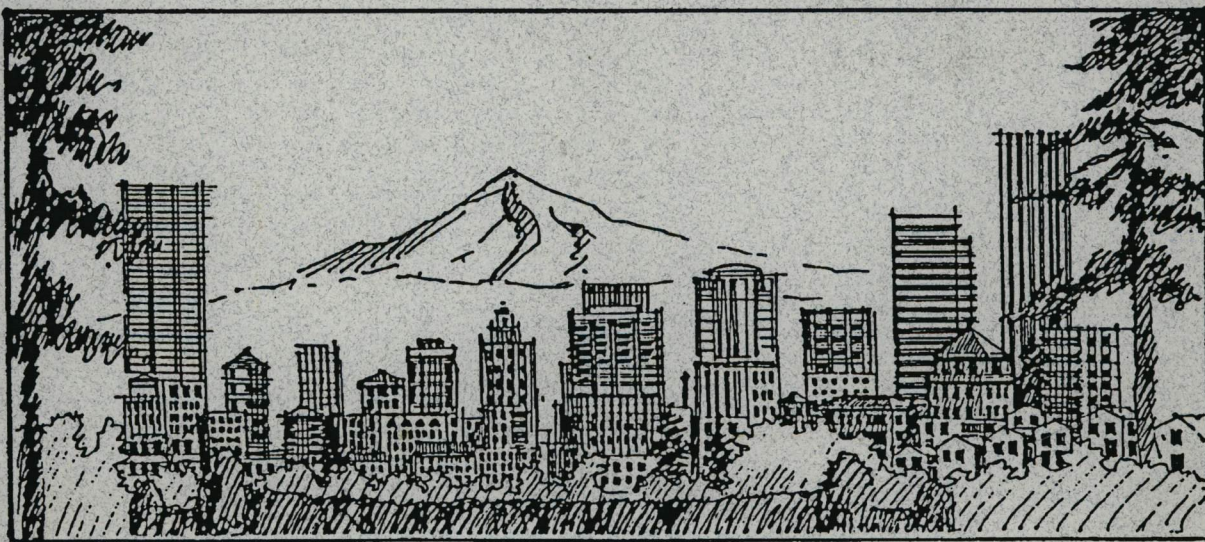


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# INFILL AND REDEVELOPMENT STRATEGIES



Prepared For:  
City of Portland  
Bureau of Planning  
Portland, Oregon

Prepared By:  
Tashman Associates  
Planners and Policy Consultants

Leland Consulting Group  
Real Estate Economists, Development Advisors  
and Project Managers



November 1994



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## EXECUTIVE SUMMARY

### CITY OF PORTLAND INFILL AND REDEVELOPMENT STRATEGIES

The City of Portland recognizes that to achieve regional compact development objectives, a much greater proportion of future development should take the form of infill and redevelopment in existing Portland neighborhoods. The Infill and Redevelopment Strategies project was undertaken to:

- analyze the demand for those housing and mixed residential/commercial uses that are most appropriate for infill and redevelopment and identify those factors that affect demand for such development;
- assess Portland's capacity to accommodate such demand;
- identify neighborhood characteristics that influence the feasibility of infill and redevelopment; and
- develop strategies to promote infill and redevelopment.

The key findings of the study are as follows:

#### Demand for Infill and Redevelopment In Portland

Certain types of development are more appropriate for infill and redevelopment projects in Portland because they use a relatively small amount of land per square foot of occupied space and because they are supported by an existing urban infrastructure of transportation and amenities. These types include higher density residential (both attached and detached, and both ownership and rental) and mixed-use residential/commercial projects.

The demand for these types of development in Portland will grow because of many factors:

- Demographic changes will continue to result in greater numbers of smaller, non-traditional households that demand housing units which are lower cost, more convenient and easier to maintain than the typical detached single family house.
- High rates of in-migration will continue to create the need for transitional forms of housing, such as apartments and condominiums.
- The forecast age structure of the future population is more evenly distributed than the current population structure, which shows the effects of the "baby boom" and the "baby bust." Though there will be a large component of the population that will enter retirement age, the younger population cohorts will also increase, creating demand for multi-family housing units.



The higher rates of increase in minority populations will also favor Portland over suburban locations, if historic locational preferences hold.

### **Capacity for Infill and Redevelopment**

The capacity analysis is built off of the quantitative analysis done for Region 2040. Alternative Growth Concept B represented a growth form that emphasizes the growth of Portland in terms of jobs and housing. Growth Concept B forecast the development and redevelopment of higher density housing and mixed use projects, in Portland's Central City and along transit corridors.

Rather than duplicate the quantitative capacity analysis conducted by Metro, the Infill and Redevelopment Strategies Study focused on the economic feasibility of the types of development projects needed to achieve the growth targets of Concept B. Five hypothetical projects in "pilot areas" of Portland—all of which are shown in Concept B as accommodating substantial higher density and mixed-use development—were examined and financial pro-formas developed to analyze their feasibility.

Four of the five projects were shown as feasible under current market rents, construction costs and land costs. The fifth project was shown as feasible if subsidized equity financing were provided, and this project is located in an area of the city where such subsidies are currently available.

Though the economic feasibility of these projects indicates that Portland can support the high growth projections of Concept B, the ability of the City to support this growth while maintaining its livability is not to be taken for granted.

### **Neighborhood Characteristics Leading to Infill and Redevelopment**

Members of the development community were surveyed regarding their judgment of what neighborhood factors were most important in determining where infill and redevelopment would occur and what neighborhoods were most attractive to them as locations for such projects.

The developers concluded that public safety was far and away the most important factor, with good parks and good sidewalks also cited as important. In ranking the neighborhoods that they found most attractive, there was some correspondence between their attraction to these neighborhoods and low levels of crime and high quality parks, although the data used for the analysis were not specific enough to draw strong conclusions. For instance, Southwest was judged attractive, and had low crime rates, good quality parks, but poor sidewalks. East Portland was rated as not attractive for redevelopment and infill, but has a moderate crime rate. More detailed study would be beneficial.

In comparing actual development to developers' perceptions, Southwest and Downtown had high levels of development during the 1980's and early 1990's, which corresponded to their high attractiveness to developers. On the other hand, Northwest had relatively low levels of development during this period, even though it was judged attractive. East



Portland had relatively high levels of development, even though it was judged less attractive to developers. Again, more analysis would be helpful.

### **Recommended Infill and Redevelopment Strategies**

The study concludes that a range of strategies will be necessary to achieve Portland's infill and redevelopment goals. What is of paramount importance is that the City must continue to maintain its basic quality of life. It must provide safe streets and high quality community facilities. The challenge to the viability of Portland's public school system must be met if the City intends to attract families with school age children.

Beyond these basic objectives, the City should adopt a developer's attitude toward infill and redevelopment. Its public strategies should address the different stages of the development process. Portland can take actions to increase the knowledge of development opportunities, reduce pre-development costs, reduce development costs and increase the quality and acceptance of infill and redevelopment projects.



Portland had relatively high levels of development, even though it was judged less attractive to developers. Again, more analysis would be helpful.

#### Recommended Infill and Redevelopment Strategies

The study concludes that a range of strategies will be necessary to achieve Portland's infill and redevelopment goals. A primary objective is that the City must continue to maintain its basic quality of life. It must provide safe streets and a healthy community. The challenge to the viability of Portland's public school system must be met. The City intends to attract families with school-age children.

Beyond these basic objectives, the City should adopt a developer's attitude toward infill and redevelopment. Its public strategies should address the different stages of the development process. Portland can take actions to increase the knowledge of development opportunities, reduce the development costs, reduce development costs and increase the quality and acceptance of infill and redevelopment projects.



## INTRODUCTION

Though the Portland Metropolitan Area has experienced substantial growth since 1970, the majority of this growth has occurred in suburban areas outside of the City of Portland. Metro's 1989 projections of population growth for the Metropolitan Area through the year 2010 foresaw continuation of this trend, with the City of Portland attracting (or/ "capturing") only three percent of the total regional growth.

In 1991, the City of Portland undertook a long range strategic planning process, called "Portland Future Focus." One of the major goals developed during this process was for the City of Portland to regain its status as a major attractor of both residential development and employment. The strategies identified in Portland Future Focus call for Portland to offer opportunities for infill development and redevelopment in a manner that maintains the livability of existing neighborhoods. The strategic plan set as a target, Portland's share of the future regional growth allocation at 20 percent.

Metro is currently developing a long range regional plan entitled Region 2040. The plan will ultimately guide decisions on land use, transportation, other infrastructure and environmental protection. It will form the base for a pattern of growth. Metropolitan Area concepts which illustrate different possible growth patterns. The concepts include expansion of the urban growth boundary (growing out), retaining the existing urban growth boundary and using higher densities and mixed-uses to accommodate future population (growing up). A third alternative retains the existing urban growth boundaries while planning for new or greatly expanded communities outside the urban growth boundary to accommodate residents and economic activity in satellites. The final growth pattern desired by metropolitan Area citizens will likely be a hybrid concept that incorporates features of these three alternative concepts.

The City of Portland is committed to helping achieve a compact growth form in the Metropolitan area that emphasizes the City's role as the region's central city, as a major employment center, transportation hub, cultural center and place of residence for a substantial portion of the region's population. The Portland Bureau of Planning and the Office of Transportation are undertaking programs to further this goal. The Planning Bureau's Livable Cities program seeks to provide Portland citizens with a realistic understanding of the benefits of vital urban neighborhoods — a mix of housing, retail goods, services and employment opportunities. The Office of Transportation Regional Rail program is promoting the development of a predominantly radial light rail system that emphasizes Portland's position as a hub. A major element in achieving such a transportation system is development of transit-oriented land uses which result in safe and convenient access to transit.

As a participant in Region 2040, the City of Portland seeks to demonstrate that an urban



growth form that emphasizes higher-density and mixed-use development that is focused on transit is an economically realistic objective. The City has prepared studies of market trends for infill and mixed-use development, engaged in "specific plan" processes in three Portland neighborhoods to involve citizens in planning for infill and redevelopment and conducted a Visual Preference survey that showed residents of the region preferring traditional types of development that are street-oriented and diverse.

As a part of this continuing effort, the City has undertaken the "Infill and Redevelopment strategies" project. This project builds upon previous work to focus on the economic context for substantial new development within the City of Portland and to analyze and recommend strategies that will facilitate such development<sup>1</sup>.

The Infill and Redevelopment Strategies project consists of:

- Analyzing the demand for housing and mixed residential/commercial uses and identifying those factors that may be expected to affect demand for such development within the City of Portland;
- Analyzing the capacity of the City of Portland to accommodate such demand;
- Identifying neighborhood characteristics that affect the feasibility of infill and redevelopment; and
- Developing a program of strategies that can be undertaken by citizens, the City, other public agencies and the private sector to promote infill and redevelopment.

---

<sup>1</sup> Infill Development: Market Trends and Prototypes, January 1993, Tashman Associates and Leland Consulting Group.



## CHAPTER I:

### Demand Analysis

#### Introduction

This section of the report addresses the demand for housing and mixed-use development. The analysis includes a discussion of demographic forces and such factors as land cost, housing cost and income that affect a household's preference for, and ability to obtain, different types of housing. The study also looks at the impacts of different growth patterns as they are portrayed in Region 2040 on development demand.

#### Current Demographics of the Portland Market

Using data from the U.S. Census, a correlation of housing types, household size, race, age and income were examined to look at future projections of growth and market demand in Portland as opposed to the Metropolitan Area as a whole. Portland differs from the Metropolitan Area in some significant ways. Its population is more diverse than that of the region (see Tables 1 and 2).<sup>2</sup> In addition, Portland has a higher proportion of single households, single parent families and nonfamily households than both the region and national averages. The higher proportion of singles, single parent and nonfamily household numbers are understandably reflected in a higher proportion of multifamily and rental units than is the case in the rest of the Metropolitan Area.

**Table 1**  
**Population by Race for the Portland Metropolitan Area**

| Universe: Persons                | Portland<br>Number | Portland<br>Percent | Metro<br>Number | Metro<br>Percent |
|----------------------------------|--------------------|---------------------|-----------------|------------------|
| White                            | 370,135            | 84.64%              | 1,062,828       | 90.51%           |
| Black                            | 33,530             | 7.67%               | 38,325          | 3.26%            |
| American Indian, Eskimo or Aleut | 5,399              | 1.23%               | 10,484          | 0.89%            |
| Asian or Pacific Islander        | 23,185             | 5.30%               | 45,577          | 3.88%            |
| Other Race                       | 5,070              | 1.16%               | 17,077          | 1.45%            |
| Total                            | 437,319            | 100.00%             | 1,174,291       | 100.00%          |

Source: U.S. Census and Leland Consulting Group

<sup>2</sup> Census data were derived from the U.S. Census Public Use Microdata Series and from CENDATE, the on-line service of the U.S. Census.



**Table 2**  
**Comparison of Portland Households to National Averages**

| Households                             | Portland Households | Portland Percent | National Percent |
|----------------------------------------|---------------------|------------------|------------------|
| <i>Family Households:</i>              |                     |                  |                  |
| Married-couple family with child       | 33,448              | 17.9%            | 33.0%            |
| Married-couple family no child         | 43,328              | 23.1%            | 23.1%            |
| <i>Other Family:</i>                   |                     |                  |                  |
| Male householder, no wife present      | 6,569               | 3.5%             | 1.2%             |
| Female householder, no husband present | 20,622              | 11.0%            | 7.1%             |
| <i>Nonfamily Households:</i>           |                     |                  |                  |
| Male householder                       | 37,464              | 20.0%            | 9.7%             |
| Female householder                     | 44,767              | 23.9%            | 14.9%            |
| Other nonfamily                        | 1,070               | 0.6%             | 4.6%             |

Source: U.S. Census, American Demographics Magazine and Leland Consulting Group

### Current Housing Occupancy Types

Portland, with slightly more than 187,000 dwelling units, has a higher proportion of multifamily housing than the Metro region as a whole. This is as expected, given the demographics shown above. The proportion of owned single family detached units in Portland is currently around 50 percent of all dwelling units, and the proportion of all owned units to rented units is around 53 to 47 percent (Appendix Figure 1 and Appendix Table 1 illustrate the proportion of owned to rental units in Portland in 1990). This pattern in the City differs from the Metropolitan Area as a whole, where owned single family detached units are approximately 60 percent of all units and multifamily rentals are approximately 22 percent<sup>3</sup>.

Who occupies different kinds of housing units is determined largely by age and income (see the series of graphs relating to units by income in the Appendix). Examination of data from the U.S. Census Public Use Microdata show that as the age of household rises, single family occupancy rises, and as incomes rise, single family occupancy rises. Households from age 15 to 30 have a high proportion of multifamily tenancy and a low frequency of single family occupancy, a relationship which is reversed in the 30 to 45 age range. Single family occupancy peaks in the age range from 45 to 60 and then, as incomes drop in the 60 to 75 year age range, multifamily tenancy again rises slightly.

Single family detached housing has been the historical preference in Portland due to historical low house pricing relative to rental rates and income. In 1990, for a median income of \$30,964, Portland's median house value was \$59,200, with a likely mortgage cost of around \$600 compared to median rent of \$340. In the same time period, according to the 1990 Census, the median house value in San Francisco, an area with a much bigger percentage of apartments, was \$298,900 with a likely mortgage cost of \$2,900 versus a

<sup>3</sup> Report on Aggregate Housing Demand (Draft), Mr Sonny Conder, Metro, October 20, 1993



median rent of \$613. For this reason unit occupancy may be viewed as a preference based on the ability to pay (rental rate versus mortgage payment and equity requirement) and not necessarily a bias against other housing products.

### **The Base Case Unit Demand and Variations Based on Changes in Growth**

The base projection for housing units is represented in Figure 1. This base projection uses household growth from Metro's Base Case II. The capture for Portland's share of the 2015 forecast is around nineteen percent and for 2040, only about three and a half percent, well below the twenty percent target. The base case shows no adjustment in the relationship of income to housing cost and thus the housing preferences demonstrate a continuation of the current pattern. This does not take into account the likely shift to what are becoming more popular (and affordable) housing types—single family attached, rowhousing and condominiums (stacked housing). Metro's base case projection indicates demand in 2015 (units over those existing in 1990) for 52 percent single family detached units (21,756 units), 2.5 percent single family attached (1,088 units) and 46 percent multifamily (19,249 units). The base case projection for 2040 using current occupancy and income patterns indicates that 2040 demand for units over those existing in 1990 will be 57 percent for single family detached units (31,943 units), 2.3 percent for single family attached (1,318 units) and 41 percent for multifamily (23,199 units).

### **Target Capture Projections of Housing Type Demand**

To understand what factors might lead to Portland achieving a capture rate nearer the target 20 percent, the following factors have been taken into account and a model has been formulated to illustrate the possible unit breakdown by age and income should Portland achieve that higher ratio. Table 4 shows the base case estimates and a calculation of the 20 percent goal for 2015 and 2040. Note that for 2015 the base case is close enough to this goal given the time period that differences are not significant.

### ***Future Demographic Trends Leading to Higher Capture in Portland***

The U.S. demographics for 2015 and 2040 show minorities as a rising percentage of the population while the percentage of whites in the total population goes down. The U.S. Census has issued new projections to 2050 with new assumptions about immigration and family size convergence by minorities<sup>4</sup>. The new assumption is that convergence of minority birth trends is not occurring, and thus minority populations are expected to make up a larger part of the population as a whole. In addition, the west coast is considered more likely to attract immigrants, and Oregon is more likely to attract in-country migration than in the past. Thus we can expect to see to future trends in Oregon differ from the past. Over time, with growth, Oregon can be expected to converge toward national averages on race and age, and Portland as the urban center could be expected to reflect this shift more than outlying rural areas.

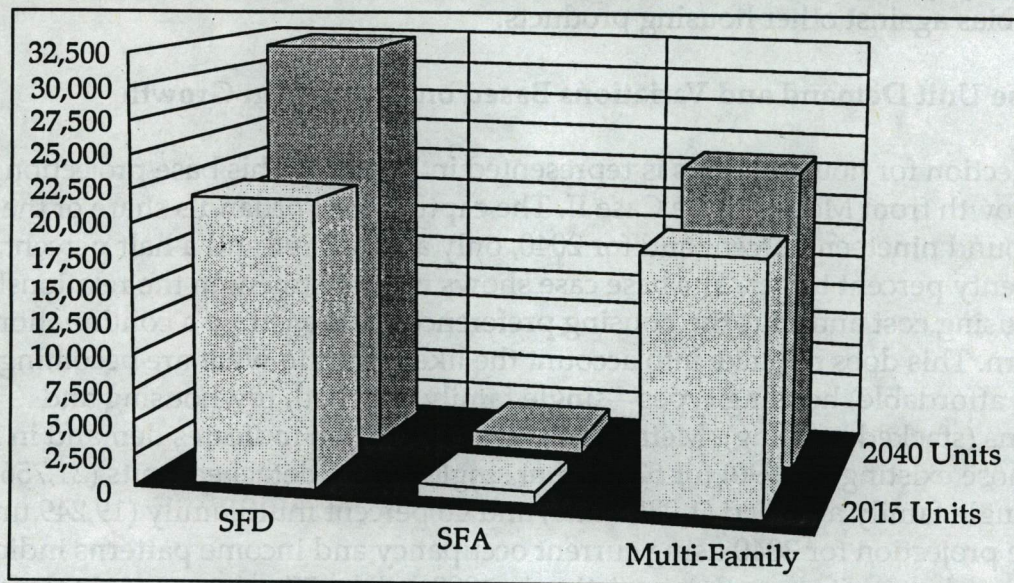
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<sup>4</sup>Day, Jennifer, "Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin: 1992 to 2050," U.S. Publication P25-1092, 1993



**Figure 1**

**Additional Units Needed for 2015 and 2040 Under Adjusted Metro Base Case Estimate**



Source: Metro and Leland Consulting Group

**Table 3**

**Metro Base Case 2 Estimate of Units Growth Over 1990**

Units Not Adjusted for Shift from Single Family Detached to Single Family Attached

|            | Single Family Detached | Single Family Attached | Multi-Family | Totals |
|------------|------------------------|------------------------|--------------|--------|
| 2015 Units | 21,756                 | 1,088                  | 19,249       | 42,094 |
| 2040 Units | 31,943                 | 1,318                  | 23,199       | 56,460 |
| DU/Acre    | 8                      | 12                     | 30           |        |
| 2040 Acres | 3,993                  | 110                    | 773          | 4,876  |

Source: Metro, U.S. Census PUMS 1990 and Leland Consulting Group

**Table 4**

**Metro Base Case 2 Households (without Clark County)**

|                                      | 1990    | 2015    | 2040    |
|--------------------------------------|---------|---------|---------|
| Aggregate Units                      | 464,643 | 688,300 | 878,400 |
| Change from 1990                     |         | 223,700 | 413,800 |
| Portland Goal - 20 Percent of Change |         | 44,700  | 82,800  |

Source: Metro and Leland Consulting Group



## *Re-evaluation of Structural Change in the California Economy*

The structural changes in the California and Oregon economies will also play a part in future immigration projections. Because of these new trends, it is difficult to project in any other than a qualitative way what the future migration to Oregon and the Portland Metropolitan Area will be. Currently, Metro is projecting a continuing downturn in the percentage of in-migration and growth in the Metropolitan Area. Based on previous estimates of growth on the west coast and the capture of major cities, this seemed reasonable. California is now expected to continue growing at a rapid rate (an additional six million between 1990 and 2000) and estimators at the U.S. Census expect Oregon to start picking up in-migration as California becomes more congested. Should this occur, there will be a steady stream of newcomers needing transitional housing (typically multifamily rentals), and a greater minority in-migration (who typically have clustered in urban areas) leading to a higher capture by Portland of new in-migration.

### *Age Distribution*

From 1990, the mix of age has changed to even out the bulge caused by the post-World War II baby boom. This flattening of the age curve means that more units will be occupied by people between 16 and 30, an age group with higher proportions of singles and higher use of multifamily units. The percentage of households able to afford a traditional single family home will go down, resulting in a higher demand for multifamily units, small lot housing, and other alternatives which make more efficient use of land. The consultant team projection for Portland is therefore for an increasing demand for multifamily units and strengthening demand for products which allow the expression of preference for single family detached units at a lower cost. The expected number of total units needed in a higher capture scenario is presented in Table 5.

### *Sources of Growth and Their Effect on Portland's Capture Ratio*

Growth in a region can result when demand from outside the region for goods and services produced in the region is higher than the current production of the goods and services. This type of growth is demand-induced. Skilled people who can add to production are at a premium so wages rise, while the fact that more money is flowing into the region than out of the region produces wealth. Thus wages rise in relation to housing pricing.

In contrast, a labor-supply driven growth produces lower wages and higher housing costs relative to income (not, it should be noted, higher quality housing). In labor supply growth, people come to the area searching for jobs drawn by the quality of life, environment and other factors than an existing under-supply of jobs. The oversupply of labor allows wages to fall due to competition for employment. At the same time, desirable housing is competed for, resulting in rising rent; and prices without a change in the quality of product.

If the Metropolitan Area grows as a result of demand for goods and services output, people will be able to afford more housing services, resulting in less construction of lower cost, smaller size, multifamily units. The demand for move up homes would escalate. While renovations of architecturally attractive older units would increase, older units without distinction would be more likely to be replaced by greater quality units, possibly at the



same density as the demolition. The demand for retail will be greater per household as disposable income rises supporting more shops and mixed-use development of high quality.

On the other hand, if growth is driven by oversupply of labor, then people will be able to afford less housing services, resulting in construction of more lower cost or smaller sized multifamily units. Costly renovations of single family units would not be as attractive as a change in density which captures a higher cash flow stream and compensates for construction costs. Thus older units in need of extensive repairs would be more likely to be demolished and replaced with smaller and denser units. Portland has the largest supply of older housing units in the Metropolitan Area. Therefore one would expect to see Portland have the largest ratio of unit conversions. The possibility of maintaining a low housing market entry cost through such conversions will offer Portland a competitive advantage compared to newer lower-density suburban tracts where land is used less intensely.

Portland can be expected to have some high demand sectors of employment and other sectors where wages are driven by labor supply. On the west coast, however, all major metropolitan areas which have experienced growth in the post-war era have experienced rising housing costs in relation to wages. Since the U.S. Census is expecting Oregon to feel more impact from California and foreign in-migration, the Portland Metropolitan Area is likely to experience more labor supply driven change than demand side driven change. The net result should be an ability for the City of Portland to compete regionally because of its existing base for redevelopment as discussed above.

### *Congestion and Land Pricing*

In a standard simplified economic model of land pricing in urban areas, land pricing (not housing unit pricing) is a function of proximity to the employment center and the distance to the edge of the urban area. Those who work at the employment center trade the advantage of land price for commuting. Land pricing per square foot at the center is high and at the edge, the square foot price sinks to rural use value. In practical terms, a square foot of land in downtown Portland costs more than a square foot in Hillsboro. As congestion rises, the time of commuting increases. This does not affect the price of land at the edge (which remains at the rural value), but the price at the center increases. If it is assumed that all development must occur within the given range from center to edge, then land prices in the center will force more intense utilization. For living units, this means that housing, to stay within a salary workers price range, must take up less land (i.e., occupy the land at higher densities).

If development spreads beyond the original range, the pricing at the center increases, again because of the lengthening of commute time. Thus, any growth that depends on the employment center for income will cause rising land pricing at the center and the need for developers to build at higher-density to gain a profit.

In terms of the future of Portland, there are practical considerations to this theoretical view. If Portland retains importance as a center of employment, wages would need to rise to compensate for higher housing costs. In other cities this has not happened. As the San Francisco Bay Area grew, real wages grew to allow median incomes access to housing in



the region as a whole, but not in San Francisco. In the center, land prices rose well beyond the ability to produce units at low density for median incomes, such that by 1990, the San Francisco Planning Department reported that only about seven percent of residents could afford to buy the unit in which they lived.

Rising land pricing in Portland combined with a labor supply driven growth, would produce the need for more attached and multifamily units than shown in the neutral base estimate. The base estimate itself must assume higher incomes to maintain the current relationship between housing affordability and housing occupancy and density. If it is assumed that congestion becomes a factor in land pricing for the Portland Metropolitan Area such that land pricing (and thus housing costs) rises at a greater rate than income, then the entry cost to participate in the owned housing market will rise. As the entry cost rises, it will take longer to accumulate the required equity, thus raising the age and income at which the shift to single family detached owner units would take place.

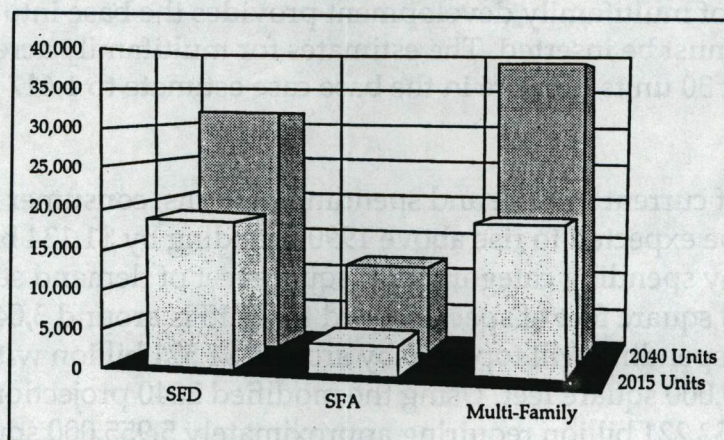
### Projection for 2040 Under a Modified Growth Scenario

The changes noted above result in a somewhat different scenario for Portland than that represented by the base case. If the sort of growth and congestion factors previously discussed are assumed, then development patterns are likely to favor higher-density in Portland and a higher capture for Portland due to these factors. In addition, as the relative cost of housing rises, fewer households will be able to acquire the necessary entry price to the single family detached housing market. This should result in more demand for multifamily and single family attached housing as illustrated in Table 5 following. The graph below (Figure 2) also represents redevelopment of single family detached rental units to single family attached units (through both conversion-and demolition and new construction). The demand for attached units in Portland is relatively new, however, gaining momentum. The strength of attached housing sales indicate a willingness on the part of buyers to have an alternative single family product.

The modified projection indicates that, of housing demand in 2015 (units over those existing in 1990), 44.5 percent will be for single family detached units (18,800 units),

**Figure 2**

**Additional Units Needed for 2015 and 2040 Under Modified Growth/Income Estimates**





**Table 5****Modified Growth Estimate of Additional Units Over 1990**

Conversion from Single Family Detached to Single Family Attached from Redevelopment of Single Family Detached Rental Stock

|            | Conversion<br>Units | Single<br>Family<br>Detached | Single<br>Family<br>Attached | Multi-<br>Family | Totals |
|------------|---------------------|------------------------------|------------------------------|------------------|--------|
| 2015 Units | 3,000               | 18,756                       | 4,088                        | 19,249           | 42,094 |
| 2040 Units | 10,000              | 31,846                       | 11,778                       | 38,807           | 82,432 |
| DU/Acre    |                     | 7.5                          | 12                           | 24               |        |
| 2040 Acres |                     | 4,246                        | 982                          | 1,617            | 6,845  |

Source: Leland Consulting Group

approximately 9.7 percent for single family attached (4,100 units) and 45.7 percent for multifamily (19,000 units). The modified projection for 2040 using current-occupancy and income patterns indicates that 2040 demand for units over those existing in 1990 will be 38.6 percent for single family detached units (31,800 units), 14.3 percent for single family attached (11,800 units) and 47 percent for multifamily (38,400 units). The conversion of units from single family detached is based on the attrition and redevelopment of single family detached rental units to the next higher-density category. As land pricing rises, redevelopment will occur and this table projects that 50 percent of current single family rental stock (or about 6.5 percent of all 2040 single family detached) will undergo conversion within 50 years.

