality (LUTRAQ), which won awards from the American Planning Association and the Environmental Protection Agency. LUTRAQ demonstrated that policies aimed at development patterns of mixed-use, moderate-density activity centers located on transit corridors promote alternative forms of transportation. This type of development was estimated to decrease auto trips by 8 percent and increase transit, bike and walk trips by 27 percent. The study helped kill a freeway bypass proposal in suburban Portland.

- **Educational efforts** include public speaking engagements and technical training in Oregon land use law and procedure for organizations and interested citizens.
The Bicycle Transportation Alliance (BTA) is a nonprofit organization working to promote bicycle use and to improve bicycle conditions throughout the state of Oregon. Since 1990, the BTA has worked in partnership with citizens, businesses, community groups, government agencies and elected officials to create healthy, sustainable communities by making bicycling safer, more convenient and more accessible.

Since 1990, the BTA has accomplished the following:

- Initiated the concept of “Bikes on TriMet,” gathering 5,000 signatures and working with TriMet to institute this innovative program. Today, all bus routes in Portland, Eugene and Salem are bike-accessible.
- Stopped legislation that would have repealed Oregon’s 30-year old Bicycle Bill.
- Taken cyclists’ rights to the Oregon Court of Appeals to make sure that bike lanes are included on all major new or rebuilt streets throughout the state, as called for in the Bicycle Bill. (Research shows that bicycle/motor vehicle crashes drop by more than half when bike lanes are provided on busy streets.)
- Provided secure bicycle parking for hundreds of cyclists at events such as the Oregon Brewers Festival, the Waterfront Blues Festival, The Bite, neighborhood street fairs and more.
- Convinced the City of Portland and Multnomah County to widen the sidewalks on the Hawthorne Bridge during bridge repairs in 1998–99.
- Helped plan, implement and recruit volunteers for the annual Providence Bridge Pedal. This is the second-largest bicycle ride in the Northwest, with more than 17,000 people celebrating cycling in Portland.
- Administered a free bike locker project, in partnership with TriMet, at transit stations in the metro area.
- Contributed changes to the Oregon Vehicle Manual that give bicyclists’ rights more prominence and enhance cyclist safety.
- Organized a statewide letter-writing campaign to protect funding for bicycle and pedestrian programs when the Department of Transportation threatened budget cuts that would have eliminated funding. The bicycle and pedestrian programs survived fully funded.
- Successfully passed the 2001 “Safe Routes to School” law requiring cities, counties and school districts to plan for bicycling and walking routes to school.

To promote bicycle riding among adults and youth, the BTA’s innovative education and promotion programs include: “Bike Commuting 101” workshops; the Bike Commute Challenge; an intensive on-the-bike Bicycle Safety Education Program for middle-school youth; and Safe Routes to School, which combines a comprehensive, in-school bicycle safety education program, parent outreach and community involvement to help develop transportation policies that encourage children to bike and walk to school.

The BTA is a membership organization, with more than 4,500 members in Oregon and South West Washington. Members provide steady financial support and act as the BTA’s eyes and ears in the community, helping to monitor advocacy needs. The BTA also receives funding through individual gifts, corporate sponsorships, contract activities, and government and foundation grants.

The BTA is guided by a volunteer board of directors from across the state and has a staff of nine in its Portland office, as well as instructors around the state who teach the BTA’s Bicycle Safety Education Program.
City Club of Portland is a nonprofit, nonpartisan civic affairs organization that promotes civic engagement and active citizenship to build a stronger community. Through unbiased research and compelling programs, City Club connects citizens with ideas and issues that affect our community. City Club is open to everyone who wants to interact with other citizens and shape the future of our city and state, providing a neutral forum for many diverse voices.

**City Club’s mission**

“To inform its members and the community in public matters, and to arouse in them a realization of the obligations of citizenship.”

Through weekly Friday Forums, citizen-based research reports, issue committees and other special programs, City Club examines issues of importance to the Portland metropolitan region, the state and society as a whole. Membership is open to all, and more than 1,500 members represent a cross-section of people in business, government, social services and other professions—all of whom are committed to making a positive difference in the Portland community.

**Land use and transportation**

When famed urban scholar Lewis Mumford spoke before City Club in 1938, he challenged Portland with these words:

“I have seen a lot of great scenery in my life, but I have seen nothing so tempting as a home for man as this Oregon country. The view I got in the Columbia Gorge knocked me flat. It is one of the greatest in the world. You have here a basis for civilization on its highest scale, and I am going to ask you a question which you may not like.

Are you good enough to have this country in your possession?

Have you got enough intelligence, imagination and cooperation among you to make the best use of these opportunities?”

City Club continues to offer a forum for the region to discuss, debate and develop land use and transportation policy.

**Recent speakers and reports**

Speakers at City Club have included such urban planning luminaries as Robert Putnam, Myron Orfield, Jim Kunstler, Timothy Egan, Gordon Price, Fred Kent, David Rusk and Ray Suarez, in addition to local, regional and state leaders.

