

# **Gentrification in Multnomah County 1990 to 1996**

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# Table of Contents

<b>Introduction .....</b>	<b>1</b>
<b>Review of Gentrification Literature.....</b>	<b>3</b>
"Back to the City" Movement Debunked	
Economic and Demographic Models of Gentrification	
Stages of Gentrification	
Gentrification-Caused Displacement	
Racial Change and Gentrification	
<b>Past Analyses of Gentrification .....</b>	<b>7</b>
<b>Research Methodology: Using the American Community Survey.....</b>	<b>9</b>
<b>Income Indicators .....</b>	<b>11</b>
Median Family Income	
Median Household Income	
Rate of Poverty	
<b>Race and Ethnicity Indicators .....</b>	<b>17</b>
African Americans	
Asian and Pacific Islanders	
Hispanics	
<b>Housing Indicators.....</b>	<b>23</b>
Median House Value	
Median Gross Rent	
Homeownership and Length of Residence	
Age of Housing Stock	
New Construction	
<b>Summary of The American Community Survey Analysis.....</b>	<b>31</b>
<b>Gentrification In Inner Southeast Portland: Hawthorne Boulevard.....</b>	<b>35</b>
Increase in House Value and Gross Rent	
New Upper Income Homebuyers	
Gentrification of the Commercial Area: Creating an Image	
"Not In My Backyard" Syndrome	
<b>Policy Implications.....</b>	<b>43</b>
Affordable Housing	
Not-In-My-Backyard	
Evaluating Public Revitalization Programs	
Suburbanization of Poverty	
<b>Conclusion .....</b>	<b>49</b>
<b>Resources.....</b>	<b>51</b>

## Introduction

City officials across the nation are working hard to promote their inner cities as urban livability (London 1992). This is definitely the case in Portland which is lauded by others, and graciously accepted and promoted by city officials, as an example of good planning that has yielded a livable city. Often urban neighborhoods that are viewed as livable have experienced levels of gentrification (Keating 1996). Is that the case in Portland? Economists often consider gentrification to have peaked in the 1970s and 1980s (O'Sullivan 1996, Redfern 1997). In Portland the inner westside neighborhoods saw revitalization with the emergence of Northwest 23<sup>rd</sup> and 21<sup>st</sup> Avenues transforming into a trendy commercial and residential district, and Lair Hill as an example of historic preservation (Abbott 1983). But, the 1990s have seen a renewed interest in neighborhoods on the eastside of the Willamette River suggesting that gentrification is still an issue in Portland today.

Portland has seen incredible growth over the last decade. A recent study by Regional Financial Associates looking at housing supply and demand concluded that homes in the Portland and Vancouver area are among the most overpriced in the country (Hausman 1998). Between 1988 and 1997, median housing prices in the Portland metropolitan area rose 128%, one of the fastest rates of any urban area in the United States. The rate of appreciation of house values has been particularly rapid in the inner city area, leading to concerns about gentrification of low-income neighborhoods. Multnomah County is the central county within the Portland-Vancouver metropolitan statistical area, and includes Portland, the largest city in the state, along with the suburban cities of Gresham and Troutdale. By national standards, Multnomah and the other counties within the Portland metropolitan area are growing rapidly, with the suburban counties growing somewhat more rapidly than Multnomah County. Multnomah County only saw an 8.9% increase in population between 1990 and 1996 as the region as a whole saw an increase of 15.3%. Much of the population growth experienced in Multnomah County occurred in the suburban areas, while nearly half of the central city neighborhoods actually lost population. This loss in population is not due to flight from the city, but rather a downsizing of households within the city. In fact, the city of Portland saw only a 1.7% increase in population but had an increase of 3.9% in the number of housing units from 1990 to 1996. The vacancy rate in Portland dropped from 5.6% in 1990 to 4.4% in 1996 and the vacancy rate for all of Multnomah County decreased from 5.3% to 4.2%.

This paper will look at the extent of housing appreciation during 1990-96 in Multnomah County, and assess whether gentrification has occurred. This analysis will be conducted using

the 1990 Census and a new data set, the American Community Survey of 1996, which may become a model for future Census data collection.

It will complement other recent research efforts analyzing neighborhood change and housing appreciation in Portland that have used other data sources. To provide a context of neighborhood change that is often difficult to discern when discussing geographic areas according to census tracts, the data analysis will be followed by a brief review of an eastside neighborhood experiencing gentrification; focusing on the corridors of Hawthorne and Belmont in inner southeast.

The final section will attempt to highlight the major policy implications of gentrification in inner city neighborhoods.

## **Review of Gentrification Literature**

The term gentrification was coined by Ruth Glass to describe transformations in London's working class neighborhoods where the aristocracy, or "landed gentry," were returning to the central city (Laska and Spain 1980, Griffith 1995). For the purpose of this analysis, gentrification will refer to the rehabilitation of low-income neighborhoods for resettlement by middle- or upper-income residents. It can also be viewed as the upgrading of devalued property or properties that otherwise would have "filtered down" to lower income households (Lyons 1996, Smith 1996).

### **"Back to the City" Movement Debunked**

The phenomenon of gentrification was quickly dubbed the "Back to the City" movement by popular theorists in the late 1970's because of the belief that middle class America was rejecting the suburbs and that gentrification signaled a resurgence of pro-urban values (Laska and Spain 1980). Suburban homes could no longer meet the design and aesthetic tastes in the way that old Victorian homes could. Others saw the change in housing tastes as part of the environmental movement in the 1970s with emphasis placed on living simply with less wasteful consumption--"reuse and recycle." Renovating old houses in the central city was a form of recycling and mass transit and intensive use of urban land was viewed as less wasteful consumption patterns (Hays 1995).

In fact, subsequent analyses of gentrification have found that most renovators or new residents of revitalizing neighborhoods have moved from another part of the central city. The phenomenon might be more aptly named the "stay in the city" movement (DeGiovanni 1984, Gale 1986).

### **Economic and Demographic Models of Gentrification**

A widely accepted causal model of gentrification involves traditional economic and demographic principles. Demographic explanations refer to the large number of "baby boomers" approaching home-buying age in the 1980s and 1990s. Other explanations for the growing demand of housing include the rising age at which people first marry, later age at which people chose to have their first child, declining household size, the increase of women in the workforce, and the rise in dual wage earner households (DeGiovanni 1984, Gale 1986, Smith 1996, Hutchinson 1992). A shift in the economy of many urban cities from secondary to tertiary created a demand of housing by upper-income "white collar" residents, resulting in a new social class

(Hutchinson 1992, Warde 1991). Within the context of a fast growing regional population, these factors place tremendous stress on the housing supply.

The economic approach sees gentrification as a long-run feedback following decades of population and capital moving to the suburbs where high returns on investment are available. A cycle of disinvestment and decay, coupled with increased housing costs in most other areas of the city make inner city “slum shells” an enticing, low-cost housing development option (DeGiovanni 1984, Hutchinson 1992). Abandonment and decay are now transitional stages in neighborhood development rather than the final stage in the life cycle (Redfern 1997). The high demand for housing, scarcity of close-in urban land, and low cost inner city neighborhoods create the conditions for gentrification in Portland and many other cities across the nation.

Critical theorists emphasize the role of developers, speculators, landlords, financiers, real estate agencies and even public agencies in targeting stimulation of gentrification in neighborhoods (Smith 1996, Hutchinson 1992). Bruce London (1992) asserts that gentrification serves the interest of the urban growth machine. He argues that upper-income, inner city housing is necessary to sustain the urban commercial and recreational economic development programs of cities. Powerful interest groups follow a trend of urban neglect that is reinforced by public policy, promoting a cycle of de-valorization of the land. Neill Smith (1996) describes the result as the “rent gap.” The rent gap refers to the disparity between the actual ground rent currently being capitalized on a property and the potential ground rent if the land was used in a different or “higher and better” use (Smith 1996, Clark 1995).

### **Stages of Gentrification**

As alluded to earlier, suburbanites are not the primary contributors to gentrification in the inner city. The typical renovators of older housing are people who would traditionally choose to live in the central city: the wealthy, young, highly educated, single persons or couples with less than two children, if any (O’Sullivan 1996, DeGiovanni 1984, Gale 1986). This population often works in the central city and patronizes cultural events, restaurants and entertainment, which is more accessible in the city. Gentrifiers are often represented by non-traditional households, including unmarried couples, gays and lesbians, and single households (Gale 1986).

Gentrification typically occurs in a number of stages. The initial stage of gentrification and neighborhood revitalization is often spurred by the “rogue gentrifier,” with many of the characteristics of a typical renovator described above, but may themselves be only marginally middle-class (DeGiovanni 1984, Warde 1991). For this group, the low cost housing may be the primary draw to a neighborhood. They tend to easily assimilate into the neighborhood and are able to upgrade their housing using “sweat equity.” This group may also be representative of an

artist population seeking low cost studio and housing space. Like any pioneers, rogue gentrifiers exhibit a high tolerance for risk in making their housing investment (Kerstein 1990, Griffith 1995).

The second stage of gentrification represents lesser risk. The initial “settlement” by the rogue gentrifier sets the stage for middle class households to re-populate the neighborhood. At this point, the neighborhood is often viewed as “up-and-coming” by the media, real estate community and the public in general. Property values tend to increase rapidly, and new residents feel certain they will receive a return on their investment (Kerstein 1990, Griffith 1995). Capital begins to flow into the gentrifying neighborhoods through new sales, renovation and new development. At this point, professional developers and outside investors are willing to purchase and develop land in the neighborhood because profits are relatively certain (Smith 1996).

The third stage may actually represent the completion of the gentrification process. The neighborhood is redefined as a middle- to upper-income neighborhood with a complementary commercial area to serve this population.

### **Gentrification-Caused Displacement**

Many early studies focus on the positive aspects of gentrification as a reversal of the negative trend of abandonment and decay, while downplaying the extent to which residents are displaced, with some estimating fewer than 4% of all moves due to gentrification (Hutchinson 1992). A study by HUD in 1979 did not find gentrification to be widespread, but did find that certain cities undergoing revitalization may experience more extensive displacement of low income residents (Griffith 1995, Gale 1986). Unfortunately, gentrification does not cure abandonment and decay, but rather “reshuffles” the population by removing low-income housing within the city (Hutchinson 1992).

Displacement has three features. First, popular theory espouses that once the neighborhood becomes attractive to the middle- and upper-class, housing units switch from rental to owner-occupied, displacing former residents (DeGiovanni 1984, Gale 1986). Second, gentrification is believed to cause neighborhood house prices and rents to rise, displacing those unable to pay the increased rent (Gale 1986, Keating 1996). A third factor is that property taxes rise with neighborhood house prices, displacing those who are unable to pay (Gale 1986). When the housing market is tight, gentrification may be intensified and the displacement felt more profoundly because few nearby affordable housing opportunities exist (DeGiovanni 1984). Portland has a tight housing market, but it does not appear to have experienced the same level of abandonment and decay within the urban core as have many other cities across the nation.

Researching levels of displacement is difficult. First, it is hard to identify people displaced because they typically are no longer living in the neighborhoods. Second, it is hard to discern the

reason for moves since it is estimated that 20% of all households move each year (London 1992). It is also commonly believed that gentrification affects a very small portion of the housing stock, less than 1%, as compared to the amount of housing lost due to abandonment and decay (Hutchinson 1992, O'Sullivan 1996).

### **Racial Change and Gentrification**

There is debate about the degree to which minority communities are affected by gentrification. Studies have found that the majority of households displaced due to gentrification are low-income, white households (Griffith 1995, Hutchinson 1992, Wilson 1992). Some case studies have concluded that Asian and Hispanic communities are more likely than African Americans to experience gentrification and its negative effects (Griffith 1995). One explanation is the notion that gentrifiers are predominately white and are very reluctant to move into otherwise desirable, African-American neighborhoods (Griffith 1995, Hutchinson 1992). Conflicting studies show that gentrification disproportionately displaces African American households, with some researchers characterizing gentrification as the in-movement of upper-income white residents and the out-movement of low-income black residents (Griffith 1995, Wilson 1992).

Two primary theories attempt to best explain racial change in gentrifying neighborhoods, movement as normal turnover and movement because of displacement. The theory of normal turnover integrates residential change and gentrification as results of growth in neighborhood housing markets. It is commonly accepted that 20% of all households move each year. This rate is typically higher among low-income minority populations, as well as renters (Wilson 1992). So, the minority population moves out of the neighborhood at its normal turnover rate, but instead the in-movers are upper-income white households.

The second theory focuses on the concept of displacement as a result of reinvestment in the neighborhood. Reinvestment makes the property more marketable at higher prices allowing owners to rent or resell to residents of a "higher status," forcing previous residents to move involuntarily (Wilson 1992).

Wilson (1992) brings the two theories together in a broader conception of "exclusionary displacement." This refers to households which voluntarily move from a gentrifying neighborhood, but the same unit is no longer available to households of a similar class.

## **Past Analyses of Gentrification**

Over the last 20 years, a number of studies have analyzed the occurrence of gentrification in cities across the United States, England and Australia. Many of these studies have relied on the decennial census data to provide a portrait of areas gentrifying. Schuler, Kent and Monroe (1992) used the 1970 and 1980 census data to analyze gentrification in the Ohio City neighborhood of Cleveland, Ohio (Griffith 1995). Neill Smith's study of New York City linked professional women and gentrification (Smith 1996). Hammell and Wyly (1996) developed a model for using decennial census data to identify gentrified areas in Minneapolis using 1960, 1970 and 1980 census data. In many cities the gentrification process began in the 1970s, explaining the early dates of analysis. George Wagner (1995) did a recent study of Baltimore using the more current 1990 census data.

The majority of studies have relied upon the decennial census, with some trying to include intercensal data such as the OPCS Longitudinal Study in London and the American Housing Study in the United States to provide an indication of gentrification between census years. These analyses can be difficult to compare to census data because of variety in data variables, data availability, and lack of neighborhood-level detail.

### **American Community Survey**

Gentrification can completely transform a neighborhood in a short time. In five years, a neighborhood may change from a place of poverty, crime and disrepair to a bright, clean, trendy neighborhood attracting many new residents (Griffith 1995). The magnitude of these abrupt changes can be lost when analysis is limited to 10-year spans for comparison. Bailey and Robertson (1997) argue that the study of gentrification can be important in the evaluation and implementation of such governmental policies as urban renewal. A lag of ten years can provide policy makers with demographic data that is no longer representational of the city and its neighborhoods.

To provide a more continuous measurement of demographic change, the U.S. Bureau of the Census has developed the American Community Survey (ACS). The 1996 ACS, tested in three U.S. counties, provides a unique opportunity to analyze demographic changes prior to the decennial census, allowing policy makers a more accurate look at neighborhood change between census years. The primary research method used in the analysis that follows is a comparison of the 1990 Census data with the more recent 1996 ACS data.



The 1996 American Community Survey (ACS) asks many of the same questions as the census and allows a micro-data description of demographic change. On the other hand, the ACS is a population sample and only provides an estimate (albeit an unbiased estimate) of true population changes. Low frequency variables and estimates for small areas will have high error ranges. However, used with caution, the ACS provides the best available information on housing and population changes in the county between census years.

## **Research Methodology: Using the American Community Survey**

To assess whether patterns consistent with gentrification exist in the Portland, Oregon metropolitan area, data for Multnomah County, Oregon, was analyzed using the 1990 Census and the 1996 American Community Survey.

The first step of the analysis was to identify census variables that serve as potential indicators of neighborhood change and gentrification. These variables fell into the broad categories of income, housing, and race and ethnicity characteristics.

Several income-related variables were identified as potential indicators of gentrification. Household income is a broader indicator of neighborhood income, but may be an incomplete measure of gentrification since early gentrifiers often have low household incomes, and due to the fact that it does not take into consideration household size and type (Hammel and Wyly 1996). Family income measures the well-being of households of related persons, and excludes households comprising of roommates, unmarried couples and single persons (Myers 1992). A third measure of income is the percentage of households whose income is below the poverty line. The poverty rate measure has an advantage when comparing data from different years because the poverty line is automatically adjusted for inflation and household composition.

Gentrification is also characterized by rapidly rising property values. The appreciation and depreciation of real estate can be measured by median gross rent and median house value. Because house prices appreciated so dramatically in the 1990-96 period, the relative ranking of prices and rents among census tracts within the County were determined to be more appropriate indicators than absolute changes in values.

While not an indicator of gentrification occurring, the age of the housing structure is useful in determining which areas are susceptible to gentrification. Literature suggests gentrifiers are often drawn to the structural qualities of older homes found in the most central-city neighborhoods. The median year a housing structure was built provides information on whether a census tract has a significant number of older homes.

Gentrification is thought to be accompanied by the conversion of rental units to owner-occupied units. Therefore, changes in the percentage of owner-occupied housing units within a tract were included in the analysis. In addition, large changes in the rate of owner-occupied housing (along with high rates of new construction) can create distortions in rent and housing price variables. For example, if a large number of low-value apartments are renovated and converted to owner-occupied status, that may cause the average rent to rise even if the rents of all apartments stayed the same.

One difficulty in an analysis of this type is determining and accounting for causal relationships between variables. Specifically, changes in income could be the result of changes in neighborhood composition or changes in the socioeconomic status of the present residents. To examine this, household mobility and racial and ethnic composition were explored. The Census variable asking whether the resident lived in the same housing unit five years ago, measures household mobility and thereby indicates the neighborhood's stability.

Studies indicate that the prevailing racial identity of gentrifying households is white (Gale 1986). Race and ethnicity variables were examined to identify movements of specific ethnic groups or emerging pockets of racial or ethnic concentration. Since the average income of non-white residents in Multnomah County is significantly lower than white residents, changing racial composition may also explain changes in income levels within a given census tract or cluster of tracts.

The following section compares the changes in the variables between the 1990 Census and the 1996 American Community Survey to assess whether gentrification in Multnomah County neighborhoods occurred.

## **Income Indicators**

### **Median Family Income**

Between 1990-96, median family income in Multnomah County rose from \$33,502 to \$41,073, or an increase of 22.6%. During this time period, prices in the Portland metropolitan area rose by 24.5%, indicating that real family incomes were falling. To put this figure in some context, per capita personal income in the county rose by 35.8% (Higgins 1998). This difference reflects the fact that family household size is declining, and non-family households were doing better than family households.

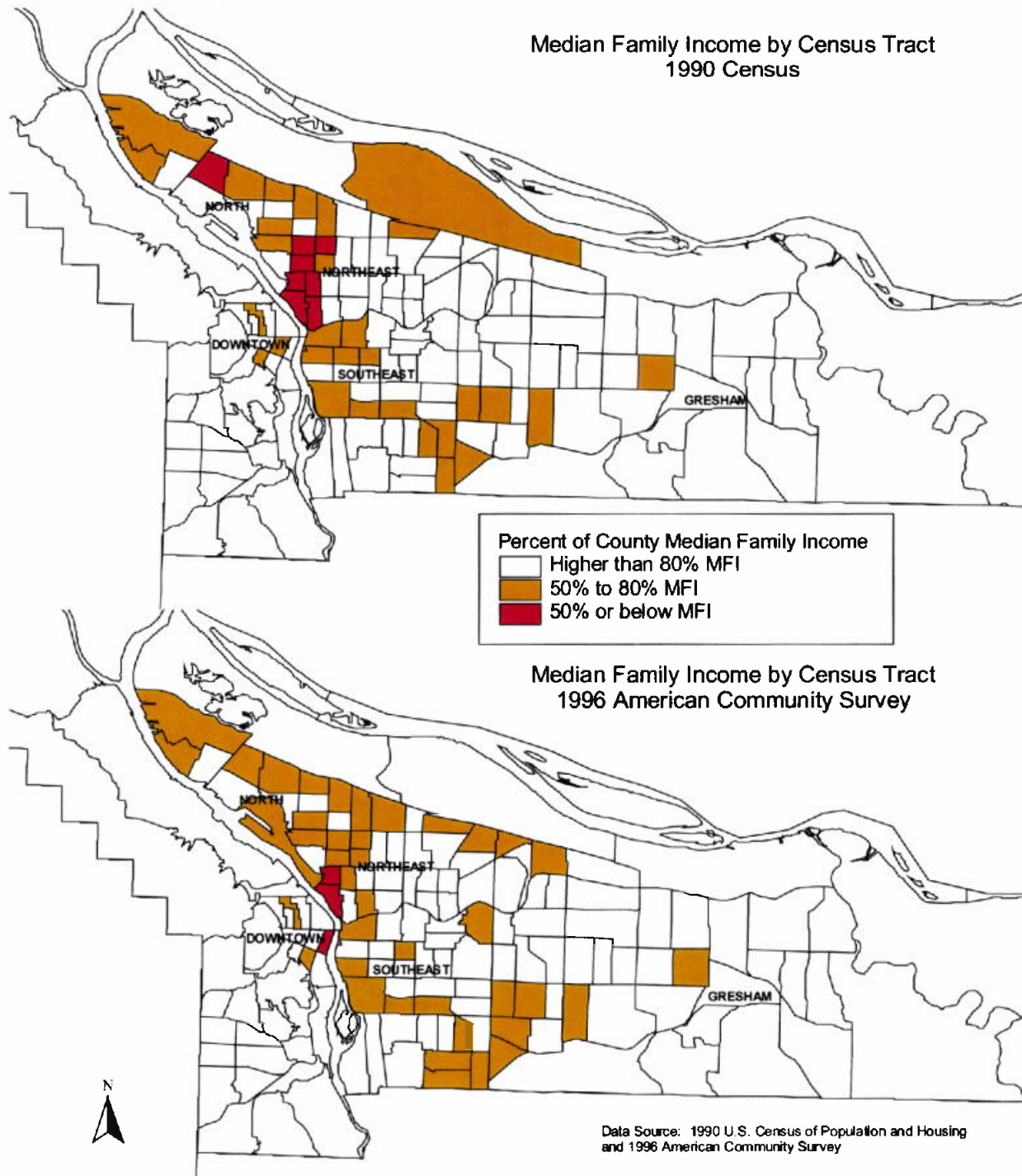
The higher income neighborhoods in Multnomah County tend to be in Northwest Portland, Southwest Portland, and the eastern suburbs. These areas were settled much later than East Portland and have a new, higher valued housing stock. The distribution of low-income families in the county changed significantly between 1990 and 1996. In 1990, all eight census tracts with median family incomes below 50% of the county-wide median were located in North and Northeast Portland. By 1996, the number of tracts with median family incomes below 50% of the county median fell from eight to three, with only two tracts in North and Northeast Portland.