### Mixed-Use Projections

Local mixed-use development encompasses a large variety of projects, from a room over a shop to RiverPlace in Portland, a multi-million dollar hotel/office/condominium project. For the purposes of this discussion, short-term mixed-use in Portland will consist primarily of developments of apartments or condominiums over retail or service/office space. The three factors determining mixed-use demand in Portland (other than financing constraints and developer acceptance of the product) are demand for multifamily units, levels of consumer spending and employment. Mixed-use is limited by the demand for multifamily unit; the total acreage of multifamily development provides the base into which the retail element of mixed-use must be inserted. The estimates for multifamily acreage for 2040 range from 773 acres at 30 units per acre in the base case estimate to 1,617 in the modified 2040 estimate.

With the assumption of current income and spending patterns, consumer spending in Portland for 2015 can be expected to rise above 1990 spending by \$1.134 billion (for a complete breakdown by spending category with square feet of demand see Appendix Table 2). The rise in expected square feet of space needed for 2015 is around 3,041,000 square feet. For the 2040 base case spending will top 1990 by around \$1.521 billion with space required of approximately 4,079,000 square feet. Using the modified 2040 projection, spending would rise by around \$2.221 billion requiring approximately 5,955,000 square feet of space.



There is little likelihood that all new multifamily units will be in mixed-use projects, as it is clear that the demand for multifamily space outstrips the demand for new retail space. The acreage available under the projections of multifamily units is around 642 acres for 2015 or around 28,000,000 square feet, while commercial demand is about 3,041,000 square feet or slightly more than 10.8 percent. Multifamily acreage for the 2040 base case is around 773 acres or 33,672,000 square feet with retail at about 4,079,000 or 12 percent. The modified 2040 projection yields multifamily acreage of 1,617 acres or 70,436,520 square feet while spending indicates new commercial space of around 5,955,000 square feet or about 8.5 percent.

Mixed-use (multifamily housing over service/ office) requires a different analysis. According to the Metro Base Case for 2015, there will be an additional 70,645 employees in Portland. The Base Case for 2040 projects an additional 123,181 employees over 1990 in Portland. Currently service and office comprise approximately 43 percent of total employment in Multnomah County, while retail comprises around 18 percent. At current ratios, expected service employees would be around 23,000 for 2015 and around 41,000 for 2040. These estimates are likely to be conservative, given the past upward trend in the expansion of services.

The space needs for service and office employees can be estimated conservatively at around 500 square feet per service employee (the ratio used by Metro for its area calculations) and around 350 square feet per office employee. For 2015 the expected space needed for both uses would be around fourteen million square feet. For 2040 the space need for both would be around 25 million square feet. Base case multifamily for 2015 requires 28 million square feet, thus fifty percent of the required square feet of multifamily acreage coverage would satisfy the space need for 2015 service office. Since a proportion of this service use (such as hospitals) will not be suitable for multifamily, the actual space requirement would probably be less, but it is clear that the space needs for all mixed-use commercial can be met within the expected multifamily housing stock projections.

### **Projection of Demand and the Region 2040 Concepts**

Metro has created a series of design concepts or scenarios for the Portland Metropolitan Area to assess public opinion and assist in setting policies for future growth. The object of the Metro concepts was not to reflect the base case or to try to project actual development, but rather to estimate the potential for development in the Metropolitan Area and the development patterns which might result under certain growth assumptions. Thus they are not a predictor of growth, but rather a demonstration of possible allocations of growth based on transportation, redevelopment and growth boundary issues. The Metro concepts are outlined in the Tables 6, 7 and 8. Concepts A and C allocate less growth to Portland by absolute numbers of households than the base case, but only Concept B allocates a higher growth percentage than the 20 percent target chosen for this study. The growth in all concepts is allocated among: residential transit centers (which are likely to be mixed-use with office and services); Mixed-Use Centers at low, medium and high (the CBD Category) density; Main Streets; 10 Minute Service Transit Corridors; Other Land in UGB; and several other categories which do not apply to Portland.



### *Concept A*

Concept A proposes the expansion of the urban growth boundary, resulting in less restricted growth. This produces an allocation of 54,777 household's to Portland for 14.1 percent of total growth on the Oregon side of the Metropolitan Area under the concept. While the percentage growth allocation is higher, the absolute growth numbers are lower by 1,683 households.

In an unrestrained market, as previously, the spread over which development took place would lengthen commutes such that if there were alternatives within Portland offering more amenities without the commute, one would expect higher-density at the center and greater redevelopment of obsolete properties. The assessment of redevelopment capacity used by Metro does not take into account economic and functional obsolescence and physical deterioration of housing over the time from 1990 to 2040. This is critical for Portland because Portland's stock of housing is being compared directly to recently built subdivisions.

Metro determined redevelopment acres by taking a minimum land size and minimum improvement value as indicators of redevelopment potential. The difficulty with this approach is that properties above the minimum value which are in Portland may be 60 to 100 years older than the properties above the minimum value elsewhere.

By 2040 these same Portland properties would be from 110 to 150 years old, but are being compared to subdivisions-which by 2040 would be 60 years old. If obsolescence and deterioration were taken into account, by 2040, due to attrition of old and obsolete units, Portland would have a stock of available redevelopment properties that is larger than what has been allocated as redevelopment land by Metro's Estimating method. For this reason, the allocation of units to Portland in Concepts A and C will underestimate significantly the potential market capture of Portland in the Metropolitan Area.

### *Concept B*

Concept B fulfills expectations of the results of constraint on growth, with central location of housing becoming desirable due to congestion, and density rising as a function in the rise of land values as discussed previously in the section on Congestion and Growth above.

### *Concept C*

Concept C retains the Urban Growth Boundary but adds satellite development in cities outside of the growth boundary. While the satellite development would siphon off growth, the same discussion on redevelopment applies to this concept as to Concept A.



**Table 6**  
**Concept A: Unretained Urban Growth Boundary**

|                                 | Household Growth |          |                        | Employee Growth |          |                        | Land Use Volumes          |                              |                        |
|---------------------------------|------------------|----------|------------------------|-----------------|----------|------------------------|---------------------------|------------------------------|------------------------|
|                                 | Metro            | Portland | Portland<br>% of Metro | Metro           | Portland | Portland<br>% of Metro | Metro<br>Redev/<br>Vacant | Portland<br>Redev/<br>Vacant | Portland<br>% of Metro |
| <b>Design Overlay Areas</b>     |                  |          |                        |                 |          |                        |                           |                              |                        |
| Residential Transit Centers     | 43,995           | 9,850    | 22.4%                  | 109,083         | 24,104   | 22.1%                  | 4,229                     | 1,041                        | 24.6%                  |
| Mixed-Use Centers               |                  |          |                        |                 |          |                        |                           |                              |                        |
| Portland CBD                    | 4,477            | 4,477    | 100.0%                 | 10,998          | 10,998   | 100.0%                 | 67                        | 67                           | 100.0%                 |
| Moderate-Density                | 5,657            | 0        | 0.0%                   | 14,145          | 0        | 0.0%                   | 369                       | 0                            | 0.0%                   |
| Lower-Density                   | 2,196            | 859      | 39.1%                  | 5,283           | 1,996    | 37.8%                  | 218                       | 102                          | 46.8%                  |
| Main Streets                    | 656              | 118      | 18.0%                  | 1,679           | 302      | 18.0%                  | 127                       | 22                           | 17.3%                  |
| 10 Minute Corridor              | 48,082           | 6,546    | 13.6%                  | 42,126          | 9,049    | 21.5%                  | 7,462                     | 1,155                        | 15.5%                  |
| Other Land in UGB               | 180,700          | 32,927   | 18.2%                  | 250,113         | 79,298   | 31.7%                  | 49,353                    | 11,400                       | 23.1%                  |
| New Land Brought into UGB       | 204,659          | 0        | 0.0%                   | 3,982           |          |                        | 42,500                    | 0                            | 0.0%                   |
| Optional New Land to Add to UGB |                  | 0        |                        |                 |          |                        | NA                        |                              |                        |
| Satellites**                    |                  |          |                        |                 |          |                        | NA                        |                              |                        |
| Age and Forest Lands            |                  |          |                        |                 |          |                        | NA                        |                              |                        |
| Exception Lands                 |                  |          |                        |                 |          |                        | NA                        |                              |                        |
| Clark County                    |                  |          |                        |                 |          |                        | NA                        |                              |                        |
| Total by Design Overlay         | 490,422          | 54,777   | 11.2%                  | 437,409         | 125,747  | 28.7%                  | 104,325                   | 13,787                       | 13.2%                  |
| <br>Targets (OR Side)*          | 389,563          | 54,777   | 14.1%                  | 388,072         |          | 32.4%                  |                           |                              |                        |
| Greenspaces Reduction (4%)      | 13,936           |          |                        | 6,403           |          |                        | 4,500                     |                              |                        |
| +/-                             | 86,923           |          |                        | 42,934          |          |                        |                           |                              |                        |

\* Targets are the expected net additional pop/employ to be accommodated by 2040, as defined by the Base Case UGB and Ex-UGB areas.

\*\* Satellites being: Sandy, Estacada, Canby, Newberg, North Plains, Scappoose; represented by acres and pop/employ totals only.

Source: Metro and Leland Consulting Group



**Table 7**  
**Concept B: Retained Urban Growth Boundary**

|                                 | Household Growth |          |                        | Employee Growth |          |                        | Land Use Volumes          |                              |                        |
|---------------------------------|------------------|----------|------------------------|-----------------|----------|------------------------|---------------------------|------------------------------|------------------------|
|                                 | Metro            | Portland | Portland<br>% of Metro | Metro           | Portland | Portland<br>% of Metro | Metro<br>Redev/<br>Vacant | Portland<br>Redev/<br>Vacant | Portland<br>% of Metro |
| <b>Design Overlay Areas</b>     |                  |          |                        |                 |          |                        |                           |                              |                        |
| Residential Transit Centers     | 59,382           | 20,900   | 35.2%                  | 112,121         | 49,202   | 43.9%                  | 5,322                     | 2,002                        | 37.6%                  |
| Mixed-Use Centers               |                  |          |                        |                 |          |                        |                           |                              |                        |
| Portland CBD                    | 6,942            | 6,942    | 100.0%                 | 17,052          | 17,052   | 100.0%                 | 100                       | 100                          | 100.0%                 |
| Moderate-Density                | 10,782           | 1,877    | 17.4%                  | 26,554          | 4,614    | 17.4%                  | 507                       | 85                           | 16.8%                  |
| Lower-Density                   | 4,167            | 3,638    | 87.3%                  | 7,982           | 6,721    | 84.2%                  | 323                       | 278                          | 86.1%                  |
| Main Streets                    | 11,622           | 5,048    | 43.4%                  | 12,924          | 6,067    | 46.9%                  | 791                       | 314                          | 39.7%                  |
| 10 Minute Corridor              | 106,315          | 28,551   | 26.9%                  | 99,441          | 23,705   | 23.8%                  | 9,370                     | 2,730                        | 29.1%                  |
| Other Land in UGB               | 199,736          | 39,441   | 19.7%                  | 232,448         | 72,171   | 31.0%                  | 48,635                    | 11,787                       | 24.2%                  |
| New Land Brought into UGB       |                  |          |                        |                 |          |                        |                           |                              | 0.0%                   |
| Optional New Land to Add to UGB |                  |          |                        |                 |          |                        |                           |                              |                        |
| Satellites**                    |                  |          |                        |                 |          |                        | NA                        |                              |                        |
| Age and Forest Lands            |                  |          |                        |                 |          |                        | NA                        |                              |                        |
| Exception Lands                 |                  |          |                        |                 |          |                        | NA                        |                              |                        |
| Clark County                    |                  |          |                        |                 |          |                        | 267,633                   |                              |                        |
| Total by Design Overlay         | 398,946          | 106,397  | 26.7%                  | 508,552         | 179,532  | 35.3%                  | 332,681                   |                              |                        |
| Targets (OR Side)*              | 389,563          | 106,397  | 27.3%                  | 388,072         | 179,532  | 46.3%                  | 65,048                    | 17,296                       | 26.6%                  |
| Greenspaces Reduction (4%)      | 28,146           |          |                        | 18,482          |          |                        | 7,000                     |                              |                        |
| +/-                             | (18,763)         |          |                        | 101,968         |          |                        |                           |                              |                        |

\* Targets are the expected net additional pop/employ to be accommodated by 2040, as defined by the Base Case UGB and Ex-UGB areas.

\*\* Satellites being: Sandy, Estacada, Canby, Newberg, North Plains, Scappoose; represented by acres and pop/employ totals only.

Source: Metro and Leland Consulting Group



**Table 8**  
**Concept C: Satellite Growth**

|                                 | Household Growth |          |                        | Employee Growth |          |                        | Land Use Volumes          |                              |                        |
|---------------------------------|------------------|----------|------------------------|-----------------|----------|------------------------|---------------------------|------------------------------|------------------------|
|                                 | Metro            | Portland | Portland<br>% of Metro | Metro           | Portland | Portland<br>% of Metro | Metro<br>Redev/<br>Vacant | Portland<br>Redev/<br>Vacant | Portland<br>% of Metro |
| <b>Design Overlay Areas</b>     |                  |          |                        |                 |          |                        |                           |                              |                        |
| Residential Transit Centers     | 45,226           | 7,440    | 16.5%                  | 111,767         | 18,193   | 16.3%                  | 4,338                     | 760                          | 17.5%                  |
| Mixed-Use Centers               |                  |          |                        |                 |          |                        |                           |                              |                        |
| Portland CBD                    | 4,477            | 4,477    | 100.0%                 | 10,998          | 10,998   | 100.0%                 | 67                        | 67                           | 100.0%                 |
| Moderate-Density                | 6,230            | 0        | 0.0%                   | 15,573          |          | 0.0%                   | 403                       | 0                            | 0.0%                   |
| Lower-Density                   | 1,417            | 876      | 61.8%                  | 3,370           | 2,038    | 60.5%                  | 151                       | 104                          | 68.9%                  |
| Main Streets                    | 1,745            | 491      | 28.1%                  | 4,475           | 1,246    | 27.8%                  | 342                       | 92                           | 26.9%                  |
| 10 Minute Corridor              | 36,476           | 7,076    | 19.4%                  | 37,559          | 9,005    | 24.0%                  | 5,955                     | 1,191                        | 20.0%                  |
| Other Land in UGB               | 181,529          | 33,195   | 18.3%                  | 250,657         | 79,244   | 31.6%                  | 49,580                    | 11,575                       | 23.3%                  |
| New Land Brought into UGB       | 88,119           |          |                        | 824             |          |                        | 17,738                    | 0                            | 0.0%                   |
| Optional New Land to Add to UGB |                  |          |                        |                 |          |                        |                           |                              |                        |
| Satellites**                    | 128,556          |          |                        | 128,064         |          |                        | 25,264                    |                              | 0.0%                   |
| Age and Forest Lands            |                  |          |                        |                 |          |                        | NA                        |                              |                        |
| Exception Lands                 |                  |          |                        |                 |          |                        | NA                        |                              |                        |
| Clark County                    |                  |          |                        |                 |          |                        | 267,633                   |                              |                        |
| Total by Design Overlay         | 493,775          | 53,555   | 10.8%                  | 563,287         | 120,724  | 21.4%                  | 371,471                   | 13,789                       | 3.7%                   |
| <b>Targets (OR Side)*</b>       | 389,563          | 53,555   | 13.7%                  | 388,072         | 120,724  | 31.1%                  | 103,838                   |                              | 13.3%                  |
| Greenspaces Reduction (4%)      | 13,773           |          |                        | 8,455           |          |                        | 4,500                     |                              |                        |
| +/-                             | 90,439           |          |                        | 166,760         |          |                        | 99,338                    |                              |                        |

\* Targets are the expected net additional pop/employ to be accommodated by 2040, as defined by the Base Case UGB and Ex-UGB areas.

\*\* Satellites being: Sandy, Estacada, Canby, Newberg, North Plains, Scappoose; represented by acres and pop/employ totals only.

Source: Metro and Leland Consulting Group



## Projected Growth and Redevelopment

The growth projection for 2015 postulates a need for approximately 42,094 housing units in the City of Portland. For 2040 the modified growth scenario proposes approximately 82,000 units over 1990.

**Table 9**  
**Portland Permits Since 1989\***

|               | 1989  | 1990  | 1991 | 1992  | **1993 | Totals |
|---------------|-------|-------|------|-------|--------|--------|
| Single Family | 683   | 729   | 673  | 820   | 775    | 3,680  |
| Multi-Family  | 461   | 594   | 299  | 333   | 327    | 2,014  |
| Totals        | 1,144 | 1,323 | 972  | 1,153 | 1,102  | 5,694  |

\* 1989 permits are included because they will be finished additions to housing by 1990.

\*\* Represents permits through November, 1993 only.

Source: Metropolitan Real Estate Report, Vol. 77, and Leland Consulting Group.

Units permitted since 1989 are 5,694 leaving 36,400 to be supplied by 2015 over a 21-year period. The City of Portland Housing and community Development Department has planned approximately 9,000 units of subsidized and elderly housing for the ten year period from 1994 to 2004 of which possibly half will be new construction. This leaves a supply to be provided for 2015 by the market of 31,900 units or around 1,520 units per year from the end of 1993 forward. Looking at historical figures for Portland, this is not an unreasonable target if policy supports it. In considering where housing can be built or redeveloped, there are several categories. The supply of vacant land will allow some development of new housing. Redevelopment will occur under several scenarios. There will be a market for mixed-use development. There will be transit-oriented development occurring at locations such as the development being planned at the Hollywood MAX Station, Murray Woods (Beaverton), and the Winmar property (Gresham).

### Redevelopment

Redevelopment can be broken down into several categories: amenity driven, land price driven, and attrition caused redevelopment.

#### *Amenity Driven/Transit Driven*

Amenity driven redevelopment can be seen in areas such as the housing areas adjacent to the Lloyd Center district, where the existence of amenities has caused a revival in nearby housing. In the Hawthorne district the same phenomenon has sparked rowhousing construction and house and apartment renovations. Amenity driven sites may be good locations for multi-unit complexes which cater to a market which desires more urban amenities and has higher service needs, such as the singles market and elderly residents who want convenience.



### *Land Price Driven Redevelopment*

Redevelopment is sometimes feasible due to differentials in land pricing. As congestion in a regional area increases, or as demand in a regional area increases, land pricing increases at the center and subcenters and it may be feasible to demolish existing units to replace them with units of higher-density or quality. In suburban or semi-urban locations elsewhere, this type of redevelopment has resulted in high cost, high quality single family detached units replacing former less expensive suburban developments. In urban areas this type of economic pressure has resulted in higher development densities to offset land cost. In land price driven development, functionally or economically obsolete units in neighborhoods which are not obsolete are replaced.

### *Attrition Sites for Redevelopment*

There are sites where the physical deterioration of the unit is so pronounced that with or without a change in land price it is worthwhile to demolish the unit and build new. Sites where the housing disappears through attrition are much the same as vacant land except that they may have a lower cost to develop because of existing infrastructure and utility connections.

### *Implications of 2040 Growth Concepts for Portland*

Region 2040 has been a process oriented to the exploration of design alternatives for the future using transportation modeling and the RLIS geographic information system to map the alternatives. To date, it has been emphasized that the alternatives presented are designs, not projections of future real estate markets or in-migration preferences regarding residential location. Only now are population numbers being developed that are projections based upon econometric models.

Concepts A and C (Tables 6 and 8) show more households than the population projections proposed for 2040. In these projections, the aim has been to look at styles of development and place them on the landscape and then count up the capacity produced. For Portland this has several implications. First, it assumes that relatively low-density environments like Beaverton will be as attractive for mixed-use centers as Portland. It is unlikely, however that a retail development can survive only from the development proposed above it. For this reason Portland has a distinct advantage in the marketplace for this style of development. Portland is also the likeliest place for transit facilities to be densely enough placed to successfully support the kinds of development envisioned in the 2040 Transit Development.

Second, the redevelopment assumptions undertaken to produce the mapping of available acreage in Portland do not take into account the various types of redevelopment discussed above, but only look at a fixed 1990 unit value (\$20,000 and under) on a fixed land parcel (10,000 square feet and greater). If changes in the economic and functional obsolescence, physical deterioration of units, land pricing and amenities are not taken into account, Portland's available redevelopment capacity will be undervalued in relation to suburban locations. Portland has much older housing stock than the suburbs and it is more likely to



experience rising land pricing which can spur higher-density development. Portland has more amenities per unit area than the suburbs due to its finer urban grain and for all of these reasons is likely to have a higher amount of redevelopment area and vacant land (through housing demolitions and deterioration) than predicted in the Metro projections.

Portland remains the major employment center in all three concepts, retaining between 31 and 46 percent of Portland Metro area employment. Inasmuch as these concepts are designs, it seems reasonable to suggest that the housing units be apportioned more in accord with the redevelopment factors listed above. Such a scenario would plan for lower vehicle miles traveled by more evenly matching employment growth and housing and services availability. When this is done, Portland will pick up a larger percentage of redevelopment acreage. This will result in a different mapping of site uses, with conversions to higher-density products on infill sites raising Portland's percentage of regional growth.



## CHAPTER II:

### Capacity Analysis

#### Introduction

Chapter I identified the demographic trends and other development factors, such as land cost, housing cost and income, that affects the demand for different types of development that are essentially suited for infill and redevelopment sites. These types include higher-density residential and mixed commercial/residential projects. The analysts concluded that it is reasonable to project increases in demand for such development within Portland in support of the city's objective to increase its share of regional population and employment growth.

Chapter II analyzes the capacity of the City to accommodate this projected demand for new development. The capacity analysis relies on the calculations of vacant and redevelopable land that were made by Metro for Region 2040. No independent analysis of such data was undertaken. Nor does this analysis assess the infrastructure capacities necessary to support the development or attempt to measure its environmental impacts.

Rather, the analysis focuses on the economic capacity of the development community to produce the types of projects that are projected by Metro to accommodate future residents and workers. The underlying assumption is that the most significant constraint to development of multi-family residential, small-lot and attached single family residential and mixed residential/commercial projects will be their economic feasibility. The demand side of the equation is supported by a high confidence in future growth and a large number of one- and two-person households needing urban housing.

To examine this feasibility, the consultants selected "pilot areas" within the City that have been projected by Region 2040, and especially in Growth Concept B, as described below, to accommodate a substantial amount of population and employment growth. For each of the pilot areas, the consultants defined development programs for prototypical projects corresponding to the population and employment densities given in Concept B. The costs and revenues attributable to those projects were then analyzed using current dollar values.

The analysis thereby shows that given the demand assumptions discussed in Chapter I and the land supply calculations prepared by Metro, economically feasible projects can be developed that would house people and provide commercial services and employment to the extent envisioned by Portland policymakers.



## Region 2040 Assumptions and Implications of Growth Concepts

Region 2040 is a long-term regional planning effort that is being undertaken by Metro. To date, the process has generated a "base case" projection and three land use alternatives for the region, that are being presented for public comment and review:

Concept A was designed to show how the region could develop if current development methods continued (although it does not assume as much "sprawl" as the base case). It expands the Urban Growth Boundary to areas that are easiest to serve, but avoids farm lands. Concept A reflects the notion of "growing out."

Concept B would keep the current Urban Growth Boundary (UGB) while providing the most intensive transit system and requiring a more compact development pattern and more efficient land use. Concept B reflects the idea of "growing up."

Concept C shows the development of satellite communities in three parts of the region, while holding the current Urban Growth Boundary in place for the contiguous part of the region.

Though evaluation of these concepts is still on-going, Metro staff believe that the feedback they have received to date strongly supports efforts to accommodate increased densities and mixed-use development along light rail corridors in general, and in the central city, in particular.

### Base Case and Concept Methodologies

Metro began the process with a forecast of population and employment growth in the region through 2040. Though many alternatives were examined, ranging between adding 615,000 - 1,400,000 to the 1990 regional population of 1,412,344, a mid-range growth projection of 1,100,000 people was selected. The Base Case and the three alternative Growth Concepts all shared this same regional growth projection.

The Base Case was developed using a "spatial allocation model" (SAM) to approximate the development resulting from continuation of lower-density dispersed development patterns. It assumes that the UGB will expand every five years to provide a 20 year supply of buildable land. Development would proceed according to existing planning and zoning regulations, and it assumes that no major policy changes (or even existing policies such as the Transportation Planning Rule) are implemented. Transportation investments continue to favor the automobile.

The Base Case allocation was accomplished by quantifying locational factors such as accessibility and neighborhood quality (measured by household income) and correlating the locational decisions (housing and commercial development) of the last ten years to these factors. Based on the continuation of such preferences, population and employment was spread throughout the region.

In contrast to the Base Case, three alternative Growth Concepts were developed that were



based on deliberate urban design choices. Development was purposely allocated to neighborhoods, corridors and currently undeveloped areas based on achieving a specific urban design pattern. Changes in zoning and transportation modes were assumed to support the three growth concepts.

The resulting patterns were then modeled on a one-quarter acre grid, using Metro's Regional Land Use Information System (RLIS). The analysis quantified vacant land and redevelopable acreages, and allocated development types and zones to this land. The "design types" classified new development by location, density and mix of uses:

- The region's central city - the Portland CBD has the greatest transit service in the hub of the projected light rail system, and was allocated the densest development, with a Floor Area Ratio of 6.0:1. The mixed-use zoning for the central city allows densities of up to 420 persons (residents and employees) per acre.
- Regional centers - high concentrations of commercial development such as areas of Gresham, Beaverton and the Clackamas Town Center area are also located on light rail and were assigned FARs of 1.5-2.0:1. Mixed-use zoning designations allowed densities of 100 to 150 persons per acre.
- Sub-regional centers (e.g., downtown Oregon City and Forest Grove) are smaller concentrations of commercial and residential development, and were assigned FARs of 0.5-1.0:1. Mixed-use zoning would permit densities of up to 70 persons per acre.
- Commercial nodes are fairly small commercial centers located on transit corridors, having less intensive development with FARs of 0.5:1. The zoning designations applied to this design type allowed 40 to 70 persons per acre.
- Main Streets are streets that are the historic or traditional retail commercial streets serving residential neighborhoods. FARs for this design type were 0.75:1, with zoning that would permit densities of 20 to 70 people per acre.
- Ten Minute Corridors are areas within three and one-half blocks of a high frequency service bus line (10 minute headways during peak hours). Zoning allows a mix of moderate to low-density residential types and a mix of commercial and light industrial. Zoning densities range from 15 to 70 people per acre.
- Other areas are less accessible to transit and were allocated lower densities and less mixed-use zoning.

Design types that were not applied within the City of Portland included new UGB areas added to the UGB in Concept A and satellite cities, communities outside the UGB that are designated for substantial growth in Concept C.

While vacant land is constant across the three growth concepts, the assumptions on the amount of redevelopable land were more conservative in Concepts A and C. In Concept B, more land is considered redevelopable, given the desire to achieve a more compact development form.



## Concept A

As mentioned above, Concept A would expand the current UGB, but the Concept does take into account the recently adopted Transportation Planning Rule and federal air quality mandates. This expansion of approximately 25 percent provides sufficient land to allow continued lower-density residential development, characterized by single family homes on lots of 8,000 to 10,000 square feet.

Concept A also assumes the construction of three major freeway systems that increase auto access to areas at the fringe of or currently outside the UGB. These include:

- The Sunrise Corridor serving the Clackamas Industrial Area and increasing access to Damascus and Boring further east;
- The Westside Bypass, connecting the I-5 and Sunset Corridors; and
- The Mt. Hood Parkway, connecting I-84 with State Highway 26 serving eastern Multnomah and Clackamas Counties.

Table 10 shows the allocation of households and employees to Portland in the Base Case and the three growth concepts. Of the three growth concepts, Concept A shows the lowest allocation of growth in both households (10 percent) and next lowest allocation of growth in employees (27 percent) to Portland. This reflects Concept A's projection of growth outward into suburban areas and areas newly added to the UGB, at the expense of growth in population and jobs in Portland. The implicit assumption is that housing preferences remain relatively unaffected by demographic changes, i.e., that single family homes remain the dominant type of housing (70 percent of all housing units). This type of housing choice logically results in suburban development over central city infill or redevelopment, as its economic feasibility depends on a supply of relatively large parcels of relatively inexpensive land.

## Concept B

Concept B calls for retaining the UGB in its current location and accommodating future growth through 2040 within this area. To achieve this objective, the housing supply shifts toward higher-density product types, both attached (rowhouses, apartments, condominiums) and detached (small lot single family houses). Single family houses are projected to account for 55 percent of total units, compared to 70 percent in Concept A.

Employment in Concept B is projected to be concentrated in centers, as opposed to the more dispersed commercial and industrial development pattern reflected in Concept A.

Transportation investments under Concept B favor transit over highways. None of the three freeway systems assumed for Concept A are constructed in Concept B. The improvements to the transit system support population and employment growth in the Portland central business district, in other regional and subregional centers served by transit and in main street and 10 minute corridors. Growth is achieved through mixed-use projects as opposed to single use patterns.



**Table 10**  
**Allocations of Growth in Household and Employment to Portland**  
**1990 to 2040**

|                           | 1990    | Base Case | Concept A | Concept B | Concept C |
|---------------------------|---------|-----------|-----------|-----------|-----------|
| <b>Portland:</b>          |         |           |           |           |           |
| Households                | 200,128 | 55,165    | 52,924    | 112,007   | 57,772    |
| Employment                | 414,047 | 194,820   | 226,185   | 279,823   | 163,434   |
| <b>Region:</b>            |         |           |           |           |           |
| Households                | 548,771 | 551,449   | 551,449   | 551,449   | 511,847   |
| Employment                | 831,458 | 718,340   | 718,340   | 718,340   | 669,165   |
| <b>Portland % Growth:</b> |         |           |           |           |           |
| Households                |         | 10%       | 10%       | 20%       | 11%       |
| Employment                |         | 27%       | 31%       | 39%       | 24%       |

Source: Metro and Tashman Associates.