Recent reports have included:

- **Writing a New Chapter: A City Club Report on School Funding**, March 2007
- **Portland’s Fire and Police Disability and Retirement Fund: Time for Change**, February 2006
- **Opposition to State of Oregon Ballot Measure 37**, September 2004
- **Affordable Housing in Portland**, February 2002
- **Building a Sustainable Future for Portland**, April 2001
- **Increasing Density in Portland**, November 1999
- **South/North Light Rail**, September 1998
- **Planning for Urban Growth in the Portland Metropolitan Area**, March 1996

In addition, the Growth Management and Environment Issue Committee meets once a month to engage local experts in discussion. The meetings are typically held the first Thursday of each month; please check the website or contact the City Club office for information about the next meeting.
Gresham is the state's fourth-largest city and continues to attract new residents. The city’s population has increased greatly over the past decade to nearly 100,000 people.

Before MAX light rail came to Gresham, much of the region viewed the city as a suburb of Portland. Although inaccurate, its image as a small town with little to offer was widespread. Light rail has provided the city with an opportunity to shape its growth and to attract desirable business, industry and housing to the area. Its influence has been fundamental to revitalizing the community. MAX is a valuable addition to Gresham’s transportation choices.

Light rail in Gresham sparked interest in commercial opportunities with complementary uses such as office, retail, service and residential. New apartments and townhouses located within walking distance of the stations provide residents with easy access between work and home.

With increased light rail ridership and Park & Ride lots at capacity, the City and TriMet recognized that more parking was needed to attract new transit ridership. Together the agencies constructed a new three-story parking structure, designed to accommodate ridership needs into the next decade. The garage is a mixed-use facility with 8,000 square feet of retail/commercial space on the ground floor. For bicyclists, a secure, covered storage area is also available free of charge.

Gresham developed several programs to better facilitate the link between transportation and land use. In Gresham’s downtown district, streets were narrowed, utilities were placed underground, and attractive pedestrian amenities were added, such as historic lighting, street trees, curb extensions, textured crossings and pedestrian walkways. The improvements provide a direct link to light rail and contribute to the appealing retail environment. This project has been expanded to a citywide program, Ped-to-MAX, aimed at improving safety, convenience and aesthetics between Gresham’s eight light rail stations and surrounding activity areas. The program works both inside and outside the public right of way to add mid-block pedestrian crossings, medians, pocket parks, public art and other pedestrian amenities.

The planning and development of Gresham Civic Neighborhood is another success story. It’s discussed in detail in Chapter Two, Plans and Policies, of this Sourcebook.
City Repair Project

City Repair creates public gatherings and events that engage people to connect with the community around them.

Born out of a successful grass-roots neighborhood initiative that converted a nondescript residential street intersection into a neighborhood public square, City Repair began its work with the idea that localization (of culture, of economy, of decision-making) is a necessary foundation of sustainability. By reclaiming urban spaces to create community-oriented places, City Repair plants the seeds for greater neighborhood communication, community empowerment and local culture.

With the help of hundreds of volunteer citizen activists, City Repair projects:

- educate people about why so many American neighborhoods are socially isolating and culturally inactive
- inspire people to both understand themselves as a part of a larger community and fulfill their own creative potential
- activate people to be part of the communities around them and to participate in decisions about the future of their communities

City Repair creates public gatherings and events that engage people to connect with the community around them. City Repair also helps people physically change their neighborhoods to be more community-oriented, ecologically sustainable, and simply more beautiful. Projects and programs include:

- Intersection Repair helps communities determine their own future, while bringing public gathering and local culture back into the hearts of our neighborhoods. Project sites include Sunnyside Piazza (SE 33rd/Yamhill) and Share-It Square (SE 9th/Sherrett).
- The Village Building Convergence (VBC) is a 10-day annual event held in Portland. VBC Combines hands-on project sites with lectures and entertainment to give participants a multi-sensory exploration of community building.
- T-Horse, a mobile public square and teahouse, hosts community potlucks in public spaces. Organizers and neighbors help set up the T-Horse together, like a barn raising, making each event a true community collaboration. This project lets people experience their neighborhood as a village, and helps them form community bonds.
- Community Visioning Workshops help people consider how their communities are built, create a vision that describes their dreams, and organize to make them reality. This project puts community planning and design into the hands of residents, challenging and empowering them to build the community they want. Projects include
  - “Creating a Sense of Place on Division Street” (Portland) and “Bay City Vision Plan” (Tillamook County).
  - Earth Day Celebration brings people together in a temporary urban village of green vendors, hands-on workshops, service projects and lots of music and dancing!
  - Every few years City Repair also initiates Hands Around Portland, which attempts to ring the city in a human chain as both a physical reminder of community and a bold gesture of hope. These projects bring environmental education and community activism together in huge public events that celebrate local culture and are accessible to everyone.

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cityrepair.org
Fundamentally, the Coalition is about drawing connections between regional issues that have historically been viewed as separate.