Using a slightly higher threshold of 80% or below median family income, the number of low-income tracts rose slightly from 41 to 43 tracts. Increases in family incomes were concentrated in central city neighborhoods, particularly in Southeast Portland.

Changes in family income levels often corresponded with racial and ethnic change in census tracts. For example, of the four northeast tracts that shifted from higher than 80% in 1990 to 80% or below in 1996, three of these tracts also experienced increases in the percentage of African Americans. The only census tract in Gresham at 80% or below median family income is also the only Gresham tract that showed a significant rise in Hispanic concentration.

This data suggests two possibilities. Either many families in inner Northeast and Southeast Portland tracts are experiencing large increases in their own incomes or new residents with higher incomes are moving into these tracts, thereby boosting the median family income. And for whatever reason, the disparity of family incomes between neighborhoods seems to be declining.

**Median family income in Multnomah County  
by census tract for 1990 and 1996  
expressed as a percent of the countywide median family income**



**Figure 1.**

## **Median Household Income**

Between 1990 and 1996, median household income in Multnomah County rose from \$26,928 to \$37,732, an increase of 40.1%. As indicated above, non-family households saw much larger income increases than family households.

Census tracts experiencing the most rapid increases were scattered across the county, including tracts in Northwest Portland, Southwest Portland, and a cluster of tracts in Northeast Portland, centered around the Irvington neighborhood.

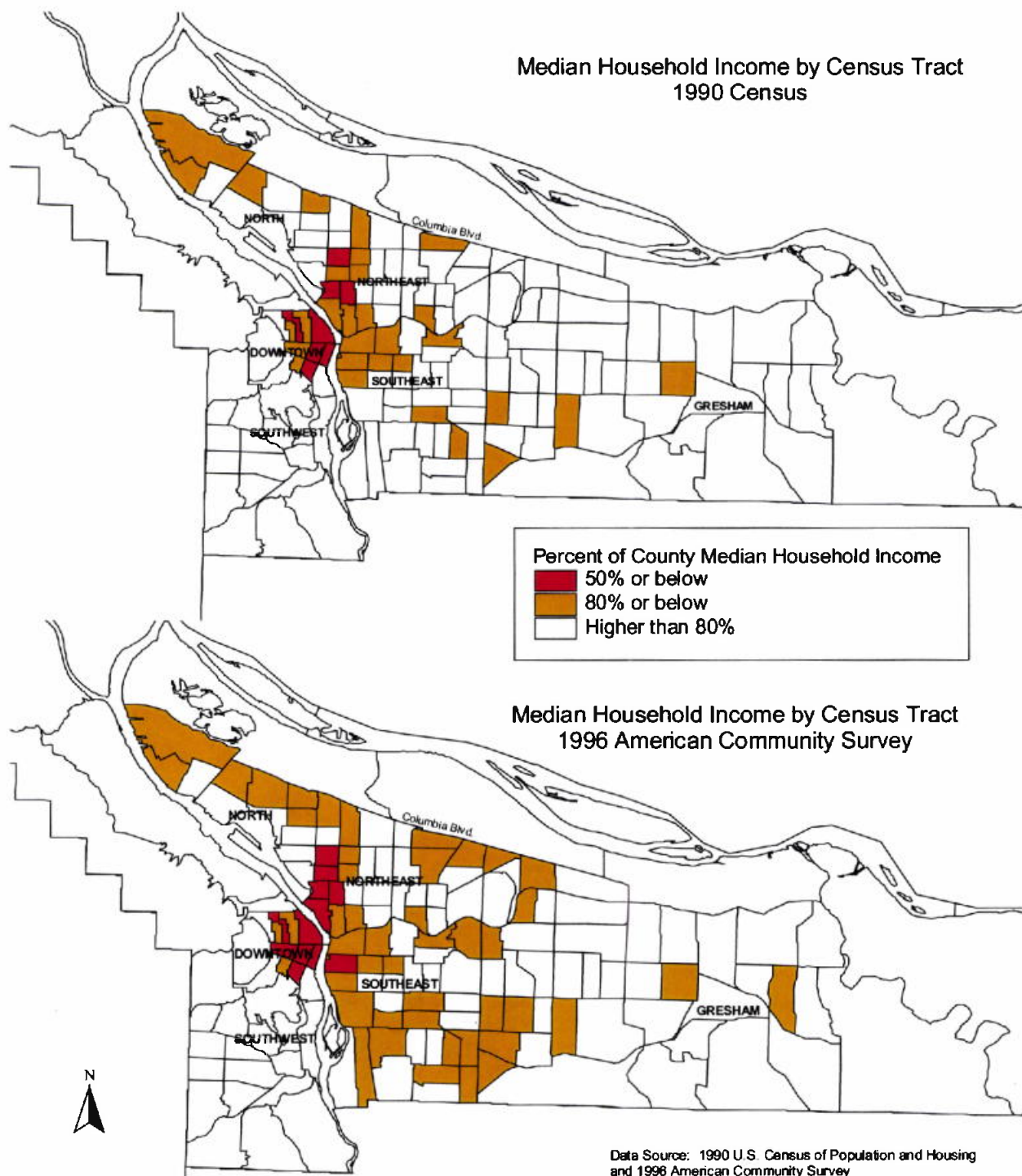
In 1990, eight census tracts were at or below 50% of the median household income of Multnomah County. Three of these tracts were in inner North and Northeast Portland and five were in Downtown Portland. By 1996, the number of tracts below 50% of the median increased to 12, with five in inner North and Northeast, six in Downtown and one in Southeast Portland. No census tract moved from 50% or below into a higher level.

Using the higher threshold of 80% of the county-wide median, the number of tracts in this category rose from 38 to 58 tracts between 1990-96. Tracts where household income fell to 80% of median or below threshold were distributed along North Portland's Columbia Boulevard and in outer Southeast Portland.

Relative gains in household incomes seem to be concentrated in both inner city neighborhoods and traditionally higher income areas in Northwest and Southwest Portland. Relative declines in household incomes seem to be occurring in less centrally located neighborhoods in East Portland.

This data does not corroborate a typical model of gentrification. While relative family incomes seem to be rising in poorer inner Eastside neighborhoods, thereby suggesting gentrification, relative household incomes declined in many of these areas. One explanation for the slow growth in household income is that many young gentrifying households with low current incomes have high education levels and high long-term earning power (Bourne 1993). As they age and form families their household incomes will likely rise.

**Median household income in Multnomah County  
by census tract for 1990 and 1996  
expressed as a percent of the countywide median household income.**



**Figure 2.**

## **Rate of Poverty**

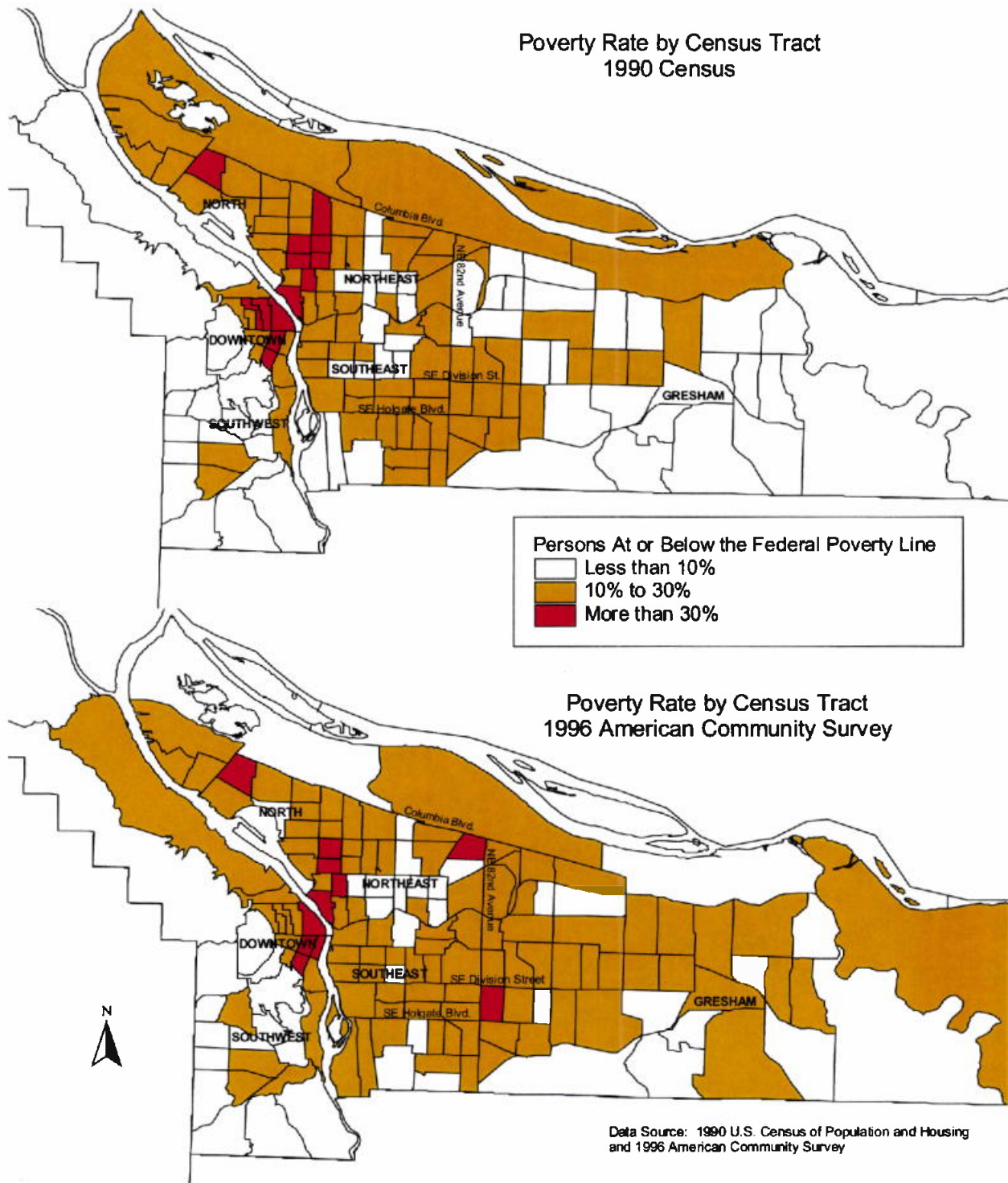
Between 1990 and 1996, the rate of poverty among Multnomah County residents rose from 12.8% to 14.1%, a reflection of the stagnation of family incomes relative to the rate of inflation. Yet, while poverty increased in the county, poverty also became less concentrated.

In 1990, thirteen census tracts had more than 30% of the population living below the federal poverty level. Poverty tracts were located primarily in inner Northeast and Downtown Portland, with one tract in North Portland. In 1996, the number of tracts with poverty rates of 30% or more decreased to 11. The concentration of poverty in Northeast Portland appears to have shifted east. Three tracts west of NE 82nd Avenue has a poverty rate that declined to below the 30% threshold. Two tracts along 82nd Avenue saw poverty rise above 30%, one bordering NE Columbia Boulevard and another between SE Holgate Boulevard and Division Street.

Poverty also increased in outer East Portland and Gresham. Between 1990 and 1996, the number of tracts east of 82nd Avenue with poverty rates above 10% increased from 21 to 33.



## Poverty Rate in Multnomah County by census tract for 1990 and 1996



**Figure 3.**

## **Race and Ethnicity Indicators**

### **African-Americans**

The 1996 American Community Survey reports that African Americans comprise 6.8% of the county population, Asian and Pacific Islanders, 5.8% and Hispanics, 4.5%. The level of racial concentration of African Americans is significantly higher than that of Hispanics and Asian Americans in Multnomah County, both of which comprise of similar percent of the county's population as African Americans. At the same time, this degree of concentration is less than in other cities in the United States where it is not uncommon for tracts to have African American populations exceeding 90%. Carl Abbott (1997) deems Portland one of the "whitest" urban cities in the nation.

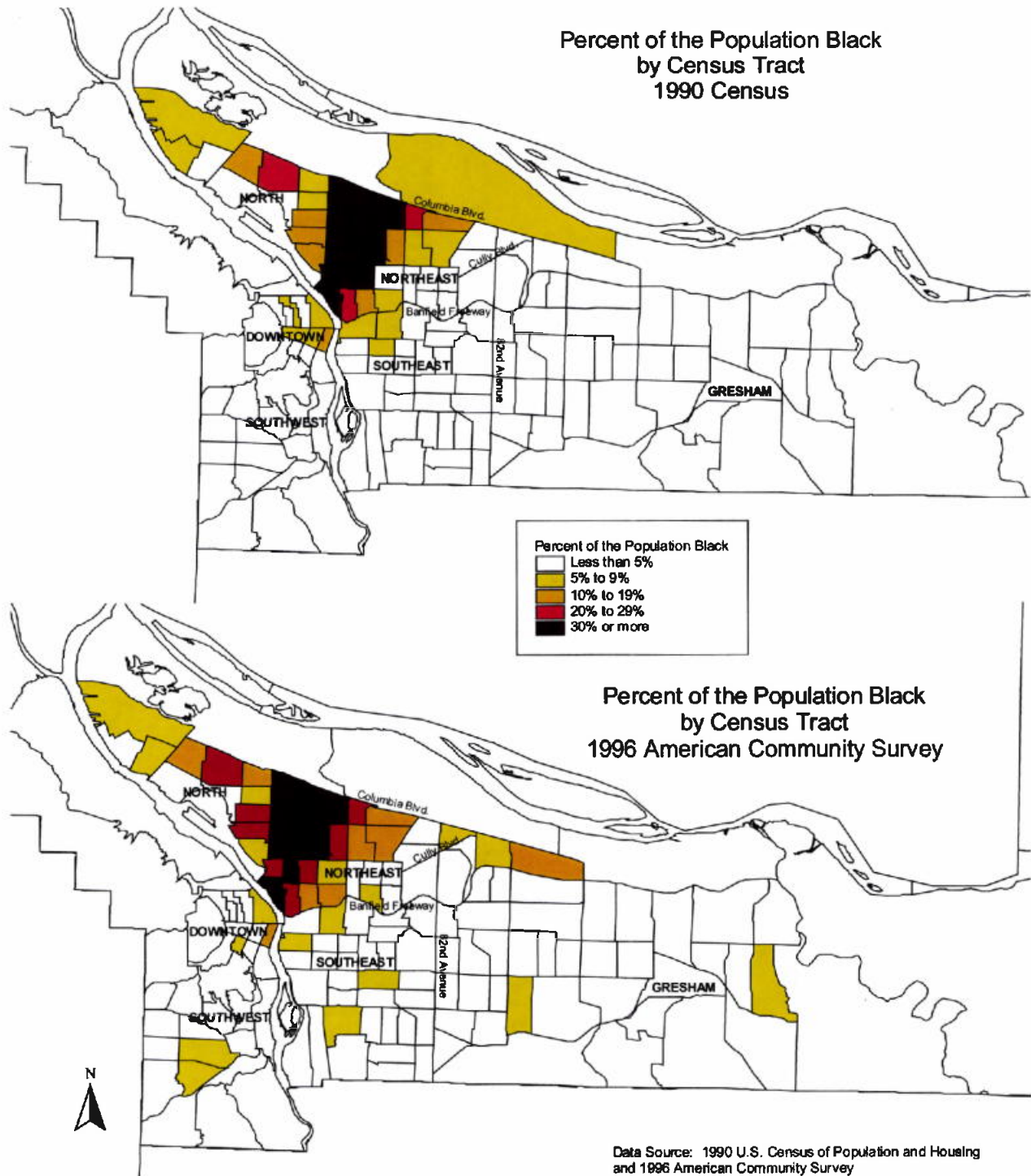
The African-American population in Multnomah County has historically been concentrated in inner North and Northeast Portland. In 1996, eight census tracts in this area have African American populations of 45% or greater, although no tract has a greater percentage than 68%. Twenty census tracts show a percentage of black residents between 10% and 45%. With the exception of two tracts, one downtown and another in the mid-county area, these 28 tracts form a contiguous area, roughly bounded by the Banfield Freeway, Columbia Boulevard, Cully Boulevard and the Willamette River.

Data from the 1996 ACS indicates a shift in the African-American population of the county away from the closest-in neighborhoods toward the north and east. This can be measured both by the increase in the percent of African Americans and the increase in the number of African Americans in these tracts. This shift occurred as the Black population in Multnomah County increased by 19.6% from 1990 to 1996.

In 1990, no tracts east of 82nd Avenue or south of downtown reported more than a 5% African American population. In 1996, four tracts east of 82nd had a population between 5% and 9% with one tract reporting 10% to 19%. Two tracts in Southwest Portland increased to 5% to 9% African American. At the same time, eight tracts in inner North and Northeast Portland had a 5% or more decrease in the percentage of African Americans, and four tracts reported a decrease of greater than 10%.

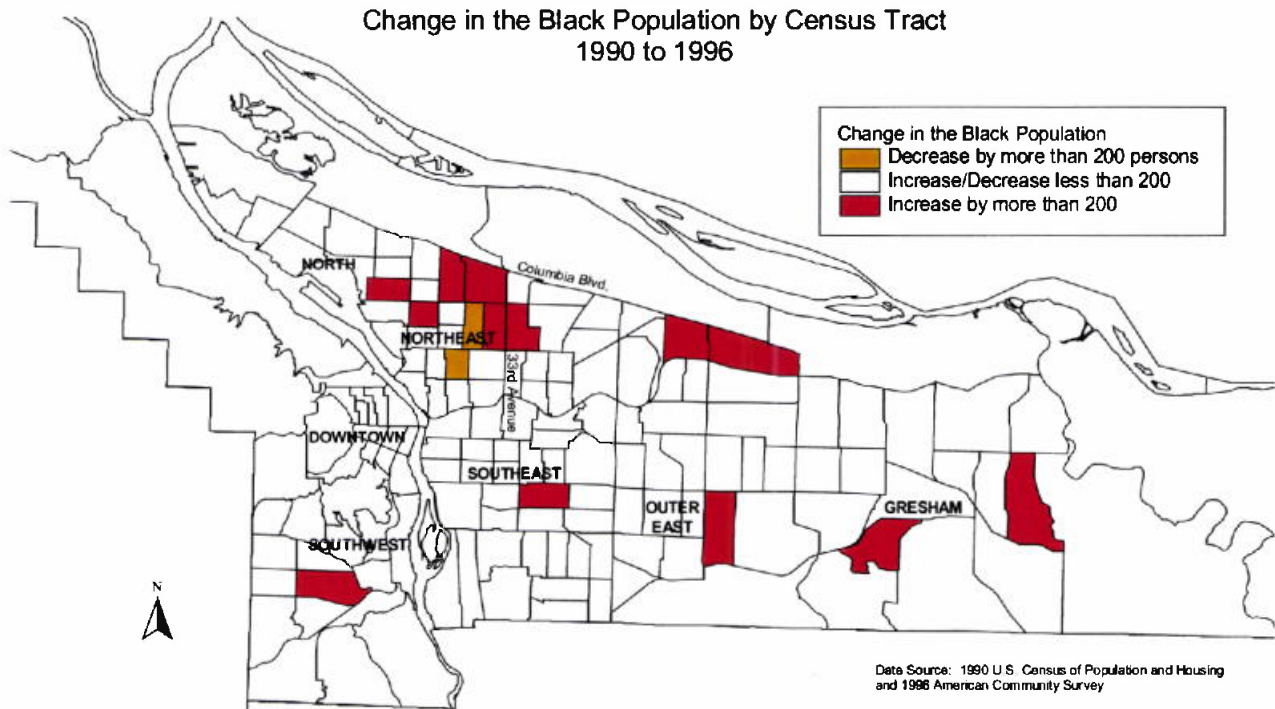
There is some evidence that these population shifts may be associated with rising property values. These 12 tracts of declining African-American percentages also represent areas where median home values appreciated by 125% to 200%, much higher than the countywide appreciation of 102%.

# **Percent of the Population Black in Multnomah County by census tract for 1990 and 1996**



**Figure 4.**

## Change in the number of Blacks in Multnomah County by census tract for 1990 and 1996



**Figure 5.**

Data on changes in the number of African Americans confirm the pattern of an outward shift in Multnomah County's black population. Thirteen tracts had increases of more than 200 African Americans between 1990 and 1996, four of which were tracts bordering Columbia Boulevard, three in inner Northeast and one east of 33rd Avenue. Another tract in Southeast and two in outer East Multnomah County reported a more than 200 persons increase. Of the thirteen tracts with increases in the total number of African-Americans, ten tracts represented areas with less than 125% increase in the median home value. Concurrently, inner Northeast saw declines of more than 200 African Americans in two tracts with 125 to 200% increases in median home value.

