



A Portlander's View of Smart Growth

RANDAL O'TOOLE
The Thoreau Institute

rot@ti.org

Abstract. Metro, a regional planning authority, has written and implemented the nation's strongest and most comprehensive smart-growth plan in Portland, Oregon. For a region expected to grow in population by 80 percent in the next five decades, Metro's plan calls for a mere 6 percent expansion of land area; high-density housing in the form of apartments, mixed-use developments, and single-family homes on small lots; pedestrian-friendly design codes; 125 miles of rail transit; and almost no new highway construction.

Though smart-growth advocates promise their policies will reduce congestion, clean the air, provide affordable housing, protect open space, and reduce urban-service costs, Metro's plan does the opposite of all these things. Metro planners predict its plan will quadruple the time Portlanders waste sitting in traffic by 2020 and increase smog by 10 percent. The artificial land shortage posed by the urban-growth boundary has already turned Portland from one of the nation's most affordable housing markets to one of the ten least affordable ones. The plan's demand for infill development is sacrificing valuable urban open space to protect abundant rural open space. Rail transit and high-density developments both require huge subsidies.

Portlanders initially supported Metro's efforts because they were told that planning would save Portland from becoming like Los Angeles, the nation's most congested and polluted urban area. In fact, Los Angeles is also the nation's densest urban area and has the fewest miles of freeway per capita, making it the epitome of smart growth. This actually led Metro to conclude that its goal is to "replicate" Los Angeles' development patterns in Portland. The result is that Portland-area residents are increasingly hostile to Metro's plans.

Key Words: urban planning, urban growth, rail transit, Portland, Oregon

JEL classification: O18, O21

Introduction

From all over the United States people come to my hometown of Portland, Oregon, to learn the wonders of smart-growth planning. City planners ooh and ah over the urban-growth boundary, mayors and other elected officials gape at the billion-dollar light-rail line, reporters and writers marvel at the pedestrian-friendly design and transit-oriented developments.

All of these people see Portland as tourists. But as urban sociologist Herbert Gans points out, the needs of tourists are very different from those of residents (Gans 1961). While tourists seek exotic and visually exciting places, residents want efficient access to important urban services such as stores, schools, and jobs.

From the residents' point of view, Portland's smart-growth plan is a nightmare. The region's congestion is rapidly growing, homeownership is out of the reach of most residents who do not already own homes, and urban open space is being replaced by infill development. Far from saving taxpayer dollars, local governments have to raise taxes or reduce urban services to pay for planners' transit and housing dreams.

As a libertarian environmentalist, I naturally ask two separate questions about any environmental policy or program: First, does it improve the environment? Second, does it enhance, or at least not reduce, individual freedom? Some policies might require a trade off between freedom and environmental quality, in which case some moral balancing act is needed. But Portland's smart-growth policies require no such moral balance, as they harm both freedom and environmental quality.

Oregon Planning History

The term "smart growth" was apparently first used in Maryland in 1996. But Portland's planning precedes that by many years. Planners trace Portland's plans back to a 1973 state land-use planning act requiring all Oregon cities and counties to write comprehensive land-use plans in compliance with goals and guidelines set by a state Land Conservation and Development Commission (LCDC). The initial goals and guidelines required all Oregon cities and towns to draw an urban-growth boundary large enough to accommodate an estimated twenty years worth of growth.

Outside the growth boundaries, LCDC rules severely restricted development. Initially, LCDC required that most rural lands be zoned for 40-acre minimum lot sizes, but the commission later increased this to 160 acres. In addition, if the land is farmland, LCDC's latest rules specify that no one may build a home on their own land unless they also earn at least \$40,000 to \$80,000 (depending on soil productivity) a year farming it. The agency is proud that only about 100 building permits have been issued per year on rural farmlands since that rule was passed (LCDC 1998).

A regional agency known as the Metropolitan Service District drew Portland's initial urban-growth boundary in 1979. The boundary encompassed nearly two-dozen incorporated cities and unincorporated parts of three counties. Initially, about a third of the land inside the boundary was vacant and a recession in the early part of the 1980s minimized any growth pressure.

The late 1980s saw rapid growth, particularly west of Portland in suburban Washington County, where Intel and other high-tech firms were building large factories. To support this growth, the state proposed to build a new highway called the Western By-Pass, which would begin and end inside the boundary but briefly exit the boundary along its course.