As would be expected, Portland's growth allocations under Concept B are considerably higher than in Concept A (See Table 10). Portland is shown as accommodating 20 percent of the growth in households and 39 percent of the growth in jobs. These projections reflect the judgment that because of the geographic restrictions inherent in Concept B, development—both residential and commercial/industrial—does not continue the trend of dispersal to the suburbs but rather concentrates in Portland and other centers within the UGB.

### Concept C

Concept C calls for a combination of growth management strategies. The metro UGB is held constant, as in Concept B, but additional growth is projected to occur in six satellite cities well outside the current UGB. These communities are located in Canby, Estacada, Newberg, North Plains, Sandy and Scappoose. Approximately one-third of the total regional growth would be projected to occur in these communities. The satellites would differ from traditional "bedroom communities" in that they would have a balance of jobs and housing.

Housing choices would be similar to Concept A, in that 70 percent of total units would be single family. However, densities would be higher, especially in regional centers such as Gresham and Beaverton.

Table 10 shows that under Concept C, Portland attracts more growth in households (11 percent) than in either the Base Case or Concept A, but less than in Concept B. Portland's share of growth in jobs (24 percent) is lower than the Base Case or Concepts A and B, reflecting the allocation of a substantial amount of employment to the satellite communities. This achieves a greater balance of jobs and housing in Portland's CBD.



## Pilot Area/Prototype Project Analysis

As described above, the capacity analysis focuses on the analysis of prototype projects that achieve the mix of uses and densities necessary to accommodate 20 percent of the region's projected growth within Portland. Because Concept B provides the desired level of growth, the analysis centered on the development types that Concept B primarily uses to accommodate the development projected to occur within Portland. The development types differed slightly from the design types described above, which have been revised for use in defining the "preferred" concept or alternative.

Table 11 below describes the development types and pilot areas chosen. The pilot area selection process involved both the consultants and City staff.

**Table 11**  
**Region 2040 Development Types**

| Design Type                   | Zoning                                                 | Dwelling Units (dus)/<br>Employees (emp)<br>Per Acre | Floor<br>Area Ratio<br>(FAR) | Pilot Project Site                                                         |
|-------------------------------|--------------------------------------------------------|------------------------------------------------------|------------------------------|----------------------------------------------------------------------------|
| Residential<br>Transit Center | Mixed-Use Center<br>(MUC) 1                            | 15.0 dus/35 emp                                      | 1.0                          | SE 122nd Avenue<br>and Burnside                                            |
| Other UGB                     | Single Family Residential/<br>Multi-Family Residential | SFR: 8.7 dus<br>MFR: 20 dus                          |                              | SE 115th/Division<br>Site 2                                                |
| Main Streets                  | PUD/Neighborhood<br>Commercial                         | PUD: 12 dus/3 emp<br>NC: 17 dus/30 emp               | NC: 1.0:1                    | SE 39th and Division                                                       |
| Low-Density/<br>Mixed-Use     | Mixed-Use Center<br>(MUC) 1                            | 15.0 dus/35 emp                                      | 1.0                          | NE MLK, Jr. Blvd. at<br>Portland Blvd. and<br>SE 115th/Division,<br>Site 1 |

Source: Metro and Tashman Associates.

### Pilot Project 1: SE 122nd and Burnside

#### *Project Description*

The SE 122nd and Burnside site contains 1.5 acres of land currently occupied by a MAX light-rail park-and-ride lot. There is commercial development to the south and residential to the west. The 122nd and Burnside MAX Station sits at the northern site frontage and 122nd Street on the west is an arterial leading north to I-84. The site is zoned CG (General Commercial), is served by sewer, and slopes gently up toward the southeast.

Proposed development for this site is mixed-use commercial/residential which can be enhanced by the presence of the light rail system. The concept includes 48 apartments and 15,000 square feet of office/commercial space. The two uses have a site footprint of 29,975 square feet, with 59,950 total square feet of building. The project has an FAR of approximately 0.48:1. Residential density on the site is approximately 17 du's (dwelling units) per acre and employment density is 37 employees per acre. Both densities slightly exceed the Mixed-Use Center zoning densities of 15 du's and 35 employees per acre.



Residential units proposed for this site are low-rise two story apartments in clusters. The office concept is for a two story building which faces the intersection of 122nd and Burnside and the MAX station. The residential units are studios, one- and two-bedroom apartments. Parking is 182 spaces for all uses. Total site coverage is approximately 95,639 square feet.

#### *Financial Feasibility*

Appendix Table 3 shows the pro forma analysis of the project. Assuming market rate rents for the residential rental units ranging from \$450 for a 400 sf (square foot) studio to \$750 for a 750 sf two-bedroom and commercial market rents of \$15.50/sf, and market rate financing, the project returns 8.95 percent on equity in the first stabilized year of occupancy. This rate of return is considered low for a for-profit developer. By year 10, however, return on equity would rise to around 18 to 20 percent given moderate rent escalations. Thus, for long-term investors, this would be a reasonable investment.

#### **Pilot Project 2: SE 115th Avenue and Division, Site 1 (West of 115th)**

##### *Project Description*

The site at Southeast 115th and Division is divided by SE 115th Avenue. Because of this configuration and the opportunity to illustrate two different project types, this pilot project site was divided into two separate sites.

The site at Southeast 115th south of Division is 1.5 acres of vacant land. It is adjacent to two apartment complexes to the south and west, has frontage on Division to the north and on 115th Street to the east. It is zoned CN2 and R1. The site is served by sewer and is flat, allowing for easy development of site improvements.

Proposed development is a mixed-use commercial/residential project. The concept proposes that Sites 1 and 2 together form a single project with a variety of units for differing incomes. The Site 1 concept includes 25 rental apartments and 18,000 square feet of commercial space. The project has a site footprint of 24,100 square feet, with 33,750 total square feet of building. Project FAR is approximately 0.5:1. Residential density is approximately 17 units per acre and employment density is 37 employees per acre. These densities are those of the Mixed-Use Center 1 zoning, similar to Pilot Project 1.

Units proposed for this site are low-rise rental apartments set behind a single story commercial retail/office building which fronts on Division Street. The units are one- and two-bedroom.

##### *Financial Feasibility*

The pro forma shown in Appendix Table 4 shows a return on equity of 10.5 percent in the first stabilized year of occupancy. By year 5, the return would rise to almost 15 percent given a modest increase in rents of three percent per year at lease/turnover. The market residential rental rates range from \$500 for a 550 sf one-bedroom unit to \$700 for a 750 sf two-bedroom unit. Commercial rents are \$14.00/sf.



### **Pilot Project 3: SE 115th and Division, Site 2 (East of 115th)**

#### *Project Description*

The site at the east side of SE 115th and Division contains 2.5 acres of vacant land. It is adjacent to single family detached housing to the south, apartments to the east and has frontage on Division to the north and 115th Street to the west. It is zoned CN2 and R1. The site is served by sewer, and, like the other SE 115th/Division site, is flat.

The proposed development concept is a small lot residential development. The Site 2 concept includes 30 two-story single family detached for-sale units. The average unit size is 1,350 square feet. All 30 units together fill a site footprint of 21,750 square feet, with 43,500 total square feet of building. The project has an FAR of 0.39:1. Residential density on the site is approximately 12 du's per gross acre, which exceeds the SFR 3 zoning density of 8.7 du's per gross acre. Lot size is approximately 3,000 square feet. No employment is proposed in this concept.

Vehicle circulation on site other than parking will require 12,000 square feet, including parking at two spaces per unit, site coverage is approximately 55,000 square feet.

#### *Financial Feasibility*

Assuming sales prices of \$135, 000 for a 1,350 sf single family home and lot, the project returns 29.2 percent of cost as net revenue (see Appendix Table 5). This is considered a reasonable return for this form of development. The size of the housing units was determined by current market preference, while the price was constrained by the cost of existing housing in the area.

### **Pilot Project 4: SE 39th and Division**

#### *Project Description*

The site at SE 39th and Division contains 0.46 acres of vacant land. It is the southeast corner of a highly traveled intersection used by both north-south and east-west commuters. It is zoned CS (Storefront Commercial). The site is served by sewer. It is flat, with fencing which separates it from the neighborhood behind and ensures that site access will be from Division.

The proposed development is mixed-use retail/residential. The concept includes eight apartments and 7,000 square feet of commercial space. The project has a site footprint of 7,000 square feet, and 11,500 square feet of building. The FAR is around 0.6:1. Residential site density is approximately 17 du's per acre. Employment density is 30 employees per acre. These densities substantially meet the density requirements of Neighborhood Commercial zoning.

Housing units proposed for this site are single story apartments above a single story commercial building which fronts on Division Street and 39th. The units are mostly one-bedroom in accordance with the findings in the "Main Street" study of this area conducted



as part of the Planning Bureau's Livable Cities Program. The 30 parking spaces provided are shared between uses. Total site coverage is approximately 19,420 square feet, making this one of the more urban projects proposed.

#### *Financial Feasibility*

Appendix Table 6 shows the pro forma cost and revenue analysis for this project. Assuming residential market rents of \$450 for a 400 sf studio unit to \$750 for a two-bedroom unit, and commercial rents of \$14.00/sf, the project returns 9.72 percent on equity in the first stabilized year of occupancy. While this is low initially, by year five returns would increase to around 12.0 percent and by year 10, to around 19 percent. Thus, over time, this is an attractive project for private investment.

#### **Pilot Project 5: NE Martin Luther King, Jr. Blvd. and Portland Blvd.**

##### *Project Description*

The site at Portland Boulevard and NE Martin Luther King, Jr. Blvd. contains 1.5 acres of land in multiple ownership. It is adjacent to a technical industrial business. It is designated for "urban commercial" on the Portland Comprehensive Plan. The site is served by sewer, and is flat, allowing for easy development after demolition. The site is on a major arterial, Martin Luther King, Jr. Blvd., at its intersection with a major collector, Portland Boulevard.

The proposed development for this site is mixed-use commercial/residential. The concept includes 24 apartments and 12,000 square feet of commercial space. The project has a site footprint of 19,800 square feet, with 27,600 total built square feet for an FAR of around 0.4:1. Density on the site for residential is approximately 17 units per acre with employment density at 34 employees per acre. This substantially achieves the zoning densities called for the Mixed-Use Center 1 zoning applied to Low-Density/Mixed-Use design types.

Units proposed for this site are low-rise two-story apartments set on the site behind a single story commercial building which fronts on Martin Luther King, Jr. Blvd. The units are one- and two-bedroom. There are 79 parking spaces on site, and total site coverage is approximately 48,312 square feet.

##### *Financial Feasibility*

Appendix Table 7 shows the pro forma cost and revenue analysis for this project. Market rents achievable at this site are less than those for the other projects. Residential market rents range from \$425 for a 550 sf studio unit to \$550 for a 750 sf two-bedroom unit. Commercial rents are \$11.50/sf. The resulting revenue yields only 4.71 percent return on equity, and does not support a project financed at market rates (9.0 percent). To achieve the return on equity of 11.53 percent for this project, revenue bond financing was assumed at a rate of 5.5 percent.



## Conclusions

Region 2040's Growth Concept B demonstrates that there is land area capacity for accommodating 20 percent of the region's projected growth in households through 2040 in Portland. Questions remain about the capacity of Portland's transportation and utility systems to handle this growth. This analysis, however, focused on the economic feasibility, under current market conditions, of developing "pilot projects" that correspond to the land use mix and densities which Metro has found would accommodate the Concept B projected growth within Portland. With the exception of Project 5 (NE Martin Luther King, Jr. Blvd. and Portland Blvd.) the projects are supportable under market rents. Project 5 requires subsidies in the form of reduced financing costs, to provide an adequate return on equity.



## **CHAPTER III:**

### **Neighborhood Assessment/Development Community Survey**

#### **Introduction**

The first chapter of this report discussed how changes in demographics and household income will increase the demand for housing and commercial space within Portland relative to the remainder of the Metropolitan Area. The second chapter discussed how the Region 2040 analysis demonstrated sufficient land supply capacity to accommodate the growth projected in Growth Concept B (in which Portland captures 20 percent of the projected household growth through 2040). It further demonstrated the economic feasibility of the types of real estate projects that were shown by Metro to correspond to the Concept B growth pattern. These included detached small lot single family homes, and various mixes of attached rental housing and commercial space.

This chapter of the report presents some of the factors that will promote or hinder the infill and redevelopment process in Portland. The first section discusses the general locational factors that tend to attract redevelopment and infill. These include proximity to downtown, proximity to transit, neighborhood quality and other sorts of factors. The second section discusses the neighborhoods or areas of Portland that appear to be attractive to developers, and how the developers' perceptions of these areas correspond to more objective measures of quality of life.

Both sections are based in part on information obtained from a survey of developers. The survey consisted of a written questionnaire that was sent to 18 developers of housing and/or residential/commercial mixed-use projects. A copy of the survey is included in the Appendix.

All the recipients of the survey have developed projects in Portland. They included developers of apartments, rowhouses, mixed residential/retail/office projects and small lot single family homes. For the most part, the firms are small and local. Almost all had developed projects in both urban and suburban locations within the Metropolitan area.

The list of recipients was developed using a combination of sources: mailing lists for the Livable Cities program; lists of City of Portland building permits for multi-family projects; and suggestions from individual developers and builders. Of the 18 surveys distributed, 10 responses were received.

The survey addressed the following issues:

- What is the relative importance of various factors in determining where there are redevelopment or infill development opportunities?



- What is the relative attractiveness of various neighborhood areas for redevelopment and/or infill?
- What types of development opportunities exist in different parts of Portland and why?

The survey's questions and responses are discussed in more detail in the following sections.

## Redevelopment and Infill Factors

This section describes the general and regional factors that affect the feasibility of infill and redevelopment, and then discusses the responses of the developers surveyed regarding the factors that make a particular area attractive for infill and redevelopment.

### General Factors

All real estate development can be seen as a response by a developer to a perceived economic opportunity, i.e., that the overall revenues that may be derived from a particular project will exceed the overall costs. The factors that distinguish redevelopment and infill from new development in newly developing areas relate to the perception and reality of differences in revenues and costs.

On the revenue side, infill and redevelopment projects are perceived as having more of a "niche market" than conventional suburban projects. (More accurately, these projects are perceived as having a *smaller* niche than the suburban projects.) Based on the reality of development patterns in the last twenty to thirty years, the "mainstream" development pattern has had the following characteristics:

- Single family homes have been the dominant housing choice. Single family development has been dominated by moderate size (7,000 - 10,000 sf) single family detached homes, built in newly subdivided lots in suburban locations.
- Suburban locations have been favored in part because they are perceived as providing a more economically and ethnically homogenous, safe, and nuclear family-oriented environment.
- Alternatives to the detached single family home have been predominately apartments, again primarily developed in suburban locations.
- Commercial and industrial development has been single-use, with some exceptions, and again in predominately suburban locations.
- Retail development has "evolved" from an early focus on enclosed regional malls to a more recent emphasis on free-standing large national chain stores—the so-called "big box" stores such as Costco/Price Club, Cub Foods, Home Depot, Home Base, Circuit City, and others. Other retail development has moved in the direction of "Power Centers" which are extremely large strip centers consisting of mostly large anchor



tenants. Good examples are Clackamas Promenade and Gresham Town Faire. Typical tenants are junior department stores (e.g. Mervyns), discount stores (e.g. Target) and larger specialty stores (e.g. Magnolia Hi Fi). A third new direction in retail is the off-price mall, which is typically a large strip mall with outlet stores operated by manufacturers. In the Portland Metropolitan Area, off-price malls are currently located at Troutdale and McMinnville.

- Class A Office development has continued in downtown, but downtown's share of new Class A development is declining in response to the success of new office corridors such as Kruse Way and the Sunset Corridor. Class B development has been sporadic.
- Industrial development has been dominated by suburban industrial and flex space parks.

Urban infill and redevelopment projects are commonly positioned outside these "mainstream" markets.

For single residential uses, urban infill/redevelopment locations generally:

- Lack large vacant parcels for economic subdividing into moderate/large lots
- Command higher land costs
- Are perceived to be less safe
- Are perceived to more ethnically and economically diverse

Urban residential locations can appeal to younger families, families with few or no children, low income families wishing to rent older single family homes and other segments of the market.

For retail uses, urban infill/redevelopment locations generally lack large sites with good freeway access. In some cases, zoning restricts development of "big box" stores; in other case, neighborhood resistance can result in much longer development time lines. Urban retail development has been substantial in the CBD and the Lloyd District, and specialty retailing has succeeded in Northwest. Big box retaining and power centers have been attracted to less urban Portland locations such as Gateway. Neighborhood retail, as it traditionally existed, seems to capture a smaller and smaller share of total retail expenditures, and must be developed with a close and accurate assessment of the adjacent neighborhood.

For industrial uses, urban infill/redevelopment sites do not generally afford the inexpensive land with good freeway access that is found in some suburban locales.

For the above reasons, urban infill and redevelopment projects are perceived as having smaller segments of the overall market for residential, commercial and industrial development. The smaller market segment does not mean that projects will not be



economically successful; it does mean that the projects must be even more carefully planned, located and executed for them to succeed. The developer must have a fine-tuned sense of the size of the targeted market segment and a strong sense of locational preferences. Timing is critical, if a developer is to be able to option a property in a "hot" neighborhood before land prices increase beyond the point that is supportable in the current marketplace.

In this context what are the general factors that are normally considered in the infill or redevelopment project? The following updated from an earlier report (by Tashman and Leland) for the City of Portland, Infill Development, Market Trends and Prototypes. In particular, the "trends" have been updated to reflect the changes in the 18 months since the report was published.

#### *Population Growth and Household Formation*

High rates of population growth and household formation create demand for new housing and increase interest in all residential development. Low rates of population growth and household formation reduce overall interest.

TREND: High population growth is forecast. The Region 2040 process forecasts 1.1 million new residents in the region by 2040. This forecast was a "mid-range" forecast, and growth may indeed be higher. Household formation rates are likely to decline due to aging of population, but this will be offset by in-migration, as in-migrants are generally younger and higher rates of household formation.

#### *Employment Centers*

A strong concentration of jobs in the central city and in Portland neighborhood centers will stimulate development of close-in housing units. A pattern of large suburban centers reduces the likelihood of development in Portland.

TREND: Employment centers are dispersed and will likely become more so. Though efforts to develop new employment centers (e.g., Airport Way) have been slowed by the loss of tax increment financing, such development is still proceeding. The Port of Portland has been successful in attracting new employers and Portland's Enterprise Zone has been used to retain existing industrial facilities. With continued efforts, Portland can capture and retain job generating businesses. New patterns in office development (such as small job team centers linked via computer) will allow Portland neighborhoods to hold a higher proportion of jobs while lowering vehicle miles traveled thus capturing more of the local housing market.

#### *Commuting Costs*

In general, high commuting costs (time and money) encourage urban infill and redevelopment near employment centers. Low commuting costs encourage or allow more dispersed development patterns.

TREND: Commuting costs are relatively low at present. As congestion worsens and gas tax



increases phase in, one would expect cost increases to be offset by a trend toward reduced commuting distances. The failure of the 1993 Legislature to pass the Oregon Transportation Plan funding package has delayed substantially the development of highway improvements. The Westside Bypass project is stalled. Highway improvements are not keeping pace with traffic growth.

However, as suburban communities attract more employment, the opportunity to live near work is less confined to the central city. Despite dispersal of residential development, most region residents work and live in the same county. Portland will have to increase its efforts to attract employment to maintain a comparative advantage regarding home to work commuting.

### *Neighborhood Preservation*

High investment in neighborhood preservation is one of the most critical factors to developers for additional infill and redevelopment. Low investment in neighborhood preservation, presence of unmaintained building stock will discourage reinvestment.

TREND: Many Portland neighborhoods are attracting substantial private re-investment; southeast neighborhoods along Hawthorne and Division have continued to attract new residents who have invested heavily in upgrading the existing housing stock. The MLK corridor shows signs of revitalizing, and the extensive neighborhood-oriented rehabilitation programs in North/Northeast and Outer Southeast have been yielding results.

### *Infill Parcel Location*

A supply of infill of redevelopable parcels in a variety of neighborhoods, including moderate and middle income neighborhoods, will promote interest in urban infill. Supply of infill and redevelopment parcels in only low income neighborhoods will reduce interest in urban infill.

TREND: As discussed above, Region 2040 has shown that there is an ample supply of vacant and redevelopable parcels throughout Portland. The definition of "redevelopable" parcels depends on market forces; as demand for development in Portland grows, more parcels will be redevelopable. The availability, configuration and appropriate zoning for vacant parcels has not been studied in Region 2040, and it is safe to assume that infill parcels have more than their share of development constraints.

### *Growth Management Regulation*

Strict control over expansion of suburban communities will promote urban infill and redevelopment. Permissive growth management regulations will inhibit such development.

TREND: As discussed above, Region 2040 has shown that there is substantial support for growth management policies that maintain the existing UGB and direct future growth to locations including Portland. No decisions have yet been made by the Metro Council, and



the public involvement process is continuing. But initial responses by the member jurisdictions of Metro and the public indicate a concern about control of urban sprawl. The increased connections between land use and transportation policy and planning will also exert pressure for a compact growth form.

### Developers' Opinions

The developers' survey asked the respondents to rate the relative importance of 28 different neighborhood factors as a determinant of whether they would decide to undertake an infill or redevelopment project. Respondents rated the importance of each factor on a one to five scale, with five indicating "very important" and one indicating "not important."

Table 12 below shows the ranking of the factors.

**Table 12**  
**Infill and Redevelopment Factors**

| <b>Factor</b>                                  | <b>Rating</b> |
|------------------------------------------------|---------------|
| 1 Low crime rate                               | 5.0           |
| 2 Good parks                                   | 4.4           |
| 3 Good sidewalks                               | 4.3           |
| 4 Good schools                                 | 4.2           |
| 5 Existing housing: good value and price       | 4.1           |
| 6 Close to downtown                            | 4.0           |
| 7 Frequent bus service                         | 4.0           |
| 8 Good arterial access                         | 3.7           |
| 9 Existing housing: high level of maintenance  | 3.7           |
| 10 Existing population: mixed income           | 3.7           |
| 11 Light rail                                  | 3.6           |
| 12 Good community services                     | 3.6           |
| 13 Population diversity                        | 3.6           |
| 14 Close to active retail street               | 3.5           |
| 15 Household type: married couples w/children  | 3.5           |
| 16 Household type: singles, childless couples  | 3.5           |
| 17 Good freeway access                         | 3.3           |
| 18 Close to employment centers                 | 3.2           |
| 19 Existing population: high income            | 3.2           |
| 20 Existing population: high education         | 3.1           |
| 21 Grid street pattern                         | 3.1           |
| 22 Existing housing: high value and price      | 3.1           |
| 23 Existing population: young                  | 3.1           |
| 24 Existing population: old                    | 3.1           |
| 25 Existing population: high disposable income | 2.8           |
| 26 Existing housing: low value and price       | 2.7           |
| 27 Existing housing: vintage architecture      | 2.6           |
| 28 Close to mall or shopping center            | 2.2           |

Source: Tashman Associates.



"Low crime rate" was cited as having the highest importance (marked a "5") by every respondent. It was the only factor that was rated this high. It would be reasonable to assume that developers believe Portlanders place a very high value on personal safety, and choose residential locations where they perceive that they will be relatively safe.

The next three most important factors related to neighborhood amenities and facilities: good parks, good sidewalks and good schools. The presence of good value and price for existing housing stock was cited as relatively important.

The next group refers to access and proximity to downtown. Interestingly enough, frequent bus service was rated as more important than good arterial access. This (among other responses) deserves further probing, but demonstrates that the development community does appear to place importance on transit.

At the opposite end of the scale, the factors cited as the least important included high disposable income. This may make sense for residential development, in that housing expenditures aren't made from disposable income, but it would clearly have import for retail development. Low cost and value existing stock was similarly cited as not important, as was "vintage architecture." These factors may in fact be very important in terms of opportunities for neighborhood upgrading, as has happened in many areas of Southeast. The respondents did not, however, cite it as important for new projects.

Surprisingly, proximity to a mall or shopping center was cited as the least important factor, whereas proximity to downtown was cited as very important. Perhaps urban locations are not as dependent on this factor as one expects suburban locations are.

## **Neighborhood Conditions and Opportunities**

Data from three sources were examined to evaluate neighborhood conditions and development opportunities. The survey of developers included questions regarding what neighborhoods were attractive for redevelopment. The City of Portland Auditor's office conducts a survey of Portland residents (as part of the annual report on Service Efforts and Accomplishments) in which they are asked to assess neighborhood area conditions. Finally, in 1991, the City of Portland compiled development statistics by neighborhood for the period from 1981-1990, that give some indication of what development actually occurred within the City.

### **Analysis from Developers' Survey**

The developers' survey asked respondents to indicate their rating of "neighborhood attractiveness for infill and redevelopment." The neighborhood areas were as shown on the map in Figure 3 and generally correspond to the City's neighborhood areas as used in the Auditor's survey, except the Downtown/Burnside was separated from the remainder of Northwest. The developers' survey asked the respondents to rate the relative attractiveness of eight neighborhood areas on a one to five scale, with five indicating "very attractive" and one indicating "not attractive." Table 13 below shows the responses of the developers. The figures represent the average score for each neighborhood area.



Northwest was considered the most attractive, followed by Southwest. Central Northeast and East were considered the least attractive.

Developers were also asked to describe what kinds of projects that would develop in the different neighborhood areas. The responses are summarized below in Table 14.

Rowhouses were seen as an opportunity in every area of the city, reflecting the current popularity of this housing type. Condominiums were mentioned as opportunities for Northwest and Downtown/Burnside. Single family houses were mentioned for North and Northeast Portland.

**Table 13**  
**Neighborhood Attractiveness Ratings (Maximum Rating: 5.0)**

| Neighborhood       | Rating |
|--------------------|--------|
| Northwest          | 4.4    |
| Southwest          | 4.2    |
| Downtown/Burnside  | 3.4    |
| North              | 3.0    |
| Northeast District | 2.9    |
| Southeast          | 2.3    |
| Central Northeast  | 1.8    |
| East               | 1.8    |

Source: Tashman Associates.

**Table 14**  
**Development Type Preferences**

| Neighborhood       | Developer Responses                              |
|--------------------|--------------------------------------------------|
| Northwest          | Mixed-use, rowhouses, condominiums               |
| Southwest          | Rowhouses, condominiums, multi-family            |
| Downtown/Burnside  | Rowhouses, condominiums, multi-family, mixed use |
| North Portland     | Rowhouses, single family                         |
| Northeast District | Rowhouses, multi-family, single family           |
| Southeast          | Multi-family, rowhouses, mixed-use               |
| Central Northeast  | Rowhouses, multi-family                          |
| East               | Rowhouses, multi-family                          |

Source: Tashman Associates.



The Auditor's survey was mailed to randomly selected Portland addresses in the City's seven neighborhood areas. A map showing the delineation of the subareas referred to is shown in Figure 4. For the 1992/93 survey, 9,500 surveys were mailed, of which 4,656 were returned, a response rate of 49 percent. Demographic analysis of the respondents indicated that they were more educated and older than the entire population, and that minorities were under-represented. No adjustments were made to the results to approximate the weighting of the entire population, as available data indicated that changes would be minor.

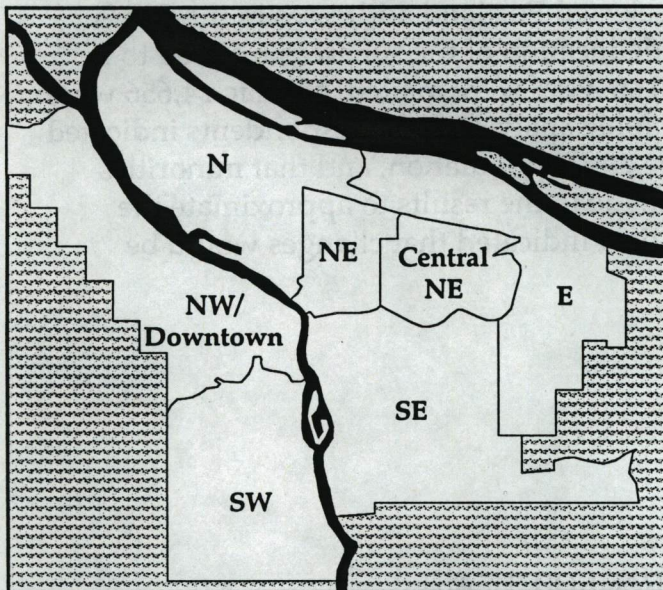
This map illustrates the geographical layout of Portland, Oregon, divided into numerous neighborhoods and districts. The city is bounded by the Columbia River to the north and the Willamette River to the west. Key areas include:

- North:** CENTRAL NORTHEAST, N.E. DISTRICT, CENTRAL NORTHEAST EAST.
- West:** NORTHWEST, DOWNTOWN, SOUTHWEST.
- South:** SOUTHEAST.

Neighborhoods shown include ST. JOSEPH, PORTSMOUTH, UNIVERSITY PARK, ARBOR LOOSE, PIEDMONT, WOODLAWN, CONCORDIA, GALT, PINEHURST, MADISON SOUTH, PINEHURST, HAZELWOOD, MILL PARK, POWELL HUNT ALBERT, LEVITT, PLEASANT VALLEY, and many others. The map also shows the Willamette River and various parks like Forest Park and Mt. Tabor.



**Figure 4**  
**1993 Citizen Survey Neighborhoods**



Source: City of Portland Auditor's Office and Tashman Associates.

The Auditor's office asked residents a total of 14 questions that covered issues of public safety, neighborhood conditions and City services. Respondents also provided demographic data regarding their sex, age, ethnic background and level of education.

Given the responses of the developers regarding the importance of the 28 neighborhood factors, of particular interest are the responses to the following questions:

"How safe would you feel walking alone at night...in your neighborhood?"