The Coalition for a Livable Future (CLF) is a network of 60 nonprofit organizations working together to promote an integrated approach to planning in the Portland area. Its mission is to protect, restore and maintain healthy, equitable and sustainable communities, both human and natural, for the benefit of present and future residents of the greater metropolitan region.

Fundamentally, the Coalition is about drawing connections between regional issues that have historically been viewed as separate. Recent research sponsored by CLF demonstrates that metropolitan patterns such as the nonstop expansion of wealthy suburbs and the rapid decline of the urban core are not disconnected issues. In fact, they are inextricably linked.

As residents in our region follow new industrial and commercial development and move from urban centers to the suburbs, their departure reduces local tax bases in their former neighborhoods, which become poorer and more economically isolated. Businesses begin to close down and life becomes more desperate in these communities. Schools falter and eventually close. Crime rates rise, causing still more people to flee to the suburbs—if they have the means to do so.

Meanwhile, greenspaces, farms and forest land are consumed by sprawling subdivisions and shopping malls along the outer rim of the metropolitan region. Most new jobs, including low-wage jobs, are created in the suburbs, forcing long commutes by inner-city residents traveling between affordable housing in the city and available employment in the suburbs. Problems of concentrated poverty, failing inner cities, loss of open space, suburban sprawl, shortage of affordable housing, clogged freeways, rising crime, and overburdened governmental services are all interrelated.

Land use planning, affordable housing strategies, transportation reform, equitable distribution of government finances for schools and social services, inner-city revitalization, economic vitality, enlightened urban design, preservation of open spaces, and economic and social justice are all interconnected determinants of metropolitan livability. The Coalition for a Livable Future represents an attempt to bring together activists and experts from all these areas to speak with a common voice in their efforts to influence public policy on regional issues such as tax base sharing, proposed light rail expansion plans, and the responsibility of all communities in the region to provide their fair share of affordable housing.

But CLF also serves another equally important function—that of mutual education. Because our members’ issues are so closely related, and the problems we face as a region so tightly intertwined, it is critical that individual organizations know how proposed solutions to seemingly separate problems affect the work of their counterparts in other issue areas. Ultimately, solutions to these problems cannot be sustainable unless they are carefully integrated into a larger framework. By learning from each other through working together, Coalition members hope to arrive at these kinds of solutions.

CLF working groups include transportation reform, affordable housing, natural resources, food policy, religious outreach, economic vitality and urban design.
Friends of Trees inspires community stewardship of our urban forest by bringing people in the Portland-Vancouver area together to plant, care for and learn about city trees. Trees are an essential part of the urban ecosystem. They help keep our water and air clean, prevent erosion, provide wildlife habitat and make our neighborhoods greener, more beautiful places to live. Since its founding in 1989, Friends of Trees volunteers have planted more than a quarter of a million trees and shrubs.

A recent Portland State University study showed that while most urban areas in the United States have lost trees in the past three decades, Portland’s tree cover has increased from 25.1 to 26.3 percent. The greatest increase has been in neighborhoods where Friends of Trees has planted. According to the study’s co-author, Joe Poracsky, “The study would strongly support the idea that Friends of Trees is having an impact.”

The Neighborhood Trees program trains three key sets of volunteers: neighborhood coordinators who organize street and yard tree plantings in their neighborhoods; crew leaders who guide other volunteers in planting the trees; and a team of summer tree care volunteers who make sure the newly planted trees are cared for during the first summer after planting.

To organize a planting event, neighborhood coordinators help their neighbors choose which trees to purchase and plant in their yard or parking strip. They also publicize the event within the neighborhood and organize the planting day, which often includes a community meal.

Home and business owners who participate pay $20 to $75 per tree, or even less if Friends of Trees has received a grant to subsidize the cost of trees in their neighborhood. Selections are made from a list of trees appropriate to the size of their parking strip, based on whether there are overhead wires. The price of the tree includes hole-digging, stakes and ties, assistance on planting day, and a year of tree monitoring. Friends of Trees will replace any street tree that dies during the first year after planting from any cause other than negligence.

On planting day, property owners and other volunteers plant between 60 and 150 new street trees in their neighborhood. The impact is tremendous, and neighbors meet others in their community, often for the first time. All are welcome to join any neighborhood tree planting event. Just be sure to come ready to plant and dressed for the weather!

The Natural Area Restoration program involves restoration of degraded urban natural areas throughout the four-county Portland metro area. Trained crew leaders guide other volunteers in planting native trees and shrubs to restore habitat for endangered fish, birds and other animals. In addition, the Branching Out Program provides low-to no-cost trees for yards, which provide fruit as well as stormwater benefits.
Metro, the nation’s only elected regional government, is responsible for regional land-use and transportation planning. These responsibilities underscore the Portland metropolitan region’s commitment to maintain a home-rule charter, approved by voters in 1992, and enhance the livability of the region.

Metro covers approximately 460 square miles of the urban portions of Clackamas, Multnomah and Washington counties in northwestern Oregon. There are 24 cities in the Metro service area.