A powerful non-profit group and self-described land-use watchdog known as 1000 Friends of Oregon worried that the Western By-Pass would lead to expansion of the growth boundary. As an alternative, 1000 Friends proposed to emphasize transit rather than roads and to accommodate growth through compact development rather than boundary expansions (1000 Friends of Oregon 1997).

In response, LCDC passed a transportation-planning rule in 1991 that audaciously directed Portland and other major cities to reduce per capita driving by 20 percent within thirty years. Though LCDC later reduced this objective to 10 percent, any reduction at all seems unattainable. To achieve this target, LCDC required cities to promote compact, mixed-used developments; transit instead of roads; and pedestrian-friendly design (Oregon Administrative Rule 660-12, Transportation Planning).

Before 1992, such planning in the Portland area was carried out by individual cities and counties. The Columbia Region Association of Governments (CRAG) was the official metropolitan planning organization for Portland, meaning it was the agency that submitted transportation and housing grant requests to the federal government. It had no planning authority over the various cities and counties in the Portland area.

In 1992, Portland-area voters approved a ballot measure whose title read, "Limits regional government, abolishes CRAG." Rather than abolish CRAG, the ballot measure merged it into the Metropolitan Service District and renamed the unified agency Metro. Rather than limit regional government, the measure gave Metro dictatorial planning powers over the two-dozen cities and three counties in the region. Metro immediately began plans to increase the region's population density rather than expand its urban-growth boundary.

By the early 1990s, the region was running out of vacant land for housing. The shortage was particularly acute in Washington County, where most of the job growth was taking place. In 1993, home builders asked the legislature to require Metro to expand the boundary to accommodate growth, but the measure passed only after Metro convinced legislators to amend it to allow Metro to accommodate growth through denser development.

Metro's 2040 Plan for Portland

Metro predicted that from 1990 to 2040 the Portland area would grow by 80 percent. Metro decided to expand the urban-growth boundary by just 6 percent and to house the remaining people through increased densities.

Anthony Downs notes that a regional government such as Metro "can take controversial stands without making its individual members commit themselves to those stands. Each member can claim that 'the organization' did it or blame all the other members (Downs 1992)." This is precisely what happened as Metro gave each of the cities and counties in its jurisdiction population targets and directed them to meet those targets by rezoning existing neighborhoods to higher densities. Some cities, especially Portland, were eager to accept high targets, since they wanted to boost their growth rates. But they didn't hesitate to blame Metro when irate neighborhood residents objected to densification.

Such objections happened in almost every targeted neighborhood, often resulting in hundreds of people jamming planning meetings. Voters in one suburb, Milwaukie, even recalled their mayor and most of their city council from office in protest against high-density rezoning. Metro quietly advised city planners to have "open houses" that accepted no public input rather than public hearings where speakers could stir up local opinion against rezoning.

The protests had little effect; all but one of the dozens of targeted neighborhood were rezoned to higher densities. This has led to significant changes in many of those neighborhoods. To meet population targets, many cities rezoned neighborhoods of single-family homes for apartments. This meant that people's backyards suddenly became developable building sites for apartments.

Historically, residential zoning has prescribed maximum allowable densities such as two, four, or eight housing units per acre, but no minimum densities. Metro directed that all Portland-area zoning require minimum densities equal to at least 80 percent of the maximum

allowable densities. This meant that vacant lots that might have been developed as a single-family home were now slated for rowhouses or small apartments. Zoning in many areas was so strict that homeowners whose houses burned down were required to replace them with apartments.

On the few vacant areas inside the growth-boundary, Metro promoted either apartments or single-family homes on small lots. The typical home in Metro's showcase community of Orenco has no backyard and only a tiny side yard. Realtors report that such developments tend to sell at slower rates than conventional ones, and the neighborhood's developer calls Orenco its "nonprofit wing," done to stay in planners' good graces so the developer could get permission for more conventional developments elsewhere (Gragg 2000).

Nor is there any evidence that transit-oriented developments have significantly altered people's travel habits. Center Commons is a high-density development built near an east Portland light-rail station. The development is "pedestrian-friendly," meaning it has wide sidewalks and limited parking: just 0.65 parking spaces per dwelling unit. Residents have responded to the parking shortage by simply creating thirty unplanned parking spaces, seven of which are on the sidewalk. Center Commons is supposed to be a mixed-use development, but the only retail space remains vacant due to a lack of parking. As the leasing manager says, the "location might work for a store that doesn't expect to ever have customers show up, but that's not the usual way retailing works (Charles 2001)."