## **Asian and Pacific Islanders**

Asian and Pacific Islanders are a rapidly growing demographic group within Multnomah County with a 31.5% increase in population, but show much less geographic concentration than African Americans. Nevertheless, census data indicates a new pattern of Asian American settlements that is more concentrated than in the past.

In 1990, only three tracts had a concentration of Asian and Pacific Islanders greater than 15% of the total population, and only eight tracts had an Asian population between 10% to 14%. The census tract in North Portland may register a high level of concentration in 1990 because of the method in which people on ships are accounted for. This census tract has a large number of commercial uses involving large ships docking. Other than those areas, the Asian population was evenly dispersed across the county, with the exception of low populations in inner Northeast.

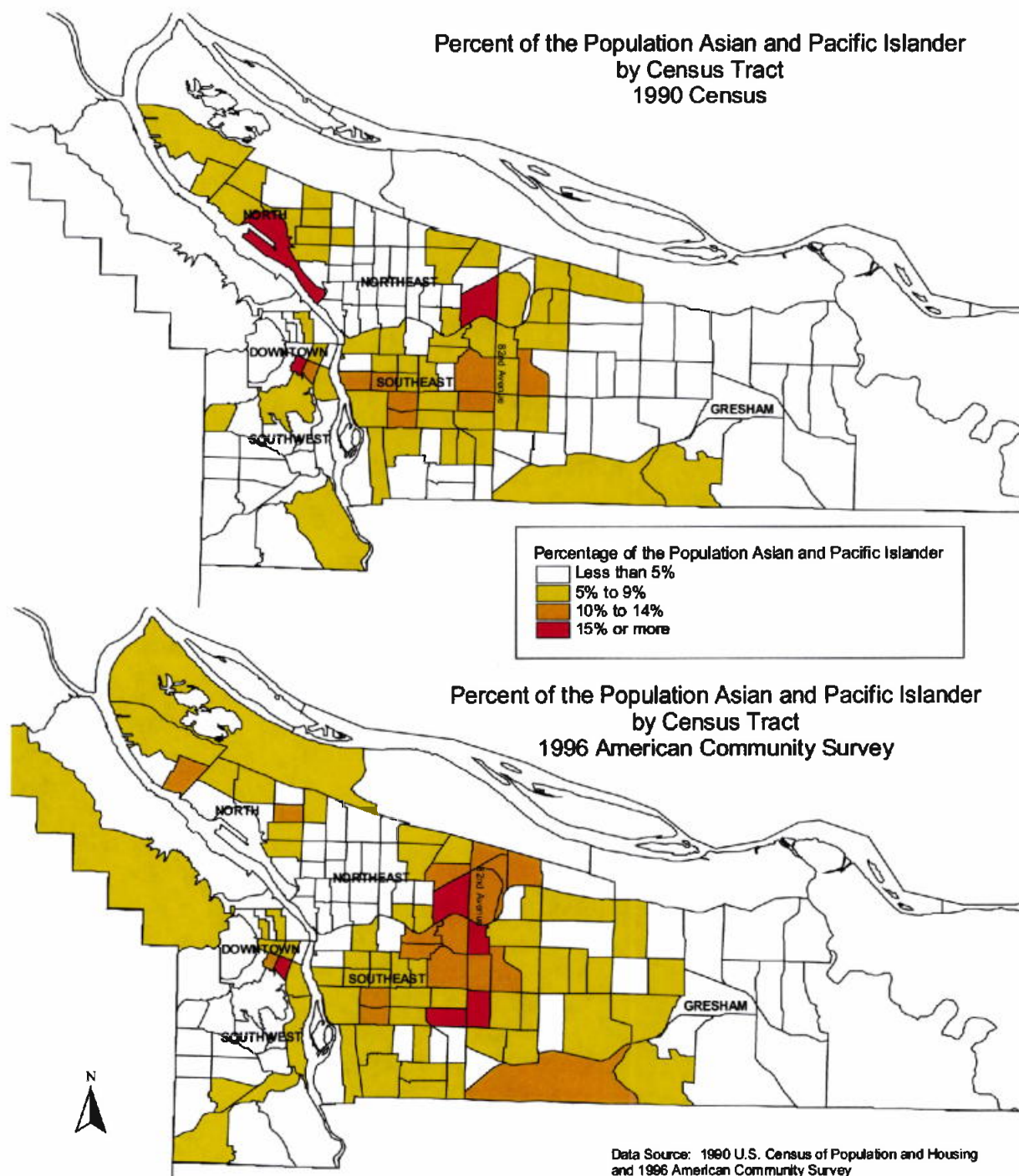
By 1996, a cluster of concentration emerged along the 82nd Avenue corridor. Four tracts along 82nd Avenue had concentrations of 15% or more, and 11 tracts had Asian populations that represented 10% to 14% the total population. The census tract in Downtown remained at the higher level of concentration. These areas of higher concentration almost form a contiguous line along Northeast and Southeast 82nd Avenue. In 1996, inner Northeast continues to have very low levels of Asians, while two tracts in inner Southeast declined in the percent of Asian Americans.

## **Hispanics**

The Census lists people of "Hispanic Origin by Race." This variable has much duplication with the other race variables since a person can be of "Hispanic origin" and can be of any race. The Hispanic population increased by 58.8% from 1990 to 1996 in Multnomah County but remained relatively dispersed. Only 11 tracts out of a 159 total tracts had a Hispanic population that was greater than 10%. There were notable increases in North Portland, and Northeast Portland but little indication of new areas of concentration. By 1996, only three tracts had concentrations of 15% or greater, two of which were located in Gresham and one in Northeast Portland.



**Percent of the Population Asian and Pacific Islander  
in Multnomah County  
by census tract for 1990 and 1996**



**Figure 6.**



## **Housing Indicators**

### **Median House Value**

The rapid appreciation in the inner eastside is most easily shown by ranking each census tract by the median house prices. In 1990, only four census tracts rated in the top 25% according to median house value. In 1996, ten tracts in the inner eastside rated in the top 25%, with median home values greater than \$150,000. In Northeast Portland, tracts that jumped from the top 50% to the top 25% clustered around the previously high ranked tracts along Alameda Boulevard. In Southeast, two tracts between Division Street and Hawthorne Boulevard increased their median value to the top 25% tier. This area includes the neighborhoods of Ladd's Addition, Colonial Heights, Hosford-Abernathy, and Richmond.

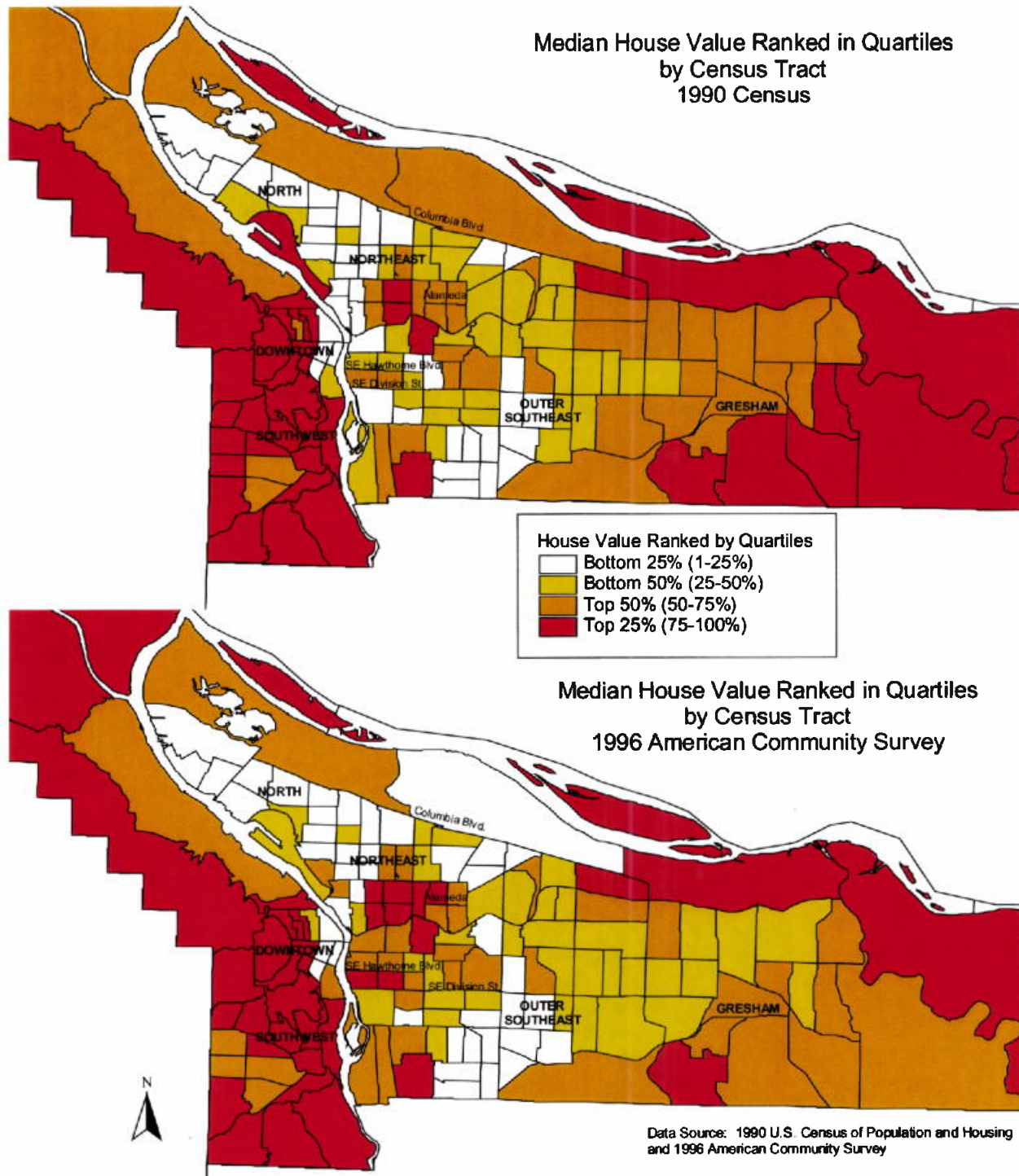
Census tracts north of Hawthorne Boulevard in inner Southeast moved from the lower 50% of county home values in 1990 to the second highest value quartile in the county. These moves illustrate significant changes in the level of low-cost houses in inner Southeast neighborhoods. Eight tracts in Outer Southeast dropped down to the bottom 50% of house values, representing a relative shift in property values from inner-ring suburban communities to the central city.

The pattern of housing prices in the county shows three main features. First, average prices tend to be much higher on the westside of the Willamette River and to a lesser degree, the suburban areas on the eastside of the county. Second, inner eastside areas have risen in value to rival those on the westside, particularly in the neighborhoods of Irvington, Alameda, Laurelhurst, Ladd's Addition, and Eastmoreland. Third, there are three main pockets of low-cost housing in the county: a corridor just south of Columbia Boulevard from St. Johns to the airport, a pocket of census tracts in inner Northeast Portland, and a cluster of census tracts in outer Southeast Portland.

Between 1990 and 1996, the average house price in the county has risen from \$61,110 to \$125,000, or an increase of 102%. In percentage terms, the increases have been greatest in census tracts clustered around the center of Portland on the eastside of the river. This "zone of appreciation" in the inner eastside is roughly bounded by the Willamette River, Killingsworth Street, 60th Avenue, and Powell Boulevard. Of the 35 tracts experiencing housing price appreciation greater than 125%, 29 are located east of the Willamette River, and 24 are within the zone described above. Put differently, of the 36 tracts lying within the inner eastside zone described above, 24 experienced 125% appreciation or greater.

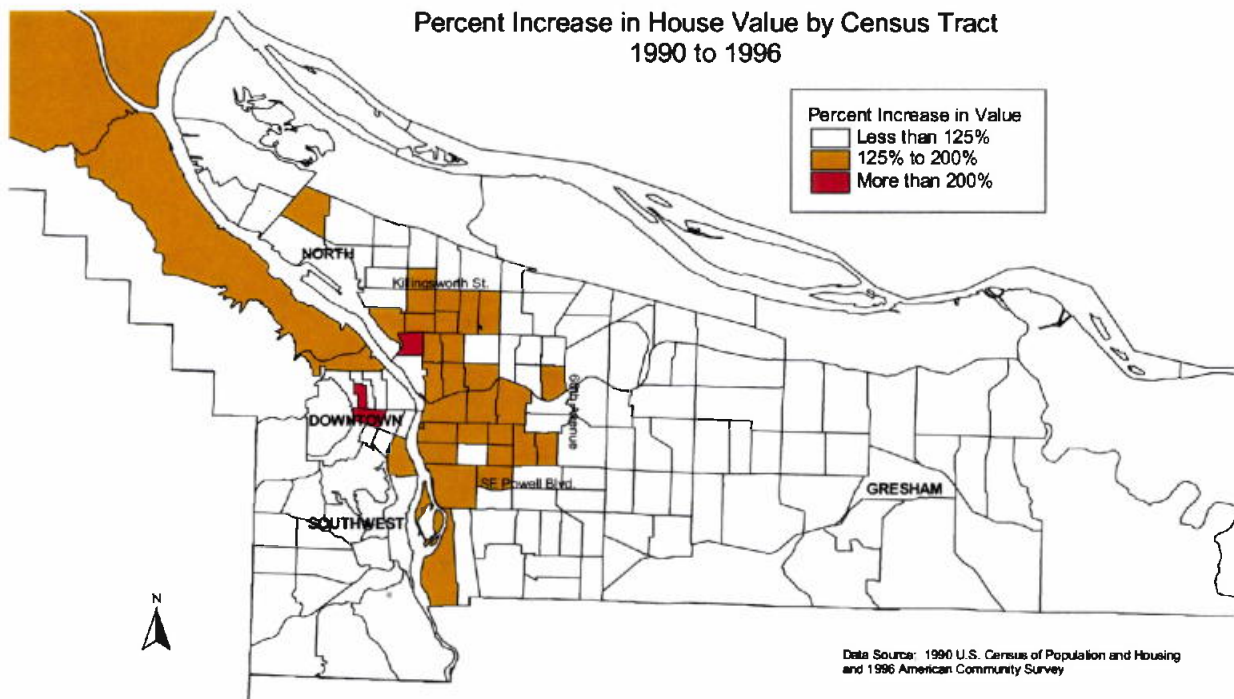


# **Median house value in Multnomah County ranked in quartiles by census tract for 1990 and 1996**



**Figure 7.**

**Percent increase in median house value in Multnomah County  
by census tract, 1990 to 1996**



**Figure 8.**

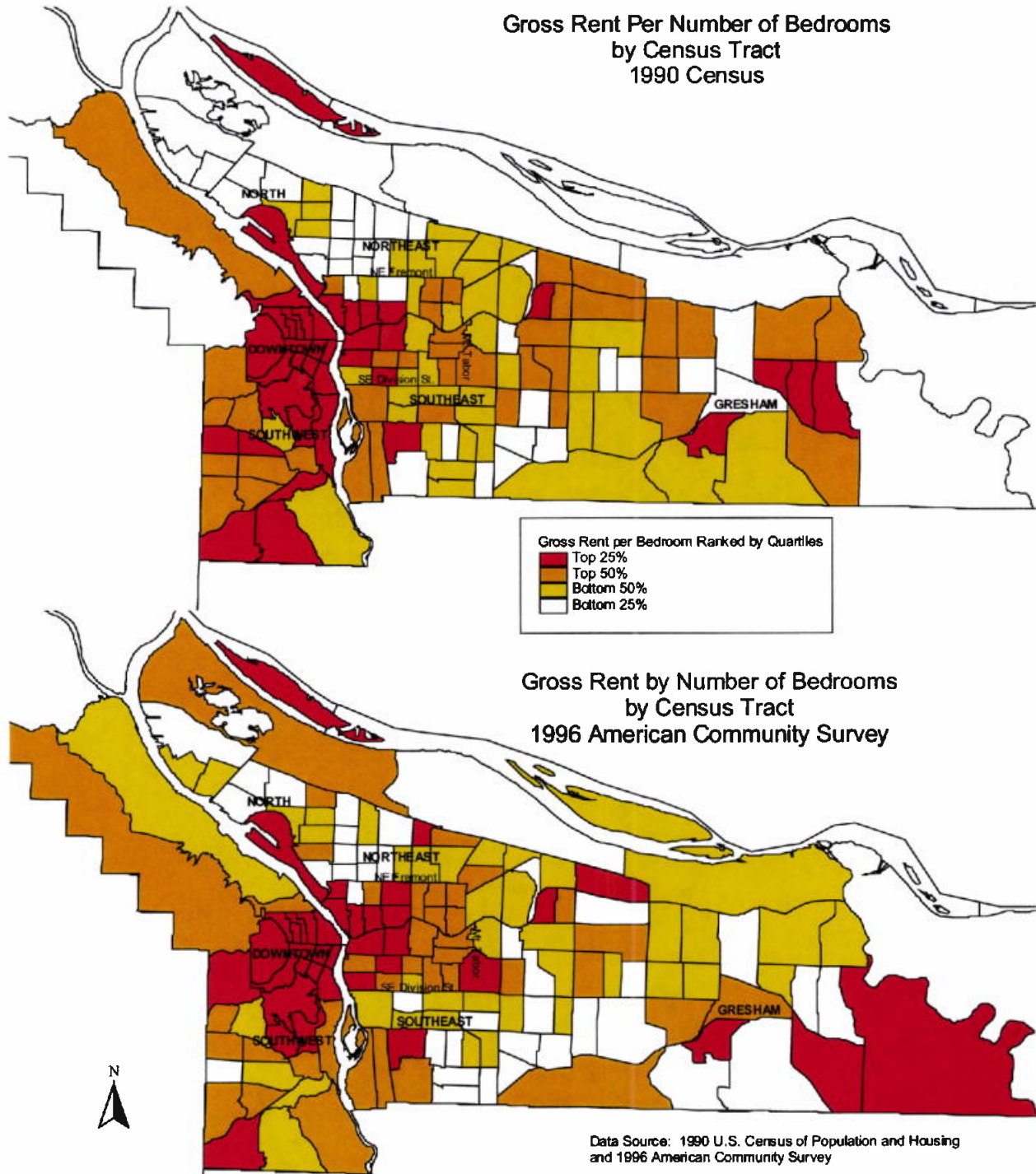
## **Median Gross Rent**

In contrast to the 102% increase in house values, median gross rent in Multnomah County has risen by only 35%. However, looking at gross apartment rents is somewhat misleading since apartments vary considerably in size and gross rent does not take into account the size of units as related to the rent. For instance, downtown and the older inner city neighborhoods have a higher ratio of smaller apartments (single-room occupancy, studios, one-bedroom) and small bungalows for rent, while the suburban rental market tends to have larger apartments and houses. To normalize for apartment or house size, gross rent was expressed as gross rent per bedroom.

A map of aggregate gross rents per aggregate bedrooms illustrates a central core in downtown and inner southeast representing the most expensive rental housing when normalized for number of bedrooms. While the location of the "top 25%" gross rents per bedrooms did not shift, the inner eastside core of more expensive rent levels expanded in 1996. One tract adjacent to NE Fremont jumped from the lowest tier of rent levels to the highest tier. All but two tracts between Northeast Fremont, Southeast Division, the Willamette River and Mt. Tabor were ranked in the "top 50%."

The number of tracts east of 82<sup>nd</sup> Avenue ranked in the top 50% decreased from 21 tracts to 12 tracts indicating a value shift from inner ring suburban neighborhoods in Portland to the central core and new construction on the fringe of the county. The majority of tracts in Southwest Portland moved to a lower ranking gross rent per bedroom quartile.

**Aggregate gross rent by aggregate gross bedrooms  
in Multnomah County in quartiles  
by census tract for 1990 and 1996**



**Figure 9.**



## Homeownership Rates and Length of Residence

The predominant form of housing tenure in Multnomah County is homeownership and the 1996 Survey indicates that this pattern has continued. The rate of homeownership has risen from 55.3% to 56.7% from 1990 to 1996. This increase is consistent with the national trends reported in the American Housing Survey with the homeownership rate increasing from 63.9% in 1990 to 65.4% in 1996, a 1.5% increase. Homeownership rates for Multnomah County are lower than the national average, but this is common of central cities. The rates of Portland PSMA are at a level comparable with national rates.

The places where homeownership is most common are Northwest and Southwest Portland (outside of Downtown) and the eastern suburbs. In addition, neighborhoods in North, Northeast and Southwest Portland that are relatively distant from downtown have high-ownership rates. The tracts with the highest rental percentages are in downtown and inner Northwest Portland and tracts in the inner Northeast and inner Southeast.

With a few exceptions, the change in the tenure composition of census tracts has been uniform. Only seven tracts out of 159 total tracts in Multnomah County experienced an increase in the percentage of ownership of 10% or more, and only four widely dispersed tracts experienced a decrease in ownership of 10% or more. Of the seven tracts that increased the percentage of homeownership, one was located in Northwest, possibly representing a number of condominium conversions. Five of the cases of rising home ownership were in low-income areas and reversed trends in the 1980's of decreased homeownership.