When Metro was formed in 1979, the voters approved a merger of a council of governments (Columbia Region Association of Governments) that had land use and transportation planning responsibilities, with the Metropolitan Service District, which had been created to provide regional services that included solid waste management and operation of the metropolitan zoo. Over time, the state legislature assigned added responsibilities to Metro, including construction and operation of the Oregon Convention Center, management of the Portland Center for the Performing Arts and Portland Civic Stadium, and management and ownership of the Multnomah County parks system and the Expo Center.

Regional planning functions

Metro is the designated metropolitan planning organization, responsible for allocating federal transportation funds to projects in the region. The region’s success in attracting federal funding for highway and transit projects is due, in large part, to Metro’s role in building and maintaining regional consensus on projects to be funded and ensuring that funding is allocated to high-priority projects.

In connection with its responsibility for transportation planning, Metro has developed a regional Data Resource Center to forecast transportation and land-use needs. Local jurisdictions now rely on and contribute to the center, eliminating duplication between governments and conflicts over dueling data. This has allowed jurisdictions in the region to focus on important policy choices rather than arguing about assumptions.

By adopted state land use planning law (Senate Bill 100), Oregon’s local governments are required to prepare comprehensive land use plans. Metro is the agency responsible for establishing and maintaining an Urban Growth Boundary (UGB) for the Portland region. By enforcing the UGB pursuant to Oregon’s land-use laws, the region has maintained its unique character and is now a national model for urban growth management planning.
The Oregon Environmental Council (OEC) works to curb global warming pollution from cars and trucks. Global warming is a major threat to people and the environment, and more than one-third of Oregon's heat-trapping carbon dioxide (CO₂) emissions are from transportation. CO₂ is the main gas creating a blanket around the earth, trapping heat that would otherwise escape into space. But pollutants such as volatile organic compounds and carbon soot are also building up in the atmosphere, impacting the earth’s climate and the quality of the air. Transportation is a major source of these pollutants as well. In order to stabilize the world’s climate, new technologies and strategies must be utilized to make Oregon’s transportation system climate-friendly.

OEC focuses on changing the two most important factors that cause excess CO₂ emissions from cars: the amount they are driven and their fuel efficiency. OEC helps drivers understand and take control of the costs of driving, promotes and accelerates the purchase of cleaner vehicles and fuels, and educates Oregonians about the connection between driving and global warming.

**OEC achievements**

In 2006-2007, OEC made several breakthroughs. The group:

- Spearheaded passage of the Climate Change Integration Act, establishing goals to reduce Oregon’s share of greenhouse gas emissions to 75 percent below 1990 levels, setting the stage for Oregon to pursue responsible, concrete actions to curb global warming pollution.
- Helped craft and pass Oregon’s first statewide renewable fuels standard, promoting the goals of clean air, rural economic development and energy independence. This new law is first in the nation in providing incentives for locally grown biofuels feedstock and limiting the use of foreign palm oil, an inefficient imported fuel that hurts the environment and disadvantages Oregon farmers.
- Helped protect the health of Oregon’s kids by helping establish a $10.15 million fund to reduce toxic exhaust from diesel engines in school buses, big rigs and construction equipment. Taking aim at one of the greatest health risks to Oregonians, this new clean-diesel initiative will significantly reduce diesel pollution and with it a major cause of childhood asthma, cardiovascular disease and cancer.
- Won the national EPA Children’s Environmental Health Excellence Award for our Eco-Healthy Childcare and Tiny Footprints programs that help parents and caregivers reduce children’s exposure to toxic chemicals.
- Launched Drive Green, Save Green to educate more than 15,000 drivers parking at City Center Parking Facilities about ways to reduce the environmental impact of their cars.
Created by Portland voters in 1958, the Portland Development Commission (PDC) has played a major role in keeping Portland one of America’s most livable cities. During the past 40+ years, PDC has taken forward 20 urban renewal plans that have helped change the face of the city, making it a better place for all Portlanders.

Waterfront redevelopment, small business loans, affordable housing, new retail opportunities, transit-oriented development, business recruitment and retention: all this and more make up the day-to-day work of the staff at PDC.

**Housing**

PDC strives to bring together community resources to achieve Portland’s vision of a vital economy with healthy neighborhoods. PDC administers a number of financial products to support various types of residential development. Direct financial products to support multifamily development include:

- subordinate loans with favorable terms
- equity gap contributions that are repaid as cash flow is available
- favorable loans for nonprofit community service facilities
- grants for special initiatives

Indirect financial assistance includes tax abatement and fee-waiver programs.

**Development**

In addition to housing, PDC develops retail, office and other projects. PDC helps bring together resources for projects and also provides market analysis, district planning and site planning. Programs providing financial support include the Development Opportunities Services Program for predevelopment assistance, the Storefront Improvement Program and other loan and tax incentives. Recent projects include the extension of the Portland Streetcar to the South Waterfront District, the ongoing revitalization efforts of the Gateway Regional Center, and the successful renewal of the Downtown Waterfront Area.