- Respondents could choose "very safe," "safe," "neither safe nor unsafe," "unsafe" or "very unsafe."

"In general, how do you rate the quality of the parks near your home in the following categories?" Of the several categories given, "well-maintained grounds" was taken as a proxy for the quality of the parks.

- Respondents could choose "very good," "good," "neither good nor bad," "bad" or "very bad."

"In general, how do you rate the streets in your neighborhood in the following categories?" Of the several categories given, "smoothness" was chosen as a proxy for overall quality.

- Respondents could choose "very good," "good," "neither good nor bad," "bad" or "very bad."
- In 1992/93, but not in preceding years, residents were also asked to rate the overall livability of their neighborhood area. Again, respondents could choose "very good," "good," "neither good nor bad," "bad" or "very bad."



The overall response for a particular sub-area was quantified by assigned five points to the "very safe" or "very good" response, four points to the "safe" or "good" response, three points to the "neither...nor" response, two points to the "unsafe" or "bad" response and one point to the "very unsafe" or "very bad" response. Possible scores therefore ranged from 5.0 for the very best to 1.0 for the very worst.

Table 15 shows the results of this analysis of survey responses for the 1992/93 survey.

**Table 15**  
**Responses to City Auditor's Survey**  
**Fiscal Year 1992/93**

|                                  | District |      |           |      |      |      |       |      |
|----------------------------------|----------|------|-----------|------|------|------|-------|------|
|                                  | City     | SW   | DT/<br>NW | East | C-NE | SE   | North | NE   |
| <b>Nighttime Safety</b>          |          |      |           |      |      |      |       |      |
| Very safe                        | 9%       | 17%  | 13%       | 8%   | 5%   | 7%   | 4%    | 4%   |
| Safe                             | 26%      | 42%  | 32%       | 25%  | 25%  | 23%  | 18%   | 18%  |
| Neutral                          | 23%      | 21%  | 24%       | 25%  | 27%  | 23%  | 24%   | 19%  |
| Unsafe                           | 27%      | 15%  | 23%       | 28%  | 29%  | 32%  | 30%   | 31%  |
| Very Unsafe                      | 15%      | 5%   | 8%        | 14%  | 14%  | 15%  | 24%   | 28%  |
| Mean Weighted Response           | 2.87     | 3.51 | 3.19      | 2.85 | 2.78 | 2.75 | 2.48  | 2.39 |
| <b>Parks Quality/Maintenance</b> |          |      |           |      |      |      |       |      |
| Very good                        | 25%      | 30%  | 36%       | 25%  | 16%  | 26%  | 18%   | 21%  |
| Good                             | 57%      | 53%  | 51%       | 52%  | 65%  | 57%  | 64%   | 59%  |
| Neutral                          | 14%      | 14%  | 10%       | 18%  | 15%  | 13%  | 14%   | 16%  |
| Bad                              | 3%       | 2%   | 2%        | 3%   | 3%   | 3%   | 3%    | 2%   |
| Very Bad                         | 1%       | 1%   | 1%        | 2%   | 1%   | 1%   | 1%    | 2%   |
| Mean Weighted Response           | 4.02     | 4.09 | 4.20      | 3.95 | 3.92 | 4.04 | 3.95  | 3.95 |
| <b>Streets/Smoothness</b>        |          |      |           |      |      |      |       |      |
| Very good                        | 12%      | 13%  | 15%       | 16%  | 7%   | 14%  | 10%   | 11%  |
| Good                             | 43%      | 42%  | 43%       | 42%  | 41%  | 42%  | 49%   | 45%  |
| Neutral                          | 23%      | 20%  | 23%       | 20%  | 25%  | 23%  | 24%   | 23%  |
| Bad                              | 15%      | 14%  | 13%       | 15%  | 18%  | 14%  | 12%   | 15%  |
| Very Bad                         | 7%       | 11%  | 6%        | 7%   | 9%   | 7%   | 5%    | 6%   |
| Mean Weighted Response           | 3.38     | 3.32 | 3.48      | 3.45 | 3.19 | 3.42 | 3.47  | 3.40 |
| <b>Overall Livability</b>        |          |      |           |      |      |      |       |      |
| Very Good                        | 25%      | 43%  | 40%       | 25%  | 18%  | 17%  | 13%   | 17%  |
| Good                             | 52%      | 49%  | 47%       | 55%  | 59%  | 56%  | 51%   | 45%  |
| Neutral                          | 17%      | 6%   | 9%        | 16%  | 17%  | 21%  | 28%   | 22%  |
| Bad                              | 5%       | 1%   | 3%        | 4%   | 5%   | 6%   | 7%    | 10%  |
| Very Bad                         | 1%       | 1%   | 1%        | 0%   | 1%   | 0%   | 1%    | 4%   |
| Mean Weighted Response           | 3.95     | 4.32 | 4.22      | 4.01 | 3.88 | 3.84 | 3.68  | 3.55 |

Source: City of Portland Auditor's Office and Tashman Associates



Southwest received the highest ranking in nighttime safety, with Downtown/Northwest (DT/NW) second, and Northeast last. For parks quality, Downtown/Northwest was highest, Southwest second and Central Northeast (C-NE) last. In terms of street smoothness, Downtown/Northwest was ranked highest, North was second and Central Northeast was last. In terms of overall livability, Southwest received the highest ranking, followed by Downtown/Northwest. Northeast was ranked last.

Responses were relatively consistent over the three year survey period. Table 16 shows the changes in response categories from FY 1991/92 to FY 1992/93 and from FY 1990/91 to FY 1991/92.

### Analysis from Neighborhood Profiles

In 1991, the City compiled development statistics by neighborhoods and neighborhood areas. Data include the number of residential units by type—single family, rowhouses, duplex and multi-family and commercial and industrial development by number of permits and total square feet.

Figure 5 contains a map showing the delineation of the areas. The subareas in this grouping generally match the subareas used in the developers' survey and the City Auditor's survey, with the exception of the eastern portion of the city. The neighborhood profiles divide southeast into "inner south" and "outer southeast" and "outer northeast" is separately defined, whereas the developers' survey used subareas for "southeast" and "east" and "east" include areas both in northeast and southeast.

There are unfortunately some serious inconsistencies in the way the data were either compiled or reported. From 1981-1990, the report shows the level of gross new construction with no data on demolitions. From 1984-1990, data are given for "net gain," i.e., the difference between new construction and demolition.

Table 17 shows a summary of the data in terms of the percentage share of both new construction (1981-90) and net gain (1984-90). The neighborhood areas are shown in descending order of new construction, 1981-90, by number of units for residential and for square feet for commercial and industrial.

Southwest attracted the largest share of total residential construction, and, by type, for single family houses, rowhouses and duplex units. Downtown attracted the largest share of multi-family. Central Northeast attracted the most commercial development—in terms of permits and square footage. North Portland attracted the most industrial development.

Table 18 shows a summary of residential building permit activity between 1990 and 1993 in the City of Portland.

Southwest captured by far the largest share of both single family and multi-family development. Outer Southeast was second in both categories. North Portland attracted a significant number of new multi-family units.



**Table 16**  
**Changes in Responses to City Auditor's Survey**  
**Fiscal Year 1992/93 and 1991/92**

**Fiscal Year 1992/93:**

|                                  | District |     |           |      |      |      |       |     |
|----------------------------------|----------|-----|-----------|------|------|------|-------|-----|
|                                  | City     | SW  | DT/<br>NW | East | C-NE | SE   | North | NE  |
| <b>Nighttime Safety</b>          |          |     |           |      |      |      |       |     |
| Very safe                        | -1%      | -3% | -2%       | -1%  | -4%  | -1%  | 0%    | 1%  |
| Safe                             | -2%      | 4%  | -3%       | -7%  | 0%   | -3%  | -3%   | 1%  |
| Neutral                          | 1%       | 1%  | 5%        | 1%   | 4%   | -2%  | 4%    | -4% |
| Unsafe                           | 1%       | -3% | 0%        | 2%   | 2%   | 4%   | -2%   | 1%  |
| Very Unsafe                      | 1%       | 1%  | 0%        | 5%   | -2%  | 2%   | 1%    | 1%  |
| Mean Weighted Response           | -2%      | 1%  | -3%       | -4%  | -2%  | -2%  | -2%   | 1%  |
| <b>Parks Quality/Maintenance</b> |          |     |           |      |      |      |       |     |
| Very good                        | 3%       | 1%  | 4%        | 3%   | -4%  | 4%   | -4%   | 1%  |
| Good                             | 0%       | 4%  | -1%       | -3%  | 6%   | -1%  | 5%    | 4%  |
| Neutral                          | -2%      | 1%  | -3%       | -2%  | -6%  | 0%   | -2%   | -2% |
| Bad                              | 0%       | 0%  | 0%        | -2%  | 0%   | 0%   | 0%    | -4% |
| Very Bad                         | 0%       | 1%  | 0%        | 1%   | 1%   | 0%   | 1%    | 1%  |
| Mean Weighted Response           | 1%       | -1% | 2%        | 2%   | 3%   | 0%   | 1%    | 3%  |
| <b>Streets/Smoothness</b>        |          |     |           |      |      |      |       |     |
| Very good                        | 1%       | 1%  | 2%        | 4%   | -1%  | 3%   | -3%   | -1% |
| Good                             | -2%      | 2%  | -2%       | 0%   | 1%   | -11% | -1%   | -2% |
| Neutral                          | 1%       | -1% | 4%        | -3%  | 0%   | 3%   | 7%    | -1% |
| Bad                              | 0%       | -4% | -1%       | -1%  | 2%   | 3%   | -2%   | 2%  |
| Very Bad                         | 0%       | 0%  | -3%       | 0%   | -2%  | 2%   | -1%   | 2%  |
| Mean Weighted Response           | -1%      | 2%  | 0%        | 2%   | 0%   | -4%  | -2%   | -2% |

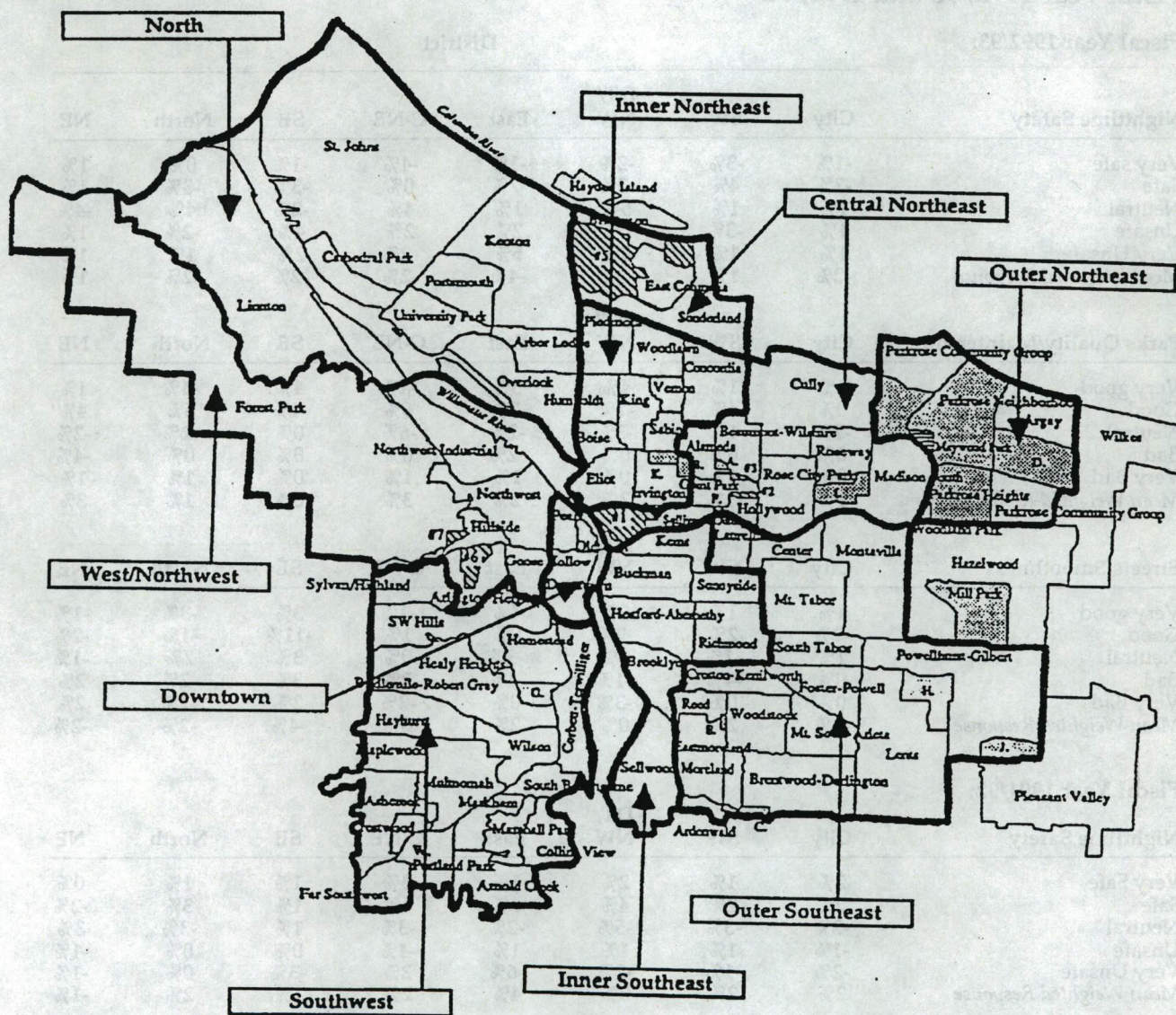
**Fiscal Year 1991/92:**

|                                  | City | SW  | DT/<br>NW | East | C-NE | SE  | North | NE   |
|----------------------------------|------|-----|-----------|------|------|-----|-------|------|
| <b>Nighttime Safety</b>          |      |     |           |      |      |     |       |      |
| Very Safe                        | 2%   | 1%  | 2%        | 1%   | 3%   | 1%  | 1%    | 0%   |
| Safe                             | 2%   | 2%  | 4%        | 6%   | 1%   | 1%  | 3%    | -2%  |
| Neutral                          | -2%  | -3% | -5%       | -2%  | -3%  | 1%  | -3%   | 3%   |
| Unsafe                           | -1%  | 1%  | 1%        | 1%   | -4%  | 0%  | 0%    | -1%  |
| Very Unsafe                      | -2%  | -1% | -2%       | -6%  | 2%   | -3% | 0%    | -1%  |
| Mean Weighted Response           | 2%   | 2%  | 3%        | 4%   | 2%   | 1%  | 2%    | -1%  |
| <b>Parks Quality/Maintenance</b> |      |     |           |      |      |     |       |      |
| Very Good                        | 1%   | -1% | -1%       | 0%   | -3%  | 3%  | 2%    | -2%  |
| Good                             | 0%   | 2%  | 1%        | 2%   | 3%   | -4% | -2%   | -1%  |
| Neutral                          | 0%   | 0%  | -1%       | 1%   | 1%   | 2%  | 0%    | 3%   |
| Bad                              | 0%   | 0%  | 0%        | 0%   | 0%   | 0%  | -2%   | -1%  |
| Very Bad                         | -2%  | -5% | 2%        | -9%  | -1%  | -1% | 0%    | -11% |
| Mean Weighted Response           | 0%   | 4%  | 0%        | 2%   | 0%   | -1% | 0%    | -2%  |
| <b>Streets/Smoothness</b>        |      |     |           |      |      |     |       |      |
| Very Good                        | 3%   | 6%  | 2%        | 4%   | -1%  | 9%  | 4%    | -4%  |
| Good                             | -1%  | -2% | -3%       | 1%   | 2%   | 3%  | -2%   | -6%  |
| Neutral                          | 0%   | -1% | -3%       | -3%  | -1%  | -2% | -2%   | 4%   |
| Bad                              | -1%  | -4% | 3%        | -2%  | 4%   | -4% | -1%   | 0%   |
| Very Bad                         | 0%   | 17% | 6%        | 16%  | -11% | 19% | 2%    | -9%  |
| Mean Weighted Response           | 1%   | 2%  | -1%       | 3%   | 1%   | 3%  | -1%   | -1%  |

Source: City of Portland Auditor's Office and Tashman Associates



**Figure 5**  
**Neighborhood Subareas**





**Table 17**  
**City of Portland Development**  
 Percentage Share by Neighborhood District\*

| All Residential           | City       | SW    | O-SE | O-NE | DT   | W/NW  | I-SE | North | C-NE  | I-NE  |
|---------------------------|------------|-------|------|------|------|-------|------|-------|-------|-------|
| New Construction, 1981-90 | 8,556      | 36%   | 19%  | 12%  | 11%  | 11%   | 3%   | 3%    | 3%    | 2%    |
| Net Gain, 1984-90         | 4,787      | 48%   | 17%  | 21%  | 15%  | 7%    | -4%  | 0%    | 1%    | -5%   |
| Single Family             | City       | SW    | O-SE | O-NE | W/NW | North | C-NE | I-SE  | I-NE  | DT    |
| New Construction, 1981-90 | 4,890      | 48%   | 24%  | 11%  | 7%   | 4%    | 3%   | 2%    | 1%    | 0%    |
| Net Gain, 1984-90         | 2,687      | 66%   | 20%  | 19%  | 8%   | -1%   | 0%   | -4%   | -8%   | 0%    |
| Rowhouses                 | City       | SW    | W/NW | I-SE | O-SE | North | O-NE | C-NE  | DT    | I-NE  |
| New Construction, 1981-90 | 176        | 38%   | 31%  | 18%  | 7%   | 6%    | 1%   | 0%    | 0%    | 0%    |
| Net Gain, 1984-90         | 137        | 41%   | 39%  | 15%  | 4%   | 0%    | 1%   | 0%    | -1%   | 0%    |
| Multi-Family              | City       | DT    | SW   | W/NW | O-NE | O-SE  | I-SE | C-NE  | I-NE  | North |
| New Construction, 1981-90 | 3,332      | 27%   | 18%  | 16%  | 14%  | 12%   | 4%   | 3%    | 3%    | 2%    |
| Net Gain, 1984-90         | 1,873      | 39%   | 22%  | 3%   | 26%  | 14%   | -4%  | 1%    | -2%   | 1%    |
| Duplex                    | City       | SW    | O-SE | I-SE | W/NW | O-NE  | C-NE | I-NE  | North | DT    |
| New Construction, 1981-90 | 162        | 30%   | 26%  | 11%  | 7%   | 7%    | 6%   | 4%    | 1%    | 0%    |
| Net Gain, 1984-90         | 72         | 58%   | 24%  | -31% | 8%   | 15%   | 8%   | -6%   | -17%  | 3%    |
| Commercial                | City       | C-NE  | DT   | O-SE | I-SE | SW    | W/NW | North | O-NE  | I-NE  |
| Total Permits             | 445        | 20%   | 8%   | 25%  | 13%  | 11%   | 7%   | 4%    | 4%    | 0%    |
| Square Feet               | 12,414,755 | 28%   | 13%  | 9%   | 6%   | 6%    | 1%   | 1%    | 1%    | 0%    |
| Industrial                | City       | North | O-NE | C-NE | I-SE | W/NW  | O-SE | SW    | I-NE  | DT    |
| Total Permits             | 381        | 25%   | 14%  | 19%  | 20%  | 8%    | 6%   | 3%    | 4%    | 1%    |
| Square Feet               | 15,079,447 | 68%   | 10%  | 7%   | 4%   | 3%    | 2%   | 1%    | 1%    | 0%    |

\* Neighborhood Districts: Southwest (SW); Outer Southeast (O-SE); Outer Northeast (O-NE); Downtown (DT); West/Northwest (W/NW); Inner Southeast (I-SE); North; Central Northeast (C-NE); and Inner Northeast (I-NE).

Source: City of Portland and Tashman Associates

**Table 18**  
**Residential Building Permit Activity**  
 City of Portland, 1990-1993

| Residential               | City  | SW    | O-SE | W/NW  | O-NE | North | C-NE | I-SE | I-NE | DT   |
|---------------------------|-------|-------|------|-------|------|-------|------|------|------|------|
| New Single Family         | 2,103 | 777   | 483  | 342   | 287  | 75    | 69   | 38   | 32   | 0    |
| Single Family Demolitions | 114   | 30    | 45   | 5     | 8    | 6     | 8    | 13   | 29   | 0    |
| Net Change, Single Family | 1,959 | 747   | 438  | 337   | 279  | 69    | 61   | 25   | 3    | 0    |
| Multi-Family              | City  | SW    | O-SE | North | C-NE | O-NE  | I-NE | DT   | I-SE | W/NW |
| New Multi-Family          | 2,478 | 1,277 | 436  | 386   | 155  | 96    | 64   | 40   | 16   | 8    |
| Multi-Family Demolitions  | 9     | 0     | 3    | 0     | 0    | 0     | 5    | 0    | 1    | 0    |
| Net Change, Multi-Family  | 2,469 | 1,277 | 433  | 386   | 155  | 96    | 59   | 40   | 15   | 8    |

Source: Metro and Tashman Associates.



## Conclusions

In analyzing the developers' response to the survey, the consultants examined the relationship between what factors were listed as important and how those factors actually apply in the neighborhoods that were listed as attractive. For example, if developers say that low crime rates are important and that Southwest is attractive for development, what are the actual crime rates in Southwest? How does the perception correspond to the reality?

The three highest rated factors were "low crime rates," "good parks" and "good sidewalks." The Auditor's annual report on Service Efforts and Accomplishments measures various conditions for the different neighborhood areas, including crime rates. For a check on parks quality, the Auditor's survey reports residents' ranking of their neighborhood parks. For good sidewalks, there is no readily available measure. In this case, the consultants ranked the pedestrian circulation quality of each neighborhood area according to their judgment.

Table 19 shows that Northwest was reported by developers to be most attractive, but has a very high rate of crime per 1,000 population. Northwest does have high ratings for parks and pedestrian circulation. The crime rate for Northwest must be looked at in more detail, as the subarea includes Downtown and North of Burnside. The crime rates for the area corresponding to Northwest in the developers' survey are probably much lower.

**Table 19**  
Correspondence Between Development  
Factors and Neighborhood Attractiveness

|                                                        | Northwest | Southwest | Downtown Burnside | North | Northeast District | Southeast | Central Northeast | East |
|--------------------------------------------------------|-----------|-----------|-------------------|-------|--------------------|-----------|-------------------|------|
| Perceived Attractiveness                               | 4.4       | 4.2       | 3.4               | 3     | 2.9                | 2.3       | 1.8               | 1.8  |
| Order                                                  | 1         | 2         | 3                 | 4     | 5                  | 6         | 7                 | 8    |
| Crime Rates/1000                                       | 168       | 57        | na                | 122   | 160                | 92        | 92                | 99   |
| Order                                                  | 7         | 1         |                   | 5     | 6                  | 3         | 2                 | 4    |
| Percent of Residents Rating<br>Parks Good or Very Good | 81        | 82        | na                | 73    | 76                 | 76        | 74                | 69   |
| Order                                                  | 2         | 1         |                   | 6     | 3                  | 4         | 5                 | 7    |
| Pedestrian Circulation                                 | 2         | 8         | 1                 | 4     | 3                  | 5         | 6                 | 7    |

Source: Tashman Associates.

East Portland is reported as least attractive, but has a moderate crime rate. The area does have low rating for parks and pedestrian circulation.

Southwest is reported as the second most attractive. Southwest has a low crime rate, good parks but low pedestrian circulation.



This admittedly limited analysis does show some important correspondences between the perceptions of developers and the perception of residents in terms of parks. The crime data demands more detailed analysis, and the response to the "good sidewalks" factors should also be probed.

Another point of analysis is the correspondence between developers' perception of the attractiveness of a particular area and the amount of development that has actually occurred.

Table 20 following examines these relationships. It compares the ranking of areas according to the developers' perception of attractiveness and the ranking in order of most units or permits in the period 1981-1990, from the Neighborhood Profiles.

**Table 20**  
**Related Neighborhood Rankings**  
**Reported Attractiveness and Permit Activity**

|                                   | Northwest | Southwest | Downtown Burnside | North | Northeast District | Southeast* | Central Northeast | East** |
|-----------------------------------|-----------|-----------|-------------------|-------|--------------------|------------|-------------------|--------|
| Attractiveness Rank               | 1         | 2         | 3                 | 4     | 5                  | 6          | 7                 | 8      |
| All Residential Development, Rank | 5         | 1         | 4                 | 7     | 9                  | 2,6        | 8                 | 2,3    |
| Commercial Development, Rank      | 6         | 5         | 2                 | 7     | 9                  | 3,4        | 1                 | 3,8    |

\* Southeast in the Neighborhood Profiles is assumed to include Inner SE and Outer SE, rank indicates Outer, Inner.

\*\* East in the Neighborhood Profiles is assumed to include Outer SE and Outer NE, rank indicates Outer SE, Outer NE.

Source: City of Portland and Tashman Associates.

The most telling characteristic of these data is the discrepancy between developers' perceptions of East Portland and the amount of development that has taken place. In looking at the Neighborhood Profiles development statistics, it is Outer Southeast that has attracted a significant share of development within the mid to late 1980's. One explanation is that most of the developers surveyed are focusing on multi-family and attached single family housing products, and most of the development taking place in Outer Southeast is single family.



This admittedly limited analysis does show some important correspondences between the perceptions of developers and the perception of parks. The same data demands more detailed analysis and the response to the "good sidewalks" factor should also be noted.

Another point of analysis is the correspondence between developer perception of the attractiveness of a particular area and the amount of development that has actually

occurred. Table 20 following examines these relationships. It compares the ranking of areas according to the developer's perception of attractiveness and the ranking in order of most units of permits in the period 1981-1990 from the Neighborhood Profiles.