Density is not the only tool Metro is using to reshape the Portland area. Metro's 1997 land-use plan and its 1999 regional transportation plan call for:

- Building 95 miles of new light-rail and commuter-rail lines to add to the 17 miles that already existed and the thirteen then under construction;
- Building almost no new highways;
- Using "traffic calming"—a euphemism for congestion building—to reduce the capacities of many existing arterial and collector roads by as much as a third;
- Reducing parking in existing shopping centers and office parks by 10 percent;
- Discouraging construction of large shopping malls or big-box stores;
- Promoting construction or restoration of "main streets," meaning retail shops that front on sidewalks rather than on parking lots.

Portland-area voters rejected further funding of light rail in 1998. With the help of Congress, which has never required Portland to provide the 50-percent matching funds that others cities must put up for rail transit, Metro managed to find enough dollars without voter approval to build another 10 miles of rail line, five of which are currently under construction.

All of these things—density, transit-oriented development, pedestrian-friendly design, rail transit, limits on parking and new road construction, and sidewalk-fronting shops rather than malls surrounded by parking lots—have become standard fare for smart-growth planners everywhere. No other urban area has implemented them on a region-wide basis, which is why Portland has been such an important destination for city officials and planners.

The Effects of Metro's Plans

If elected officials, reporters, and other visitors to Portland would take a close look at the effects of Metro's plans, their enthusiasm for smart growth might quickly cool. Smart-growth planners say their plans aim to reduce congestion, clean up the air, provide affordable housing, protect urban open space, and reduce the cost of urban services. Metro in particular promises its plan will save Portland from turning into Los Angeles, the nation's most congested and polluted urban area. In fact, Metro's plan does exactly the opposite of all of these things.

Increased residential densities, rail transit, transit-oriented developments, and pedestrian-friendly design are all supposed to reduce the need for driving. These actions are prescribed by LCDC to achieve its target of reducing per capita driving by 10 percent. No such reduction is in sight to date. From 1990 to 2000, per capita driving in the Portland area increased by 35 percent, from 17.4 miles per day to 23.6 miles per day.

Nor do Metro planners predict that their plans will reduce either driving or congestion. Metro's 2020 *Regional Transportation Plan* estimates that per capita driving will continue to increase through 2020, by which time, says Metro, the amount of time Portlanders waste sitting in congestion will have more than quadrupled (Metro 1999). Since 2021 is LCDC's deadline for reducing per capita driving by 10 percent, it is clear that Metro won't meet it.

Metro also predicts that its plans will fail to divert significant numbers of people to transit, walking, or cycling. In 1990, 92 percent of Portland-area travel was by auto, 3 percent by transit, and the remaining 5 percent by walking and cycling. After increasing the region's population density by 70 percent, constructing and operating a total of 125 miles of rail transit, and building scores of transit-oriented developments, Metro predicts that transit's and walking/cycling's share will each increase to 6 percent—leaving autos with 88 percent of all travel. With an anticipated 80 percent larger population, that translates to nearly 70 percent more miles driven on a highway—which of course means more congestion (Metro 1994).

That's okay, says Metro, because congestion will “signal positive urban development (Metro 1996).” Transportation engineers rank congestion using a letter grade, with A meaning almost no traffic and F meaning stop-and-go traffic. In the past, engineers have sought to keep congestion down to level C or, at worst D, because E and F are both dangerous and waste people's time. But Metro has set a goal of increasing congestion on almost all Portland-area freeways, arterials, and collectors to level F during rush hour and level E the rest of the day (Metro 1999). “Transportation solutions aimed solely at relieving congestion are inappropriate” on these roads, says Metro (1999). When asked why, Metro's head transportation planner, Andy Cotugno, replied that any effort to reduce congestion “would eliminate transit ridership (Metro 2000).”

This is one case in which Metro's plans are actually working. According to the Texas Transportation Institute's annual survey of urban congestion, congestion is growing faster in the Portland area than in almost any other U.S. urban area.

With increased congestion comes more air pollution, because cars pollute more in stop-and-go traffic. Comparing 1990 EPA ratings of air quality with 1990 metropolitan area

densities shows a strong correlation between density and pollution. Metro admits that it expects its plan to increase Portland-area smog by 10 percent, but the reality is likely to be worse because Metro's pollution models don't account for increased pollution in stop-and-go traffic.