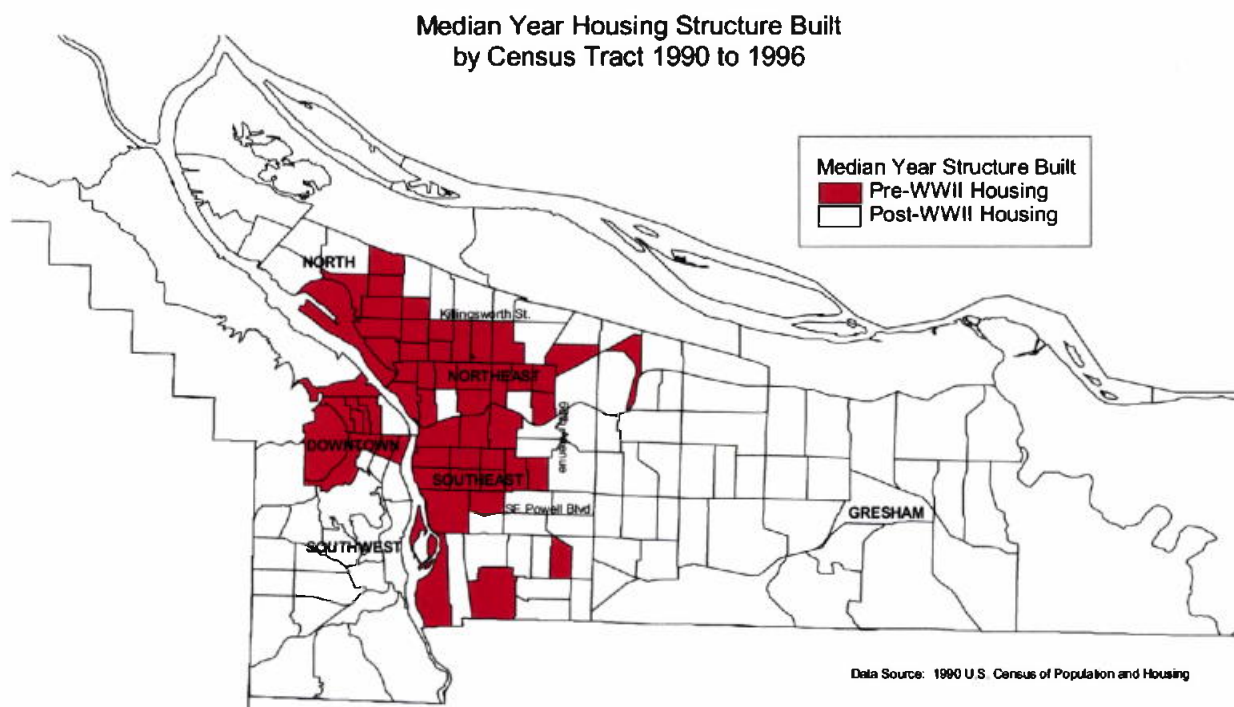
Interestingly, a number of the census tracts with increased rates of homeownership also saw a significant increase in the percentage of renters who had been in their unit five years or more. This could represent a "survivor" phenomenon, whereby low-turnover kept those rental economically lucrative as a rental property, while vacancies in rental units prone to high turnover created the opportunity for sale and conversion to home ownership.

## Age of Housing Stock

Comparing the map of housing appreciation with a map of homes built before WWII, we see an interesting correlation. The “zone of appreciation” is bounded by NE Killingsworth, SE Powell, 60<sup>th</sup> Avenue and the Willamette River. Of the census tracts within this zone that experienced significant appreciation (125% or more), all but one have 50% or more of the housing stock built in the pre-World War II era, defined as all structures built before 1942. The tract in the center of the “zone of appreciation” that was built after 1942, is surrounded by older neighborhoods, and is an area that has seen newer multi-family apartment construction, as well as office and retail construction. It’s median year is close to the cut-off year, at 1945.

Interestingly, NE Killingsworth is the northern boundary of the “zone of appreciation” as well as the northern boundary of tracts with predominantly older homes. To the south, the zig-zag border of SE Holgate, SE Powell and SE Division mirrors the census tracts with greater than 125% housing value appreciation. The same is true to the east, with 60<sup>th</sup> Avenue serving as a border, and the two census tracts just west of 60<sup>th</sup> Avenue that did not have greater than 125% appreciation, also do not have a median year the housing structure was built of 1942 or before.

### Median year housing structure was built in Multnomah County by census tract for 1990 and 1996



**Figure10.**

## **New Construction**

The rate of new construction was looked at to determine if significant changes in any of the variables could be attributed to new housing units. In the areas that saw significant increases in house value, rent, and changes in racial composition, the rate of new construction based on the number of houses built in the between 1991 to 1996 ranged from 0% to 5%, with most tracts registering less than 2% rate of new construction.

**Table 1. Total Housing Units in Multnomah County, 1990 & 1996**

<b>Area</b>	<b>1990 Total Housing Units</b>	<b>1996 Total Housing Units</b>	<b>% Change In Units</b>
Multnomah County	255,751	273,244	6.84%
Portland	198,319	206,085	3.92%
Gresham	26,978	31,583	17.07%
Troutdale	2,509	3,856	53.69%

Data Sources: 1990 U.S. Census of Population and Housing  
and 1996 American Community Survey

Most of the new housing units were built in suburban areas suggesting that inner-city gentrification took the form of renovation of existing homes rather than new construction or significant levels of redevelopment.

## **Summary of The American Community Survey Analysis**

Returning to our indicators of gentrification, we find that some were clearly evident in Portland, while others were either insignificant or inconclusive.

### **Small Increases in Neighborhood Income and Decrease in Poverty Rates**

The analysis of median household income does not corroborate the typical model of gentrification, but the definition of "household income" poses some problems when trying to determine the level of affluence due to the many different forms of household arrangements possible. However, the analysis suggests that gentrification is occurring in a small cluster of tracts in Northeast Portland where increase in median family income was significantly faster than the county as a whole. Household income may underestimate gentrification because many young gentrifiers with low current incomes, may have higher education levels and higher long-term earning power (Bourne 1993).

The analysis of the poverty rate provides interesting information regarding the distribution of poverty in Multnomah County. While the poverty rate rose, there was less concentration of poverty and more dispersion throughout the county. Many of the areas that saw a decrease in the poverty rate were tracts that saw appreciation of housing values at a faster rate than the county average, while areas that saw increases in the poverty rate did not appreciate as quickly.

### **Rapidly Rising Property Values and Increases in Rent Prices**

The inner eastside neighborhoods saw significant changes in property values, both in level of appreciation as well as their relationship with the remainder of the county. A "zone of appreciation" was clustered in the inner eastside census tracts between Southeast Holgate, Northeast Killingsworth, the Willamette River and Southeast Powell. Within this zone, the central core tracts become some of the highest priced areas in the county, illustrating a shift of value from 1990. While most of the central eastside rents still did not rival the downtown and northwest, the central core did see significant increases in gross rent when normalized for bedrooms. People are willing to pay a premium price for rent or house price to live in these inner eastside neighborhoods.

### **Limited Conversion of Rental Units to Owner-Occupied Units**

Shifts in rental units to owner-occupied units can often be a negative effect of gentrification, as well as an indicator of gentrification. It is during these shifts that much of the



displacement of lower income households occurs. The analysis shows that homeownership had risen somewhat, but the rise was more likely due to national trends rather than gentrification. This may mean that gentrification in the central eastside is not happening at the rate that has been illustrated in a number of other U.S. cities, or it may simply mean that rental units are still viewed as viable options for landlords and city residents. The same insignificance is attributed to the stability of residents. Few areas of the county saw significant changes in the percent of people who had lived in their home for less than five years. This may mean that neighborhoods are turning over at their normal rate within the city, or that any significant changes attributed to gentrification occurred before 1990.

### **Housing Appreciation Occurred in Tracts With Predominantly Older Homes**

The comparison of housing appreciation and the median year housing structures were built shows an interesting correlation between the two. Areas with large appreciation rates, almost exclusively were tracts with older homes.

### **Geographic Shift in the African American Population**

Wilson (1992) asserts that if the natural turnover model of neighborhood racial change is true and black residents are moving to nearby neighborhoods, then the analysis should show the following: 1) black populations should increase in size, 2) black populations should increase in their rate of growth, 3) increase in crowding, 4) poverty should increase in concentration. **Both displacement to new areas of the city, as well as movement to contiguous neighborhoods seems to be occurring in Portland.**

The analysis of race indicates that the African-American population is moving north to nearby neighborhoods and east to suburban communities, resulting in a degree of decentralization from inner Northeast Portland. One explanation for this movement is that low income African Americans can no longer find affordable housing in the historic Black neighborhoods, and must therefore move to more affordable neighborhoods to the north and east. A more altruistic reason for the change could be more open housing markets and less racial discrimination.

While impossible to draw finite conclusions about the incomes and motives of people who moved out of inner Northeast, areas with significant increases in the African-American population were also areas with less expensive house values. At the same time that African Americans appear to be moving out of inner Northeast Portland, poverty became less concentrated in northeast and became more dispersed throughout the county.

On the other hand, a new concentration of the Asian population is clustering along the 82nd Avenue corridor, an area that also has low rents and housing values. Some slight concentration of Hispanics has occurred in Gresham, otherwise the Hispanic population is relatively dispersed throughout the county.

### **Decline in the Elderly Population Countywide**

Multnomah County also saw an interesting decline in the elderly population. While nationally the population over 60 year of age increased by 4.8% (Census 1998b), Multnomah County saw a decrease of 6.0% and Portland saw a decrease of 5.5%. Elderly are often most at risk of being displaced (Hutchinson 1992).

The evidence regarding house value, gross rent, race and suggests that gentrification did occur to in the inner eastside neighborhoods, and that the age of the housing stock may be a factor in which neighborhoods experienced gentrification.

### **American Community Survey as a Tool For Assessing Gentrification**

Comparison of 1990 census data and the 1996 American Community Survey data illustrates how quickly the demographic and economic factors of an area can change. It provides a unique opportunity to look at demographic change on a very localized level, prior to the availability of the next decennial census.

### **Corroborating Evidence in Recent Study**

A recent study by Portland State University student Tita Egan (1998) analyzes a different data set that corroborates some of the findings from the ACS data. Egan looked at mortgage credit activity in Multnomah County over a period of four years—1993 to 1996. The data was organized by census tract allowing for the same geographic level of analysis as the ACS. Egan concluded that the poorest census tracts, those with the lowest median family income in 1990, saw the greatest rate of increase in home mortgage activity, and had a large increase in White borrowers. In many of the low-income neighborhoods, the most common applicant shifted from low or middle-income households to the upper-income households, suggesting gentrification in these areas.

## **Gentrification in Inner Southeast Portland A Case Study Census Tracts 13.01, 13.02 and 14.00**

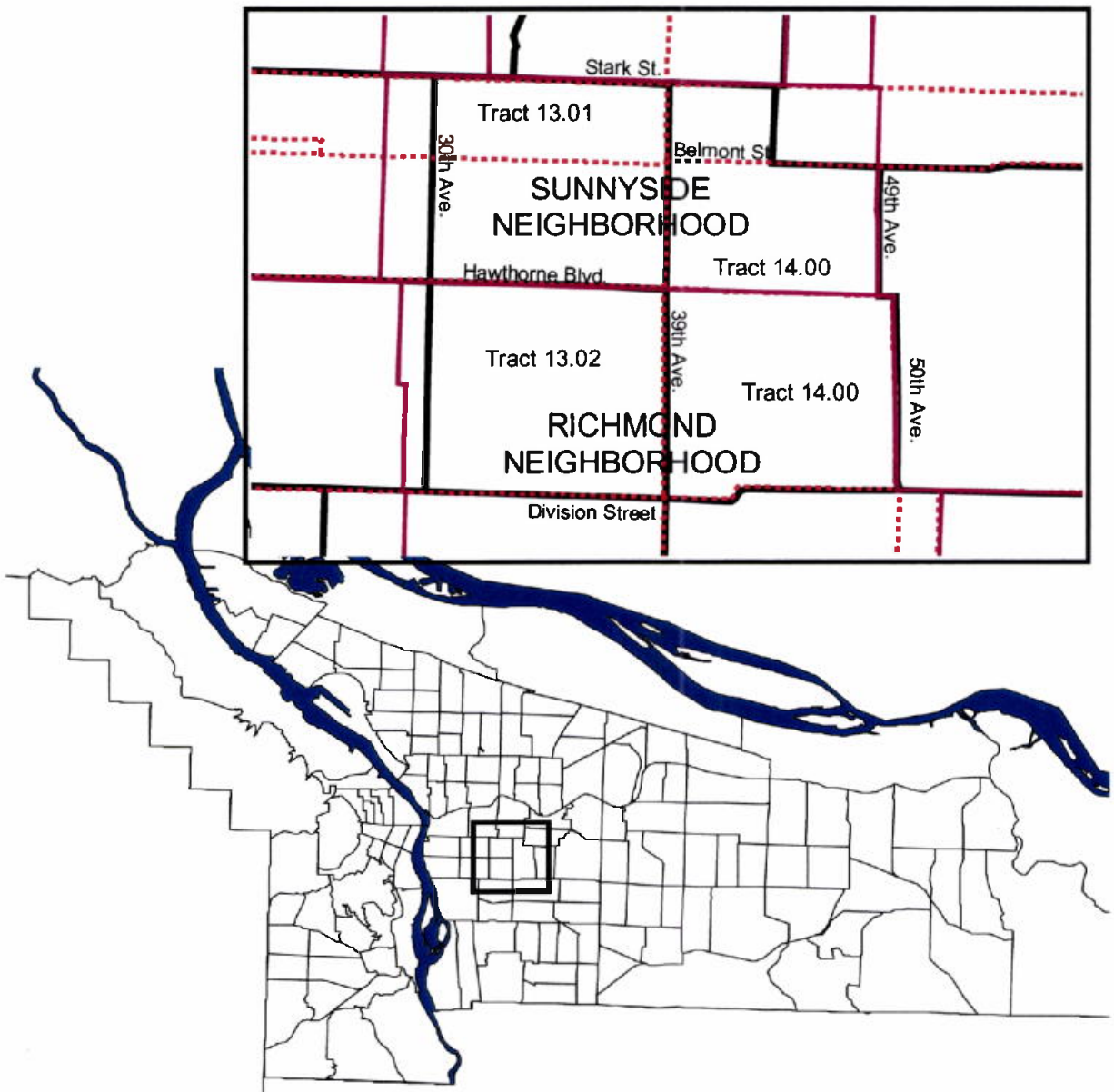
The preceding analysis indicates that varying degrees of gentrification were occurring in the inner eastside on Multnomah County between the period of 1990 to 1996. The “zone of appreciation” serves as the underlying indicator of gentrification, but when overlayed with other factors such as concentrations of high rent levels, increases in median family income, and changes in the racial composition, different census tracts are highlighted as possible cases for gentrification. When combined with the research by Egan, census tracts experiencing increases in house value and experiencing changes in the demographic composition can be identified. The analysis of the ACS is organized in aggregate form. Mapping the variables allowed for easy identification of areas of change and dissimilarities between different areas of Multnomah County. In the case of Portland, much of the concern of gentrification has been broad—not necessarily concerned with specific pockets—but instead with the city as a whole. For instance, recently a group of local organizations including affordable housing developers, social service organizations, and elderly advocate groups began meeting to discuss the impacts of gentrification on the community with a primary concern that redevelopment, increased property values and increased rent levels are causing longtime residents to be displaced (Oregonian 1999). This group had representation from all over the city.

Nonetheless, the study of gentrification is most appropriate on a smaller scale. Researchers, academicians, community leaders and residents generally refer to a neighborhood or a business district as experiencing gentrification, not a county or a city. Most analytical studies of gentrification focus on two or three census tracts when trying to describe gentrification and its impacts.

A reason for first providing a countywide assessment was to use the data and analysis to determine areas that are likely experiencing gentrification, rather than base a case study on anecdotal data and community perceptions. But, in describing the impact of gentrification on a neighborhood level, these perceptions and stories are important.

The following section takes a closer look at one area in inner southeast Portland. This particular cluster of census tracts was chosen because of some initial elements that allude to the possibility of gentrification, specifically a great increase in house value and a shift of the modal mortgage borrower from low- or moderate- income to upper-income.

The first study is of the central core of Hawthorne Boulevard, a popular shopping district in Southeast, and the emerging Belmont Street.



**Figure 11.**

The three census tracts of this case study fall within the neighborhoods of Sunnyside and Richmond. Hawthorne serves as the focal point of the community as a popular commercial district that has blossomed in the 1990s. Hawthorne has seen significant investment in the commercial structures, as well as the surrounding residential community.

Most of the housing in Sunnyside and Richmond was built before World War II. While the area was hit by the recession in the 1980s, it did not experience significant deterioration of housing stock that could have led to abandonment or demolition. In fact, more than 75% of the

housing stock in these census tracts is over 50 years old. As would be expected, more residential properties over 50 years old are found in the two tracts closest to downtown, with tract 13.01 with 81% and tract 13.02 at 86% (Census 1996). This area saw little residential construction between 1990 and 1996 with only 19 structures less than 10 years old in 1996, representing less than 0.05% of the total housing stock (Census 1996). Most of the change to the housing stock in these tracts was through remodeling rather than redevelopment.

### **Increase in House Value and Gross Rent**

These census tracts were chosen for further study because of the high rate of appreciation in house value. Each of the census tracts experienced increases in house value at rates significantly higher than the countywide 102% rate of house value appreciation, and then to a lesser degree the countywide increase of 35% in median gross rent. These tracts represent three of the four census tracts with the greatest rates of increase in all of inner southeast Portland.

**Table 2. Change in median house value and median gross rent in census tracts 13.01, 13.02, and 14.00, 1990 to 1996.**

<b>Census Tract</b>	<b>1990 Median House Value</b>	<b>1996 Median House Value</b>	<b>% Change House Value</b>	<b>1990 Median Gross Rent</b>	<b>1996 Median Gross Rent</b>	<b>% Change Gross Rent</b>
13.01	45,500	110,000	141.76%	347	500	44.09%
13.02	50,800	125,000	146.06%	408	560	37.25%
14	48,100	120,000	149.48%	373	532	42.63%

Data Sources: 1990 U.S. Census of Population and Housing and 1996 American Community Survey

On the other hand, the increases in gross rent did not represent the highest rates of change in inner Southeast, but they were among the highest rent levels. This may be a reflection of the number of single-family houses in this area which represent 72% of the total housing stock. There are few large apartment complexes (only 0.1% of the structures have more than 4 units), with most of them located only along the main commercial strips of Hawthorne. This composition of housing units provides a traditional neighborhood for renovation by gentrifiers who view the renovation of single-family homes as a good investment. A walk through any neighborhood off Hawthorne or Belmont shows for sale signs and extensive remodeling of homes.

### **New Upper Income Homebuyers**

The shift to upper income homeowners appears to have begun prior to 1993 in the westernmost census tracts of 13.01 and 13.02. While the 1990 median family income for tracts 13.01 and 13.02 was less than the county median, the most common house loan borrower was from the highest income level in 1993. Level #5 borrower remained the most common borrower in 1996 and Table 2 shows an increase in the median family income.

**Table 3. Median Family Income and Income Level of the Modal Home Mortgage Borrower, 1990 – 1996.**

Census Tract	1990 Median Fam. Income*	1993 Modal Income Borrower**	1996 Modal Income Borrower**	1996 Median Fam. Income*
13.01	70%	Level #5	Level #5	80%
13.02	98%	Level #5	Level #5	115%
14	84%	Levels #4 & #2	Level #5	99%

\*Percent of Multnomah County Median Family Income

\*\*Definition of Modal Income Borrower Levels

Level #1: 1990 <51% MSA Median Family income      Level #2: 1990 51-80% MSA Median Family Income

Level #3: 1990 81-95% MSA Median Family Income      Level #4: 1990 96-120% MSA Median Family Income

Level #5: 1990 >120% MSA Median Family Income

Data Sources: Tita Egan, *Trends in Home Purchase Opportunities Multnomah County, Oregon 1993-1996*, 1990 U.S. Census of Population and Housing and 1996 American Community Survey

The change between 1993 and 1996 that did occur was in tract 14. In 1993, tract 14's most common loan applicant was from income level #4 and level #2. These represented a split between low-income borrowers and middle-income borrowers. By 1996, the most common borrower was from income level #5. This tract also saw an increase in the median family income. The difference between the westernmost tracts and tract 14, which is further from Hawthorne Boulevard's commercial core, may represent a progression of gentrification in this neighborhood. Gentrification is moving east as the core area between 30<sup>th</sup> and 39<sup>th</sup> Avenues is satiated.

### **Gentrification of the Commercial Area: Creating an Image For Hawthorne**

Gentrification of the commercial area of Hawthorne may also be shifting to the east. In 1992, Rachel Hardyman looked at the gentrification of Hawthorne's retail core defined as the area between 32<sup>nd</sup> and 39<sup>th</sup> Avenues. She describes the transformation of the boulevard from a rundown commercial strip to a neighborhood retail center with a unique image. Initially, Hawthorne received an infusion of public funding for storefront renovations to aid in the revitalization process. Hardyman defined the change from revitalization to gentrification as the point when there were no longer vacancies in the commercial buildings, indicating that demand in the area was greater than the supply of commercial property. A less dubious definition of

commercial gentrification would be that revitalization becomes gentrification when local businesses are displaced from their previous location. She describes the movement of local businesses further and further from the core as they are displaced by shops that promulgate the newly created image. George's Bagdad Shoe Repair represents a local business that was initially located in the very center of Hawthorne Boulevard's commercial core, at 37<sup>th</sup> and Hawthorne. As changes started to occur and the Bagdad Theatre was renovated, George's move from its prime location around the corner on 37<sup>th</sup> Street. Eventually it moved out of the core, east of 39<sup>th</sup> Avenue which represented the boundary of the retail district, to 41<sup>st</sup> and Hawthorne.

Another definition of gentrification of commercial areas could involve the transformation of a neighborhood retail center to a regional retail center. Hawthorne seems to have so successfully crafted its image that it has become a destination spot for people from all other Portland. The businesses have shifted further and further away from serving local needs to serving regional demands.