Table 20  
Related Neighborhood Rankings  
Reported Attractiveness and Permit Activity

| Rank | Attractiveness | Permits | Rank | Attractiveness | Permits | Rank | Attractiveness | Permits | Rank | Attractiveness | Permits |
|------|----------------|---------|------|----------------|---------|------|----------------|---------|------|----------------|---------|
| 1    | 1              | 1       | 2    | 2              | 2       | 3    | 3              | 3       | 4    | 4              | 4       |
| 2    | 2              | 2       | 3    | 3              | 3       | 4    | 4              | 4       | 5    | 5              | 5       |
| 3    | 3              | 3       | 4    | 4              | 4       | 5    | 5              | 5       | 6    | 6              | 6       |
| 4    | 4              | 4       | 5    | 5              | 5       | 6    | 6              | 6       | 7    | 7              | 7       |
| 5    | 5              | 5       | 6    | 6              | 6       | 7    | 7              | 7       | 8    | 8              | 8       |
| 6    | 6              | 6       | 7    | 7              | 7       | 8    | 8              | 8       | 9    | 9              | 9       |
| 7    | 7              | 7       | 8    | 8              | 8       | 9    | 9              | 9       | 10   | 10             | 10      |
| 8    | 8              | 8       | 9    | 9              | 9       | 10   | 10             | 10      | 11   | 11             | 11      |
| 9    | 9              | 9       | 10   | 10             | 10      | 11   | 11             | 11      | 12   | 12             | 12      |
| 10   | 10             | 10      | 11   | 11             | 11      | 12   | 12             | 12      | 13   | 13             | 13      |
| 11   | 11             | 11      | 12   | 12             | 12      | 13   | 13             | 13      | 14   | 14             | 14      |
| 12   | 12             | 12      | 13   | 13             | 13      | 14   | 14             | 14      | 15   | 15             | 15      |
| 13   | 13             | 13      | 14   | 14             | 14      | 15   | 15             | 15      | 16   | 16             | 16      |
| 14   | 14             | 14      | 15   | 15             | 15      | 16   | 16             | 16      | 17   | 17             | 17      |
| 15   | 15             | 15      | 16   | 16             | 16      | 17   | 17             | 17      | 18   | 18             | 18      |
| 16   | 16             | 16      | 17   | 17             | 17      | 18   | 18             | 18      | 19   | 19             | 19      |
| 17   | 17             | 17      | 18   | 18             | 18      | 19   | 19             | 19      | 20   | 20             | 20      |
| 18   | 18             | 18      | 19   | 19             | 19      | 20   | 20             | 20      | 21   | 21             | 21      |
| 19   | 19             | 19      | 20   | 20             | 20      | 21   | 21             | 21      | 22   | 22             | 22      |
| 20   | 20             | 20      | 21   | 21             | 21      | 22   | 22             | 22      | 23   | 23             | 23      |
| 21   | 21             | 21      | 22   | 22             | 22      | 23   | 23             | 23      | 24   | 24             | 24      |
| 22   | 22             | 22      | 23   | 23             | 23      | 24   | 24             | 24      | 25   | 25             | 25      |
| 23   | 23             | 23      | 24   | 24             | 24      | 25   | 25             | 25      | 26   | 26             | 26      |
| 24   | 24             | 24      | 25   | 25             | 25      | 26   | 26             | 26      | 27   | 27             | 27      |
| 25   | 25             | 25      | 26   | 26             | 26      | 27   | 27             | 27      | 28   | 28             | 28      |
| 26   | 26             | 26      | 27   | 27             | 27      | 28   | 28             | 28      | 29   | 29             | 29      |
| 27   | 27             | 27      | 28   | 28             | 28      | 29   | 29             | 29      | 30   | 30             | 30      |
| 28   | 28             | 28      | 29   | 29             | 29      | 30   | 30             | 30      | 31   | 31             | 31      |
| 29   | 29             | 29      | 30   | 30             | 30      | 31   | 31             | 31      | 32   | 32             | 32      |
| 30   | 30             | 30      | 31   | 31             | 31      | 32   | 32             | 32      | 33   | 33             | 33      |
| 31   | 31             | 31      | 32   | 32             | 32      | 33   | 33             | 33      | 34   | 34             | 34      |
| 32   | 32             | 32      | 33   | 33             | 33      | 34   | 34             | 34      | 35   | 35             | 35      |
| 33   | 33             | 33      | 34   | 34             | 34      | 35   | 35             | 35      | 36   | 36             | 36      |
| 34   | 34             | 34      | 35   | 35             | 35      | 36   | 36             | 36      | 37   | 37             | 37      |
| 35   | 35             | 35      | 36   | 36             | 36      | 37   | 37             | 37      | 38   | 38             | 38      |
| 36   | 36             | 36      | 37   | 37             | 37      | 38   | 38             | 38      | 39   | 39             | 39      |
| 37   | 37             | 37      | 38   | 38             | 38      | 39   | 39             | 39      | 40   | 40             | 40      |
| 38   | 38             | 38      | 39   | 39             | 39      | 40   | 40             | 40      | 41   | 41             | 41      |
| 39   | 39             | 39      | 40   | 40             | 40      | 41   | 41             | 41      | 42   | 42             | 42      |
| 40   | 40             | 40      | 41   | 41             | 41      | 42   | 42             | 42      | 43   | 43             | 43      |
| 41   | 41             | 41      | 42   | 42             | 42      | 43   | 43             | 43      | 44   | 44             | 44      |
| 42   | 42             | 42      | 43   | 43             | 43      | 44   | 44             | 44      | 45   | 45             | 45      |
| 43   | 43             | 43      | 44   | 44             | 44      | 45   | 45             | 45      | 46   | 46             | 46      |
| 44   | 44             | 44      | 45   | 45             | 45      | 46   | 46             | 46      | 47   | 47             | 47      |
| 45   | 45             | 45      | 46   | 46             | 46      | 47   | 47             | 47      | 48   | 48             | 48      |
| 46   | 46             | 46      | 47   | 47             | 47      | 48   | 48             | 48      | 49   | 49             | 49      |
| 47   | 47             | 47      | 48   | 48             | 48      | 49   | 49             | 49      | 50   | 50             | 50      |
| 48   | 48             | 48      | 49   | 49             | 49      | 50   | 50             | 50      | 51   | 51             | 51      |
| 49   | 49             | 49      | 50   | 50             | 50      | 51   | 51             | 51      | 52   | 52             | 52      |
| 50   | 50             | 50      | 51   | 51             | 51      | 52   | 52             | 52      | 53   | 53             | 53      |
| 51   | 51             | 51      | 52   | 52             | 52      | 53   | 53             | 53      | 54   | 54             | 54      |
| 52   | 52             | 52      | 53   | 53             | 53      | 54   | 54             | 54      | 55   | 55             | 55      |
| 53   | 53             | 53      | 54   | 54             | 54      | 55   | 55             | 55      | 56   | 56             | 56      |
| 54   | 54             | 54      | 55   | 55             | 55      | 56   | 56             | 56      | 57   | 57             | 57      |
| 55   | 55             | 55      | 56   | 56             | 56      | 57   | 57             | 57      | 58   | 58             | 58      |
| 56   | 56             | 56      | 57   | 57             | 57      | 58   | 58             | 58      | 59   | 59             | 59      |
| 57   | 57             | 57      | 58   | 58             | 58      | 59   | 59             | 59      | 60   | 60             | 60      |
| 58   | 58             | 58      | 59   | 59             | 59      | 60   | 60             | 60      | 61   | 61             | 61      |
| 59   | 59             | 59      | 60   | 60             | 60      | 61   | 61             | 61      | 62   | 62             | 62      |
| 60   | 60             | 60      | 61   | 61             | 61      | 62   | 62             | 62      | 63   | 63             | 63      |
| 61   | 61             | 61      | 62   | 62             | 62      | 63   | 63             | 63      | 64   | 64             | 64      |
| 62   | 62             | 62      | 63   | 63             | 63      | 64   | 64             | 64      | 65   | 65             | 65      |
| 63   | 63             | 63      | 64   | 64             | 64      | 65   | 65             | 65      | 66   | 66             | 66      |
| 64   | 64             | 64      | 65   | 65             | 65      | 66   | 66             | 66      | 67   | 67             | 67      |
| 65   | 65             | 65      | 66   | 66             | 66      | 67   | 67             | 67      | 68   | 68             | 68      |
| 66   | 66             | 66      | 67   | 67             | 67      | 68   | 68             | 68      | 69   | 69             | 69      |
| 67   | 67             | 67      | 68   | 68             | 68      | 69   | 69             | 69      | 70   | 70             | 70      |
| 68   | 68             | 68      | 69   | 69             | 69      | 70   | 70             | 70      | 71   | 71             | 71      |
| 69   | 69             | 69      | 70   | 70             | 70      | 71   | 71             | 71      | 72   | 72             | 72      |
| 70   | 70             | 70      | 71   | 71             | 71      | 72   | 72             | 72      | 73   | 73             | 73      |
| 71   | 71             | 71      | 72   | 72             | 72      | 73   | 73             | 73      | 74   | 74             | 74      |
| 72   | 72             | 72      | 73   | 73             | 73      | 74   | 74             | 74      | 75   | 75             | 75      |
| 73   | 73             | 73      | 74   | 74             | 74      | 75   | 75             | 75      | 76   | 76             | 76      |
| 74   | 74             | 74      | 75   | 75             | 75      | 76   | 76             | 76      | 77   | 77             | 77      |
| 75   | 75             | 75      | 76   | 76             | 76      | 77   | 77             | 77      | 78   | 78             | 78      |
| 76   | 76             | 76      | 77   | 77             | 77      | 78   | 78             | 78      | 79   | 79             | 79      |
| 77   | 77             | 77      | 78   | 78             | 78      | 79   | 79             | 79      | 80   | 80             | 80      |
| 78   | 78             | 78      | 79   | 79             | 79      | 80   | 80             | 80      | 81   | 81             | 81      |
| 79   | 79             | 79      | 80   | 80             | 80      | 81   | 81             | 81      | 82   | 82             | 82      |
| 80   | 80             | 80      | 81   | 81             | 81      | 82   | 82             | 82      | 83   | 83             | 83      |
| 81   | 81             | 81      | 82   | 82             | 82      | 83   | 83             | 83      | 84   | 84             | 84      |
| 82   | 82             | 82      | 83   | 83             | 83      | 84   | 84             | 84      | 85   | 85             | 85      |
| 83   | 83             | 83      | 84   | 84             | 84      | 85   | 85             | 85      | 86   | 86             | 86      |
| 84   | 84             | 84      | 85   | 85             | 85      | 86   | 86             | 86      | 87   | 87             | 87      |
| 85   | 85             | 85      | 86   | 86             | 86      | 87   | 87             | 87      | 88   | 88             | 88      |
| 86   | 86             | 86      | 87   | 87             | 87      | 88   | 88             | 88      | 89   | 89             | 89      |
| 87   | 87             | 87      | 88   | 88             | 88      | 89   | 89             | 89      | 90   | 90             | 90      |
| 88   | 88             | 88      | 89   | 89             | 89      | 90   | 90             | 90      | 91   | 91             | 91      |
| 89   | 89             | 89      | 90   | 90             | 90      | 91   | 91             | 91      | 92   | 92             | 92      |
| 90   | 90             | 90      | 91   | 91             | 91      | 92   | 92             | 92      | 93   | 93             | 93      |
| 91   | 91             | 91      | 92   | 92             | 92      | 93   | 93             | 93      | 94   | 94             | 94      |
| 92   | 92             | 92      | 93   | 93             | 93      | 94   | 94             | 94      | 95   | 95             | 95      |
| 93   | 93             | 93      | 94   | 94             | 94      | 95   | 95             | 95      | 96   | 96             | 96      |
| 94   | 94             | 94      | 95   | 95             | 95      | 96   | 96             | 96      | 97   | 97             | 97      |
| 95   | 95             | 95      | 96   | 96             | 96      | 97   | 97             | 97      | 98   | 98             | 98      |
| 96   | 96             | 96      | 97   | 97             | 97      | 98   | 98             | 98      | 99   | 99             | 99      |
| 97   | 97             | 97      | 98   | 98             | 98      | 99   | 99             | 99      | 100  | 100            | 100     |

Source: City of Portland and Tishman Associates.  
 1. First in the Neighborhood Profiles assumed to include Outer SE and Outer NE rank indices. Outer SE  
 2. Second in the Neighborhood Profiles assumed to include Inner SE and Outer SE rank indices. Outer SE

The most telling characteristic of these data is the discrepancy between developer's perceptions of attractiveness and the amount of development that has taken place. In looking at the Neighborhood Profiles development statistics, it is Outer Southeast that has attracted a significant share of development within the last 10 years. One explanation is that most of the developer surveys are focusing on multi-family and attached single family housing product, and most of the development taking place in Outer Southeast is single family.



## **CHAPTER IV:**

### **Infill and Redevelopment Strategies**

#### **Introduction**

To retain and enhance its role as a regional residential and employment center, the City, in concert with citizens and the development community, should consider adopting a “developer’s attitude” toward infill development and redevelopment. This attitude is characterized by:

- Having a clear overall vision of neighborhood-compatible, high quality development;
- Removing unneeded obstacles to development;
- Looking for the best development opportunities;
- Having a strong sense of timing relative to the market and available financing.

#### **Vision of Neighborhood-Compatible High-Quality Development**

In many cases, resistance to “densification” of neighborhoods arises from an unnecessarily negative image of infill and redevelopment projects. The negative images result from prior development proposals or built projects that have been insensitively designed and disregarding the fabric of their surrounding neighborhood.

As is shown in the Project Catalogue (Appendix B), even multi-family attached dwelling projects that substantially increase overall density can be designed to blend well with their surroundings. The Catalogue shows projects that are designed with a single family house look and/or in which the scale of the project is graduated, so that the perimeter of the project—where the project meets its neighborhood—is of lower scale than the middle.

As infill and redevelopment projects are more sensitively designed—in response to formal or informal design standards and guidelines or in response to the market—the image that residents have of infill projects will improve. The City, by supporting design competitions, design studies and documents such as the Project Catalogue, can help raise public perception of the quality of infill and redevelopment.

It is equally important that the City itself—and especially the Planning Commission and Planning Bureau—have a positive image of infill and redevelopment projects. This attitude that development can, if well done, enhance the livability of a neighborhood is critical if the City is to achieve its Future Focus development goals.



## **Removing Unneeded Obstacles to Development**

The City's development review process has been subject to a great scrutiny and revision over the last several years, and this process is continuing. The issue of what regulations are desirable and how they should be applied is very complex. Conclusions that there should be less regulation are insupportable. Regulation serves a critical role in ensuring safety, quality and compatibility.

Yet developers, builders and their consultants report that City of Portland development review processes are cumbersome and that code requirements are applied in a rigid manner. Ongoing attention is needed if developers are to be attracted to infill and redevelopment opportunities. Given that the City has adopted development goals that will require extensive infill and redevelopment, the development review process and the application of code requirements by staff must be affected by a desire to assist the development process. Allowing poorly planned and constructed projects to proceed is no solution, but placing undue regulatory obstacles before willing developers of infill or redevelopment sites will defeat the city's purpose. The difficulty of course is in deciding what regulatory strategy is balanced and appropriate and what is the best means of applying such a strategy.

## **Looking for the Best Development Opportunities**

Skillful developers can identify the best opportunities in terms of site location, site characteristics, market demand and financing. The City, in its regulatory role, must apply zoning and building code requirements in a uniform manner. However, its role as the provider of urban services—and in particular streets, utilities, parks and other neighborhood amenities—the City can be informed by a sense of where public investment will have the greatest payoffs in terms of redevelopment and infill.

In the absence of tax increment financing or some substitute form of redevelopment financing, the City's capital improvements program should be linked to its infill and redevelopment goals. Where particular neighborhoods show signs of revitalization and densification, the City's investment in public capital facilities can support that process.

## **Having A Strong Sense of Timing Relative to the Market and Available Financing**

While the City's planning policies are often focused on long-term goals and objectives, real-estate development occurs in the present and is governed by present market and financing conditions. Perhaps the most important challenge is to balance the short and long-term effects of comprehensive plan designations and zoning regulations. Regulations that have minimum density requirements or overly specific land use mix requirements (e.g., floor area retail in office buildings) can serve to inhibit short-term development that would actually help to achieve the City's land use objectives.

## **Specific Strategies**

These "attitudinal" characteristics can affect all aspects of the City's planning policy



development, code enforcement and capital improvements programming. In addition, there are specific strategies that can be undertaken to achieve infill and redevelopment goals.

The development process occurs in well defined stages, starting with the identification of development opportunities, site acquisition, pre-development, development, and marketing. Public strategies should relate to these states of the development process. The following tables summarize strategies that can be undertaken to achieve infill and redevelopment goals.

## Marketing and Promotion of Development Opportunities

The thrust of marketing and promotion efforts should be to ensure that developers with the capability of undertaking higher-density and mixed-use projects are aware of development opportunities in Portland. The local development community may be aware of these opportunities, but may lack the depth of experience that developers in larger urban areas may have. The Livable Cities Housing Initiative program may well be the appropriate entity to compile and disseminate this information.

### Action:

### Benefit:

|                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Compile real estate market, demographic and site availability information about Portland that demonstrates the feasibility of a variety of housing and mixed-use product types.                         | All of these actions lower the cost to the developer of identifying development opportunities. It would result in an increase in the pool of interested and capable developers of infill and redevelopment projects.                                                                                                                                                                                                                                                 |
| Disseminate information at real estate conferences and seminars.                                                                                                                                        | There are normal channels through which the development community shares information. Commonly these are not the same as those used by the planning and public policy community. Organizations such as the Urban Land Institute, the International Conference of Shopping Centers and the National Association of Industrial and Office Parks have regular national and regional meetings which should be regularly attended by Portland planners and policy makers. |
| Hold direct meetings with targeted developers in larger urban areas such as Vancouver, B.C., Seattle, the San Francisco Bay area, and Southern California.                                              | Larger western urban areas have a larger pool of developers that have expertise in innovative real estate product types. Such developers can be attracted to development opportunities in Portland. Especially in California, such developers are seeking new opportunities as the normal market areas suffer from poor demand.                                                                                                                                      |
| Develop and distribute newsletter of Portland development trends, including data on land prices and home sale prices. Can be compiled with assistance of brokers. Distribute to lenders and developers. | Such a newsletter provides an important tool to supplement the strategies described above.                                                                                                                                                                                                                                                                                                                                                                           |



## Predevelopment Activities

| Action:                                                                                                                                                                                                                                                                                                                                                                                                                                    | Benefit:                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conduct (or complete existing) real estate market analyses to identify optimum development programs and timing.                                                                                                                                                                                                                                                                                                                            | Providing up-to-date market information helps identify opportunities and reduces market uncertainty. It also provides a basis for project-specific loan packages and thus reduces cost of obtaining information. |
| Identify sites of adequate size for specific development types that are properly zoned and served with streets and utilities.                                                                                                                                                                                                                                                                                                              | Such initial site inventorying reduces pre-development costs.                                                                                                                                                    |
| <p>The following actions are all components of what can be called "specific area planning":</p> <ul style="list-style-type: none"> <li>• Identify neighborhood planning and design issues and how they would affect site development;</li> <li>• Hold meetings with neighborhood groups to discuss and resolve development issues; and</li> <li>• Prepare development guidelines that meet developers' and neighbors' concerns.</li> </ul> | Such planning, whatever formal process it follows, reduces the timeframe for development approvals and increases the quality and neighborhood acceptance of the product.                                         |

## Public/Private Redevelopment

The following strategies primarily apply during the actual development process. Some of the strategies require that a source of redevelopment funding be developed. Tax increment financing in urban renewal areas has been discontinued by the City in order to avoid losses in property tax revenues to other local governments and districts. This form of financing, which has been very effective in the central city and in the Columbia Corridor, may be more politically feasible in the future, if tax rates in Portland drop below the \$10.00 per \$1,000 constitutional limits. Other redevelopment funding sources should be actively explored, as any new funding source may take years to establish.

| Action:                                                                                                                                                                                                                                                                   | Benefit:                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acquire and assemble development sites.                                                                                                                                                                                                                                   | Provides infill and redevelopment sites, especially when current owners are unwilling sellers and site assembly can be accomplished via eminent domain. |
| Prepare sites by clearance and environmental remediation.                                                                                                                                                                                                                 | Reduces development costs and the burden of conducting environmental surveys and remediation.                                                           |
| Develop quality public facilities, such as parks, community centers, and pedestrian and transit facilities.                                                                                                                                                               | Increases attractiveness of sites for redevelopment and helps promote Portland's mobility goals at a lower cost to developers.                          |
| <p>Public participation in finance of utilities and street improvements, including:</p> <ul style="list-style-type: none"> <li>• Initiation and participation of LID's; and</li> <li>• Capital improvement focused on infill and redevelopment sites or areas.</li> </ul> | Reduces development costs.                                                                                                                              |



## Development Finance

In recent years the availability of project financing has been a serious constraint to many forms of commercial development. Financing for innovative housing or mixed-use projects is limited because of the poor track record for these types of development in the 1980's. There are few public finance programs that can improve both the availability and cost of financing for projects other than low income or elderly housing. Restrictive lending practices and appraisal practices originated in the savings and loan crisis brought on by real estate activities in the 1980's and are still having a profound impact on what can be financed and built.

| Action:                                                                                                                                                                                                                                                                                            | Benefit:                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Expand public development finance programs, including: revenue bond financing of low-income housing; property tax abatement, funding of Community Development Corporations projects for low- and mixed-income housing, support of HAP proposal for mixed-income housing and mixed-use development. | Increases return on investment for developers and increases interest in eligible projects.                                                                                                                    |
| Focus CRA lending by encouraging loans for mixed-use to promote community objectives.                                                                                                                                                                                                              | Lower interest rates or financing in marginal areas can allow projects to proceed which would otherwise be difficult to fund.                                                                                 |
| Condemn under-used properties and, using PDC, market them to developers to produce innovative products.                                                                                                                                                                                            | Low land pricing and City involvement as a guarantor or partner can make financing possible.                                                                                                                  |
| Put together a low-interest construction loan program and encourage local banks to take part in projects via permanent financing.                                                                                                                                                                  | A revolving, no-risk construction loan pool could be used to lower carrying costs thus lowering permanent loan amounts in relation to developer equity providing an incentive to both developers and lenders. |
| The City should work with appraisal community to get them to add value for access to transit.                                                                                                                                                                                                      | This would help lenders in issuing financing.                                                                                                                                                                 |
| The City should get appraisers to recognize trends rather than their usual reliance on comparable projects.                                                                                                                                                                                        | This would allow lenders to finance in marginal areas.                                                                                                                                                        |

## Applicability of Strategies

Key questions about the strategies discussed above include:

- Are the strategies applicable to small projects, large projects or both?
- What strategies should be given the highest priority?

Of the strategies listed, all but one are applicable to both small and large projects. Though the implementation of a particular strategy may need to be adapted to either small or large



projects, the basic mechanisms apply to one or two-lot infill developments or large redevelopment projects. For example, the strategy of public participation in LID's can be used for large mixed-use projects or for small infill subdivisions. The process will be different for the different projects, but the strategy applies across the board.

The exception, perhaps, is the strategy of meeting with individual developers in west coast cities such as San Francisco and Vancouver, B.C. This strategy is best suited for larger development firms who are more likely to be interested in projects outside their home base. Such firms are correspondingly more likely to be interested in larger projects that can support the expenses inherent in undertaking an out of town project.

In terms of priorities, none of the strategies recommended can be described as low priority. However, the strategies that the consultants believe are of the highest priority are:

- Hold direct meetings with targeted developers in larger urban areas such as Vancouver, B.C., Seattle, the San Francisco Bay Area and Southern California; and
- Identify sites of adequate size for specific development types that are properly zoned and served with streets and utilities.

Undertake specific area planning:

- Identify neighborhood planning and design issues and how they would affect site development;
- Hold meetings with neighborhood groups to discuss and resolve development issues; and
- Prepare development guidelines that meet developers' and neighbors' concerns.

Participation in finance of utilities and street improvements, including:

- Initiation and participation in LID's; and
- Capital improvement focused on infill and redevelopment sites or areas.

Expand public development finance programs, including:

- Revenue bond financing of low income housing;
- Property tax abatement;
- Funding of Community Development Corporation projects for low and mixed income housing; and
- Support of Housing Authority of Portland's proposal for mixed income housing and mixed-use development.



## **CHAPTER V:**

### **Conclusions**

The Infill and Redevelopment Strategies Study has examined:

- The basic economic factors of need (demand) for new housing and mixed-use development and the capacity (supply) of Portland to accommodate anticipated growth;
- The neighborhood characteristics and factors that lead to successful infill and redevelopment projects; and
- The strategies that can be adopted by Portland to achieve its redevelopment and infill objectives.

The study has reached the following conclusions:

#### **Demand for Infill and Redevelopment in Portland**

Certain types of development are more appropriate for infill and redevelopment projects in Portland, because they use a relatively small amount of land per square foot of occupied space and because they are supported by an existing urban infrastructure of transportation and amenities. These types include higher-density residential (both attached and detached, and both ownership and rental) and mixed-use residential/commercial projects.

The demand for these types of development in Portland will grow because of many factors:

- Demographic changes will continue to result in greater numbers of smaller, non-traditional households that demand housing units which are lower cost, more convenient and easier to maintain than the typical detached single family house.
- High rates of in-migration will continue to create the need for transitional forms of housing, such as apartments and condominiums.
- The forecast age structure of the future population is more evenly distributed than the current population structure, which shows the effects of the "baby boom" and the "baby bust." Though there will be a large component of the population that will enter retirement age, the younger population cohorts will also increase, creating demand for multi-family housing units.

The higher rates of increase in minority populations will also favor Portland over suburban locations, if historic locational preferences hold.



## Capacity for Infill and Redevelopment

The capacity analysis built off of the quantitative analysis done for Region 2040. Alternative Growth Concept B represented a growth form that emphasizes the growth of Portland in terms of jobs and housing. Growth Concept B forecast the development and redevelopment of higher-density housing and mixed-use projects, in Portland's Central City and along transit corridors.

Rather than duplicate the quantitative capacity analysis conducted by Metro, the Infill and Redevelopment Strategies Study focused on the economic feasibility of the types of development projects needed to achieve the growth targets of Concept B. Five hypothetical projects in "pilot areas" of Portland—all of which are shown in Concept B as accommodating substantial higher-density and mixed-use development—were examined and financial pro-formas developed to analyze their feasibility.

Four of the five projects were shown as feasible under the current market rents, construction costs and land costs. The fifth project was shown as feasible if subsidized equity financing were provided, and this project is located in an area of the City where such subsidies are currently available.

Though the economic feasibility of these projects indicates that Portland can support the high growth projects of Concept B, the ability of the City to support this growth while maintaining its livability is not to be taken for granted.

## Neighborhood Characteristics Leading to Infill and Redevelopment

Members of the development community were surveyed regarding their judgment of what neighborhood factors were most important in determining where infill and redevelopment would occur and what neighborhoods were most attractive to them as locations for such projects.

The developers concluded that public safety was far and away the most important factor, with good parks and good sidewalks also cited as important. In ranking the neighborhoods that they found most attractive, there was some correspondence between their attraction to these neighborhoods and low levels of crime and high quality parks, although the data used for the analysis was not specific enough to draw strong conclusions. For instance, Southwest was judged attractive, and had low crime rates, good quality parks, but poor sidewalks. East Portland was rated as not attractive for redevelopment and infill, but has a moderate crime rate. More detailed study would be beneficial.

In comparing actual development to developers' perceptions, Southwest and Downtown had high levels of development during the 1980's and early 1990's, which corresponded to their high attractiveness to developers. On the other hand, Northwest had relatively low levels of development during this period, even though it was judged attractive. East Portland had relatively high levels of development, even though it was judged less attractive to developers. Again, more analysis would be helpful.



## **Recommended Infill and Redevelopment Strategies**

The study concludes that a range of strategies will be necessary to achieve Portland's infill and redevelopment goals. What is of paramount importance is that the City must continue to maintain its basic quality of life. It must provide safe streets and high quality community facilities. The challenge to the viability of Portland's public school system must be met if the City intends to attract families with school age children

Beyond these basic objectives, the City should adopt a developer's attitude toward infill and redevelopment. Its public strategies should address the different stages of the development process. Portland can take actions to increase the knowledge of development opportunities, reduce pre-development costs, reduce development costs and increase the quality and acceptance of infill and redevelopment projects.



The study concludes that a range of strategies will be necessary to achieve Portland's infill and redevelopment goals. What is of paramount importance is that the City must continue to maintain its basic quality of life. It must provide safe streets and high quality community facilities. The challenge to the viability of Portland's public school system must be met if the City intends to attract families with school age children.

Beyond these basic objectives, the City should adopt and develop a strategic plan for infill and redevelopment. Its public strategies should address the different stages of the development process. Portland can take actions to increase the knowledge of development opportunities, reduce pre-development costs, reduce development costs and increase the quality and acceptance of infill and redevelopment projects.



## APPENDIX A

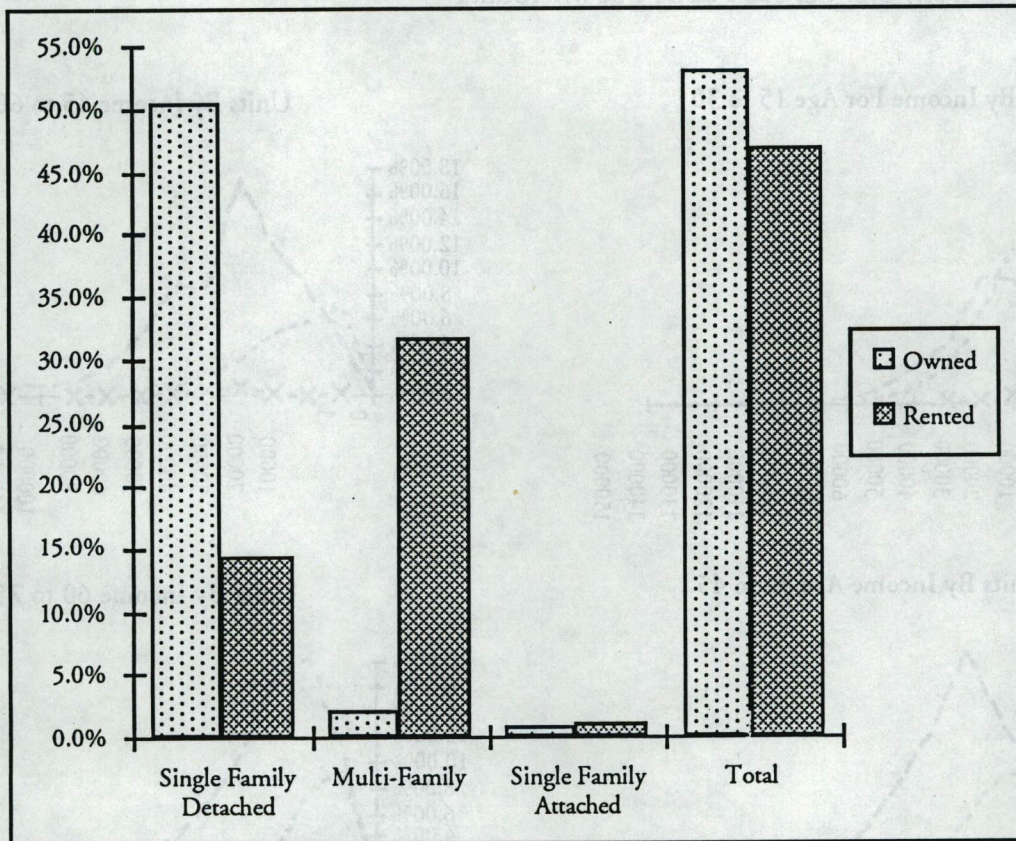


APPENDIX A



**Appendix Figure 1**

**UNITS OWNED OR RENTED: PERCENTAGE OF PORTLAND TOTAL**

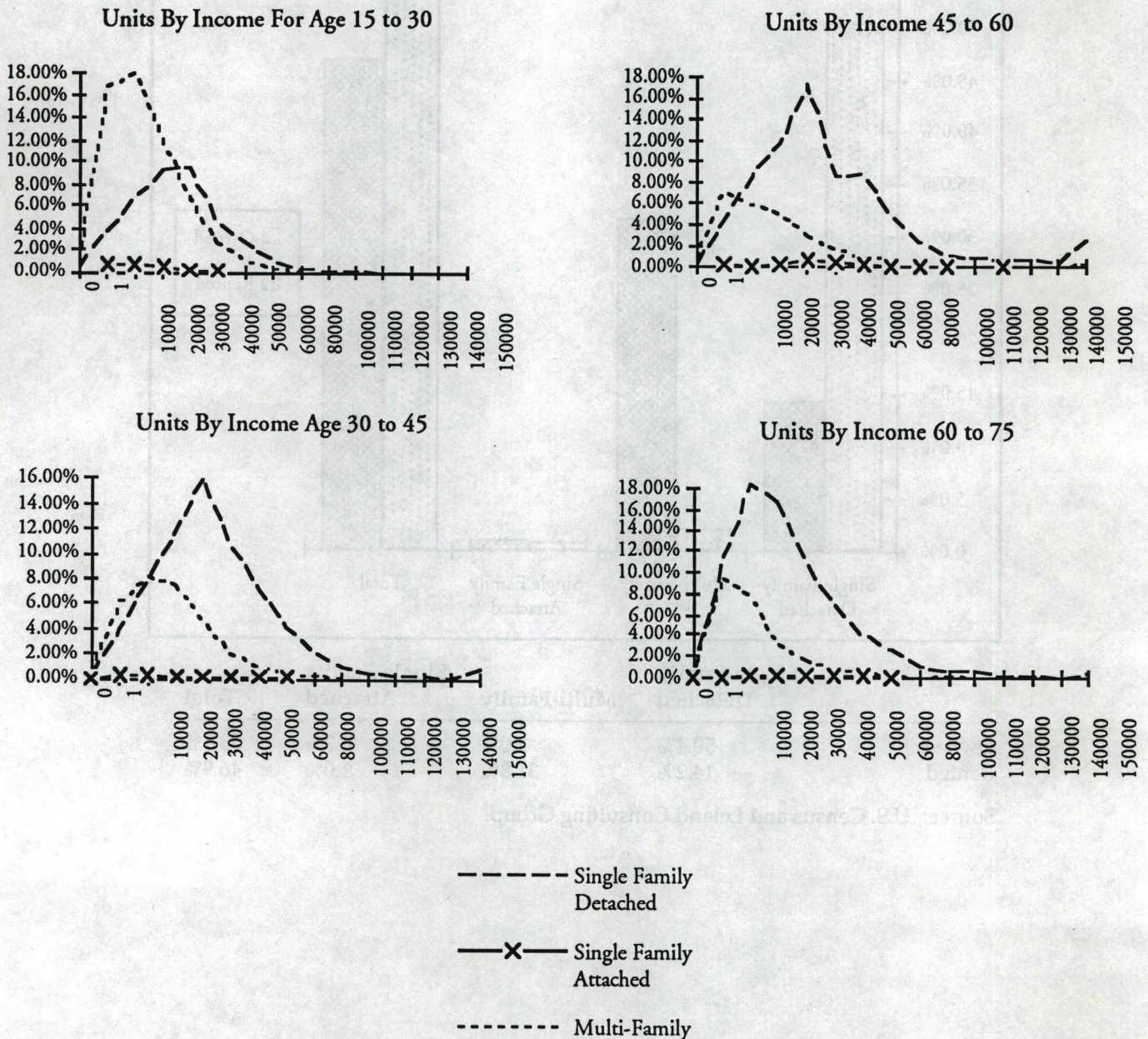


|        | Single Family<br>Detached | Multi-Family | Single-Family<br>Attached | Total |
|--------|---------------------------|--------------|---------------------------|-------|
| Owned  | 50.4%                     | 2.0%         | 0.7%                      | 53.1% |
| Rented | 14.2%                     | 31.8%        | 1.0%                      | 46.9% |

Source: U.S. Census and Leland Consulting Group.