Smart-growth planners often give lip service to "affordable housing." By this, they seem to mean, "housing in which few people want to live." As development ate into the vacant land inside Portland's urban-growth boundary, prices of land suitable for housing development rose from \$20,000 an acre in 1990 to as high as \$200,000 an acre by 1996. In turn, Portland went from being one of the nation's most affordable housing markets before 1990 to one of the ten least affordable by 1996.

Before 1990, two out of three Portland-area families could afford a median priced home. Today, less than one out of three can afford one. With their own urban-growth boundaries, Salem, Eugene, and Medford have become similarly unaffordable (National Association of Home Builders, various years).

Planning advocates say Portland housing prices have increased only because it is a growing region. Though Las Vegas has grown nearly three times as fast as Portland, two out of three Las Vegas families can still afford median-priced homes. Many other fast-growing urban areas outside of Oregon, including Phoenix, Atlanta, and Raleigh, have maintained affordable housing markets, while those in Oregon are among the least affordable in the nation regardless of growth rate.

People say Portland's plan must be working because the Portland area is growing so fast. But the fastest growing part of the Portland area is Vancouver, Washington, which is outside of Metro's jurisdiction. While the rest of the Portland area grew by about 40 percent in the 1990s, Vancouver more than tripled its population as people avoided Portland's high housing prices and regulations imposed by Metro.

Nor does Portland's smart-growth plan protect open space. At best, it trades away one kind of open space for another, less valuable kind of open space. The two kinds of open space can be described as *urban open space* and *rural open space*.

Urban development does not particularly threaten rural open space. Cities and towns, including towns as small as a handful of people, cover just 1.2 percent of Oregon. Rural developments, such as grain elevators, roads, and railroads, account for just 0.8 percent of the state. This leaves 98.0 percent of the state as rural open space.

Oregon isn't unique in this regard. Most states are at least 90 percent rural open space, and all but five of the small, Northeastern states are at least 85 percent rural open space. Altogether, only 3.7 percent of the 48 contiguous states has been urbanized, and 95 percent is rural open space (USDA 2000).

Does urbanization threaten the nation's most productive farmlands, such as those found in Oregon's Willamette Valley? Covering just one-seventh of the state, the valley houses two-thirds of its residents, with 85 percent of Valley residents living in an urban area. Only about 20 percent of the Valley is prime farmland.

A smart-growth group called the Willamette Valley Livability Project says that 5.9 percent of the Willamette Valley is urbanized today. A study commissioned by the group predicted that, under Oregon's smart-growth planning rules, population growth over the next 50 years will cause urban areas to expand to 6.6 percent of the valley. But the study

also found that if Oregon gave up those rules and let people have freedom of choice, urbanization would increase to 7.6 percent of the valley—just one percent more (Willamette Valley Livability Project 2001). In other words, Portlanders are suffering congestion, pollution, and unaffordable housing to save just one percent of the Willamette Valley from urbanization.

The other kind of open space is urban open space, including parks, golf courses, and urban farms. The Portland urban-growth boundary encompasses 10,000 acres of farmlands, and these farms contribute to the charm of the area as they provide fresh produce to local residents. But to meet population targets, these farms and other open spaces have been rezoned for redevelopment as high-density urban villages. Orenco, which is short for “Oregon Nursery Company,” was built on prime farmland.

The Top o’ Scott Golf Course, located in Clackamas County south of Portland, was zoned as open space in 1980. But to meet Metro’s population targets, the county rezoned it for 1,100 homes and 200,000 square feet of office space in 1999. The city of Portland has even sold some of its parklands to developers at below-market prices to promote high-density housing.

Opinion surveys have found that people regard their backyards as open space. But planners consider backyards a waste, and Portland-area homes with large backyards are increasingly expensive.

In effect, then, Metro is not saving open space. It is trading off urban open space in the form of large yards, parks, golf courses, and urban farms in favor of rural open space. Yet the truth is that urban open space is in much shorter supply, and much more valuable, than the rural open space Metro is attempting to protect.

Smart-growth advocates talk about the “costs of sprawl.” But Portlanders are discovering that it costs a lot to try to make people live in ways in which they don’t want to live. Start with Portland’s light-rail lines, which cost more to build than an eight-lane freeway. Yet they carry fewer people than one-third of a freeway lane. This means that light rail costs 25 times as much per passenger mile as highways.