In Hardyman's view, Hawthorne's revitalization has taken a unique form "closer to a Bohemian lifestyle than yuppie...the people on the street are not the BMW-driving, fashion-conscious, wine bar set usually associated with gentrification. (Hardyman 1992, page 2)." She claims that rather than being priced out of the neighborhood, local residents have benefited from commercial improvements that "represent the interests of a large portion of the neighborhood. (Hardyman 1992, page 21)." This purports that gentrification of the commercial district has not been followed by gentrification of the residential community. Evidence regarding increases in housing prices and changes in the income level of the most common loan borrower suggest otherwise. Hardyman's conclusion is probably more indicative of the stage of revitalization that Hawthorne was experiencing in the late 80s/early 90s.

Her description of the "bohemian" lifestyle of the neighborhood residents may reflect the "rogue gentrifiers" who first began investing in the community's commercial and residential properties. But, the gentrification continued into the late nineties with more local businesses being priced out of the district. In fact, Hawthorne is home to two new "wine bars," and while it may not be rampant with BMWs it has its own share of sports utility vehicles. In Hardyman's thesis, she includes a photo of a neighborhood tavern, the Tu-be Tavern. Interestingly, by 1996 the Tu-be's doors were closed and it was renovated into an upscale restaurant and bar. George's Shoe Repair also faced one more relocation moving further down Hawthorne to 44<sup>th</sup> Avenue.

## **Belmont Becomes the “Junior” Shopping District**

Belmont Street appears to be the next emerging hot spot in Southeast Portland. As retail space along Hawthorne becomes harder to find, shops began locating on Belmont in the mid-nineties. A more thorough analysis of Belmont Street may show the expansion of commercial gentrification northward. Belmont has the same advantages of quality housing stock and the proximity to downtown that a streetcar neighborhood gives, but its commercial strip takes a little different form than Hawthorne, helping explain why it experienced an upswing afterwards. Belmont Street does not have the dense central core that Hawthorne does. It is interspersed with single family residences and small multi-plexes between commercial buildings. It does not have the dense older apartment buildings that are common along Hawthorne.

While Hawthorne’s gentrification seems to have been started with the commercial district, Belmont’s revitalization appears to have followed the residential revitalization. Belmont saw the redevelopment of an abandoned dairy into a chic urban, mixed-used development with an upscale grocery store and soon to follow townhouses. Residents of the Belmont Dairy have referred to themselves as “urban pioneers,” viewing the Sunnyside neighborhood as more relaxed urban living (Add citation). While they see themselves as pioneers, the residents of a development like the Belmont Dairy are entering the stage of gentrification in the middle. The neighborhood has already seen significant change and investments in Sunnyside are not seen as risky. The main core of Belmont is in census tract 13.02. This most common home mortgage borrower in 1993 was already from the highest income group, with 1996 representing a continuation of a process that started in the early 1990s. But, now some of the impacts of gentrification are surfacing.

## **“Not In My Backyard” Syndrome**

A recent article in *The Oregonian* described a change in the type of residents in the Sunnyside neighborhood, “[Sunnyside has] doctors and lawyers and young people moving in, and they’re very articulate (Kenning 1998).” With this change has come a “conflict of values” between new residents in the Sunnyside neighborhood and social service organizations. Complaints about transients forced a three-month closure of an established soup kitchen operated by the Sunnyside Methodist Church. The Director of the kitchen felt, “Gentrification has really had an effect [in Sunnyside]” with new residents “redefin[ing] the neighborhood tolerance for poor people (Kenning 1998).” The President of the Sunnyside Neighborhood Association agreed that new residents moving in are affecting how social services are viewed, “[they] are not used to things such as transient foot traffic (Kenning 1998).”



Gentrification in tracts 13.01, 13.02 and 14 seem to have followed the revitalization of the commercial strip of Hawthorne Boulevard. The "junior" commercial streets of Division Street and Belmont Street have also experienced revitalization, but they are in different stages. Instead, their revitalization has more likely followed the gentrification of the surrounding residential community. Hardyman's analysis coupled with the more recent analysis of the American Community Survey data and Egan's analysis of home mortgage data allows for some insight into the stages of gentrification. Hardyman's 1992 analysis is more representative of the early stages of gentrification in Hawthorne's central core. The mortgage data indicates that the census tracts west of 39<sup>th</sup> Avenue had made a shift in population, or at least the income level of loan applicants, to upper income households by 1993, while the period from 1993 to 1996 saw the expansion of Hawthorne's gentrification eastward.



## **Policy implications**

The issue of gentrification is continually being raised at the local level. Citizens in the Gray Panthers oppose legislation that would overturn the city of Portland's new affordable housing preservation ordinance. The issue became the focus of a meeting that had been called to voice concern about problems of gentrification in North and Northeast Portland. A committee has formed to focus on gentrification (Nokes 1999).

### **Affordable Housing**

A recent study by U.S. Department of Housing and Urban Development (1998) outlines a crisis in rental housing. The major finding of the report was that economic growth alone will not ameliorate housing needs of low-income families. Families working full-time at minimum wage are not able to find decent housing in the private housing market (HUD 1998). The HUD study focused on "worst case" needs housing at the national level, and found the gap between low-income renters and low income housing greatest in the western region. Portland is one of the cities facing that growing mismatch.

The discussion of negative impacts of gentrification centers around displacement of low-income residents. Community advocates have voiced their concern over the "affordable housing crisis" in Portland. As gentrification becomes more prevalent in Portland and historically affordable inner city neighborhoods are upgraded, the stock of affordable housing will become even scarcer, exacerbating the crisis. Many studies reference Portland's high cost of living, rapidly rising housing prices and relatively stagnant income levels. Concern is growing about what will happen if Portland continues to lose affordable housing through building use-conversions and the effects of gentrification while also facing federal cuts in rental assistance programs (HUD 1998).

Community development corporations (CDCs) are looked to help provide affordable housing. But, the revitalization in neighborhoods impacts their abilities to build housing. As inner city neighborhoods, especially North and Northeast Portland see declines in vacancy rates, property tax delinquencies and the availability of vacant land for new development, CDCs are having to become more creative. One CDC representative stated, "Land is getting so scarce it is becoming more and more difficult to find vacant lots in the neighborhood we serve (Seigel 1998)." They are now competing against the private market to develop properties in neighborhoods that just ten years ago were begging for development.

In addition, the number of CDCs serving Portland's inner city neighborhoods has dramatically increased in the last ten years. There are now over ten organizations providing affordable housing in North and Northeast Portland (Levine 1999). They must all compete for land and dwindling financial resources. Nonprofits are "the sole guarantor of long-term affordable housing" and with gentrification, as well as general market forces which make providing additional affordable housing is increasingly more difficult.

### **Not-In-My-Backyard**

The case study of Hawthorne Boulevard provides an example of neighborhood residents opposing social service programs in the neighborhood. The closure of the Sunnyside soup kitchen followed a long series of problems in another Southeast neighborhood where neighborhood residents wanted St. Francis Dining Hall to close its doors. This conflict was resolved and the congregate meal site serving a large number of homeless people was allowed to stay open.

Neighborhood conflicts have also risen when other services are proposed. In Buckman, a residential home for gang-affected youth and a methadone clinic for drug addicts was fought, as well as the siting of the Clark Center, a shelter for homeless men. In north Portland, a local CDC received complaints from residents who were less than thrilled about a new affordable housing development in their neighborhood. Some viewed the backlash as a result of gentrification—new, less tolerable, upper income residents.

As the profile of the neighborhood's resident changes, the ability of a neighborhood to organize against the siting of certain services may increase. Sunnyside Methodist Church saw a change in the way in which nearby residents viewed their services from one of community support to one of conflict. But, the Director did see the conflict as useful in pointing out ways in which the meal site could be managed better.

### **Evaluating Public Revitalization Programs**

It is becoming increasingly more complicated to evaluate housing revitalization policies, since it is becoming less and less appropriate to assume that areas targeted for renewal will remain poor and continue to decline (Bailey 1997).

Interestingly, the Sunnyside neighborhood described in the previous case study, is designated as a "distressed area" by the City of Portland. Neighborhoods designated as distressed areas are residential areas seen as "detrimental to the safety, health and welfare of the community by reason of deterioration, inadequate or improper facilities; the existence of unsafe or abandoned structures; or any combination of these or similar factors (City of Portland

1996a).” The main criteria for establishing distressed areas is a median income level at 80 percent or less the area median and poor housing conditions or derelict buildings (City of Portland 1993a). Sunnyside was approved as a distressed area in May 1990 (City of Portland 1993a) and remained designated as distressed areas through the study period of 1990 to 1996, giving it access to certain public incentives for revitalization.

By 1993, there were indications that Sunnyside was revitalizing. It is understandable why the neighborhood would remain in a classification that would give it access to tools for revitalization, but it is surprising that the neighborhood continued to receive a special classification in 1996 when gentrification was more prevalent. One issue this raises is at what point are public programs deemed a success and discontinued; and, at what point does the public revitalization program start aiding the gentrification process. Hardyman (1992) described the public, storefront renovation program as a large factor in the initial revitalization of Hawthorne Boulevard.

Public agencies often rely on decennial census data for designating distressed areas eligible for various forms of public assistance, such as Community Development Block Grants, low interest home repair loans, storefront renovations, etc. The 1990 census data does not paint a very accurate picture of the status of the neighborhood in 1996.

Myron Orfield (1997) recommends consciously targeting public revitalization efforts on low-income areas that are adjacent to gentrifying neighborhoods. His rationale is that these neighborhoods have a stronger chance of benefiting from the market forces in the gentrifying communities rather than a neighborhood that is surrounded by poverty. His focus is on capitalizing on “spill-over” effects that gentrifying communities can have for neighboring areas. (Orfield 1997, Bailey 1997). Orfield does not go on to discuss some of the negative aspects of gentrification such as the displacement of the original community.

Gentrification further complicates the evaluation of public policies aimed at revitalization. Most studies, this one as well, provide a simple before-and-after snap shot of a neighborhood and try to draw conclusions. There is question about whether this is an appropriate way to measure the impact of urban renewal policies and programs. It becomes more and more important to know how the renewal policies has affected the change in the neighborhood or if change occurred as a result of existing market forces (Bailey & Robertson 1997). Was the renewal a result of urban revitalization policies, market driven gentrification, or a combination of the two? Would the neighborhood have revitalized without public intervention?

Bailey describes how the wider concern for people moves the emphasis of renewal policies from the physical housing stock of households to the flow of households. Typical evaluation methods assess the characteristics of a particular neighborhood—change in

unemployment, change in house price, change in the number of businesses, etc.—but, they do not take the impacts of the urban policy on the original residents of the neighborhood. As John Powell warned, the policies and programs may “benefit the neighborhood but not the neighbors” (Spicer 1997).

Locally, people are concerned with the impacts of gentrification in neighborhoods designated as urban renewal districts (Stewart 1999). A recent process of designating the outer southeast neighborhood of Lents as an urban renewal district led to concerns that the neighborhood is already experiencing increases in housing costs due to gentrification. Community members disagreed about whether or not it was appropriate to use the urban renewal process to revitalize the neighborhood in the face of gentrification and the feeling that lower income residents were being priced out of the housing market in the neighborhood. Lents has been designated as an urban renewal district, but program managers have been challenged to track the level of gentrification that occurs.

In Northeast the concern about public revitalization programs centers around the type of residents and new homeowners they bring to the community. A former technical advisor for the Albina Community Plan in Northeast Portland reflected that when the community was looking for economic diversity in their predominant low income community, “the thing that they failed or missed in dreaming is that in Oregon, the middle class tends to be white” (Huntsberger 1999).

### **Suburbanization of Poverty**

Poverty appears to be dispersing in Multnomah County. More census tracts have a poverty population with noticeable increases in the suburban communities. This study does not include the surrounding suburban communities of Clackamas and Washington Counties in Oregon and Clark County, Washington; but, there is evidence that poverty is also increasing in the suburbs. Nationally, HUD (1998) reports that of worst case needs housing situations, one-third are in suburban communities. City Commissioner Eric Sten asks, “do any of us really believe that if we don’t build affordable housing, the poor will go away from Gresham or anywhere else? Of course not. They will concentrate in ghettos in Gresham, Hillsboro [a Washington County suburb], and all the other non-affluent communities” (Oregonian 1997). He made this statement in response to a freeze on affordable housing construction in Gresham.

There is evidence that people moving out of gentrifying neighborhoods may be relocated in decentralized, suburban locations (Wilson 1992). A woman who was displaced from northeast Portland stated that “you have to go to the suburbs to find affordable housing (Huntsberger 1999).” While many will debate whether suburban communities are providing their “fair share” of

affordable housing, the notion that inner city neighborhoods are the place to find affordable housing is fading.

With the move of lower income people to the suburbs is the move of African Americans out of inner city neighborhoods. Urban poverty analyst John Powell reported that as the wealth is growing in the inner city, low income African Americans are leaving. He stated that until 1980, Portland African Americans led the nation in homeownership rates, but that by 1996 the number of black homeowners has dropped below the nation's average (Spicer 1997). He worries that gentrification of African-American communities will put Portland at risk of becoming like Paris, where "the rich people live in the city and the poor people live in the suburbs" (Spicer 1997).

A long time resident of a historically African-American community in Portland made the statement about the new residents investing in the neighborhood: "You look at all the people. They're not black. I thought you people were too scared to come over into this neighborhood" (Mayer 1996). A question that remains, and that the data allows us to speculate about, is where are African-Americans moving, and what are their reasons for moving. A large portion of the community fears that low income African Americans are being displaced due to gentrification and are forced to move to suburban communities where they do not have a support network. A young single mother who moved to the suburbs for cheaper housing, found that she lost a lot from being separated from her community, her family and friends, and her church (Huntsberger 1999).

Lastly, are the suburbs ready? If low income people, both minority and White, are moving to the suburbs, are their adequate services?





## Conclusion

How do we know when revitalization in neighborhoods turns into gentrification? Incumbent upgrading is the ideal form of revitalization. The neighborhood benefits and the current residents benefit. But, this is not the form of revitalization that is most common in Portland neighborhoods. Most often when we see a house or storefront being renovated, we find that a new homeowner is behind the effort. This new homeowner is typically middle or upper class and White. Will Portland retain its moniker as a “livable” city at the expense of low income residents? Do we need to start asking “livable for whom?”

The comparison of 1990 census data and 1996 American Community Survey data allowed for some conclusions to be made that support the theory that many Portland inner city neighborhoods are experiencing gentrification. A core of inner city neighborhoods experienced:

- ♦ ***Decrease in the concentration of poverty***
- ♦ ***Rapidly rising property values***
- ♦ ***Increases in rent prices***
- ♦ ***Housing appreciation in tracts with predominantly older homes***
- ♦ ***geographic shift of the African-American population out of the inner city***

Gentrification is an oft talked about issue in Portland, and but identifying it before the negative impacts happen is more difficult. Gentrification does not look the same in every city, nor in every neighborhood within a city. For instance, not all first stage gentrifiers have the same characteristics (Hutchinson 1992). Policy makers have recognized that public programs and incentives may play some role, however small, in the gentrification of a neighborhood. But, how best can it be identified before it is too late.

There is also evidence that low income and minority populations are moving out of gentrifying, inner city neighborhoods. But, where are they going? This is a topic for another day's studies, but one worth pursuing. They maybe moving to housing in a nearby neighborhood or disperse throughout the city or region where the housing is less expensive and often less desirable. Based on poverty and race information it seems that low income residents are both moving to nearby neighborhoods—in the case of African Americans along Columbia Boulevard—and dispersing throughout the county and probably the region.

This research poses as many questions as it answers. It begs for a follow up analysis once comparison data for surrounding counties are available to provide a more regional framework. Another next step would research on how a neighborhood gentrifies. The census

and ACS provide insights into what gentrification looks like in terms of demographics, and case studies provide a more physical and community outlook, but these are just snapshots that do not get at the heart of the process of gentrification. As Jan van Sweep asserts gentrification is a new research sphere. While the topic is not new, there is much yet to be learned.

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- (need to add Belmont Dairy Oregonian citation).



## PORTLAND MALL REVITALIZATION

710 NE Holladay, Portland, Oregon 97232 • Phone: 503-962-2150 • Fax: 503-962-2282 • [trimet.org](http://trimet.org)

June 30, 2003

Greetings:

The Portland Mall is 25 years old. When it was completed in 1978, the Portland Mall was an important catalyst for the revitalization of Downtown Portland. This great facility is now showing its age and in need of major repair. Additionally, changes in the Portland economy have resulted in fewer retail businesses and a corresponding decrease in pedestrian activity along some parts of the Portland Mall. Recent actions by the Portland City Council, Metro, TriMet and our other regional partners supported efforts to construct light rail on the Portland Mall. This will be a great opportunity to design and build light rail to address current needs to renovate the Portland Mall, and enliven this vital corridor with people and businesses.

The Portland Mall Revitalization Project takes an integrated approach to redesigning the 5<sup>th</sup> and 6<sup>th</sup> Avenues for light rail, renovating the existing Portland Mall, and reinvigorating commercial and pedestrian activities. Since January, the project's Steering Committee has studied how best to design the Portland Mall. The City of Portland, Metro, and TriMet, in conjunction with a Community Advisory Committee of downtown businesses and neighborhood representatives, have collaborated to produce a **Public Discussion Draft: Conceptual Design Report**. This report presents information on light rail station designs and amenities on the transit mall as well as ideas to increase business and pedestrian activities.

I am asking the community to comment on this Conceptual Design Report. The specific issues include:

- Light Rail Station Options;
- Special design treatments on 5<sup>th</sup> and 6<sup>th</sup> Avenues, including the sidewalk, transit shelters, intersection design, trees, benches, and art;
- Operation of buses, light rail, and automobiles; and
- Construction issues

Also, I welcome your comments on what new kinds of businesses, activities, or street design features you think would make the Portland Mall a more attractive and lively place.

### *Project partners*



City of Portland

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In July, three Open Houses will offer the public an opportunity to comment on the report's preliminary options and designs:

<b>July 8</b>	<b>Central Mall</b>	<b>Portland Building</b>
Noon-1:30 p.m. and 4:00 –6:00 p.m.		1120 SW 5 <sup>th</sup> Avenue, Room C, 2 <sup>nd</sup> Floor
<b>July 9</b>	<b>North Mall</b>	<b>Port of Portland Building</b>
5:00 -6:30 p.m.		121 NW Everett Street Port of Commissioners Room
<b>July 10</b>	<b>South Mall</b>	<b>PSU Urban Studies Building</b>
5:00 –7:00 p.m.		506 SW Mill, 2 <sup>nd</sup> Floor Gallery Room

The Conceptual Design Report and a visual simulation of how light rail might operate on the Portland Mall will be available at each Open House, as well as online at [www.trimet.org](http://www.trimet.org).

Additional public meetings and community outreach are planned throughout the summer and early fall to solicit public input on the proposed Mall Project. For more information or to comment on the Conceptual Design Report, visit [www.trimet.org](http://www.trimet.org) or call TriMet Community Affairs at 503-962-2150.

A final Conceptual Design Report, incorporating public responses and additional technical analysis, is anticipated by October 1, 2003.

Thank you for your interest in how our community can capitalize on this opportunity to reinvigorate the Portland Mall while expanding our light rail system along 5<sup>th</sup> and 6<sup>th</sup> Avenues. On behalf of the entire Portland Mall Revitalization Project Steering Committee, I believe you will find the future Portland Mall offers exciting opportunities.