**Appendix Figure 2**  
**GRAPHS ILLUSTRATING 1990 UNIT OCCUPANCY BY AGE AND INCOME**  
 Derived from U.S. Census Public Use Microdata



Source: U.S. Census and Leland Consulting Group.



**Appendix Table 1**  
**EMPLOYMENT IN MULTNOMAH COUNTY BY SIC CODE**

|                                           | Establishments | Employees | Percent<br>of Total | Payroll   |
|-------------------------------------------|----------------|-----------|---------------------|-----------|
| Total                                     | 19,993         | 329,650   | 100.00%             | 7,598,163 |
| 07 Agriculture, Forestry, and Fishing     | 172            | 877       | 0.27%               | 13,730    |
| 10 Mining                                 | 10             | 138       | 0.04%               | 9,280     |
| 15 Construction                           | 1,333          | 16,186    | 4.91%               | 468,589   |
| 20 Manufacturing                          | 1,313          | 47,481    | 14.40%              | 1,388,647 |
| 50 Wholesale Trade                        | 2,005          | 32,028    | 9.72%               | 956,557   |
| 52 Retail Trade                           | 4,137          | 59,161    | 17.95%              | 792,227   |
| 60 Finance, Insurance,<br>and Real Estate | 1,928          | 33,033    | 10.02%              | 834,845   |
| 70 Services                               | 7,233          | 109,120   | 33.10%              | 2,167,217 |
| 99 Unclassified                           | 1,043          | 1,525     | 0.46%               | 29,392    |

Source: U.S. Census County Business Patterns and Leland Consulting Group.



**Appendix Table 2**  
**SQUARE FEET RETAIL DEMAND BASED ON CONSUMER SPENDING**

|                                    | 2015<br>Households<br>Over 1990 | 2015<br>Income        | 2040 Base Case<br>Households<br>Over 1990 | 2040<br>Income        | 2040 Mod Case<br>Households<br>Over 1990 | 2040<br>Mod Case<br>Income |
|------------------------------------|---------------------------------|-----------------------|-------------------------------------------|-----------------------|------------------------------------------|----------------------------|
|                                    | 42,094                          | \$1,535,418,397       | 56,460                                    | \$2,059,448,272       | 82,432                                   | \$3,006,780,142            |
|                                    | 2015 Sq<br>Ft Created           | Spending<br>Over 1990 | 2040 Sq<br>Ft Created                     | Spending<br>Over 1990 | 2040 Mod Sq<br>Ft Created                | Spending<br>Over 1990      |
| <i>Food And Drink:</i>             |                                 |                       |                                           |                       |                                          |                            |
| Food at home                       | 475,241                         | \$142,572,160         | 637,438                                   | \$191,231,256         | 930,654                                  | \$279,196,303              |
| Food away from home                | 421,360                         | \$84,272,059          | 565,168                                   | \$113,033,651         | 825,142                                  | \$165,028,343              |
| Alcoholic beverages                | 78,174                          | \$13,680,529          | 104,855                                   | \$18,349,619          | 153,088                                  | \$26,790,315               |
| <i>Misc. Personal Items:</i>       |                                 |                       |                                           |                       |                                          |                            |
| Tobacco/smoking supplies           | 76,892                          | \$11,533,738          | 103,134                                   | \$15,470,140          | 150,575                                  | \$22,586,297               |
| Personal care services             | 71,560                          | \$7,155,969           | 95,983                                    | \$9,598,262           | 140,134                                  | \$14,013,396               |
| <i>Household Equip. and Svcs.:</i> |                                 |                       |                                           |                       |                                          |                            |
| Textiles                           | 36,706                          | \$4,588,239           | 49,233                                    | \$6,154,180           | 71,880                                   | \$8,985,060                |
| Furniture                          | 132,787                         | \$14,606,596          | 178,107                                   | \$19,591,747          | 260,035                                  | \$28,603,814               |
| Floor coverings                    | 24,535                          | \$4,293,581           | 32,908                                    | \$5,758,957           | 48,046                                   | \$8,408,037                |
| Major appliances                   | 45,461                          | \$6,819,218           | 60,977                                    | \$9,146,579           | 89,026                                   | \$13,353,942               |
| Small appliances                   | 23,853                          | \$2,862,388           | 31,994                                    | \$3,839,305           | 46,711                                   | \$5,605,358                |
| Misc. household equip.             | 111,178                         | \$18,900,177          | 149,122                                   | \$25,350,704          | 217,717                                  | \$37,011,851               |
| Domestic services                  | 151,187                         | \$18,142,486          | 202,787                                   | \$24,334,417          | 296,067                                  | \$35,528,080               |
| Other household expenses           | 32,272                          | \$3,872,642           | 43,286                                    | \$5,194,354           | 63,198                                   | \$7,583,720                |
| <i>Apparel:</i>                    |                                 |                       |                                           |                       |                                          |                            |
| Women's apparel, 16+               | 135,963                         | \$27,192,682          | 182,367                                   | \$36,473,396          | 266,255                                  | \$53,250,904               |
| Men's apparel, 16+                 | 75,980                          | \$15,195,911          | 101,911                                   | \$20,382,192          | 148,789                                  | \$29,757,858               |
| Girl's apparel, 2-15               | 20,626                          | \$4,125,206           | 27,666                                    | \$5,533,116           | 40,392                                   | \$8,078,311                |
| Boy's apparel, 2-15                | 16,417                          | \$3,283,327           | 22,020                                    | \$4,403,908           | 32,148                                   | \$6,429,676                |
| Children's apparel, <2             | 16,206                          | \$3,241,233           | 21,737                                    | \$4,347,448           | 31,736                                   | \$6,347,244                |
| Footwear                           | 52,407                          | \$10,481,390          | 70,293                                    | \$14,058,631          | 102,628                                  | \$20,525,503               |
| Other apparel                      | 60,615                          | \$12,123,053          | 81,303                                    | \$16,260,585          | 118,702                                  | \$23,740,341               |
| <i>Entertainment:</i>              |                                 |                       |                                           |                       |                                          |                            |
| Entertainment fees (Theaters)      | 351,063                         | \$17,553,171          | 470,879                                   | \$23,543,972          | 687,481                                  | \$34,374,036               |
| TV, sound equip., etc.             | 105,656                         | \$21,131,156          | 141,716                                   | \$28,343,103          | 206,904                                  | \$41,380,733               |
| Misc. entertainment                | 152,380                         | \$15,238,005          | 204,387                                   | \$20,438,652          | 298,403                                  | \$29,840,290               |
| Reading                            | 41,846                          | \$7,113,875           | 56,128                                    | \$9,541,802           | 81,947                                   | \$13,930,964               |
| Education                          | NA                              | \$18,858,083          | NA                                        | \$25,294,244          | NA                                       | \$36,929,419               |



|                                                    | 2015 Sq<br>Ft Created | Spending<br>Over 1990  | 2040 Sq<br>Ft Created | Spending<br>Over 1990  | 2040 Mod Sq<br>Ft Created | Spending<br>Over 1990  |
|----------------------------------------------------|-----------------------|------------------------|-----------------------|------------------------|---------------------------|------------------------|
| <i>Shelter and Related Exp.:</i>                   |                       |                        |                       |                        |                           |                        |
| Owner dwell exc. rep/maint                         | NA                    | \$114,579,693          | NA                    | \$153,685,113          | NA                        | \$224,379,196          |
| Owner dwell repairs/maint. (hardware, paint, etc.) | 202,752               | \$24,330,295           | 271,951               | \$32,634,091           | 397,046                   | \$47,645,546           |
| Rented dwelling expenses                           | NA                    | \$68,360,552           | NA                    | \$91,691,633           | NA                        | \$133,869,145          |
| Other lodging expenses                             | NA                    | \$25,508,925           | NA                    | \$34,214,981           | NA                        | \$49,953,634           |
| Fuels, util., pub. svcs.                           | NA                    | \$85,661,159           | NA                    | \$114,896,843          | NA                        | \$167,748,591          |
| <i>Transportation Expenses:</i>                    |                       |                        |                       |                        |                           |                        |
| Cars/trucks - new                                  | NA                    | \$55,058,868           | NA                    | \$73,850,157           | NA                        | \$107,820,716          |
| Cars/trucks - used                                 | NA                    | \$43,819,787           | NA                    | \$58,775,240           | NA                        | \$85,811,441           |
| Other vehicles                                     | NA                    | \$1,052,348            | NA                    | \$1,411,509            | NA                        | \$2,060,793            |
| Vehicle finance charge                             | NA                    | \$14,143,562           | NA                    | \$18,970,683           | NA                        | \$27,697,065           |
| Gas, motor oil                                     | NA                    | \$48,239,650           | NA                    | \$64,703,578           | NA                        | \$94,466,774           |
| Vehicle repairs/maint.                             | NA                    | \$27,487,340           | NA                    | \$36,868,618           | NA                        | \$53,827,926           |
| Vehicle insurance                                  | NA                    | \$26,140,334           | NA                    | \$35,061,887           | NA                        | \$51,190,110           |
| Public transportation                              | NA                    | \$14,017,281           | NA                    | \$18,801,302           | NA                        | \$27,449,769           |
| Vehicle rental, etc.                               | NA                    | \$8,966,008            | NA                    | \$12,026,058           | NA                        | \$17,557,961           |
| <i>Health Care:</i>                                |                       |                        |                       |                        |                           |                        |
| Health insurance                                   | NA                    | \$26,266,616           | NA                    | \$35,231,268           | NA                        | \$51,437,406           |
| Medical services                                   | NA                    | \$25,635,207           | NA                    | \$34,384,362           | NA                        | \$50,200,930           |
| Prescription drugs                                 | 49,237                | \$8,124,130            | 66,042                | \$10,896,850           | 96,420                    | \$15,909,326           |
| <i>Miscellaneous Items:</i>                        |                       |                        |                       |                        |                           |                        |
| Life and other insurance                           | NA                    | \$15,911,508           | NA                    | \$21,342,018           | NA                        | \$31,159,198           |
| <i>Gift Expenditures:</i>                          |                       |                        |                       |                        |                           |                        |
| Gift clothing                                      | 44,620                | \$6,692,936            | 59,848                | \$8,977,198            | 87,378                    | \$13,106,647           |
| Gift jewelry and watches                           | 2,183                 | \$589,315              | 2,928                 | \$790,445              | 4,274                     | \$1,154,044            |
| Gift small appliances                              | 6,104                 | \$1,220,724            | 8,187                 | \$1,637,351            | 11,953                    | \$2,390,520            |
| All other gifts                                    | 25,904                | \$3,367,515            | 34,745                | \$4,516,829            | 50,727                    | \$6,594,539            |
| <b>Totals</b>                                      | <b>3,041,165</b>      | <b>\$1,134,010,627</b> | <b>4,079,098</b>      | <b>\$1,521,042,232</b> | <b>5,955,455</b>          | <b>\$2,220,711,071</b> |

Source: NPDC and Leland Consulting Group.



**Appendix Table 3 (page 1)**  
**Pro Forma for Transit Center Development**  
**SE 122nd and Burnside**

**Program**

|                         | Acres | Square Feet |
|-------------------------|-------|-------------|
| Project Land Area       | 2.9   | 125,000     |
| Floor Area Ratio        |       | 0.48        |
| Dwelling Units per Acre |       | 17          |
| Employees per Acre      |       | 37          |
| Total Employees         |       | 105         |

|                                 | Stories | Footprint/Floor Area | Total  |
|---------------------------------|---------|----------------------|--------|
| Project Commercial Square Feet  | 2       | 15,000               | 30,000 |
| Project Residential Square Feet | 2       | 14,975               | 29,950 |
| Square Feet built               |         | 29,975               | 59,950 |

|                                                             |        |
|-------------------------------------------------------------|--------|
| Surface Parking                                             | 65,664 |
| Parking Spaces - 4/1000 SF Commercial, 1.3/Residential Unit | 182    |
| Square feet Site Coverage                                   | 95,639 |
| Project Residential Units                                   | 48     |

|                                 |         |
|---------------------------------|---------|
| Cost per Square Foot of Project | \$81.84 |
|---------------------------------|---------|

**Rent Assumptions**

| Unit Type         | Units | SF/Unit | Rent/Unit or SF | Rent/Mo  | Rent/Year |
|-------------------|-------|---------|-----------------|----------|-----------|
| Studio            | 3     | 400     | \$450           | \$1,350  | \$16,200  |
| One Bedroom       | 25    | 550     | \$550           | \$13,750 | \$165,000 |
| Two Bedroom       | 20    | 750     | \$750           | \$15,000 | \$180,000 |
| Office Commercial |       | 30,000  | \$15.50         | \$38,750 | \$465,000 |



**Appendix Table 3 (page 2)**  
**Pro Forma for Transit Center Development**  
**SE 122nd and Burnside**

**Stabilized Year Income Pro Forma**

|                              |              |           |                  |
|------------------------------|--------------|-----------|------------------|
| Gross Income - Rent          |              |           | 826,200          |
| Less Vacancy/Credit Loss     | 5%           |           | (41,310)         |
| Effective Gross Income (EGI) |              |           | <u>784,890</u>   |
| Less:                        |              |           |                  |
| Operating Expense            | 27.8% of EGI | (218,199) |                  |
| 3% Replacement Reserve       |              | (24,786)  |                  |
| Real Estate Tax              |              | (86,321)  |                  |
| Total                        | 42.0% of EGI |           | <u>(329,307)</u> |
| Net Operating Income         |              |           | 455,583          |
| Debt Service @ Coverage of   | 1.30         |           | (350,449)        |
| Cash Flow Before Tax         |              |           | <u>105,135</u>   |

Stabilized Year Return on Equity Before Tax 8.95%

**Financing Information**

|                                        |       |             |
|----------------------------------------|-------|-------------|
| Capitalized Value at 9.5%              |       | \$4,795,616 |
| Max Loan @ 1.3 Debt Coverage Ratio     |       | \$3,798,096 |
| Cash Equity Required                   |       | \$1,108,473 |
| Permanent Loan Rate                    | 8.50% |             |
| Amortization Period Yrs.               | 30    |             |
| Permanent Loan Points                  | 1.75% | \$66,467    |
| Debt Service @ 1.3 Debt Coverage Ratio |       | \$350,449   |
| Construction Loan at Rate of           | 9.00% | \$4,638,549 |
| Construction Points                    | 1.5%  | \$69,578    |



**Appendix Table 3 (page 3)**  
**Pro Forma for Transit Center Development**  
**SE 122nd and Burnside**

|                                           | Amount                                         | Unit | Unit    | Cost             |
|-------------------------------------------|------------------------------------------------|------|---------|------------------|
|                                           |                                                |      | Cost    |                  |
| <b>A. Land Acquisition</b>                |                                                |      |         |                  |
| Land Cost                                 | 125,000                                        | SF   | \$2.98  | 372,500          |
| <b>B. Site Construction Costs</b>         |                                                |      |         |                  |
| Demolition/Site Clearing                  |                                                | LS   | 18750   | 18,750           |
| Site Improvements                         |                                                |      |         |                  |
| Grading                                   | 125,000                                        | SF   | \$0.25  | 31,250           |
| Sewer/Water                               | 800                                            | LF   | \$60    | 48,000           |
| Surface Parking                           | 65,664                                         | SF   | \$2.50  | 164,160          |
| Landscaping                               | 29,361                                         | SF   | \$1.50  | 44,042           |
| <b>Total</b>                              |                                                |      |         | <b>306,202</b>   |
| <b>C. Building Construction Costs</b>     |                                                |      |         |                  |
| Residential Building Shell Costs          | 29,950                                         | SF   | \$40.00 | 1,198,000        |
| Commercial Building Shell                 | 30,000                                         |      | \$42.00 | 1,260,000        |
| Com'l Tenant Improvements                 | 30,000                                         |      | \$18.00 | 540,000          |
| Contractor Overhd/Profit                  |                                                |      | 5%      | 149,900          |
| <b>Total</b>                              |                                                |      |         | <b>3,147,900</b> |
| <b>D. Soft Costs</b>                      |                                                |      |         |                  |
| Soft Costs other than interest and points |                                                |      | 8.0%    | 276,328          |
| Construction Interest                     |                                                |      | 9.0%    | 419,270          |
| Construction Points                       |                                                |      | 1.5%    | 69,578           |
| <b>Total Soft Costs</b>                   | <b>18% as a percent of Hard and Soft Costs</b> |      |         | <b>765,177</b>   |
| Contingency                               |                                                | 10%  |         | 314,790          |
| <b>Total Project Cost</b>                 |                                                |      |         | <b>4,906,568</b> |



**Appendix Table 4 (page 1)**  
**Pro Forma for Infill Redevelopment**  
**SE 115th and Division, Site 1 (West of 115th)**

**Program**

|                                                           | Acres   | Square Feet          |        |
|-----------------------------------------------------------|---------|----------------------|--------|
| Project Land Area                                         | 1.5     | 64,394               |        |
| Floor Area Ratio                                          |         | 0.52                 |        |
| Dwelling Units per Acre                                   |         | 17                   |        |
| Employees per Acre                                        |         | 37                   |        |
| Total Employees @ 3/1000 Square Feet Commercial           |         | 54                   |        |
|                                                           | Stories | Footprint/Floor Area | Total  |
| Project Commercial SF                                     | 1       | 18,000               | 18,000 |
| Project Rental Square Feet                                | 2.5     | 6,300                | 15,750 |
| Square Feet built                                         |         | 24,300               | 33,750 |
| Surface Parking                                           |         |                      | 37,620 |
| Parking Spaces 4/1000 SF Commercial, 1.3/Residential Unit |         |                      | 105    |
| Square feet Site Coverage                                 |         |                      | 61,920 |
| Project Residential Units                                 |         |                      | 25     |
| Cost per Square Foot of Project                           |         |                      | 72.40  |

**Rent Assumptions**

| Unit Type           | Units | SF/Unit | Rent/Unit or SF | Rent/Mo  | Rent/Year |
|---------------------|-------|---------|-----------------|----------|-----------|
| Studio              | 0     | 400     |                 | \$0      | \$0       |
| One Bedroom         | 15    | 550     | \$500           | \$7,500  | \$90,000  |
| Two Bedroom         | 10    | 750     | \$700           | \$7,000  | \$84,000  |
| Retail/Office Space |       | 18,000  | \$14.00         | \$21,000 | \$252,000 |



**Appendix Table 4 (page 2)**  
**Pro Forma for Infill Redevelopment**  
**SE 115th and Division, Site 1 (West of 115th)**

**Stabilized Year Income Pro Forma**

|                              |              |           |          |
|------------------------------|--------------|-----------|----------|
| Gross Income - Rent          |              |           | 426,000  |
| Less Vacancy/Credit Loss     | 5%           |           | (21,300) |
| Effective Gross Income (EGI) |              |           | 404,700  |
| Less:                        |              |           |          |
| Operating Expense            | 27.8% of EGI | (112,507) |          |
| 3% Replacement Reserve       |              | (12,780)  |          |
| Real Estate Tax              |              | (44,508)  |          |
| Total                        | 42.0% of EGI | (169,795) |          |
| Net Operating Income         |              |           | 234,905  |
| Debt Service @ Coverage of   | 1.30         | (180,696) |          |
| Cash Flow Before Tax         |              |           | 54,209   |

Stabilized Year Return on Equity Before Tax 10.53%

**Financing Information**

|                                        |       |             |
|----------------------------------------|-------|-------------|
| Capitalized Value at 9.5%              |       | \$2,472,685 |
| Max Loan @ 1.3 Debt Coverage Ratio     |       | \$1,958,350 |
| Equity Required                        |       | \$485,188   |
| Permanent Loan Rate                    | 8.50% |             |
| Amortization Period Yrs.               | 30    |             |
| Permanent Loan Points                  | 1.50% | \$29,375    |
| Debt Service @ 1.3 Debt Coverage Ratio |       | \$180,696   |
| Construction Loan at Rate of           | 9%    | \$2,442,715 |
| Construction Points                    | 1.5%  | \$36,641    |



**Appendix Table 4 (page 3)**  
**Pro Forma for Infill Redevelopment**  
**SE 115th and Division, Site 1 (West of 115th)**

|                                           | Amount                                  | Unit | Unit Cost | Cost             |
|-------------------------------------------|-----------------------------------------|------|-----------|------------------|
| <b>A. Land Acquisition</b>                |                                         |      |           |                  |
| Land Cost                                 | 64,394                                  | SF   | \$0.80    | 51,516           |
| <b>B. Site Construction Costs</b>         |                                         |      |           |                  |
| Demolition/Site Clearing                  |                                         | LS   | 6000      | 6,000            |
| Site Improvements                         |                                         |      |           |                  |
| Grading                                   | 64,394                                  | SF   | \$0.25    | 16,099           |
| Sewer/Water                               | 200                                     | LF   | \$60      | 12,000           |
| Surface Parking                           | 37,620                                  | SF   | \$2.50    | 94,050           |
| Landscaping                               | 2,474                                   | SF   | \$1.50    | 3,712            |
| <b>Total</b>                              |                                         |      |           | <b>131,860</b>   |
| <b>C. Building Construction Costs</b>     |                                         |      |           |                  |
| Residential Building Shell Costs          | 15,750                                  | SF   | \$40.00   | 630,000          |
| Commercial Building Shell                 | 18,000                                  |      | \$40.00   | 720,000          |
| Com'l Tenant Improvements                 | 18,000                                  |      | \$15.00   | 270,000          |
| Contractor Overhd/Profit                  |                                         |      | 5%        | 81,000           |
| <b>Total</b>                              |                                         |      |           | <b>1,701,000</b> |
| <b>D. Soft Costs</b>                      |                                         |      |           |                  |
| Soft Costs other than interest and points |                                         |      | 9%        | 164,957          |
| Construction Interest                     |                                         |      | 9%        | 220,793          |
| Construction Points                       |                                         |      | 1.5%      | 3,312            |
| <b>Total Soft Costs</b>                   | 18% as a percent of Hard and Soft Costs |      |           | <b>389,062</b>   |
| Contingency                               |                                         | 10%  |           | 170,100          |
| <b>Total Project Cost</b>                 |                                         |      |           | <b>2,443,538</b> |



**Appendix Table 5 (page 1)**  
**Pro Forma for Infill Redevelopment**  
**SE 115th and Division, Site 2 (East of 115th)**

**Program**

|                         | Acres | Square Feet |
|-------------------------|-------|-------------|
| Project Land Area       | 2.5   | 110,413     |
| Floor Area Ratio        |       | 0.37        |
| Dwelling Units per Acre |       | 12          |

|                                                  | Stories | Footprint/Floor Plate | Total SF |
|--------------------------------------------------|---------|-----------------------|----------|
| Project Residential Square Feet                  | 2       | 20,250                | 40,500   |
| Square Feet built                                |         | 20,250                | 40,500   |
| Circulation - Includes 2 Parking Spaces per Unit |         |                       | 33,300   |
| Square feet Site Coverage                        |         |                       | 53,550   |
| Project Residential Units                        |         |                       | 30       |
| Cost per Square Foot of Project                  |         |                       | 72.72    |

**Rent Assumptions**

| Unit Type           | Units | SF/Unit | Value or Rent | Sales or Rent/Year |
|---------------------|-------|---------|---------------|--------------------|
| Studio              | 0     | 400     |               | \$0                |
| One Bedroom         | 0     | 550     |               | \$0                |
| Two Bedroom         | 0     | 750     |               | \$0                |
| For Sale Units      | 30    | 1,350   | \$135,000     | \$4,050,000        |
| Commercial - Retail |       |         |               | \$0                |



**Appendix Table 5 (page 2)**  
**Pro Forma for Infill Redevelopment**  
**SE 115th and Division, Site 2 (East of 115th)**

**Stabilized Year Income Pro Forma**

|                                    |    |               |
|------------------------------------|----|---------------|
| Gross Sales Revenues               |    | \$4,050,000   |
| Less Brokerage                     | 6% | (\$243,000)   |
| Effective Sales Revenue            |    | \$3,807,000   |
| Less: Real Estate Tax on Land Only |    | (\$1,590)     |
| Cost of Construction               |    | (\$2,945,307) |
| Net Revenues from Sales            |    | \$860,103     |
| Cost per Unit                      |    | \$98,177      |
| Net Revenue per Unit               |    | \$28,670      |
| Net Revenue as a Percent of Cost   |    | 29.20%        |

**Financing Information**

|                        |       |             |
|------------------------|-------|-------------|
| Construction Loan at   | 9.00% | \$3,092,914 |
| Construction Points    | 1.50% | \$46,394    |
| Term of Loan in Months |       | 12          |



**Appendix Table 5 (page 3)**  
**Pro Forma for Infill Redevelopment**  
**SE 115th and Division, Site 2 (East of 115th)**

|                                           | Amount                                  | Unit | Unit Cost | Cost             |
|-------------------------------------------|-----------------------------------------|------|-----------|------------------|
| <b>A. Land Acquisition</b>                |                                         |      |           |                  |
| Land Cost - Unimproved, no permits        | 110,413                                 | SF   | \$0.80    | 88,330           |
| Cost per Lot                              | 30                                      | Lots | \$2,944   |                  |
| <b>B. Site Construction Costs</b>         |                                         |      |           |                  |
| Demolition/Site Clearing                  |                                         | LS   | 6000      | 6,000            |
| Site Improvements                         |                                         |      |           |                  |
| Grading                                   | 110,413                                 | SF   | \$0.25    | 27,603           |
| Sewer/Water                               | 600                                     | LF   | \$60      | 36,000           |
| Circulation and Hardscape                 | 33,300                                  | SF   | \$3.50    | 116,550          |
| Landscaping                               | 5,000                                   | SF   | \$1.50    | 7,500            |
| <b>Total</b>                              |                                         |      |           | <b>193,653</b>   |
| <b>C. Building Construction Costs</b>     |                                         |      |           |                  |
| Residential Building Shell Costs          | 40,500                                  | SF   | \$48.00   | 1,944,000        |
| Commercial Building Shell                 | 0                                       |      | \$42.00   | 0                |
| Com'l Tenant Improvements                 | 0                                       |      | \$18.00   | 0                |
| Contractor Overhd/Profit                  |                                         |      | 5%        | 97,200           |
| <b>Total</b>                              |                                         |      |           | <b>2,041,200</b> |
| <b>D. Soft Costs</b>                      |                                         |      |           |                  |
| Soft Costs other than interest and points |                                         |      | 12%       | 268,182          |
| Construction Interest                     |                                         |      | 9.0%      | 147,607          |
| Construction Points                       |                                         |      | 1.5%      | 2,214            |
| <b>Total Soft Costs</b>                   | 16% as a percent of Hard and Soft Costs |      |           | <b>418,004</b>   |
| Contingency                               |                                         | 10%  |           | 204,120          |
| <b>Total Project Cost</b>                 |                                         |      |           | <b>2,945,307</b> |



**Appendix Table 6 (page 1)**  
**Pro Forma for Infill Redevelopment**  
**SE 39th and Division**

**Program**

|                         | Acres                        | Square Feet |
|-------------------------|------------------------------|-------------|
| Project Land Area       | 0.46                         | 20,000      |
| Floor Area Ratio        |                              | 0.58        |
| Dwelling Units per Acre |                              | 17          |
| Employees per Acre      |                              | 30          |
| Total Employees         | Retail at 2/1000 square feet | 14          |

|                                                                | Stories | Footprint/Floor Area | Total  |
|----------------------------------------------------------------|---------|----------------------|--------|
| Project Commercial SF                                          | 1       | 7,000                | 7,000  |
| Project Residential Square Feet                                | 1       | 4,500                | 4,500  |
| Square Feet built                                              |         | 7,000                | 11,500 |
| Surface Parking                                                |         |                      | 12,420 |
| Parking Spaces - 3.5/1000 SF Commercial, 1.25/Residential Unit |         |                      | 35     |
| Square feet Site Coverage                                      |         |                      | 19,420 |
| Project Residential Units                                      |         |                      | 8      |