**Economic development**

PDC assists business and industry in creating jobs and investment that provide a full range of employment opportunities and economic benefits to all residents. Services provided by PDC’s Economic Development Department fall into three primary categories:

- business retention, expansion and recruitment
- business financial and technical assistance
- business policy and advocacy

**Targeted industries are:**

- semiconductors and electrical equipment
- metals/transportation equipment
- creative services
- biosciences
- environmental services/sustainable development
- professional services

**Transportation connection**

Tax increment funds raised through urban renewal districts have provided a significant source of financing for the Red, Yellow and Green MAX lines. Tax increment funds have also been repeatedly used to build and improve streets for all modes of transportation. Streetscape projects are especially important to support retail and residential development.

PDC’s investment in transportation infrastructure recognizes the critical role of mobility and access in both business and residential location decisions.
ShoreBank Pacific is a unique commercial bank that supports small and medium-size businesses interested in increasing their bottom lines through conservation-based management activities. Activities include:

- using natural resources efficiently
- minimizing waste streams and energy inputs
- providing equitable opportunities for employees

Put simply, ShoreBank Pacific’s goal is to build a conservation-based economy. The bank’s target area is the Northwest coastal temperate rain forest, which includes the Puget Sound region, the Willapa Bay and lower Columbia River watersheds, and the greater Portland area.

ShoreBank Pacific was created by two innovative organizations: ShoreBank Corporation and Ecotrust. ShoreBank Corporation, founded in 1973 in Chicago, is a development bank holding company created to invest in urban neighborhoods and rural communities. In Chicago, ShoreBank is one of the largest Small Business Administration lenders in its region and is an expert at small business lending.

Ecotrust, based in Portland, fosters conservation-based development in the coastal temperate rain forests of North America. Ecotrust works in places where community residents are committed to increasing economic opportunities in harmony with their environment.

ShoreBank Corporation and Ecotrust joined together in 1992 to promote development and conservation in the coastal temperate rain forest. In 1994, ShoreBank Enterprise Pacific (formerly ShoreTrust Trading Group) was formed. This nonprofit economic development affiliate’s products and services include marketing and conservation-based management assistance and higher-risk, nonbank loans.

**Loans**

ShoreBank Pacific’s initial offerings meet small business financing needs: equipment purchases, working capital, business-use real estate, business acquisitions, refinancing and selective start-ups.

Flexible loan maturities, competitive rates, no prepayment penalties and guaranty programs are available. Loan offices are located in Ilwaco, WA, Portland and Seattle.

**EcoDeposits**

EcoDeposits provide the support for ShoreBank Pacific’s conservation-based development mission. All ShoreBank Pacific accounts are FDIC insured up to $100,000.
New urban neighborhoods connected by Portland Streetcar have transformed Portland’s Central City during the last decade. A tour of the Pearl District, South Waterfront and Oregon Health & Science University by streetcar and aerial tram demonstrates excellence in urban design and execution. On a sunny day, you’ll also be treated to views of the Willamette River and Mount Hood. Plan approximately three hours for this tour. You can read more about the streetcar, aerial tram, Pearl District, South Waterfront and several transit-oriented developments featured on this tour in other sections of this Sourcebook.

1. Start your tour at the streetcar stop located at SW 10th and Yamhill, across from the Multnomah County Central Library. It says something about the city’s character that Portland chose to restore its Central Library, built in 1912, while other cities engage “starchitects” like Rem Koolhaas to create new public buildings. An extensive library renovation was completed in 1997.

Real-time arrival information for the streetcar is displayed inside the shelter on the streetcar platform. Headways are generally every 15 minutes. There is one fare system for MAX, buses and streetcar. You can buy an all-day ticket at the ticket vending machine at the MAX station at SW 10th and Yamhill or you can by a ticket good for two hours from the vending machine inside the streetcar. The aerial tram requires its own fare.

Board the streetcar to NW 21st Avenue. The ride to the Pearl District will take about five minutes.

After heading north for several blocks, the streetcar will cross Burnside Street. Burnside used to mark the edge of downtown Portland and demarks where addresses change from north to south. Until the 1990s, north of Burnside was an industrial area crisscrossed by freight rail tracks and dominated by truck loading docks and gravel streets. From this fabric, the Pearl District emerged first as a funky art district and later as a slick urban neighborhood. This transformation could be witnessed from the windows of Powell’s City of Books, which opened at the corner of Burnside and 10th Avenue in 1971. Michael Powell was an early advocate for the streetcar who was among private-sector supporters of a local improvement district to fund the transit project. Come back to Powell’s when you have plenty of time. People are known to wander for days among three floors of bookstore covering an entire city block.

As the streetcar crosses NW Flanders, The Gregory will be on the left. This art-deco-style, 134-unit condominium tower completed in 2001 was one of the first newly constructed towers in the Pearl District. Developer John Carroll was another private-sector advocate for the streetcar who recognized the opportunity to use transit to distinguish the neighborhood as an urban place.