With warm regards,

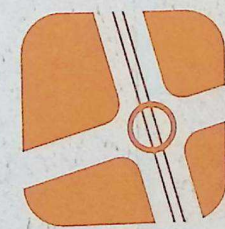
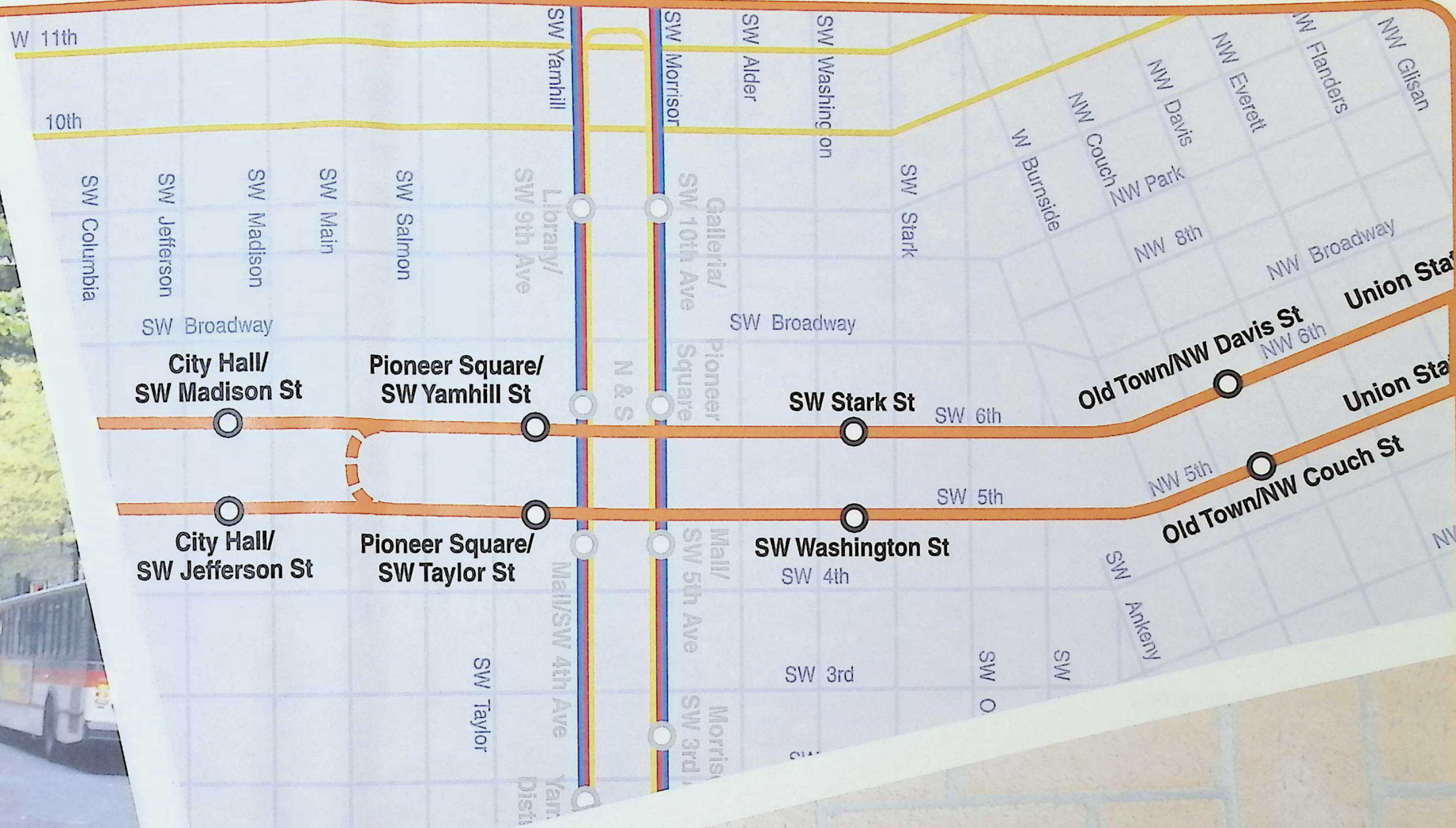


Vera Katz

Mayor

Enclosures





**PORTLAND MALL**  
REVITALIZATION

# Conceptual Design Report

Public Discussion Draft

June 30, 2003

Project partners



City of Portland



METRO



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This report is available on the web at: [www.trimet.org](http://www.trimet.org)



# TABLE OF CONTENTS

## Introduction

<b>1. Project Background</b>	<b>5</b>
The South Corridor Process	
Proposed Alignment	
Alignment Design Options	
<b>2. Community Involvement</b>	<b>10</b>
Community Relations Program	
Public Involvement Program Timeline	
Project Oversight	
<b>4. Planning and Urban Design</b>	<b>12</b>
The Mall: A Portland Icon	
Opportunities and Constraints	
Urban Design Approach	
Design Principles	
<b>5. Station Design and Street Configuration</b>	<b>17</b>
North, South and Central Mall Configurations	
Station Design Options for Central Mall	
Sidewalk use in Central Mall	
Vehicle Pullouts	
<b>6. Streetscape</b>	<b>25</b>
Street Trees	
Intersection Design Treatments	
Bus and Light Rail Shelters	
South Mall Surface Treatments	
<b>7. Transit Operations</b>	<b>30</b>
Light Rail Station Locations	
Bus Stop Locations	
Preliminary LRT Routing Plan	
Preliminary Bus Routing Plan	
<b>8. Traffic Management</b>	<b>32</b>
Traffic Circulation	
Turning Movements and Accesses Impacts	
Roadway Capacity	
Signalization Issues	
Fire, Life, Safety Access	

<b>9. Construction Management</b>	<b>36</b>
Utility Relocation	
Transit and Vehicular Construction Access	
Guidelines for the Construction Operations	
Construction Contracting Options	
Construction Techniques	
Construction Schedule	
<b>10. Project Cost and Financing</b>	<b>46</b>
Project Costs	
Project Financing	
<b>11. Development and Mall Management Strategies</b>	<b>50</b>
Background	
Proposed Development Strategy	
Mall Management Strategy	

## Appendix

A.	Draft Construction Guidelines
B.	Transit Mall Tree Examination (Pacific Resources Group)
C.	Bus/LRT Operations Alternatives
D.	Conceptual Traffic Flow Diagrams
E.	Water System Input (Portland Bureau of Water Works)
F.	Preliminary Assessment of Facility Impacts (BES)
G.	Conceptual Design Cost Estimate
H.	Mall Management
I.	Above Ground Project Elements

## List of Figures

<b>Project Background and Definition</b>	
1	Project Goals and Objectives
2	Downtown Alignment Options
3	Station Design Options
4	Proposed Mall Light Rail Alignment and Stations
<b>Community Involvement</b>	
5	Conceptual Design Report Decision Process
6	Decision Timeline
<b>Planning and Urban Design</b>	
7	Downtown Plan
8	Opportunities and Constraints
9	Mall Character
14	Sidewalk Use Zones
	(a) Existing
	(b) Left Side Station Option
	(c) Right Side Station Option
	(d) Island Station Option
15	Central Mall Sidewalk Plan
16	North Mall Sidewalk Plan
<b>Station Design and Street Configuration</b>	
10	Station Design Considerations
11	Left Side Platform Option
12	Right Side Platform Option
13	Island Platform Option
17	Vehicle Pullout
<b>Streetscape</b>	
18	Intersection Treatments
	(a) Asphalt
	(b) Concrete
	(c) Pavers
	(d) Repair and Restore
19	South Mall Treatment Options
<b>Transit Operations</b>	
20	Light Rail Frequency
21	Proposed Light Rail Station Locations
22	Bus Volume on Mall
<b>Construction Management</b>	
23	Construction Schedule
24	Proposed Work Zones
<b>Financial Strategy</b>	
25	Conceptual Design Budget Summary
26	Cost Estimate Key Assumptions
27	Proposed Funding Sources
28	Local Funding Options
29	Potential New Parking Meter Revenues



# INTRODUCTION

The City of Portland, TriMet and Metro are participating in a regional effort to extend light rail service between the Central City and Clackamas County. In connection with that effort, all three agencies have undertaken the Portland Mall Revitalization Project. This project will lay out options for adding light rail service on 5th and 6th avenues and revitalizing those streets to better meet the needs of Portland's citizens and the downtown business community.

This document, the Draft Conceptual Design Report, serves three purposes:

- It establishes the goals and objectives for the project. These goals and objectives will guide the policy makers as well as the technical staff throughout the project.
- It provides information on the public review process.
- It identifies the most likely design solutions for a number of project elements such as lane configuration, station design, terminus points and pedestrian areas.

This Report will be used as the basis for public review of the proposed downtown light rail alignment and the design choices for essential project elements. The public review period will begin June 25 and continue through the Fall of 2003. The public response is important because it will guide decision making by the Project Team, the Citizen Advisory Committee and the Project Steering Committee.

The Steering Committee will hold a hearing in mid September followed by a series of decisions and recommendations. By the end of September the Steering Committee will reaffirm the Locally Preferred Alternative (LPA) which specifies the mode, alignment and terminus of the project. The region has been focusing on light rail on 5th and 6th Avenues from Union Station to Jackson Street. The final Conceptual Design Report will recommend station design and further define options for specific issues such as shelters, street furniture and trees. The Project Team expects to publish a final Conceptual Design Report in October with the Steering Committee adopting the final Conceptual Design Report in November.

The Project Team is responsible for the contents of this Report. The Project Team consists of staff from the City of Portland, TriMet and Metro. Zimmer Gunsul Frasca is providing design support. Shiels Obletz Johnsen is providing overall project management, and coordinated the preparation of this Report.

## Organization of This Report

This Draft Conceptual Design Report does not contain recommendations. Instead, the report focuses on providing the facts needed to allow the public, the Citizen Advisory Committee and the Steering Committee to make informed choices. The major issues are:

- **Urban Design:** The Portland Mall is an existing facility and the flexibility to redesign some of its elements may be limited. However, the Project Team believes it is important to understand the context in which the Mall operates today and to explore ways to create distinctive treatments that reflect the character of different segments of the mall. Accordingly, the Report outlines an urban design framework that will be refined in the next phase.
- **Light Rail Station Design:** The design of the station platforms determines the configuration of the street and impacts vehicle access and circulation as well as the use of the sidewalk area. There are three design options identified in the Report.
- **Streetscape:** There are a number of design choices available for shelters, furnishings, street trees, intersection materials and other above ground elements of the project. In some cases the report lists options; in others, the Project Team has developed criteria to utilize in creating design options in the next phase.
- **Transit Operations and Traffic Management:** The addition of light rail to 5th and 6th avenues requires a new operating plan for light rail and buses, and also impacts traffic circulation.
- **Construction Management:** One of the project goals is to avoid a complete reconstruction of the street and to minimize the disruption to adjacent businesses. The preliminary construction management plan is set forth in the Report.

• **Business Climate and Mall Management:** This is more than a light rail project. In order to achieve the Goals and Objectives, the project must also lead to substantial improvements in the business climate on the Mall. This can be accomplished through a combination of design changes, better coordination of mall-related expenditures, upgrades to ground floor uses and creation of a development strategy that integrates light rail improvements with private expenditures.

• **Financial Strategy:** Neither the City nor its regional partners have identified the sources of money needed to complete the project. The Report suggests some ways to develop funding.





# INTRODUCTION

## Project Goals and Objectives

As a starting point, the Project Steering Committee established Project Goals and Objectives. These Goals and Objectives reflect the multiple functions

that the Mall could serve. Potential strategies for achieving those goals are also included along with an indication of the major budget and engineering

constraints. The Goals and Objectives will continue to guide staff and the decision makers throughout the project.

### Project Goals & Objectives

Goals	Objectives	Possible Strategies	Construction Parameters
<b>1. Enliven the mall and make it a great public space.</b>			
	Respect the distinctive design integrity and unique function of 5th and 6th Avenues	<ul style="list-style-type: none"> <li>• Prefer retention of the distinctive sidewalk treatments</li> <li>• Prefer retention of the current intersection design</li> <li>• Expand holiday lighting program the entire length of the mall</li> <li>• Prefer retention of twin ornamental street lights</li> </ul>	<p>Material selection and construction technique must avoid long-term maintenance liabilities for the City and property owners</p> <p>Design to existing curb and flow lines</p>
	Make the mall more user friendly by creating distinct "urban rooms" that reflect the character of different segments of the mall	<ul style="list-style-type: none"> <li>• Within each "room" segment create unique, signage, banner programs, landscape treatments and programming that reflect segment themes.</li> </ul>	<p>Avoid complete reconstruction of existing sidewalks and intersections, except as necessary to accomplish overriding objectives</p>
	<p>Develop gateways which serve as transitions between sub-district segments</p> <p>Develop an Art Program which is appropriate for the entire length of 5th and 6th Avenues</p>	<ul style="list-style-type: none"> <li>• Art program should be coordinated with RAC and TriMet</li> <li>• Take advantage of segment characteristics</li> </ul>	<p>Defer detailed design for as long as possible to facilitate unique design treatments that meet project objectives.</p>
	Integrate the private space with public uses	<ul style="list-style-type: none"> <li>• "Zone" the sidewalk into functional use areas (i.e. merchant zone, through zone, pedestrian furnishings zone, transit boarding areas etc.)</li> <li>• Open businesses to the street and encourage sidewalk cafes, vending and active building fronts</li> <li>• Implement a development strategy for each "room" that promotes integration of private uses with public space</li> <li>• Form a partnership of the City, TriMet and downtown businesses to provide active management and programming of the Mall</li> </ul>	
	Consider adjacent development and development between blocks in designing treatments for intersections and sidewalks	<ul style="list-style-type: none"> <li>• Develop utility extensions and up-sizing method that coordinates with LRT construction</li> </ul>	
	Support evolution of the mall in function and identity from a bus facility to an active multi-purpose street	<ul style="list-style-type: none"> <li>• Convert to quieter, hybrid buses as soon as possible</li> <li>• Encourage reductions in bus volumes as LRT service increases</li> <li>• Locate stations at wider intervals</li> <li>• Create "quiet" blocks with no transit service</li> </ul>	
	Enhance opportunities for natural light and visibility	<ul style="list-style-type: none"> <li>• Trim trees</li> <li>• Consider tree removal and replacement in some blocks</li> <li>• Consider unique planting themes</li> <li>• Develop Transit Shelters that enhance vertical and horizontal visibility</li> </ul>	
	Make the transit mall feel safe for all users	<ul style="list-style-type: none"> <li>• Increase daytime and nighttime light levels through tree trimming and upgraded lighting systems</li> <li>• Modify existing bus shelters to make more open; or replace with new shelters that enhance the public's feeling of security</li> </ul>	

**Figure 1:** Project Goals and Objectives



# INTRODUCTION

Goals	Objectives	Possible Strategies	Construction Parameters
<b>2. Renovate the mall.</b>	<p>Restore streets, intersections and sidewalks to "like new" condition</p> <p>Provide "like new" bus and LRT shelters designed to support public safety and active use objectives while maintaining weather protection</p> <p>Address existing maintenance issues for adjacent property owners</p> <p>Encourage use of durable low- maintenance materials</p>		Avoid a "patchwork" appearance as a result of construction impacts to sidewalks and intersections
<b>3. Improve transit service.</b>	<p>Add LRT Service from Union Station to PSU</p> <p>Maintain efficient bus operations on mall</p> <p>Extend the mall transit function and amenities to PSU</p> <p>Increase overall transit frequency</p> <p>Create effective links with desired pedestrian and bike movement patterns</p> <p>Continue to concentrate bus service on 5th and 6th avenues; avoid relocations to other downtown streets</p>	<ul style="list-style-type: none"> <li>• Coordinate with Portland Business Alliance wayfinding project</li> <li>• Coordinate with PDOT and BTA bicycle oversight committees</li> </ul>	
<b>4. Support downtown retail and office uses.</b>	<p>Develop and implement site specific development strategies that combine public and private resources</p>	<ul style="list-style-type: none"> <li>• City, TriMet and PDC should implement development strategies aimed at key sites. Examples include: Meier and Frank, TN Building, US Bank Plaza, 5th between Oak and Stark</li> </ul>	
	<p>Develop appropriate social strategies to eliminate or reduce undesirable street activity and increase the perception of public safety</p>	<ul style="list-style-type: none"> <li>• Provide street and transit furnishings that discourage loitering</li> <li>• Consider use of CCTV and PA program/equipment</li> <li>• Use lighting to discourage undesirable night activities</li> </ul>	
	<p>Increase desirability of street level retail activity</p> <p>Improve auto access to buildings fronting on mall</p>	<ul style="list-style-type: none"> <li>• Consider a limited number of auto/truck pull outs from auto lane where there are no basement extensions</li> <li>• Retain on-street parking south of Madison where feasible</li> </ul>	
	<p>Improve auto circulation on and adjacent to the mall</p>	<ul style="list-style-type: none"> <li>• Evaluate a continuous auto lane in the context of edge building needs, mall segments and overall downtown vehicle circulation</li> </ul>	
	<p>Encourage abutting property owners to take ownership and stewardship of the sidewalk area and street</p>	<ul style="list-style-type: none"> <li>• Link public investment in sidewalk and street to private investment to upgrade building frontages and uses</li> <li>• Create an "owner" organization. See Goal 1 above</li> </ul>	
	<p>Strengthen activities at street corners</p>	<ul style="list-style-type: none"> <li>• Coordinate corner circulation with ADA treatments and utility/traffic poles</li> </ul>	
	<p>Increase discretionary pedestrian travel on and along the mall</p>		
<b>5. Design and construct the mall, on schedule, within budget and with minimum impacts.</b>	<p>Avoid intersection closures and keep construction duration to an absolute minimum</p> <p>Coordinate refurbishments with light rail to avoid duplicate impacts</p> <p>Assure public safety and safe traffic management throughout construction</p>	<ul style="list-style-type: none"> <li>• Construct in a manner similar to that used for Streetcar construction</li> <li>• Complete construction in two years</li> <li>• Utilize a single general contractor for all construction work</li> </ul>	<ul style="list-style-type: none"> <li>• Limit utility relocations to direct conflicts and access needs</li> <li>• Avoid reconstruction of concrete substrate</li> </ul>



# INTRODUCTION

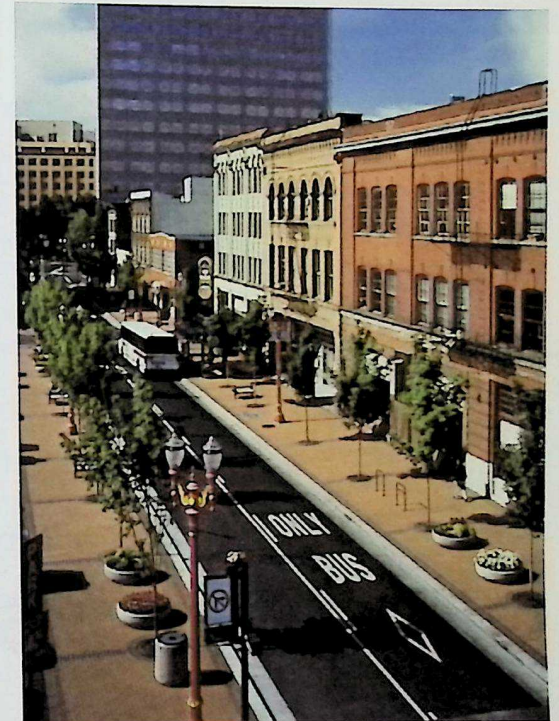
## Major Project Questions

While this report highlights a number of issues that will require resolution during the next phase of work, the Project Team believes the following major policy choices are especially important.

- **Budget:** The goal of the project is to add light rail and renovate the Mall. The current conceptual design budget estimate includes such elements as refurbishing or replacing bus shelters and repairing sidewalks, curbs and street pavement. Although this project assumes a funding ratio of 60% federal / 40% local, the section "Project Cost and Financing" starting on page 46, illustrates the challenges in identifying funding for the project. Some additional elements, such as extending Mall-type treatments to the South Mall, between Madison and Jackson Streets could be considered, but additional funding sources would need to be identified for these improvements. If any additions are preferred, what are the funding choices?"
- **Urban Design:** The design of the mall emphasizes uniformity of design. For example the circle intersections and distinctive sidewalk pattern are common to the length of 5<sup>th</sup> and 6<sup>th</sup> Avenues. These and other design features are intended to mark these streets as special places. Other features that are unique to Mall include shelters, trees, and sidewalk treatments. To what extent should these features be replaced or modified to achieve other project objectives such as lower maintenance costs and more distinctive treatments for each segment of the mall?
- **Transit Operations:** The addition of LRT service to the Mall will dramatically increase overall transit capacity. However, a consequence of LRT station placement is that there will be fewer bus stops leading to longer walks and for some bus riders to reach their preferred bus stop.

- **Lane configuration and vehicle circulation:** An essential goal of this project is to support downtown businesses and create a physical environment on 5<sup>th</sup> and 6<sup>th</sup> Avenues that makes those streets an attractive front door for businesses. Vehicle access has been identified by the downtown business community as an essential element of a successful retail street. There is a continuous vehicle lane between Irving and Burnside and again between Main and Jackson Streets. However, from Burnside to Main, the vehicle lane is not continuous. Is it possible to increase customer activity on 5<sup>th</sup> and 6<sup>th</sup> Avenues without a continuous vehicle lane? Should a vehicle lane be a priority if it appears to have an impact on the pedestrian environment? Should vehicle "pull outs" be considered for the Central Mall as an alternative or in addition to a continuous vehicle lane?
- **Maintenance:** Because of the current mall's unique materials and treatments, maintenance costs are high so an objective of the project is to rebuild the mall in a way that lowers maintenance costs in the long run. For example, the most durable replacement material for sidewalks and intersections would be concrete. Should the project favor a material such as concrete as a replacement for the multiple materials in the existing intersections, even if doing so results in a change in the design of the intersection or involves a higher capital cost and longer construction time?

These and the other issues identified in the Report will be addressed by the Final Conceptual Design Report when it is published in the Fall of 2003.





# PROJECT BACKGROUND

When the Portland Mall was completed in 1978, it represented the leading edge of a national effort to promote transit and revitalize urban downtown cores. Today the Portland Mall—or Transit Mall as it is commonly known—serves many functions. It is the front door for office buildings and retail businesses. It is a transit facility with the highest concentration of bus service in the City. It is an important public space comprising 17 total blocks in downtown.

After 25 years of service, time has taken its toll. The most obvious problem is that it looks worn out. The bricks and granite pavers are cracked in many places and the benches and other furnishings need repair or replacement. But there appear to be other problems. Many businesses have found that the Mall is a poor front door for their businesses. Some have even closed entrances that front Fifth and Sixth Avenues. And because of the addition of the light rail alignment (to Gresham in 1986 and Hillsboro in 1997) there is actually less transit service on the Mall today than when it opened 25 years ago.

The City of Portland (City) has joined with TriMet and Metro to undertake the Portland Mall Revitalization Project. The project is an important component of the South Corridor Project, which will improve public transit connections between the southern part of the Portland region and the Central City.

The goal of the Portland Mall Revitalization Project is to add Light Rail service to the Mall and to use this opportunity to revitalize the Mall so that it better serves its multiple functions.

## The South Corridor Process

The Portland Mall Revitalization Project is formally a part of a regional project to construct a light rail line that connects Clackamas County with Downtown Portland. This effort began over ten years ago with the South/North Light Rail Project. After the regional funding measure for South/North was defeated in 1998, Metro initiated a study of alternatives for providing high capacity transit to Clackamas County from Downtown Portland. Light rail was not included in this study until residents and businesses put it back in because other options did not meet their needs. Since then, Metro has been evaluating and narrowing the alternatives. In December 2002, with the support of local governments around the region, Metro released the South Corridor Supplemental Draft Environmental Impact Statement (SDEIS). The South Corridor SDEIS included a light rail alternative along I-205 that would connect the Gateway and Clackamas Regional Centers. The I-205 Alternative from the SDEIS, with the addition of the Portland Mall light rail alignment to PSU, was selected by the Metro Council as the South Corridor Locally Preferred Alternative (LPA) in April 2003 following a lengthy public involvement process and recommendations by local governments, ODOT and TriMet. The Milwaukie Light Rail Alternative was selected as the second phase for light rail implementation in the South Corridor. The Milwaukie LRT project would follow the completion of the I-205/Portland Mall project and would include a new bridge across the Willamette River and would connect to the Portland Mall via Lincoln Street.