Cost per Square Foot of Project 82.89

**Rent Assumptions**

| Unit Type         | Units | SF/Unit | Rent/Unit or SF | Rent/Mo | Rent/Year |
|-------------------|-------|---------|-----------------|---------|-----------|
| Studio            | 2     | 400     | \$450           | \$900   | \$10,800  |
| One Bedroom       | 4     | 550     | \$550           | \$2,200 | \$26,400  |
| Two Bedroom       | 2     | 750     | \$750           | \$1,500 | \$18,000  |
| Three Bedroom     | 0     | 1,000   |                 | \$0     | \$0       |
| Commercial Retail |       | 7,000   | \$14.00         | \$8,167 | \$98,000  |



**Appendix Table 6 (page 2)**  
**Pro Forma for Infill Redevelopment**  
**SE 39th and Division**

**Stabilized Year Income Pro Forma**

|                              |              |          |                 |
|------------------------------|--------------|----------|-----------------|
| Gross Income - Rent          |              |          | 153,200         |
| Less Vacancy/Credit Loss     | 5%           |          | (7,660)         |
| Effective Gross Income (EGI) |              |          | <u>145,540</u>  |
| Less:                        |              |          |                 |
| Operating Expense            | 23.1% of EGI | (33,620) |                 |
| 3% Replacement Reserve       |              | (4,596)  |                 |
| Real Estate Tax              |              | (17,096) |                 |
| Total                        | 38.0% of EGI |          | <u>(55,312)</u> |
| Net Operating Income         |              |          | 90,228          |
| Debt Service @ Coverage of   | 1.30         |          | <u>(69,406)</u> |
| Cash Flow Before Tax         |              |          | 20,822          |

Stabilized Year Return on Equity Before Tax 9.72%

**Financing Information**

|                                        |       |           |
|----------------------------------------|-------|-----------|
| Capitalized Value at 9.5%              |       | \$949,772 |
| Max Loan @ 1.3 Debt Coverage Ratio     |       | \$752,213 |
| Equity Required                        |       | \$200,966 |
| Permanent Loan Rate                    | 8.50% |           |
| Amortization Period Yrs.               | 30    |           |
| Permanent Loan Points                  | 1.75% | \$13,164  |
| Debt Service @ 1.3 Debt Coverage Ratio |       | \$69,406  |
| Construction Loan at Rate of           | 9.0%  | \$882,118 |
| Construction Points                    | 1.5%  | \$13,232  |



**Appendix Table 6 (page 3)**  
**Pro Forma for Infill Redevelopment**  
**SE 39th and Division**

|                                           | Amount | Unit | Unit Cost                                      | Cost           |
|-------------------------------------------|--------|------|------------------------------------------------|----------------|
| <b>A. Land Acquisition</b>                |        |      |                                                |                |
| Land Cost                                 | 20,000 | SF   | \$4.50                                         | 90,000         |
| <b>B. Site Construction Costs</b>         |        |      |                                                |                |
| Demolition/Site Clearing                  |        | LS   | 0                                              | 0              |
| Site Improvements                         |        |      |                                                |                |
| Grading                                   | 20,000 | SF   | \$0.25                                         | 5,000          |
| Sewer/Water                               | 200    | LF   | \$60                                           | 12,000         |
| Surface Parking                           | 12,420 | SF   | \$2.50                                         | 31,050         |
| Landscaping                               | 580    | SF   | \$1.50                                         | 870            |
| <b>Total</b>                              |        |      |                                                | <b>48,920</b>  |
| <b>C. Building Construction Costs</b>     |        |      |                                                |                |
| Residential Building Shell Costs          | 4,500  | SF   | \$40.00                                        | 180,000        |
| Commercial Building Shell                 | 7,000  |      | \$42.00                                        | 294,000        |
| Com'l Tenant Improvements                 | 7,000  |      | \$15.00                                        | 105,000        |
| Contractor Overhd/Profit                  |        |      | 5%                                             | 28,950         |
| <b>Total</b>                              |        |      |                                                | <b>607,950</b> |
| <b>D. Soft Costs</b>                      |        |      |                                                |                |
| Soft Costs other than interest and points |        |      | 8%                                             | 52,550         |
| Construction Interest                     |        |      | 9%                                             | 79,733         |
| Construction Points                       |        |      | 1.5%                                           | 13,232         |
| <b>Total Soft Costs</b>                   |        |      | <b>18% as a percent of Hard and Soft Costs</b> | <b>145,514</b> |
| Contingency                               |        |      | 10%                                            | 60,795         |
| <b>Total Project Cost</b>                 |        |      |                                                | <b>953,179</b> |



**Appendix Table 7 (page 1)**  
**Pro Forma for Infill Redevelopment**  
**NE Martin Luther King Blvd. and Portland Blvd.**

**Program**

|                         | Acres | Square Feet |
|-------------------------|-------|-------------|
| Project Land Area       | 1.4   | 61,490      |
| Floor Area Ratio        |       | 0.45        |
| Dwelling Units per Acre |       | 17          |
| Employees per Acre      |       | 34          |
| Total Employees         |       | 48          |

|                                                             | Stories | Footprint/Floor Area | Total SF |
|-------------------------------------------------------------|---------|----------------------|----------|
| Project Commercial Square Feet                              | 1       | 12,000               | 12,000   |
| Project Residential Square Feet                             | 2       | 7,800                | 15,600   |
| Square Feet built                                           |         | 19,800               | 27,600   |
| Surface Parking Square Feet                                 |         |                      | 28,512   |
| Parking Spaces - 4/1000 SF Commercial, 1.3/Residential Unit |         |                      | 79       |
| Square feet Site Coverage                                   |         |                      | 48,312   |
| Project Residential Units                                   |         |                      | 24       |
| Cost per Square Foot of Project                             |         |                      | \$72.83  |

**Rent Assumptions**

| Unit Type           | Units | SF/Unit | Rent/Unit or SF | Rent/Mo  | Rent/Year |
|---------------------|-------|---------|-----------------|----------|-----------|
| One Bedroom         | 12    | 550     | \$425           | \$5,100  | \$61,200  |
| Two Bedroom         | 12    | 750     | \$550           | \$6,600  | \$79,200  |
| Commercial - Retail |       | 12,000  | \$11.50         | \$11,500 | \$138,000 |



**Appendix Table 7 (page 2)**  
**Pro Forma for Infill Redevelopment**  
**NE Martin Luther King Blvd. and Portland Blvd.**

**Stabilized Year Income Pro Forma**

|                                 |              |           |          |
|---------------------------------|--------------|-----------|----------|
| Gross Income - Rent             |              |           | 278,400  |
| Less Vacancy/Credit Loss        | 5%           |           | (13,920) |
| Effective Gross Income (EGI)    |              |           | 264,480  |
| Less:                           |              |           |          |
| Operating Expense               | 27.8% of EGI | (73,525)  |          |
| 3% Replacement Reserve          |              | (8,352)   |          |
| Real Estate Tax @ 1.8% of Value |              | (29,087)  |          |
| Total                           | 42.0% of EGI | (110,965) |          |
| Net Operating Income            |              |           | 153,515  |
| Debt Service @ Coverage of      | 1.30         | (118,089) |          |
| Cash Flow Before Tax            |              |           | 35,427   |

Stabilized Year Return on Equity Before Tax 11.53%

**Financing Information**

|                                        |       |             |
|----------------------------------------|-------|-------------|
| Capitalized Value at 9.5%              |       | \$1,615,952 |
| Max Loan @ 1.3 Debt Coverage Ratio     |       | \$1,733,167 |
| Cash Equity Required                   |       | \$276,843   |
| Rate - Bond Revenue Financing          | 5.50% |             |
| Amortization Period Yrs.               | 30    |             |
| Permaenat Loan Points                  | 1.75% | \$30,330    |
| Debt Service @ 1.3 Debt Coverage Ratio |       | \$118,089   |
| Construction Loan at Rate of           | 9.00% | \$2,011,437 |
| Construction Points                    | 1.5%  | \$30,172    |



**Appendix Table 7 (page 3)**  
**Pro Forma for Infill Redevelopment**  
**NE Martin Luther King Blvd. and Portland Blvd.**

|                                           | Amount                                  | Unit | Unit Cost | Cost             |
|-------------------------------------------|-----------------------------------------|------|-----------|------------------|
| <b>A. Land Acquisition</b>                |                                         |      |           |                  |
| Land Cost                                 | 61,490                                  | SF   | \$0.70    | 43,043           |
| <b>B. Site Construction Costs</b>         |                                         |      |           |                  |
| Demolition/Site Clearing                  |                                         | LS   | 6000      | 6,000            |
| Site Improvements                         |                                         |      |           |                  |
| Grading                                   | 61,490                                  | SF   | \$0.25    | 15,373           |
| Sewer/Water                               | 200                                     | LF   | \$60      | 12,000           |
| Surface Parking                           | 28,512                                  | SF   | \$2.50    | 71,280           |
| Landscaping                               | 13,178                                  | SF   | \$1.50    | 19,767           |
| <b>Total</b>                              |                                         |      |           | <b>124,420</b>   |
| <b>C. Building Construction Costs</b>     |                                         |      |           |                  |
| Residential Building Shell Costs          | 15,600                                  | SF   | \$40.00   | 624,000          |
| Commercial Building Shell                 | 12,000                                  |      | \$42.00   | 504,000          |
| Com'l Tenant Improvements                 | 12,000                                  |      | \$15.00   | 180,000          |
| Contractor Overhd/Profit                  |                                         |      | 5%        | 65,400           |
| <b>Total</b>                              |                                         |      |           | <b>1,373,400</b> |
| <b>D. Soft Costs</b>                      |                                         |      |           |                  |
| Soft Costs other than interest and points |                                         |      | 8%        | 119,826          |
| Construction Interest                     |                                         |      | 9%        | 181,810          |
| Construction Points                       |                                         |      | 1.5%      | 30,172           |
| <b>Total Soft Costs</b>                   | 18% as a percent of Hard and Soft Costs |      |           | <b>331,807</b>   |
| Contingency                               |                                         |      | 10%       | 137,340          |
| <b>Total Project Cost</b>                 |                                         |      |           | <b>2,010,010</b> |



## APPENDIX B



APPENDIX B



**PROJECT: DENVER SMALL LOT SINGLE FAMILY**

**Use** Single Family  
Detached Homes  
1,000 - 1,400 sf.

**Density** 10 Units/Acre

**Location** Denver, Colorado

**Market** Entry Level Home Owners



This project in Denver achieves relatively high densities for single family detached homes and has resulted in attractive homes with strong street presence. The plan is an innovative combination of techniques that have been used for small lot subdivisions:

- Wide-shallow lots, in which the homes are sited parallel to the long dimension of the lot
- Alley-served garages
- Grouping of four to six houses along short street segments.

The houses are small, ranging from 1,000 to 1,200 sf. but use traditional forms and have very strong entries. The wide shallow lots reduce front yard space, but landscaping and attractive front facades give the development a high quality look.

This type of plan could be used in newly developing parts of Portland, such as Outer Southeast or in some cases on larger redevelopment sites.

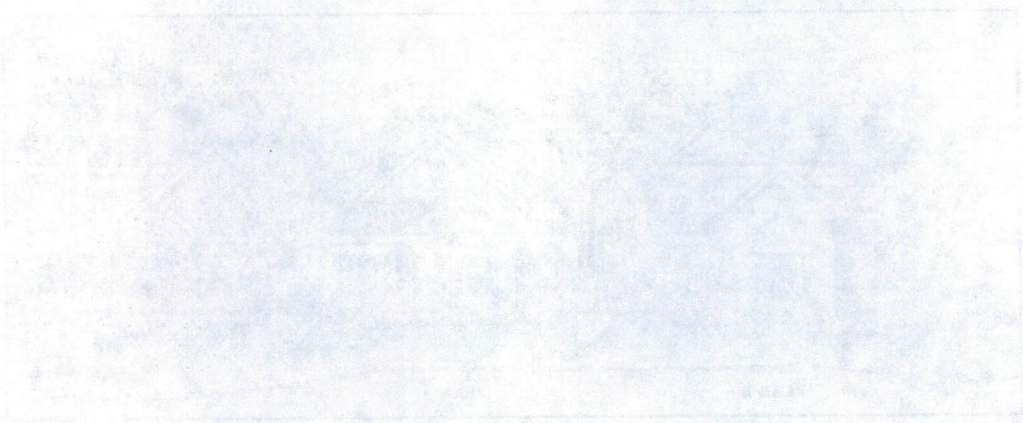
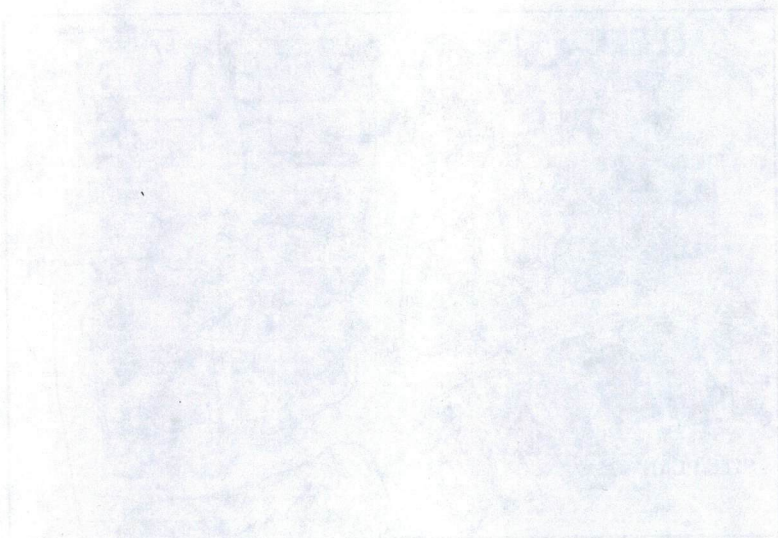


1880

1881

1882

1883



The following is a list of the names of the persons who have been appointed to the various positions of the General Land Office, and the date of their appointment.

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**PROJECT: HARBOR TOWN**

**Use** Six Detached Small  
Lot Single Family  
Homes, 1,700 sf.

**Density** 14 Units/Gross Acre

**Location** Memphis, Tennessee

**Market** Young Couples,  
Empty Nesters



This project consists of six detached single family homes on 30 x 100 foot lots (3,000 sf.). Targeted to young couples, these homes are the entry level product in the new master-planned community of Harbor Town. The units include attached garages served from an alley.

The project achieves strong street presence by virtue of the alley-loaded garages. The "shotgun" room arrangement allows for the narrow lot frontage. Though cost savings were achieved by using stock building materials, the variety of facades and the detailing

made the units quite attractive. All the units have porches, and all can be entered from the front or from a side courtyard, as well as from the garage.

All six units were sold in pre-sales.

This project would be well-suited to Portland's 50 X 100 foot lots, as two such lots could be combined to form three 30 x 100's, with space for the alley service in the rear of the lots.







**PROJECT: THE MAINS AT ANNANDALE**

**Use** 9 Attached sf.  
2,800 sf.  
Double Garages

**Density** 7.38/Acre

**Location** Annandale, Virginia

**Market** Moderate-upper  
Income, dual  
Income  
Professionals  
Empty Nesters



The Mains at Annandale is a project that provides attached single-family dwellings in a formerly single family-only neighborhood. The design grew out of discussion with neighbors - the developers believed that the demand for these homes would come from families already in the neighborhood.

The project is designed to be compatible with up-scale single family residences while accommodating a substantially higher density

than existing development. It was built on what was considered an infill lot of 1.22 acres. The nine homes contain 2,800 square feet and double garages. The detailing and quality of materials was critical to the project's success. All nine homes sold within six months.

The project includes large back yards and the density of the project could have been increased by using less landscaped space.



For the year ended December 31, 1999

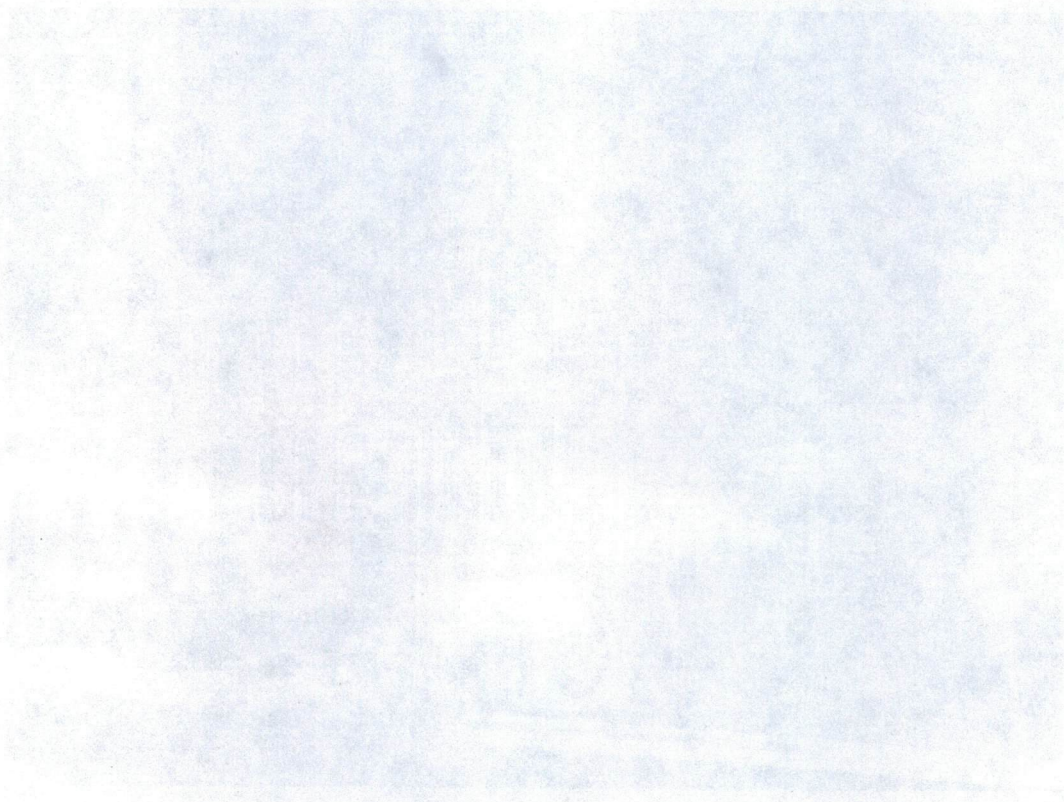
1. Financial Statements

2. Management's Discussion and Analysis

3. Corporate Governance

4. Environmental and Social Issues

5. Other Information



The Board of Directors is pleased to present this report on the company's performance during the year ended December 31, 1999. The company has achieved significant milestones and has maintained its commitment to excellence in all aspects of its operations.

The company's financial performance was strong, with a steady increase in revenue and a decrease in expenses. This was achieved through the company's strategic initiatives and the dedication of its employees.

The company has also made significant investments in research and development, which will enable it to stay at the forefront of its industry.

The company's commitment to environmental and social responsibility is a key part of its corporate strategy. It has implemented various initiatives to reduce its carbon footprint and improve its social performance.



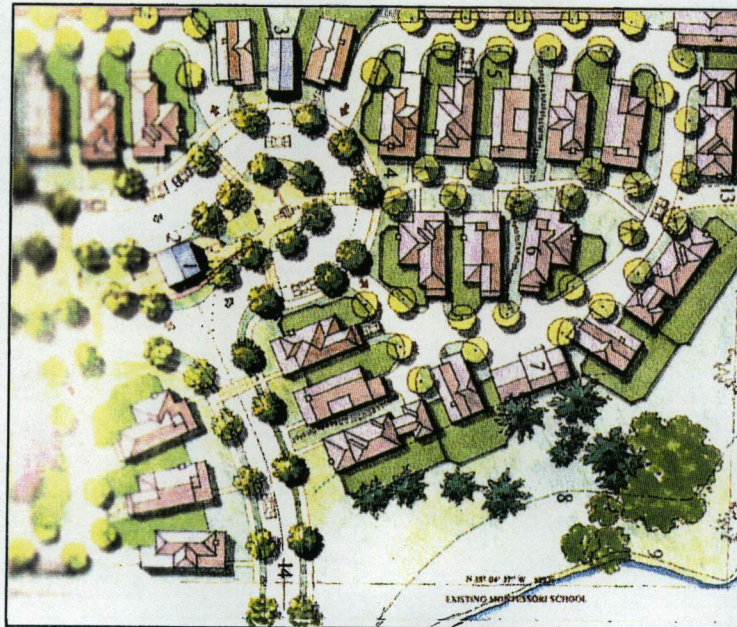
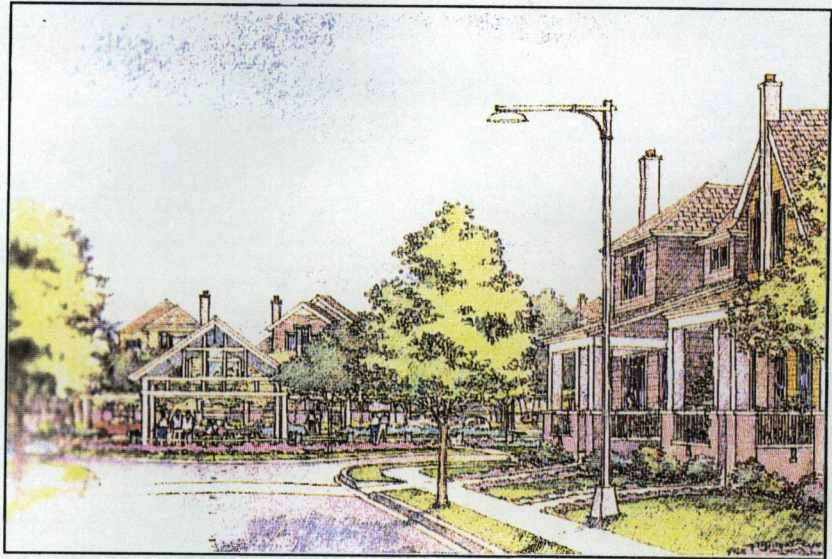
**PROJECT: CANYON CREEK HOMES**

**Use** 40 Detached Single  
Family Homes  
1,100 sf.

**Density** 10 Units/Acre

**Location** Bothell, Washington

**Market** First Time Buyers



The 40 Canyon Creek homes sit on a 4.9 acre infill site in Bothell, outside of Seattle. The plan for this project is unusual. The houses are grouped around a single "auto-court" that provides access to rear access attached single car garages in each unit and to grouped carports and garages that provide additional parking. This allows for a very friendly street frontage and traditional cottage-like front facades.

The market for these small homes (1,100 sf.) are first time buyers, and this product provides a transition product for households that

previously rented. The developers of the project believe that buyers are used to walking from the parking to their home and that the limitation of only single car attached garages will be acceptable.

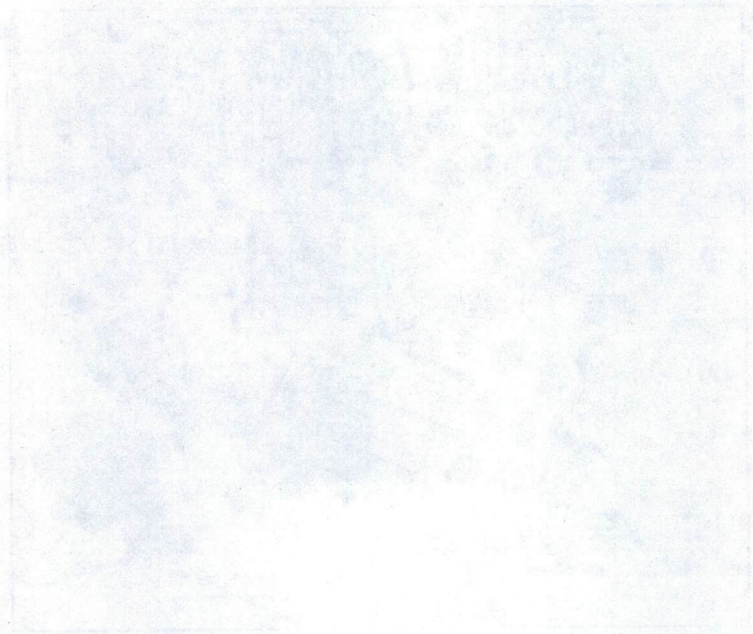
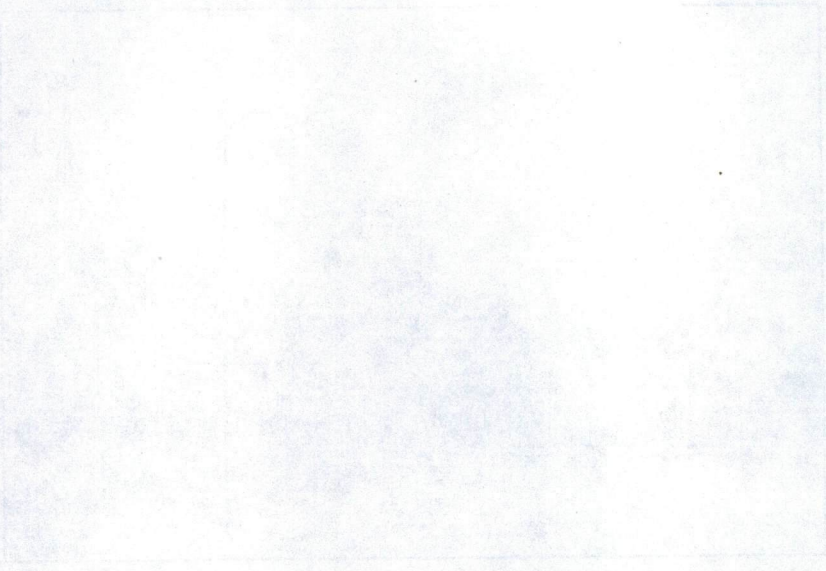
This type of project might be suitable for many newly developing areas of Portland, especially outer Southeast. An especially important feature of the project is its affordability and that it represents an intermediate step between conventional rentals and conventional single family houses.



1. The first part of the project was to collect data on the local population. This was done by interviewing the local officials and the residents of the area. The data was then analyzed to determine the population size and distribution.

2. The second part of the project was to collect data on the local economy. This was done by interviewing the local officials and the residents of the area. The data was then analyzed to determine the economic structure and the level of development.

3. The third part of the project was to collect data on the local culture. This was done by interviewing the local officials and the residents of the area. The data was then analyzed to determine the cultural values and the social norms.



The project was completed in 1995. The data collected was used to develop a plan for the future development of the area. The plan was approved by the local officials and the residents of the area. The project was a success and the data collected was used to develop a plan for the future development of the area.

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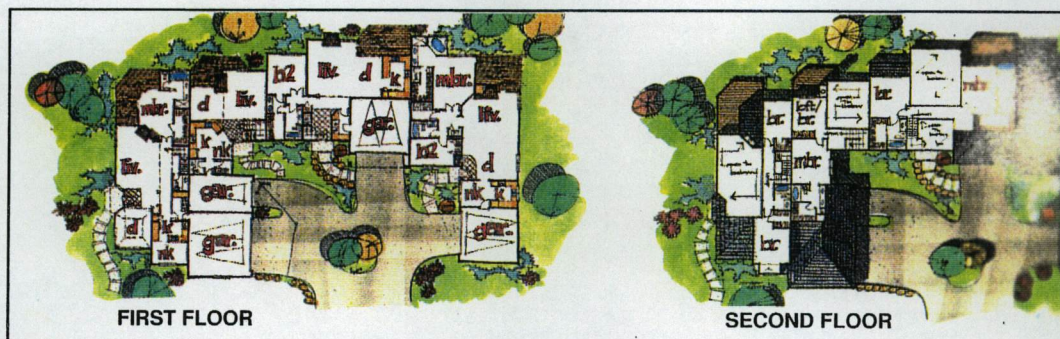
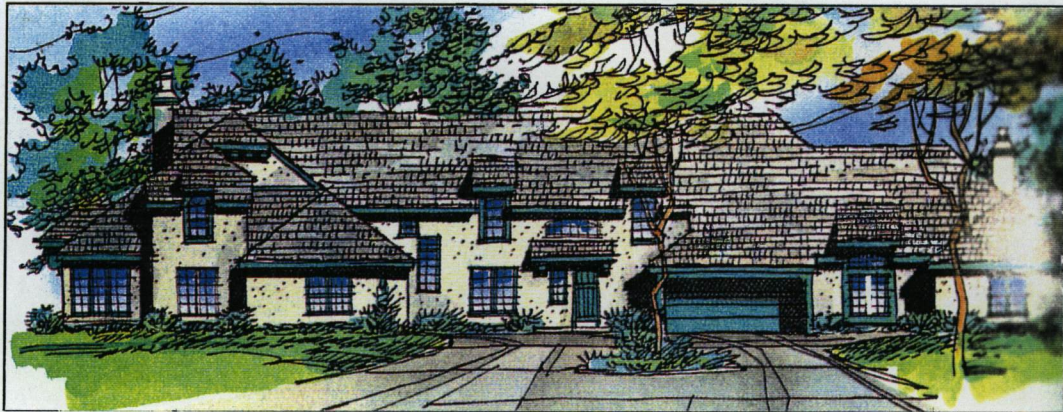


## PROJECT: THE FOREST AT EDISON LAKE TOWNHOUSES

**Use** 80 Single Family  
Attached Homes, in Fourplexes  
1,000 - 1,500 sf.

**Location** Mishawaka, Indiana

**Market** Empty Nesters  
Young Professional  
Childfree Families



These townhouses are part of a luxury lakeside planned community that also includes duplexes and high end detached single family homes. The townhouses are clustered in U-shaped fourplexes that orient around a private courtyard. The facade of the fourplex echos that of a large single family home. Two story units are massed in the center of the "U" and ranch and split level homes form the sides.