2. Get off the streetcar at NW Johnson Street. To the east is the Jean Vollum Natural Capital Center, an adaptive reuse of a warehouse constructed in 1895. The free-standing façade along NW 10th is a response to the zoning requirements for buildings to address transit streets. The façade screens a parking lot with stormwater treatment in bioswales. The outdoor stairway towers are part of the seismic retrofit of this unreinforced masonry building. The building is the headquarters for the nonprofit EcoTrust; Patagonia is a ground-floor tenant.

Jamison Square is across the street. The boardwalk treatment that runs along the east side of the square is intended to connect with the Willamette Greenway someday. On sunny days, the water feature at the park attracts families from all over the region. Seating for restaurants activates the north side of the square. The area occupied by Jamison Square was part of the 34-acre Hoyt Street Yards. Developer Homer Williams purchased the property and initiated discussions with the City of Portland about how to bring urban services to the property. The development agreement that was eventually struck required Williams to convey 1.5 acres of park and dedicate approximately six acres for public streets. Read more about the development agreement in the description of the Pearl District in Chapter Three of this Sourcebook.

The Pearl Court Apartments are located across NW 10th on the east side of Jamison Square. The property is owned by the Housing Authority of Portland, and it provides 199 units of affordable rental housing. Its first residents were among the Pearl pioneers when the building opened in 1997. Several other affordable housing units dot the upscale Pearl as the result of City policies.
A snapshot of market-rate condominiums for sale in September 2007 ranged from $2.9 million for a 3,235-square-foot penthouse in The Elizabeth to $369,000 for an 812-square-foot unit in the Streetcar Lofts.

**Return south walking along the streetcar tracks on NW 11th Avenue.** At 11th and Irving, the Irving Street right of way is developed as a pedestrian-only connection. This treatment retains the connectivity of Portland's 200 feet-by-200 feet street grid while adding greenery and diversity to the urban street infrastructure. The town homes between NW Irving and NW Hoyt were originally warehouse space for the Burlington Northern Railroad. The conversion of the building to housing in 1997 was another early Pearl project.

The Gerding Theater is between NW Couch and NW Davis streets on the east side of NW 11th. Built in 1891 as the Portland Armory to house the Oregon National Guard, the building was converted in 2005 into the home of Portland Center Stage. The renovation earned a LEED Platinum rating.

The theater is one of five blocks that comprised the Blitz-Weinhard Brewery, which started production in 1864. Strohs closed the brewery in 1999, selling the real estate to local developers Gerding Edlen Development (GED) for $19.5 million. The now-redeveloped Brewery Blocks are bounded by NW 11th and NW 13th, NW Davis and Burnside. The redevelopment represents 1.7 million square feet of urban retail, Class A office space, housing and parking. GED credits the confidence of a significant local investor and a loan from the Portland Development Commission as elements that made an ambitious plan a reality. Their vision was rewarded by the purchase of three blocks (The Louisa Apartments, M Financial and the Whole Foods Building) by JP Morgan/Chase for $291.6 million in July 2007.

3. **Board the streetcar to South Waterfront at the stop at NW 11th & Couch.** The trip will take about 18 minutes.

The Benson Tower is located at SW 11th and Clay. Completed in 2007, the building is the first "point tower" in Portland modeled on a building type common in Vancouver, BC. The Benson Tower lot is only 10,000 square feet, and the floor plate for the residential tower is only 6,000 square feet. The design offers each one of 143 residential units lots of window space. There are seven residential units per floor on the lower 14 levels of the tower, and only five residential units per floor from the 15th level to the penthouse.

Just past The Benson Tower, the streetcar turns east onto SW Market Avenue and travels by Portland State University (PSU), where 40 percent of students, faculty and staff use transit to get to campus. Enrollment at PSU is expected to grow 30 percent in the coming decade, with enrollment reaching 35,000 by 2017. In part to serve this growth, the MAX light rail system is extending to PSU. The streetcar turns south at SW 5th, where it will share the street with MAX. Construction of the MAX extension began in February 2007 and will open for service in September 2009.

The streetcar turns again, heading east on SW Harrison through the South Auditorium District. The area reflects late 1960s urban renewal ideals. An ethnic neighborhood was replaced with towers built on newly consolidated superblocks. The scale and relative isolation of the project made it feel un-Portland. But as transit and redevelopment bustle around this area, its pedestrian paths and Lawrence Halprin-designed plazas are getting more use and appreciation.

The streetcar continues east past the south end of the RiverPlace development, which was a 1980s-era urban renewal effort. The development's emphasis on housing with ground-floor retail and a pedestrian promenade along the river are the urban design building blocks that made a success of the Pearl District. What was missing then was the residential density necessary to make the place lively. That's changing with the recent addition of The Strand condominiums, completed in 2007—more than two decades after the first phase of RiverPlace. The Strand's silver-clad buildings are north of the streetcar tracks and visible from the RiverPlace stop.

The streetcar then heads south again and enters the South Waterfront District. This is the last sizable inner-city brownfield redevelopment opportunity in Portland. Development in the district is fueled by Oregon Health & Science University (OHSU), which selected South Waterfront as a satellite campus connected to the main campus on Marquam Hill by the aerial tram. Read more about OHSU and the South Waterfront District in other sections of this Sourcebook.