High density is proving costly as well. The main obstacle to Metro’s high-density plans has been the market, or rather, the lack of a market for high-density housing. Even as the prices of single-family housing rocketed upward in the early 1990s, the market for multifamily housing was saturated. Most of the city of Portland has long been zoned for multifamily housing, yet few developers took advantage of such zoning outside of the inner city.

Portland opened its first light-rail line in 1986 and immediately rezoned all of the land near light-rail stations for mixed-use and multifamily developments. But ten years later city planner Mike Saba sadly reported to the Portland city council that “we have not seen any of the kind of development—of a mid-rise, higher-density, mixed-use, mixed-income type—that we would’ve liked to have seen” along the light-rail line (Mike Saba quote from the Oct. 1996). When the city council asked developers why they hadn’t taken advantage of the new zoning, the developers responded that there was no demand for such developments.

So Metro, Portland, and other local governments decided to stimulate demand through subsidies. Portland offers ten years of property tax waivers for all high-density developments

along an existing or planned light-rail corridor. Portland and other cities also waive impact fees that are normally charged to builders of low-density housing. The Federal Transit Administration gave Metro a \$12 million grant to buy land and then resell it (sometimes to the same developers from which it bought the land) at below-market prices on the condition that the buyers will build a high-density development. The region also uses federal Congestion Mitigation/Air Quality (CMAQ) funds to subsidize selected high-density developments. Center Commons, the transit-oriented development whose residents park on the sidewalk, cost \$31 million, \$13 million of which was paid by taxpayers.

Even with such incentives, developments have not always been successful. The worst case is Beaverton Round, an office-retail-housing complex with limited parking that was to surround a light-rail station. After starting construction with \$9 million in public subsidies, the developer went bankrupt because it couldn't find outside financing for a project with limited parking. After lying vacant for more than three years, another developer has promised to finish it if it can also build a 700-car parking garage. Those developments that have been completed tend to have significantly higher than average vacancy rates.

Replicating Los Angeles

Smart-growth advocates say we need their policies to save Portland and other cities from becoming like Los Angeles. But is Los Angeles really the "granddaddy of sprawl," as the Sierra Club says? It turns out that Los Angeles is the highest density urban area in America, even higher than the New York urban area (which includes parts of New Jersey and Connecticut). Preliminary data from the 2000 Census indicates that, at 7,000 people per square mile, LA is a third denser than the New York area and nearly 2.7 as dense as the average U.S. urban area, which is 2,650 per square mile.

People also believe that LA is a great big freeway. But it turns out that Los Angeles has the fewest miles of freeway per capita of any U.S. urban area. While the average U.S. urban area has about 120 miles of freeway per million residents, LA has only 50. Los Angeles is congested because it has so many people with so few highways, and it is polluted because so many cars idle in stop-and-go traffic.

Thus, Los Angeles is really the epitome of smart growth. It is no coincidence that Los Angeles growth patterns were established not by the automobile but by turn-of-the-century streetcar systems.

"In public discussions we gather the general impression that Los Angeles represents a future to be avoided," says Metro. Yet after reviewing data for the nation's fifty largest urban areas, Metro quietly concluded, "with respect to density and road per capita mileage it displays an investment pattern we desire to replicate" in Portland (Metro 1994). Of course, it didn't say so very loudly: While Metro distributed publications promising to reduce congestion to every household in the region, its conclusions about replicating Los Angeles were buried in a technical document that residents had to purchase for \$10.

Political Support for Metro

Local support for Metro's plan is tenuous. Polls show that most residents support the urban-growth boundary—but the same polls show that most residents want to live in low densities. Just as commuters want other people to ride transit so they can drive on uncongested roads, most Portlanders seem to regard density as a good idea as long as someone else has to live in it.

A May 2002 ballot measure restricting Metro's authority to increase neighborhood densities was approved by more than 60 percent of the voters. The courts have yet to determine whether the measure is retroactive. In 2000, Oregon voters approved another ballot measure requiring compensation to landowners whose property values have been reduced by planning rules; planning advocates have successfully held up implementation of this measure in the courts. These measures, along with voter rejections of further light-rail funding, suggest growing hostility to Metro planning.

Financially, Metro's strongest political support comes from individuals and companies who expect to profit from Metro's plan. When light rail was on the ballot in 1996, for example, two thirds of the donations to the political committee supporting the measure came from electric companies that expect to power the vehicles (\$100,000); banks that expect to sell construction bonds (\$60,000); construction and engineering firms (\$42,000); construction unions (\$25,000); builders of subsidized transit-oriented developments (\$25,500); and railcar manufacturers (\$20,000) (Oregonians for Roads and Rail 1996).