The alignment for light rail in Downtown Portland has been the subject of much discussion through the 1990's. Light Rail alignments were explored on Southwest Second, Third, Fourth, Tenth and 11th Avenues and Southwest Broadway. These alignments were discarded due to numerous reasons, including the designation as traffic streets, conflicts with garage entrances, conflicts with bridgeheads, and poor access to the high-density land uses along the Portland Mall. In 1993, the conclusion of the Downtown Oversight Committee, comprised of business and elected leaders during the South/North process, was that light rail should be located on Fifth and Sixth Avenues and not on these other streets (Figure 1). This conclusion was consistent with the adopted Downtown Plan (1972) and the Central City Plan (1988), which call for locating light rail along the high density office spine through the center of Downtown.





# PROJECT BACKGROUND

## The Proposed Alignment

Light rail on the Portland Mall was selected as part of the South Corridor Locally Preferred Alternative that also includes the I-205 LRT project, to be followed by the Milwaukie LRT project as the second phase. The Portland Mall alignment provides better access to the highest density land use in downtown Portland when compared to the First Avenue and Hawthorne Bridge alignment that was studied in the South Corridor SDEIS. The Mall alignment is consistent with many years of planning and development policies endorsed by the City of Portland, Metro and TriMet. The rationale for the decision can be found in the *South Corridor Locally Preferred Alternative Report*, Metro 2003.

Based on discussions with the Federal Transit Administration in early 2003, the Alternative Mall LRT alignment was given a "preliminary" Locally Preferred Alternative designation by the Federal Transit Administration. This designation was given because the alignment was not specifically addressed in the South Corridor SDEIS. The alignment was, however, adopted as the LPA in 1998 for the South/North Light Rail Project. The South/North Corridor Draft Environmental Impact Statement, from which the Portland Mall alignment was selected in 1998, is more than three years old, which requires an update to the environmental document.

To satisfy federal requirements, an Amended Supplemental Draft Environmental Impact Statement is being prepared in concert with the overall Portland Mall Revitalization Project. The Amended SDEIS will disclose the environmental, transportation, social, economic and other impacts of the Portland Mall alignment. The Amended SDEIS will be available for public comment during August and September 2003. Materials from the Amended SDEIS will be available during all public events for the Portland Mall Revitalization Project. Following completion of the SDEIS and confirmation of the preliminary Locally Preferred Alternative, the Portland Mall and the I-205 LRT alignments will proceed together as one project for the next phases of project development, Preliminary Engineering and the Final EIS.

## Alignment Design Options

There are several choices to be made about the basic configuration of light rail and the characteristics of the streetscape. The basic choices for light rail relate to the terminus, station location and station design. These choices are addressed in this section. Detailed design choices, such as those dealing with sidewalk width, intersection treatments and so on are described briefly here and in greater detail in other parts of the report.

### Terminus Options

Ideally, the terminus location should allow for I-205 and Interstate MAX trains to be turned around and allow for the storage of a train to serve events and to help maintain headways. The terminus option should also be designed in a manner that easily accommodates the extension to Milwaukie.

Finally, the terminus needs to be level (flat) enough to allow for trains to be turned around. This criteria eliminates a number of cross streets including SW Jefferson, Clay, Market and Harrison Streets. Two potential terminus options have been identified: (a) SW Jackson Street, and (b) SW Main Street.

The Jackson Street Terminus Option has been studied in some detail. It is located south of Portland State University and would provide additional stations on Fifth and Sixth Avenues at SW Mill/Montgomery Street and at SW Jackson Street and at jefferson/Madison, respectively. This option:

- *Could accommodate a second track*
- *Would provide superior access to the Central and South Mall including Portland State University*
- *Would provide a layover location for trains to allow for schedule recovery and special events*
- *Incorporates a turnaround that would be off-street with limited impact on traffic*

- *Is expected to generate additional ridership which could help in competing for federal funds for this project.*

The SW Main turnaround would be located on SW Main Street between 5<sup>th</sup> and 6<sup>th</sup> Avenues in traffic. It has received only a cursory review by project staff to date. However these characteristics and impacts are worth noting. This option:

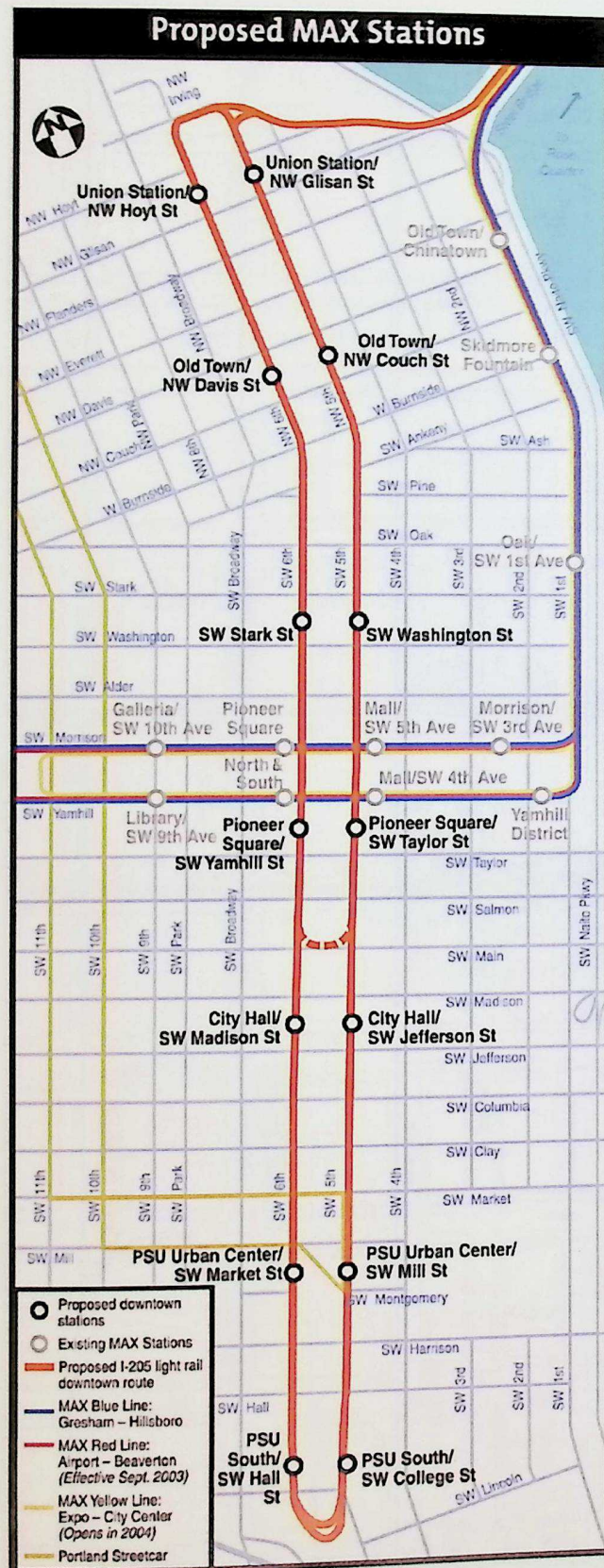
- *Would not include a second track location that would allow schedule recovery if a train is delayed.*
- *Would not directly serve Portland State University nor the land uses between PSU and SW Taylor Street*
- *Would not include any stations south of the SW Taylor/Yamhill Stations*
- *Would potentially conflict with access to the parking structure between Main and Salmon on Sixth Avenue.*
- *Would potentially conflict with the Standard Insurance parking entrance, the Standard Insurance loading area and the Congress Building Loading Dock*

Based upon preliminary cost estimates, a project extending from the Steel Bridge to Main Street would cost approximately \$100 million and a project extending to Jackson Street about \$150 million.

The ultimate selection should be informed by the financial funding plan. The Jackson Street Terminus is by a far a better terminus option than the SW Main Street location albeit at a cost of \$50 million more.



# PROJECT BACKGROUND



**Figure 2:** Downtown Alignment Options. The Portland Mall and Cross Mall are the two alternatives for new light rail service in Downtown.

## Station Design Options

The design team has developed several options for the six stations (three on Fifth Avenue and three on Sixth Avenue) in the Central Mall (see Figure 3). More detail on each of these is included in later sections of this Report.

**Left Side Platform:** This design assumes use of the left side for station platforms in the Central Mall as shown in Figure 3. In most cases, these locations already have extra wide sidewalks as originally constructed for the Mall when it opened in 1978. This option is treated as the "base case" because it is the lowest cost and has the least construction impact.

**Right Side Platform:** In this option, the light rail tracks would shift one full lane to the right approaching each station to serve a station on the right side of the road. This would allow auto traffic in the left lane.

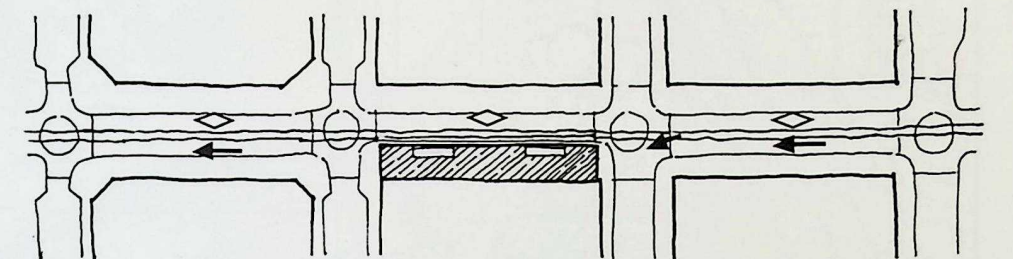
**Island Platform:** This option would narrow sidewalks and place the light rail station on a center island to accommodate a new through-traffic lane at the blocks that do not currently have through auto traffic.

## Station Locations

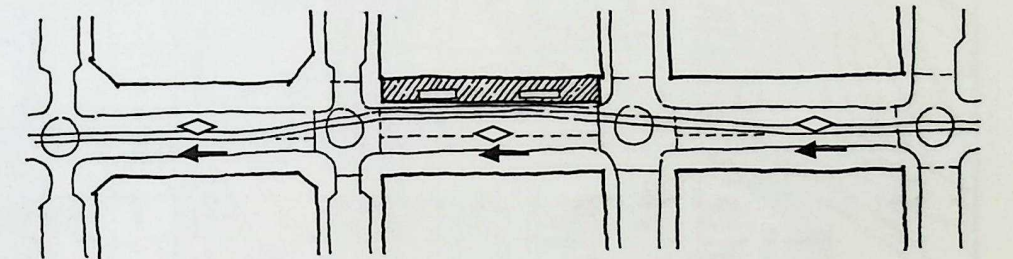
Light rail station locations are proposed at the following locations (see Figure 4):

- Union Station (NW Glisan/NW Hoyt Streets)
- NW Couch/Davis Streets
- SW Washington/Stark Streets
- SW Taylor/Yamhill Streets
- SW Jefferson/Madison Streets
- SW Montgomery/Mill Streets
- SW Jackson/College Streets

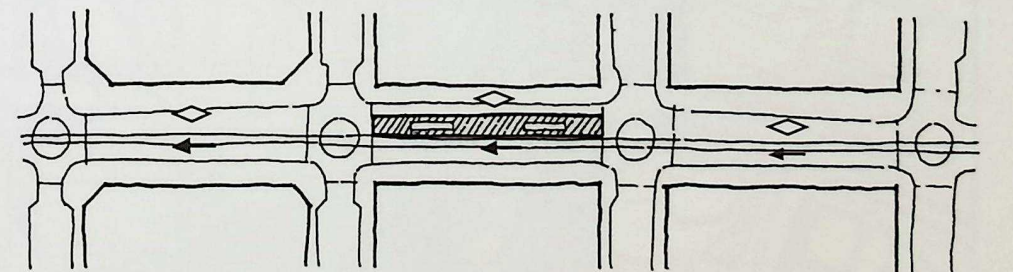
This station spacing provides easy access to transit throughout downtown with approximately 800-to-1,000 feet between stations. This station spacing allows for good transit accessibility while balancing the need to reduce travel time.



**Left Side Platform**



**Right Side Platform**

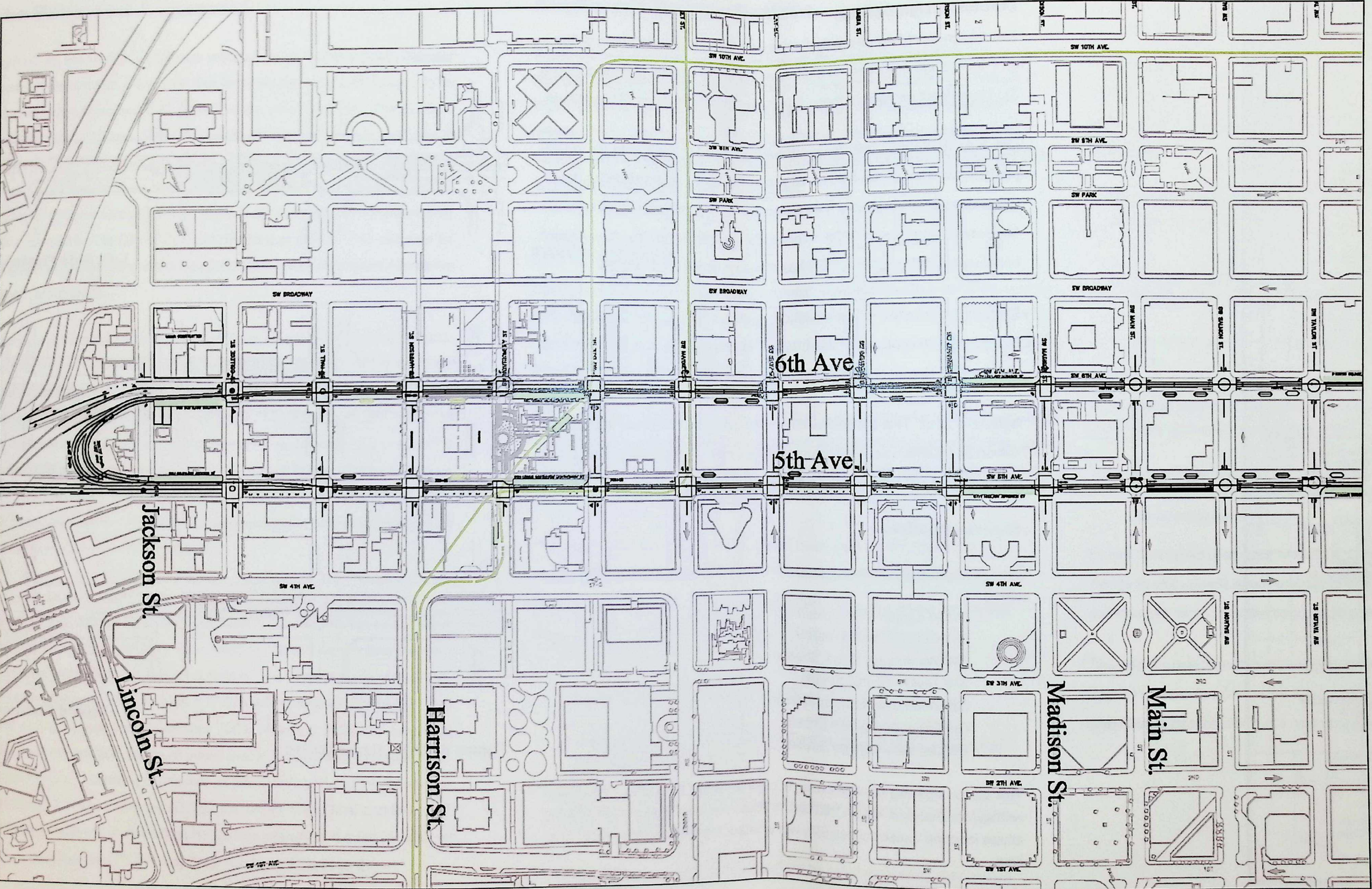


**Island Platform**

**Figure 3:** Station Design Options



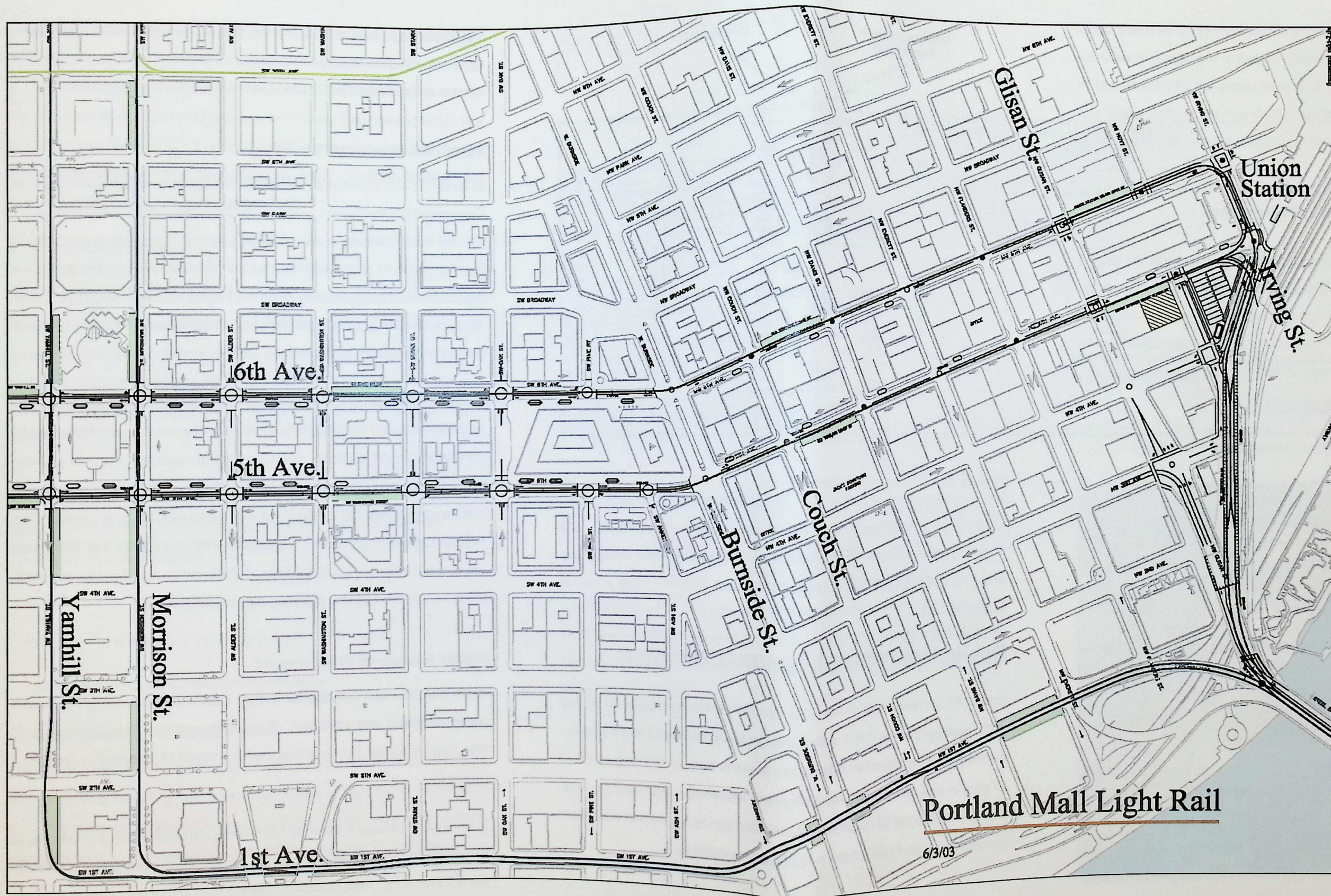
# PROJECT BACKGROUND



**Figure 4:** Portland Mall Proposed Light Rail Alignment and stations



# PROJECT BACKGROUND





# COMMUNITY INVOLVEMENT

The Portland Mall Revitalization Project will be a highly visible public works project and the fifth major transportation project in the city's Central Business District in the last 25 years. To ensure consistent information and to facilitate dependable lines of communication with the general public and specific downtown communities, project partners will develop an extensive community relations program.

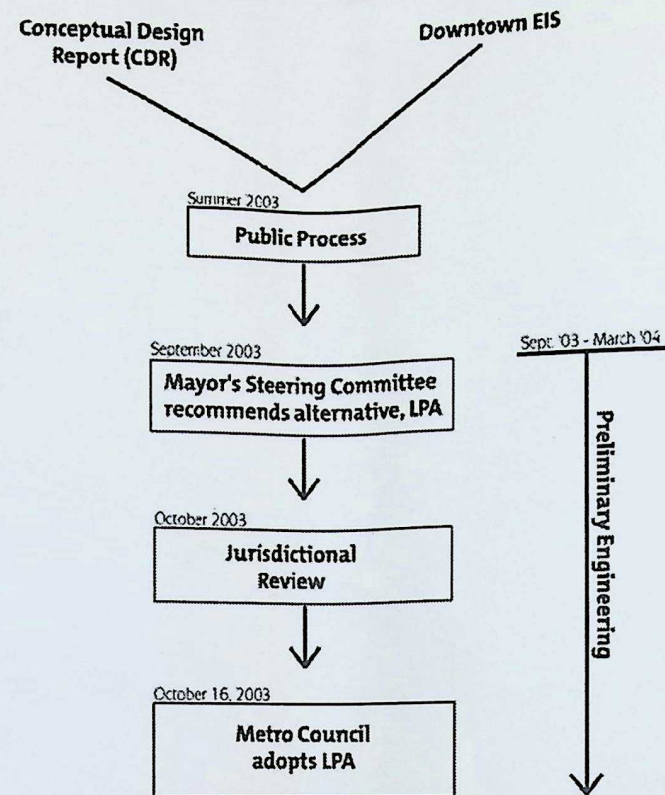
## Community Relations Program

The goal of the community relations program is to ensure that the project serves community needs and mitigates, as much as possible, negative effects of construction on the businesses and neighborhoods along the Downtown route. The purpose of this process is to provide information and an opportunity for the public to comment on the proposed project's scope, design, schedule and impacts.