4. **Get off the streetcar at the OHSU Commons stop.** The aerial tram to the OHSU campus rises above the stop. To the southeast is the March Wellness Center, the first OHSU building in this new South Waterfront satellite campus. On the north side of the tram stop is Zidell Marine Works, which is still building barges even as urban development closes in.
5. Cross SW Moody Street to board the aerial tram. Tickets can be purchased for $4 from a ticket vending machine just outside the tram boarding area. A tram car generally arrives every five minutes and the trip takes about three minutes. As the tram takes you to OHSU, you can look out over the South Waterfront area and east across the Portland area to Mount Hood. The tram operators can answer most questions about the tram, and you can read more about this transportation innovation in Chapter One of this Sourcebook.

At OHSU, you can take in more of the view and some public art from an outdoor terrace that is part of the adjacent Peter Kohler Pavilion. As you look around, the intensity of development on OHSU’s unique hilltop site is evident.

6. Return to South Waterfront on the tram. If time permits, you can explore the blocks that comprise high-rise residential towers and a future park. You’ll see the same attention to forming a street network that is now manifest in the Pearl District. In fact, a street plan for the area was adopted with some haste when a developer proposed a gated community, which would have blocked access to the Willamette Greenway.

Board the streetcar to NW 23rd. The ride back to the stop at SW 10th and Yamhill will take approximately 15 minutes. You will travel through the PSU campus again, including a stretch where the streetcar is integrated into the plaza outside the PSU Urban Center. The streetcar turns north onto SW 10th at Mill Street. The stop at SW 10th and Clay is adjacent to the South Park Square Apartments, built in 1988 with financial incentives from the Portland Development Commission to foster more housing downtown. This is the least-flattering side of the building; the eastside offers ground-floor retail and a staircase with a water feature. Consistent with her advocacy for both downtown housing and transit, South Park is home to Vera Katz, Portland’s mayor between 1993 and 2005.

The Museum Place project includes several new buildings between SW Columbia and SW Madison, including a new Safeway with housing above the store. Read more about this development in Chapter Three of this Sourcebook.

This tour ends at the Central Library stop at SW 10th and Yamhill, where you first boarded the streetcar. Thank you for visiting the Portland area and riding TriMet!
A ride on the MAX Blue Line between Portland and Hillsboro offers an opportunity to see a variety of TOD development types and approaches. Plan approximately four hours to take the complete tour. This tour guide references the project descriptions contained in this Sourcebook.

1. **Start your tour at Pioneer Courthouse Square**, bounded by SW 6th, SW Broadway, and SW Morrison and SW Yamhill in downtown Portland. This public square, known as Portland’s living room, was completed in 1984. It gets its name from the historic courthouse facing the east side of the square. The square was conceived as part of the 1972 Downtown Plan and replaced a full-block surface parking lot. The Square is part of the city’s park system, operated by a nonprofit board and professional staff responsible for programming events. There is visitor information and a TriMet ticket office at the square. The entrance is between two water features on the west side of the square. Transit tickets can also be purchased at the ticket vending machines at MAX stops.

Pioneer Courthouse Square is also a transit hub. 6th Avenue is half of the Transit Mall couplet on SW 5th and SW 6th avenues. The Transit Mall was created in 1977 as a means to organize approximately 50 bus lines serving downtown around a high-quality pedestrian realm. In 2004, the decision was made to add light rail to the Transit Mall. Construction of the Green Line began in March 2007, and MAX service will begin in September 2009. Bus service was moved to other streets, primarily SW 3rd and 4th avenues, during light rail construction. Most buses will return to the Transit Mall when construction is complete. The square is bounded on the east and west by light rail. You can read more about light rail in Chapter One of this Sourcebook.

Downtown Portland might be considered a “super TOD.” More than any single project in the region, downtown offers the mix of uses, pedestrian-friendly design and robust transit choices that make a transit-oriented lifestyle appealing. Downtown is the result of 40 years of planning and investment that have remade the city. For example, Portland provided financial incentives for housing in the downtown. Today, there is a substantial downtown residential population that keeps the city vibrant most hours of the day and evening and helps the region achieve its growth management and transportation demand management goals.

Next, **Board the MAX Blue Line to Hillsboro or the Red Line to Beaverton TC** on the north side of the square. Either line will take you west to the next stop on this tour. You’ll travel along the westside extension of the MAX, which was completed in 1998. It’s a seven-minute ride to the next stop on the tour, Goose Hollow/SW Jefferson.

Heading west from the square, the MAX crosses I-405 and travels through the Goose Hollow neighborhood. Property acquisition associated with light rail construction provided TriMet the opportunity to sponsor several transit-oriented developments in the neighborhood.