Political contributions to candidates who support smart growth come from similar sources. For example, in 2000 Portland city commissioner and smart-growth proponent Charles Hales was challenged by an anti-smart-growth candidate, Hales received campaign contributions from Parsons-Brinkerhoff, an engineering firm specializing in light-rail transit; Siemens, the manufacturer of light-rail vehicles; and several developers of subsidized transit-oriented developments including Walsh Construction, Hoyt Street Properties, and Tramell Crow (Anthony 2000). Hales won re-election against a political unknown, but light rail was defeated in 1995, 1996, and 1998 ballot measures despite the fact that opponents were heavily outspent by supporters. While a narrow majority of voters in the city of Portland voted for light rail, every suburb served by existing or proposed light-rail lines voted against it.

The main political support for smart growth in Oregon comes from 1000 Friends of Oregon, which has built an extensive network of interlocking boards with a variety of anti-auto, anti-suburb organizations such as the Willamette Valley Livability Project, Bicycle Transportation Alliance, and Coalition for a Livable Future. Far from being grassroots organizations, these groups receive their primary funding from foundation grants and grants from government agencies that support smart growth, including the Environmental Protection Agency and the U.S. and Oregon departments of transportation. In effect, government agencies give these groups funds to lobby elected officials to give those agencies more money and power and to work against the best interests of local residents.

Officials and residents of other cities who want to turn their regions into Los Angeles—the nation's most congested and most polluted urban area—should by all means follow

Portland's smart-growth example. But people who want to solve urban problems without quadrupling congestion and forcing people to live without backyards should look elsewhere for their models.

References

- Anthony, Roger (2000) "Out-of-State Firms Boost Charlie Hales." *The Oregonian*, May 12: C-2.
- Charles, John (2001) *The Mythical World of Transit-Oriented Development*. Portland, OR: Cascade Policy Institute. <http://www.cascadepolicy.org/..pdf/env/P-1019.htm>.
- Downs, Anthony (1992) *Stuck in Traffic: Coping with Peak-Hour Traffic Congestion*, p. 133. Washington, DC: Brookings.
- 1000 Friends of Oregon (1997) *Making the Connections: A Summary of the LUTRAQ Project*, pp. 8–10. Portland, Oregon: 1000 Friends.
- Gans, Herbert J. (1961) "City Planning and Urban Realities: A Review of *The Death and Life of Great American Cities*." *Books in Review*, 170–173.
- Gragg, Randy (2000) "The New Urbanism: Laboratory Portland." *The Oregonian*, June 11: E10.
- LCDC (1998) *Using Income Criteria to Protect Commercial Farmland in the State of Oregon*, p. 2. Salem, OR: LCDC, <http://www.lcd.state.or.us/issues/rural/dlcdfly.pdf>.
- Metro (1994) *Metro Measured*, p. 7. Portland, OR: Metro.
- Metro (1994) *Region 2040 Technical Appendix*. Portland, OR: Metro, Transportation tables.
- Metro (1996) *Regional Transportation Plan Update*, pp. 1–20. Portland, OR: Metro.
- Metro (1999) *Regional Transportation Plan*. Portland, OR: Metro, table 5.10, <http://www.multnomah.lib.or.us/metro/transpo/highcap/rtp/rtp.html>.
- Metro (1999) *Regional Transportation Plan*, pp. 1–29. Portland, OR: Metro.
- Metro (1999) *Regional Transportation Plan*, pp. 6–38. Portland, OR: Metro.
- Metro (2000) "Minutes of the Metro Council Transportation Planning Committee Meeting." July 18, p. 7.
- Mike Saba quote from the October 23, 1996, city council meeting transcribed from a videotape of that meeting made by the city of Portland.
- National Association of Home Builders, *Housing Opportunity Index*. Washington, DC: NAHB, various years.
- Oregon Administrative Rule 660-12, Transportation Planning.
- Oregonians for Roads and Rail (1996) "Contributions and Expenditures Report," November, 1996, on file at the Oregon Secretary of State's office, Salem, Oregon.
- USDA (2000) *1997 Natural Resources Inventory*. Washington, DC: USDA.
- Willamette Valley Livability Project (2001) *Willamette Chronicles*. Eugene, OR: WLVP.