The shape and orientation allow for three of the four garages to face the courtyard and not the street, creating a much greater focus on the living areas. Three of the units have entries on the courtyard

and the fourth has an external entry. The floor plans are varied, and range from 1,000 - 1,500 square feet. The targeted owners are empty nester couples seeking to move down and young childfree couples.

Though the setting of this project is decidedly suburban, the project would lend itself to infill locations in higher end residential neighborhoods. The design of the project allows it to blend well with attached single family product and offers a definite alternative to most rowhouses which are contemporary in design and lack distinguishing facades.



THE HUMAN RACE

THE HUMAN RACE

THE HUMAN RACE

THE HUMAN RACE

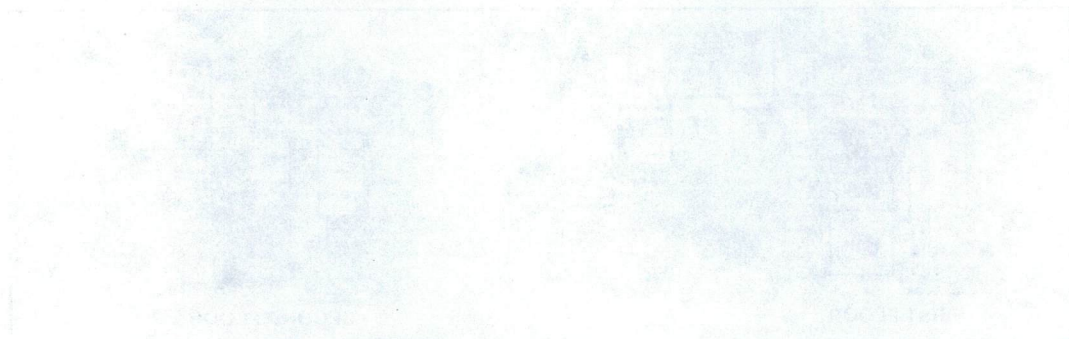
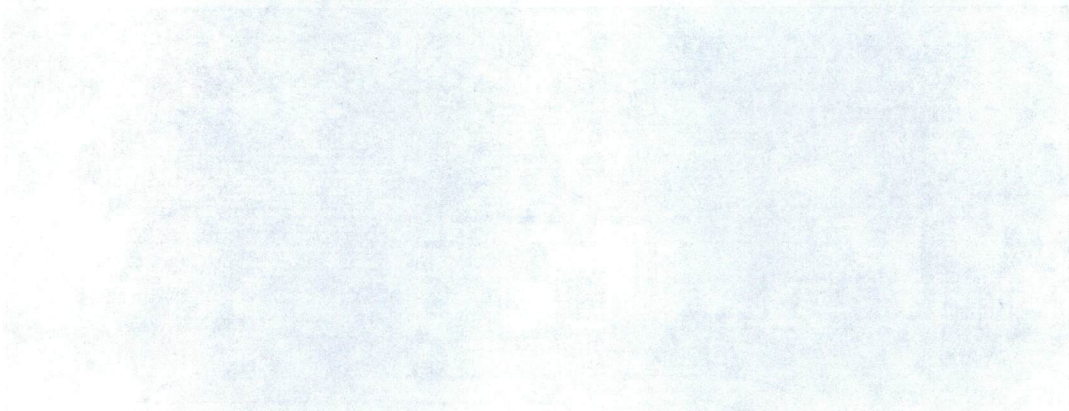
THE HUMAN RACE

THE HUMAN RACE

THE HUMAN RACE

THE HUMAN RACE

THE HUMAN RACE



The human race is a complex of many different groups, each with its own history and characteristics. The study of the human race is a branch of anthropology that deals with the physical and cultural differences between the various groups of the human race. The human race is a complex of many different groups, each with its own history and characteristics. The study of the human race is a branch of anthropology that deals with the physical and cultural differences between the various groups of the human race.

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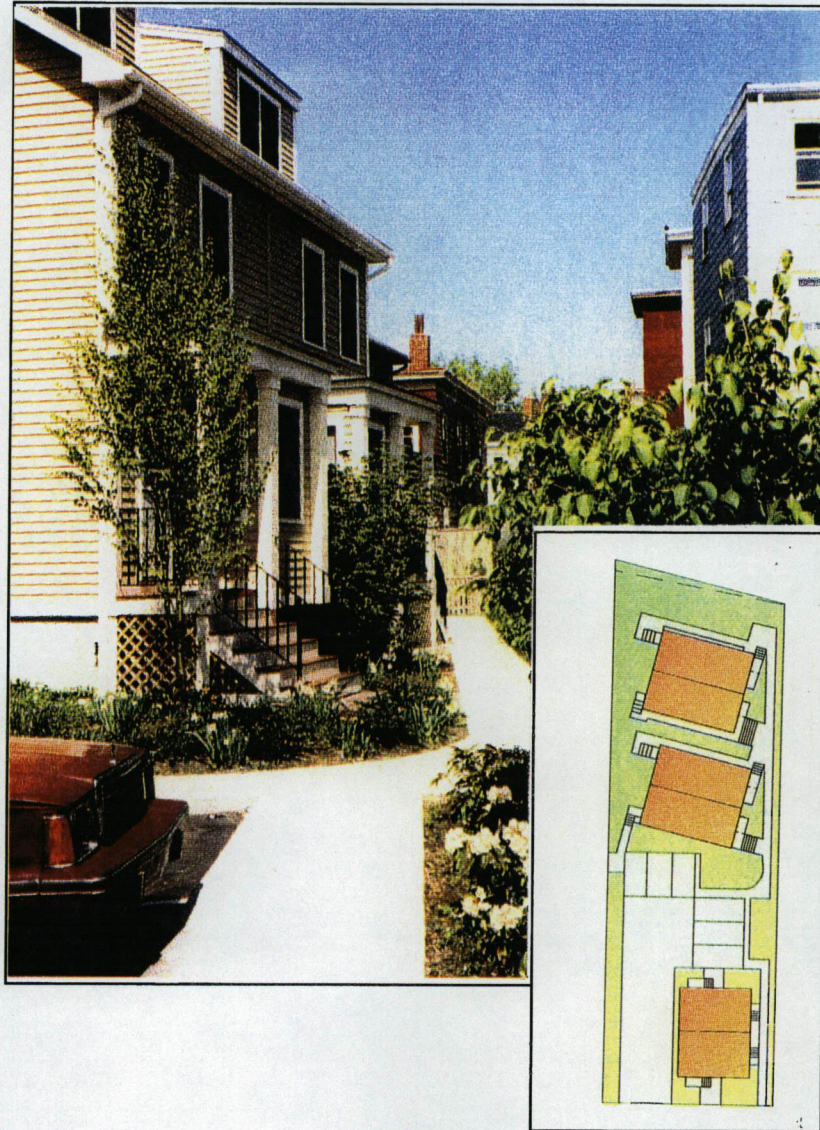
**PROJECT: COLUMBIA STREET CONDOMINIUMS**

**Use** Six Attached Single  
Family Homes In  
Three Duplexes,  
1,200–1,800 sf.

**Density** 24 Units/Acres

**Location** Cambridge, Massachusetts

**Market** Low and Moderate Income Families



This project is a good illustration of the efficient and attractive use of an infill lot. The site measures 60 x 90, but accommodates six single family units in three duplex buildings. This exceptional site utilization is accomplished by providing common yard space and walkways and limiting off-street parking to six spaces, one per unit.

The implementation of this project is a good example of the use of a package of incentives. The city donated the site, financing was at below-market rates, and a local foundation made a \$20,000 equity contribution to the project.







**PROJECT: RIVER OAKS**

**Use** One, Two, Three  
Bedroom Apartments,  
900-1,450 sf.

**Density** 11 Units/Acre

**Location** Duluth, Georgia

**Market** Singles, Couples, Families



The River Oaks apartments in suburban Atlanta are an example of an attached multi-family project that achieves a single family home look. This design was driven partly by the concerns of neighbors about higher density development, but also by the desire of the developer to create a project that would appreciate, not depreciate, over time.

The project includes 216 units on a 32 acre site. The site was chosen because of its location in an upscale neighborhood with good schools. The apartments are a mix of 20% one bedroom, 50% two bedrooms and 30% three bedrooms. The three bedroom units have attracted families, and are the most popular units.

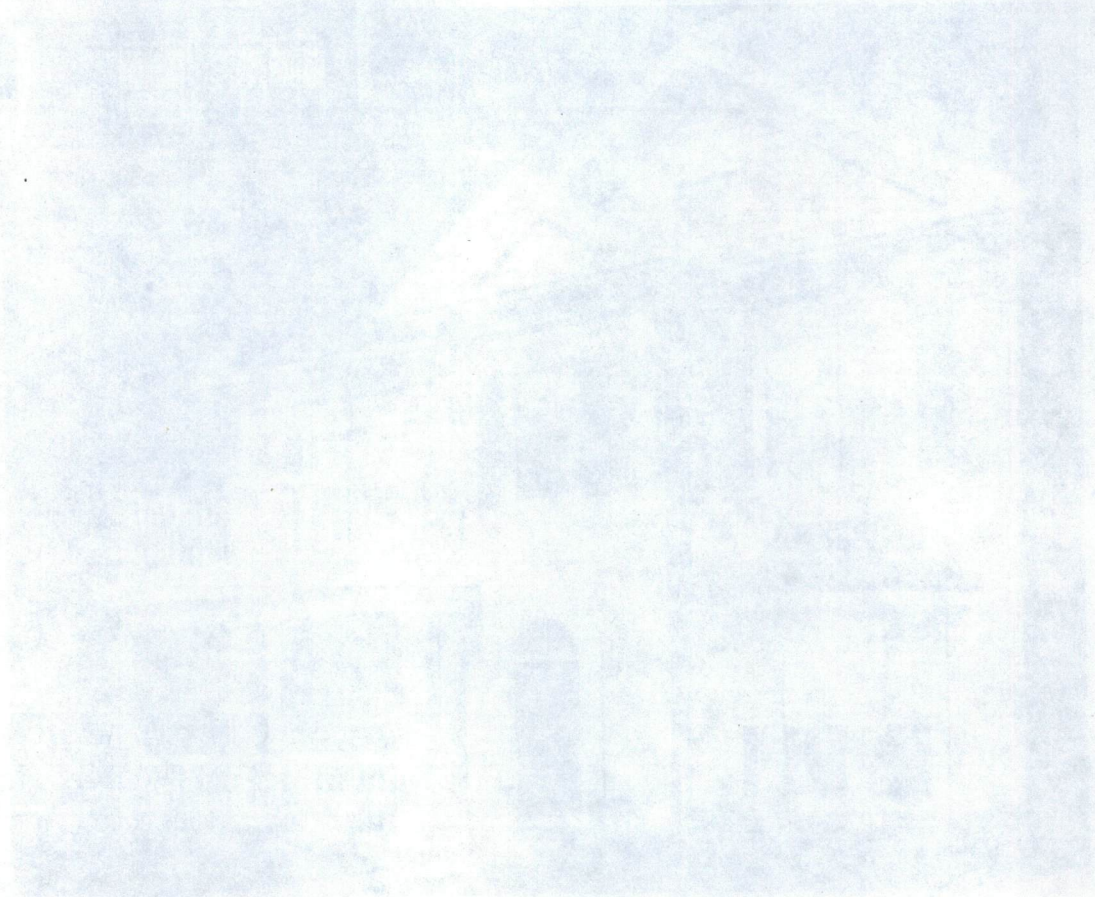
The materials in this case echo the traditional local single family homes - brick and clapboard. This accomplished compatibility with the neighborhood and helped achieve rent up of the project within 30 days, at rents that were \$25 to \$50 above those of comparable apartments.

The choice of materials and facade details would be different in Portland, but the concept certainly applies for sites in established neighborhoods.



PROJECT INFORMATION

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Location: [illegible]  
Date: [illegible]  
Scale: [illegible]  
Author: [illegible]



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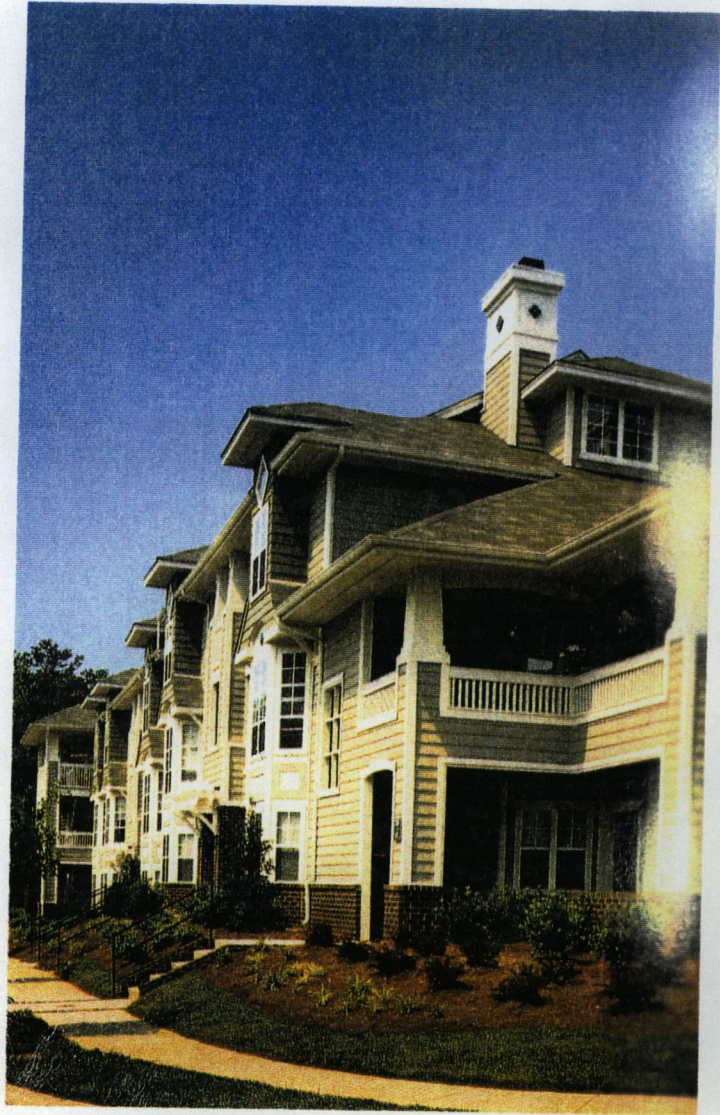
**PROJECT: OLMSTEAD PARK APARTMENTS**

**Use** 54 Detached Single Family  
1,300–2,000 sf.  
138 Apartments

**Density** 30 Units/Acre

**Location** Charlotte, North Carolina

**Market** Young Professional  
Couples and Singles



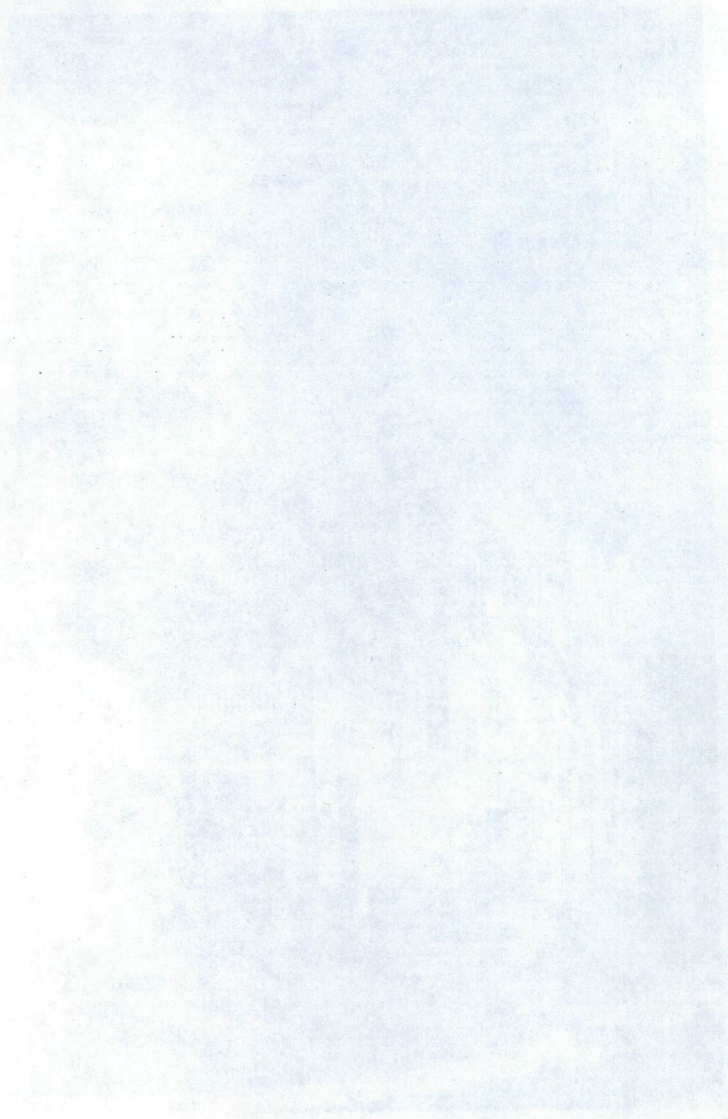
The Olmstead Park Apartments occupy a 12.5 acre site (a former ballfield) in an historic neighborhood of 80 year old bungalows. The site plan calls for the 54 detached single family houses at the perimeter of the site to present a lower scale edge to the neighborhood. The middle of the site houses the 138 rental apartments in two- and three-story buildings. Thus the scale and type of housing is ultimately compatible with the neighborhood's single family character.

The neighborhood is close-in and gentrifying. The project provided new-home alternatives in a neighborhood characterized by older homes and offered affordable rental alternatives for households preferring to rent or unable to afford ownership housing.

Despite coming on-line during a period of high rental vacancies, the project leased up rapidly and has had waiting lists ever since initial lease up.



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2. Address: [illegible]  
3. City: [illegible]  
4. State: [illegible]  
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6. Phone: [illegible]  
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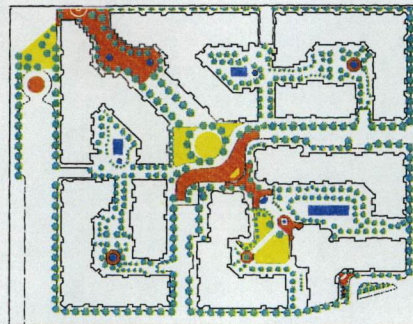


## PROJECT: BAYSIDE VILLAGE

**Use** 862 Apartments  
10,000 sf. Retail Space  
Underground Parking

**Location** San Francisco, California

**Market** Childfree Couples  
Singles  
Professional; 20%  
Low Income



Bayside Village is a public/private redevelopment project within a former industrial area in the South Beach neighborhood of San Francisco. The project contains 862 rental units, ranging from 475 to 1,050 square feet, and 10,000 square feet of retail and services. 20% of the units are low income.

The entire project is constructed above subgrade parking. The buildings, three- and four-stories are oriented to pedestrian spaces that in turn are oriented to a view of San Francisco Bay. The retail

- including a dry cleaners, grocery/deli, and restaurant - is designed to support the needs of the residents, and was added to the project more as an amenity than a revenue-generating use. The project is large enough to support the use of a shuttle bus that serves the nearby Financial District.

This project is an example of what might be developed in Portland's River District or in the Macadam Corridor.



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5. Conclusions

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## PROJECT: CARILLON HEIGHTS AND TOWN GLEN

**Use** Apartments  
**Location** Kirkland, Washington  
Stamford, Connecticut



These two apartment projects, one including ground floor retail, were used to illustrate "The Changing Apartment Development Market" by Terry Jill Lassar in the January, 1993 issue of *Urban Land*. Though details about the projects were not provided, they both illustrate important trends in multifamily development: they mimic the appearance of single family homes by including such elements as balconies, bay windows and traditional single family home exterior materials, such as masonry; the scale of the projects has been de-emphasized by stacking to approximate the look of

individual townhouse or clustering in village-like site plans; and they cater to a broader renters market, which is likely to include more households that choose to rent rather than households who can't afford to buy.

The Town Glen project includes ground floor retail. Though this project seeks to emulate Colonial style architecture, a similarly conceived project in Portland could aim at more traditional Northwest styles.

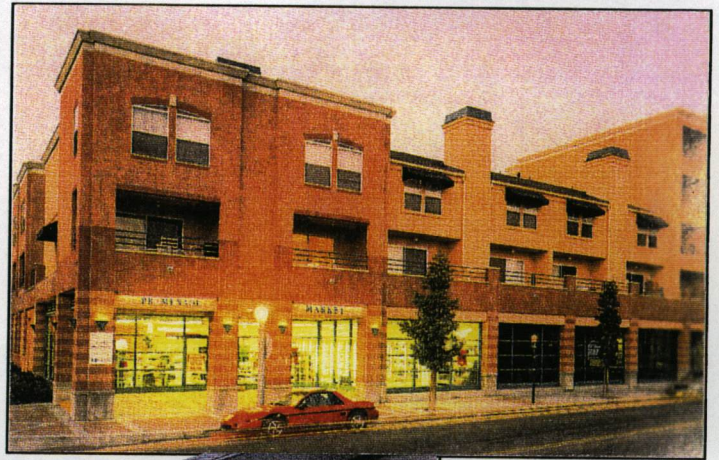






## PROJECT: WILSHIRE PROMENADE

|                 |                                                                                                                                                                                                        |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Use</b>      | Two-story Townhouse and apartments<br>128 Units, All Rentals<br>710-1,100 sf.<br>Plus 13,500 sf. Retail Space<br>Underground Structured Parking<br>For Residential, Public Parking<br>Garage at Grade. |
| <b>Density</b>  | 81 Units/Acre                                                                                                                                                                                          |
| <b>Location</b> | Fullerton, California                                                                                                                                                                                  |
| <b>Market</b>   | Moderate-Upper Income<br>Singles, Childfree Couples                                                                                                                                                    |



This project was a redevelopment project of the Fullerton Redevelopment Agency. The site is a half-block in downtown Fullerton, an older suburb of Los Angeles. The high density of the project (81 units/acre) was achieved without overwhelming the neighborhood by arranging the two-story rental townhouses at the site perimeter. The four story apartments are sited to the interior.

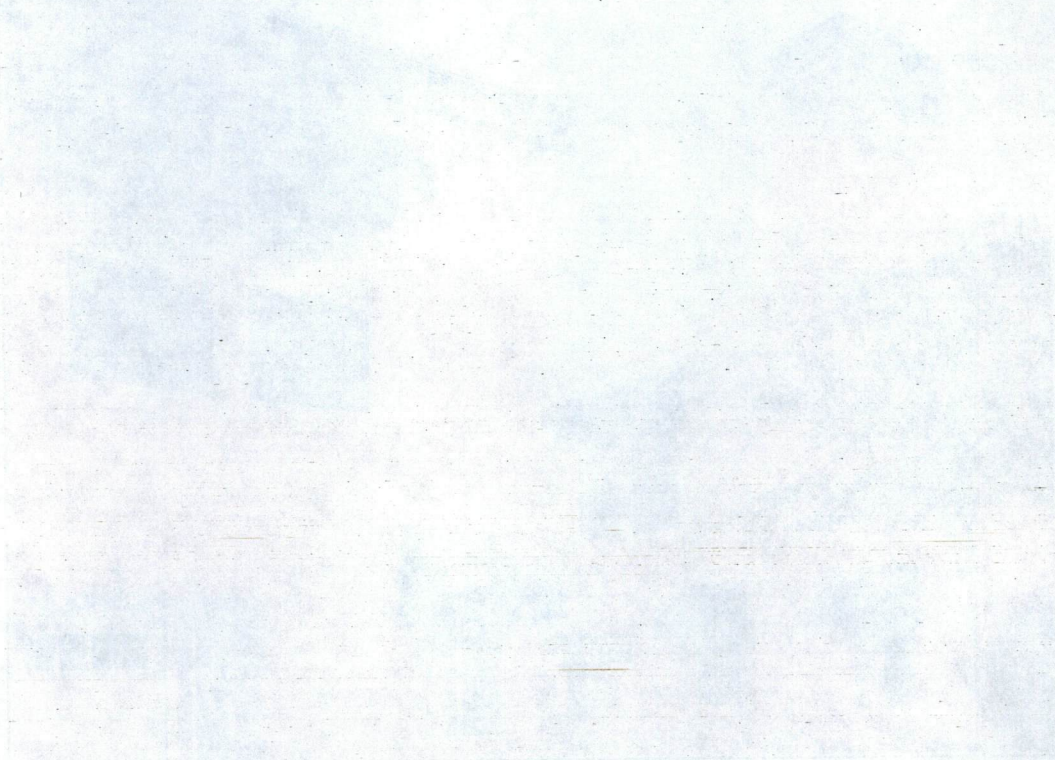
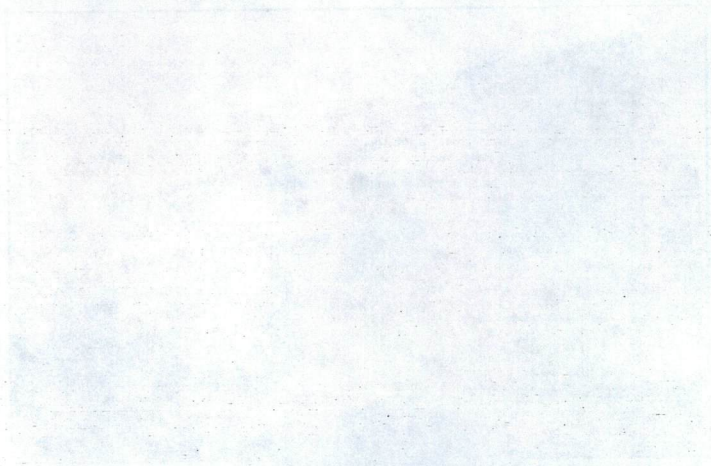
The project includes 13,500 sf of retail space that is located beneath the rental units. While the retail faces the street, the residential units face an interior pedestrian only street.

Parking for the residential units is underground, while a public parking, including that for the retail, is located at grade behind the retail spaces.

The site offers both a close-in location and security. The pedestrian orientation and human scale of the project helped result in near lease up within four months of the project's opening. This project's look and feel make it appropriate for Portland's River District.



The following table summarizes the data collected during the study. The data are presented in a tabular format, with the first column representing the variable being measured, and the subsequent columns representing the different groups or conditions. The data are presented in a tabular format, with the first column representing the variable being measured, and the subsequent columns representing the different groups or conditions.



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**PROJECT: SEXTON COMMONS**

**Use** 12,000 sf. Retail  
Office Rehab

**Location** Westhampton Beach, New York

**Market** Upscale Retail

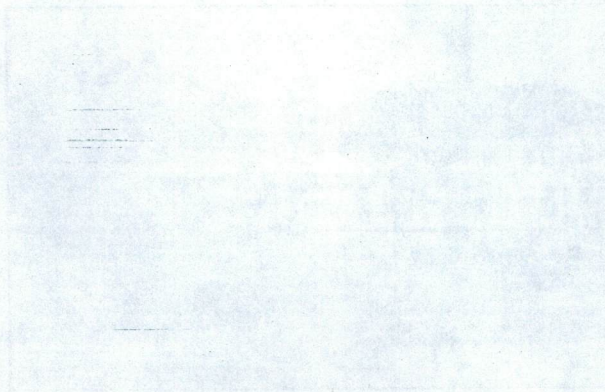
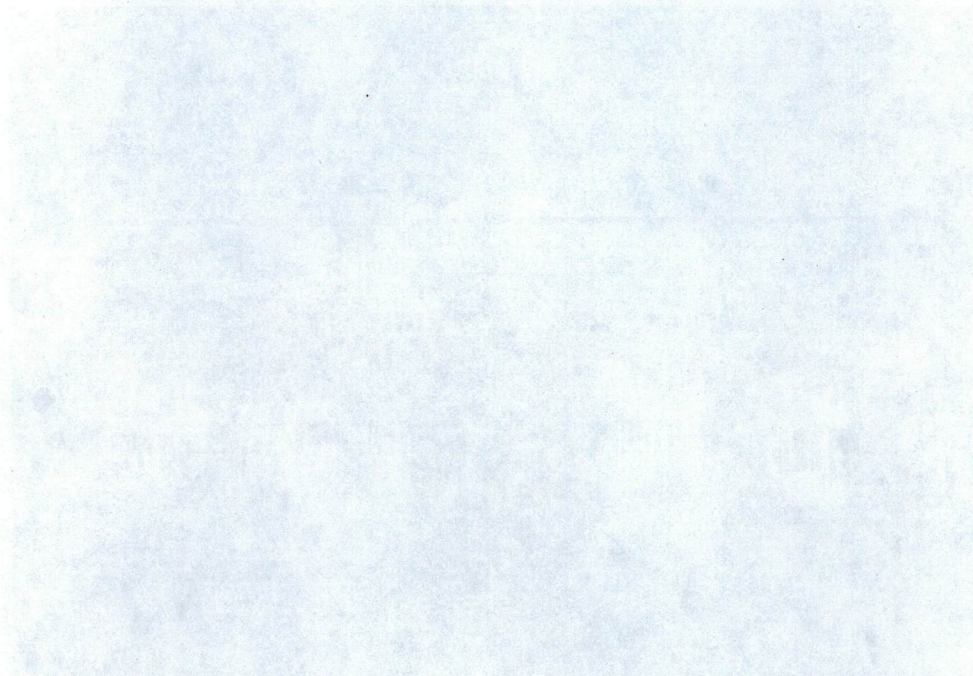


Though this project is located in an upscale suburban community on New York's Long Island, the principles behind its development may be applicable along many of Portland's "main streets." The developer used three existing buildings to create a single structure appearance by constructing and demolishing sections as needed.

The building's exterior uses consistent materials - in this case, cedar shakes - but the original rooflines are preserved for variety.

Commercial spaces are offered for sale or lease to either retail or office tenants.













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