TriMet acquired a full block at the PGE Park MAX Station in order to accommodate a turn in the tracks. The remainder parcel was transferred to the Portland Development Commission, which oversaw development of the mixed-use affordable housing building on the south side of the PGE Park Station. Continuing past PGE Park, home of the Portland Beavers baseball and Timbers soccer teams, the next stop is Kings Hill/SW Salmon. TriMet created the surface parking lot on the east side of the station as mitigation for displaced on-street parking. The lot is planned to be redeveloped as a 20-story condominium with an underground public parking deck, called The Allegro. Read more about the project in Chapter Three of this Sourcebook.

2. **Get off the train at the Goose Hollow/SW Jefferson Street Station** to see two more joint developments sponsored by TriMet. The Collins Circle Apartments is a brick-clad building with steel balconies located to the east of the station on the far side of Collins Circle. The site was slated to become a car wash, so TriMet strategically purchased the property for construction staging and later offered it for redevelopment. The building combines ground-floor retail and affordable housing with a very low parking ratio—elements that the market was not producing on its own when the project was conceived in 1996.

At the southwest corner of the station, the Arbor Vista Condominiums are just visible through the trees. This former construction staging site is now a 27-unit condominium complex. Completed in 1998, the building provides examples of condominiums and structured parking that were rare at the time of the building’s construction. Read more about Collins Circle and Arbor Vista in Chapter Three. Collins Circle and Arbor Vista established new development types in the Portland...
market and helped set the stage for a number of private, high-density mixed-use projects in the neighborhood that have been completed in recent years.

On the north side of the station is a Portland landmark: the Goose Hollow Inn. The bar's owner, Bud Clark, successfully challenged incumbent mayor Frank Ivancie in a campaign that leaned heavily on his small business and populist credentials. During his service as Portland's mayor from 1985 to 1992, Clark commuted to work by bike and was a proponent of expanding light rail.

To continue on the tour, board the MAX Blue Line to Hillsboro. It's a 14-minute ride to the next stop on the tour, Beaverton Central. The train travels through the West Hills and the only tunnel on the MAX system. This three-mile tunnel includes a stop serving Washington Park and the Oregon Zoo. At 260 feet underground, it is the deepest transit station in North America, and the second-deepest in the world!

The train emerges from the tunnel in Beaverton and parallels Highway 26 to the Sunset Transit Center, where there is a 630-space Park & Ride as well as connections to five bus lines. The next stop is the Beaverton Transit Center, where there are connections to 11 bus lines and the Washington County Commuter Rail, which opens in 2008.

3. Get off the train at Beaverton Central, to check out The Round, a TOD that has been many years in the making. The project is built on a former sewage treatment plant site that was owned by the City of Beaverton. The project is an island of urbanity in a suburban landscape and represents Beaverton's desire to create a distinct sense of place with this development. Read more about The Round in Chapter Three, Three restaurants and a coffee shop offer places for lunch or a snack, if you are ready for a break at this point of the tour. Southwest of The Round, you will see the site of a former movie theater that was purchased by Beaverton and the Metro TOD program to expand The Round's concept. On your next visit, you may want to see how this development is progressing.

To continue the tour, board the MAX Blue Line to Hillsboro. The ride to the next stop on the tour, Orenco, takes about 20 minutes.

As you head west, you'll see some of the $6 billion in new development that has occurred around the Portland-area MAX stations. At the time of the planning and construction of Westside MAX, the Beaverton Creek, Elmonica, Willow Creek and Quatama station areas were greenfields. Not any more! Chapter Two includes a description of the Westside Station Area Planning Program, which put in place zoning and development standards to ensure new development would be supportive of the light rail investment.

4. Get off the train at the Orenco/ NW 231st Avenue Station. On the south side of the station is an unremarkable development of townhomes and condominiums. The project creates some modest density, but does not have a distinctive pedestrian or transit orientation. The real destination of this tour is the award-winning New Urbanist community of Orenco Station, located ¼ mile north via Orenco Parkway. As you walk north, you'll see the Nexus Apartments, which were constructed in 2007. The Q condominiums are located on the southeast corner of NW Cornell Road and Orenco Parkway. The developer of these condominiums was able to use the value created by Orenco to finance a project with underground parking in order to achieve higher densities.

Orenco Station is across Cornell Road. Its mix of uses, housing types, materials and care to minimize the presence of the auto are standouts in this suburban context. Sales at Orenco prove that home buyers will pay more per square foot for a home that is part of a high-quality, convenient neighborhood. Read more about Orenco Station in Chapter Three.

Walk down Orenco’s main street to a public park. From this green, you will see an Intel plant looming in the distance—evidence of the high-tech jobs that earned the area the moniker Silicon Forest. Then stroll around one of the residential blocks to look at the housing and streetscape design, including alleys. A variety of housing types and sizes, including carriage apartments over some garages, blend seamlessly with single-family homes. Take a look at the grocery store, New Seasons, with apartments over the top, which help make this a complete community. There are several dining options at Orenco, including an Indian restaurant with a lunch buffet and the deli at New Seasons.

Return to the Orenco MAX Station for the return trip to downtown Portland. Board the MAX Blue Line to City Center/ Gresham. The trip back to Pioneer Courthouse Square takes about 40 minutes.

Thank you for visiting the Portland area and riding TriMet!
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