Community relations activities will be designed to:

- Build public awareness and support for the project as essential to enriching the region's economy and livability.
- Establish regular communications with Downtown businesses, organizations and communities, allowing vital engagement and ownership in the project.
- Work directly with residents, businesses, and property owners along the proposed route to inform them about project impacts and timelines.
- Provide downtown property owners a convenient forum to participate in design alternatives specific to their properties.
- Influence project design and planning so that impacts to properties, communities and transportation system users are minimized during construction, to the extent possible.

TriMet, Metro and the City of Portland Public Information departments will collaborate in developing the project media communications plan and in fielding media inquiries. For information about the Portland Mall Revitalization



**Figure 5:** CDR Decision Process

Project, please contact TriMet Community Affairs at 503-962-2150 or via email at [TriMetLightRail@TriMet.org](mailto:TriMetLightRail@TriMet.org) or visit TriMet's Web page at [www.trimet.org](http://www.trimet.org).

## Public Involvement Program Timeline

During the development of the draft Conceptual Design Report in spring 2003, members of the Community Affairs team created an outreach plan for the Project. They identified a list of key property owners and stakeholders for one-on-one discussions about alignment alternatives and impacts. Staff began a first round of contacts and presentations to Downtown business, resident and user associations in April (see Appendix A).

Public meetings and presentations are being arranged through the Summer and early Fall with key business and neighborhood associations, property owners and stakeholders to solicit input on the report's alternatives.

## Public Meetings and Workshops

In June and July of this year, the project will sponsor workshops on this draft Conceptual Design Report. Meetings will be located in the Mall's North, Central and South districts to explore design questions specific to each area of the alignment. At each meeting, citizens will have an opportunity to share their comments and concerns about the Project. At these meetings, Citizen Advisory Committee members will share what they are hearing from interest groups and the community.

In early August, Metro and the Federal Transit Administration will release the Amendment to the Supplemental Draft Environmental Impact Statement for the Portland Mall (ASDEIS), which, by federal regulation, requires a 45-day public comment period. Metro, TriMet and the City of Portland have agreed that the community information and review process for both the draft Conceptual Design Report and the Portland Mall alignment's ASDEIS should run concurrently during the summer of 2003 and be managed as one public process, informed by two planning documents (Figure 5).

## Public Review of Final Report

In the Fall, the draft Conceptual Design Report will be amended to include public comment and additional alternatives analysis. This final report will then receive further public review during a round of meetings in early Fall (Figure 6).

In the Fall, the Mayor's Steering Committee will host hearings to take public testimony on the final design report and the ASDEIS. The Steering Committee will then adopt the Conceptual Design Report and recommend a Locally



Preferred Alternative (LPA), to be forwarded to TriMet, Metro and the City of Portland. The Metro Council is anticipated to formally adopt the Portland Mall Light Rail Locally Preferred Alternative in mid-October and move the Portland Mall Revitalization Project into Preliminary Engineering which is a level of greater detail in design and engineering and a major step in making this project a reality. The Steering Committee will adopt a final version of the Conceptual Design Report in November 2003.

Project Oversight

Mayor's Steering Committee

This year, Mayor Katz established a Steering Committee of business, transit and government leaders to provide policy guidance and to oversee the Project on behalf of the entire community. The Steering Committee will also act as the official hearings body for public testimony on the Conceptual Design Report.

During the spring 2003 development of a Conceptual Design Report, the Steering Committee reviewed the following issues with project staff:

- Project goals and budget
- Design and construction issues
- Selection of the Irving North Entry Option
- Mall management and development strategies

Community Advisory Committee (CAC)

The Community Advisory Committee is comprised of multiple stakeholders who serve as a sounding board for the interests of the downtown community. The committee, organized in spring 2003, met bi-weekly with project managers to assist in developing alternatives outlined in the Conceptual

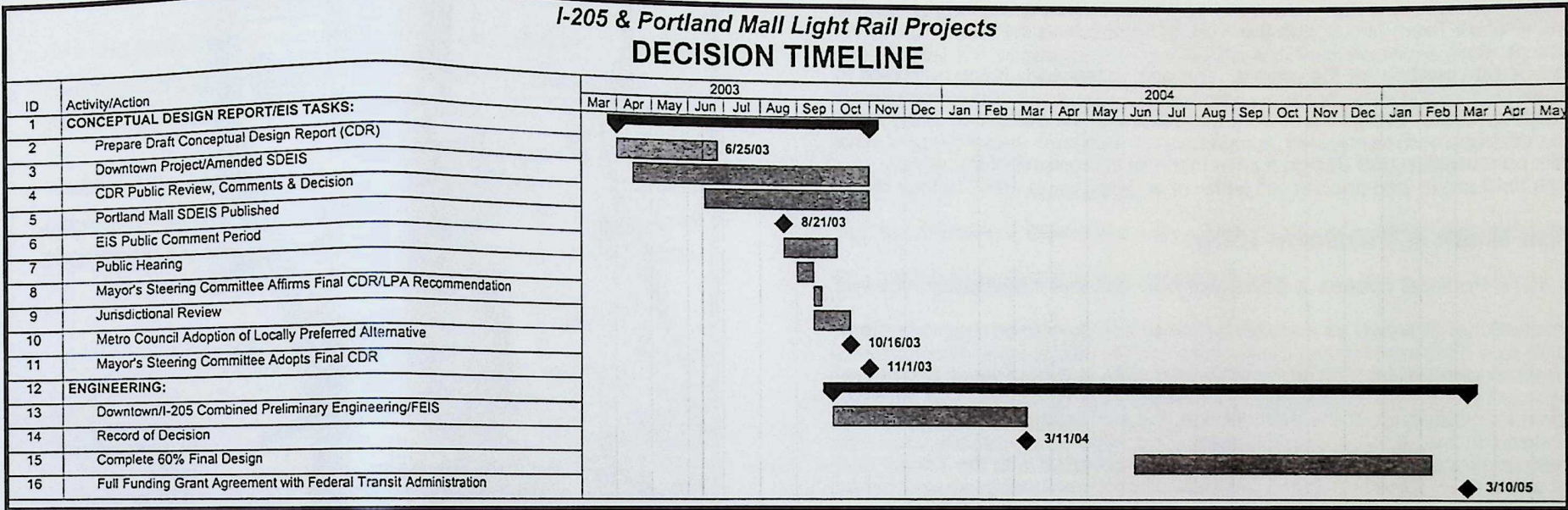


Figure 6: Decision Timeline.

Design Report. Later this year they will also craft a recommendation of the final preferred alternatives for consideration and adoption by the Steering Committee.

The CAC will review the project communication, media, and public involvement plans. During this summer's public comment period, members will also serve as liaisons to the community and assist staff in hosting presentations and public meetings.





# PLANNING AND URBAN DESIGN

The City, Tri-Met and Metro have a vision that is consistent with this region's approach to rail projects: rail transit is not just about mobility and access; it is also a tool for accomplishing urban design and development objectives.

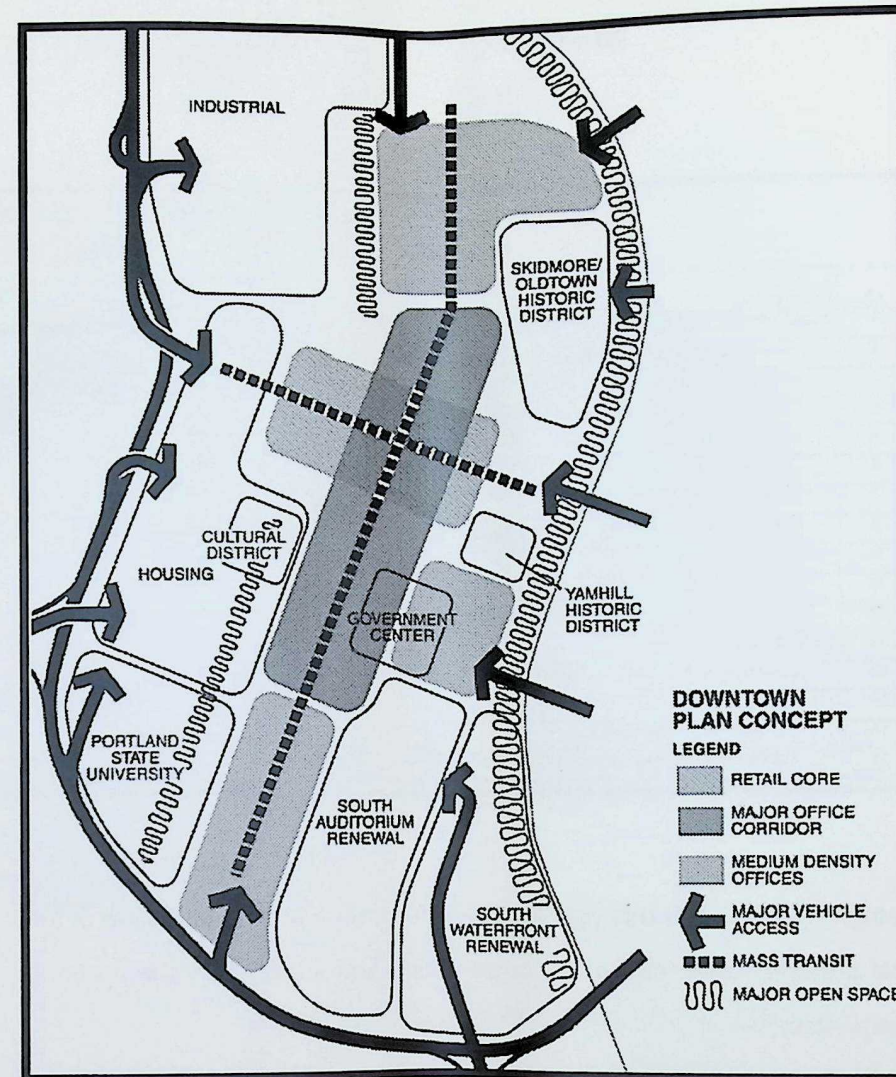
The Project Team has begun the work of establishing the planning and urban design context for the project. The goal in this early stage has been to create an urban design framework that will assist the evaluation of the complex construction and design issues inherent in a project of this scope.

## The Mall: A Portland Icon

In 1978 Portland opened a downtown bus mall that immediately received international attention as a model for transit and downtown redevelopment. It was recognized for both its exceptional quality, and its strategic and operational innovation. Over the next decade, the significance of these attributes were confirmed and clarified. What Portland revealed with the Transit Mall was a prototype for the redevelopment of a downtown using a transit project as a conspicuous catalyst.

The noteworthy qualities of the Mall as designed and operated included:

1. Dedicating two of the four most important downtown streets to transit...and making them the heart of a new reoriented regional transit system. Most cities developing bus malls contemporary to Portland's either selected less critical streets, or focused on traditional operational concepts...and failed to approach Portland's success. Philadelphia's Chestnut Street, Washington's F & G Streets, Chicago's State Street, and even Minneapolis' Nicollet Mall were removed or completely redesigned because, unlike Portland's Mall, they were unable to simultaneously enrich a downtown and a transit system.



**Figure 7: Downtown Plan**  
The Portland Mall is consistent with the Downtown Plan which has been the basis for planning and development in Downtown since 1972.

2. Designing and building the street as the new standard for civic design in the City. As a result, it was recognized with the highest architectural design awards given, (such as the first public street or place ever to receive a National Honor Award by the American Institute of Architects). Today, with its bronze shelters, public art, and meticulously resolved surface materials, it remains as Portland's benchmark for design quality.

3. Guiding and stimulating redevelopment along its edges. Ten years after its completion, the Mall was given credit for effectively leveraging \$30 to \$50 of public and private redevelopment for every dollar of its original capital cost. At the time, the analogous leverage standard adopted by cities such as Boston, New York and San Francisco ranged from \$3 to \$5 dollars. Unfortunately, most of the investment response in Portland was along the southern reach of the Mall, and at its northern terminus.
4. And finally, Portland's unique leapfrog bus operation enabled the Transit Mall at its peak to carry more buses per hour than any other downtown transit street in America, before or after.

Yet two characteristics of Portland's Transit Mall have compromised its ability to sustain and expand its potential contribution to downtown and to transit.

First, it never achieved the kind of stewardship from its adjacent community that has been critical to the downtown success of MAX and the Portland Streetcar. The downtown community was asked to "grit its teeth" and accept the Transit Mall and its extraordinary construction impacts. By contrast, the downtown community offered to invest in, guide the development, and help maintain the success of both MAX and the Streetcar.

Second, the major maintenance of the Mall has been deferred for the past 15 years while its future has been debated. During that time, several renovation and improvement programs have been conceived, designed, and nearly funded...but never executed. As a consequence, Portland's two most durable and carefully designed streets have been allowed to deteriorate.

Downtown Portland has three principal public spaces that invite and accommodate the citizens of the region. They are Waterfront Park, Pioneer Square and the Transit Mall. Two of the three have been repeatedly renovated and improved throughout their lives. Now is the time for the Mall to receive that same attention.



## Opportunities and Constraints

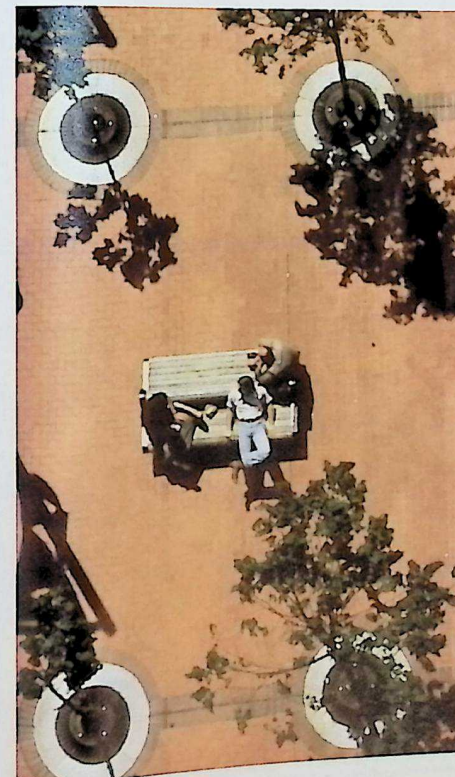
The project team began its work by considering the existing condition of Fifth and Sixth Avenue and reviewing the documentation of perceived challenges with the Mall's current design ( Figure 8). The good news is that we start from a strong position. The Mall works well as a mass transit hub and is, on the whole, a very well designed urban space. Still, it is not achieving its potential. The problems are obvious to the casual observer and have been documented in a series of studies:

- A 1994 study commissioned by the City concluded that *significant portions of the bricks, granite pavers, shelters and other elements of the Mall's infrastructure had deteriorated and required repair or replacement.*
- A 2000 study by the Association for Portland Progress (predecessor of the Portland Business Alliance) assessed issues with the current design of the Mall and recommended a number of strategies to activate the public and private spaces
- The Downtown Retail Strategy—a joint undertaking of the Portland Business Alliance and the Portland Development Commission—evaluated retail conditions in Downtown, including Fifth and Sixth Avenues. The Retail Strategy recommends several design changes, including the addition of parking and a continuous auto lane.
- In addition to reviewing these studies the project team evaluated existing opportunities and constraints on and adjacent to 5<sup>th</sup> and 6<sup>th</sup> Avenues. While there are some constraints to revitalizing the mall, there are also major development opportunities and existing office and retail uses that create solid bones for the mall. The opportunities and strengths analysis is depicted in Figure 8.

In a follow up study in 2002, the Portland Business Alliance conducted a survey of business adjacent to Fourth, Fifth, Sixth and Broadway Avenues. Measuring a number of indicia of retail vitality, the study found that Fifth and Sixth Avenues under perform both Fourth Avenue and Broadway.

These studies, the anecdotal evidence and 25 years of community experience with the Mall led the team to two major urban design conclusions:

1. *Fifth and Sixth Avenues should not be just a transit facility, but should be thought of instead as a pair of streets that need the attention and care that great streets around the world have.*
2. *The monolithic nature of its design and the singularity of its function as a transit facility hinder the creation of attractive, usable public spaces and impede a feeling of ownership by the adjoining property owners.*



## Urban Design Approach

These conclusions present the project team with both a challenge and responsibility. The challenge is to make Fifth and Sixth Avenues great streets that accommodate the multiple, sometimes inconsistent needs of the streets to be a transit facility, front door for businesses, pedestrian thoroughfare and public space. The responsibility is to retain the historic role of the Mall as a signature fixture in Downtown with a high quality of materials and design that mark it as a special part of our community.

The approach taken by the project team was to characterize Fifth and Sixth Avenues as a number of "urban rooms" or segments as defined by the adjacent uses and structures. This is a first step towards creating a more distinct personality for various parts of the street and creating interest and variety for the pedestrians, transit riders and businesses that use the public spaces. It is also a way of softening the monolithic character of the Mall's design. These subdistrict character descriptions are graphically represented in Figure 9.





# PLANNING AND URBAN DESIGN

## Opportunities and Constraints

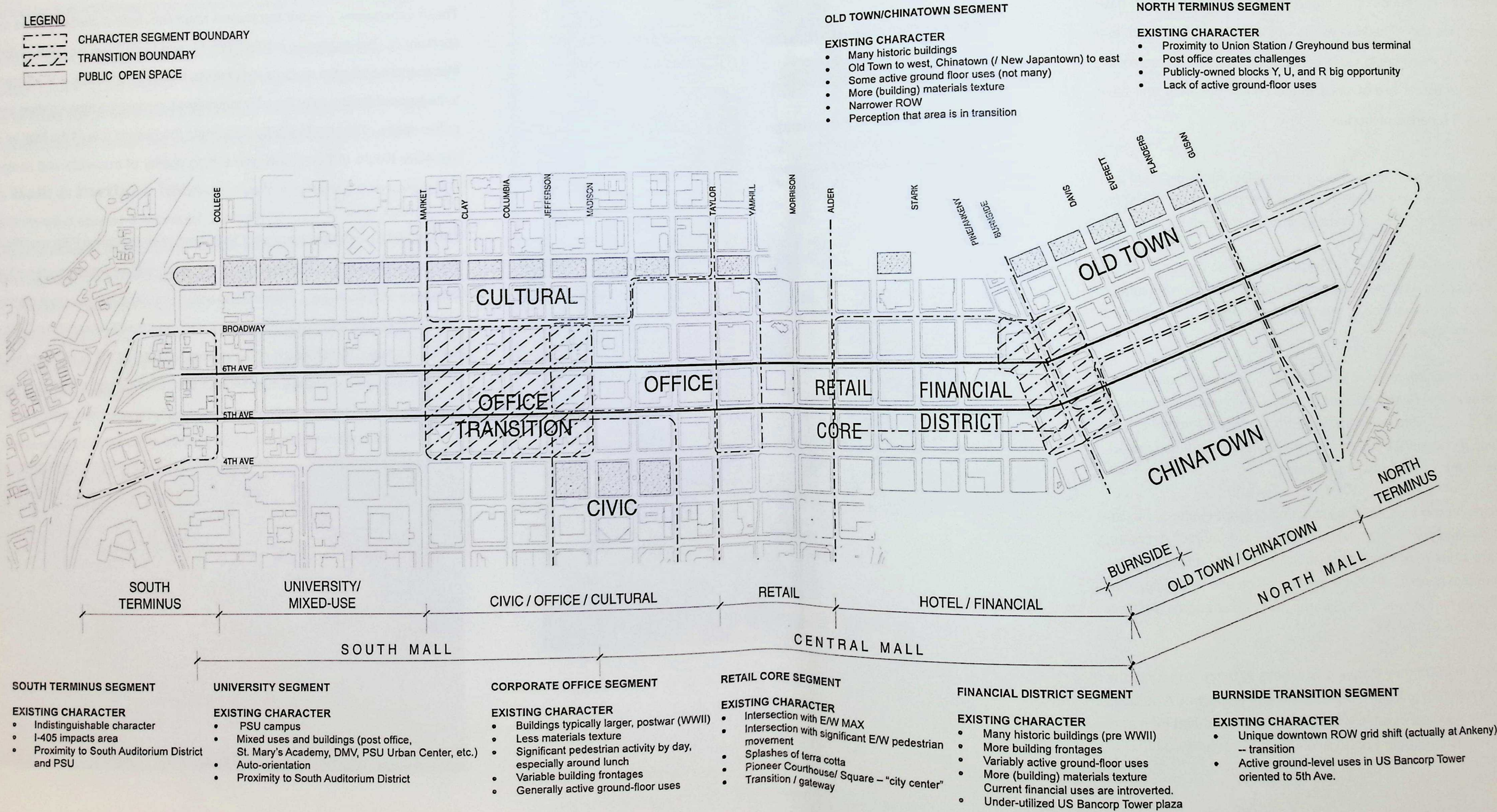
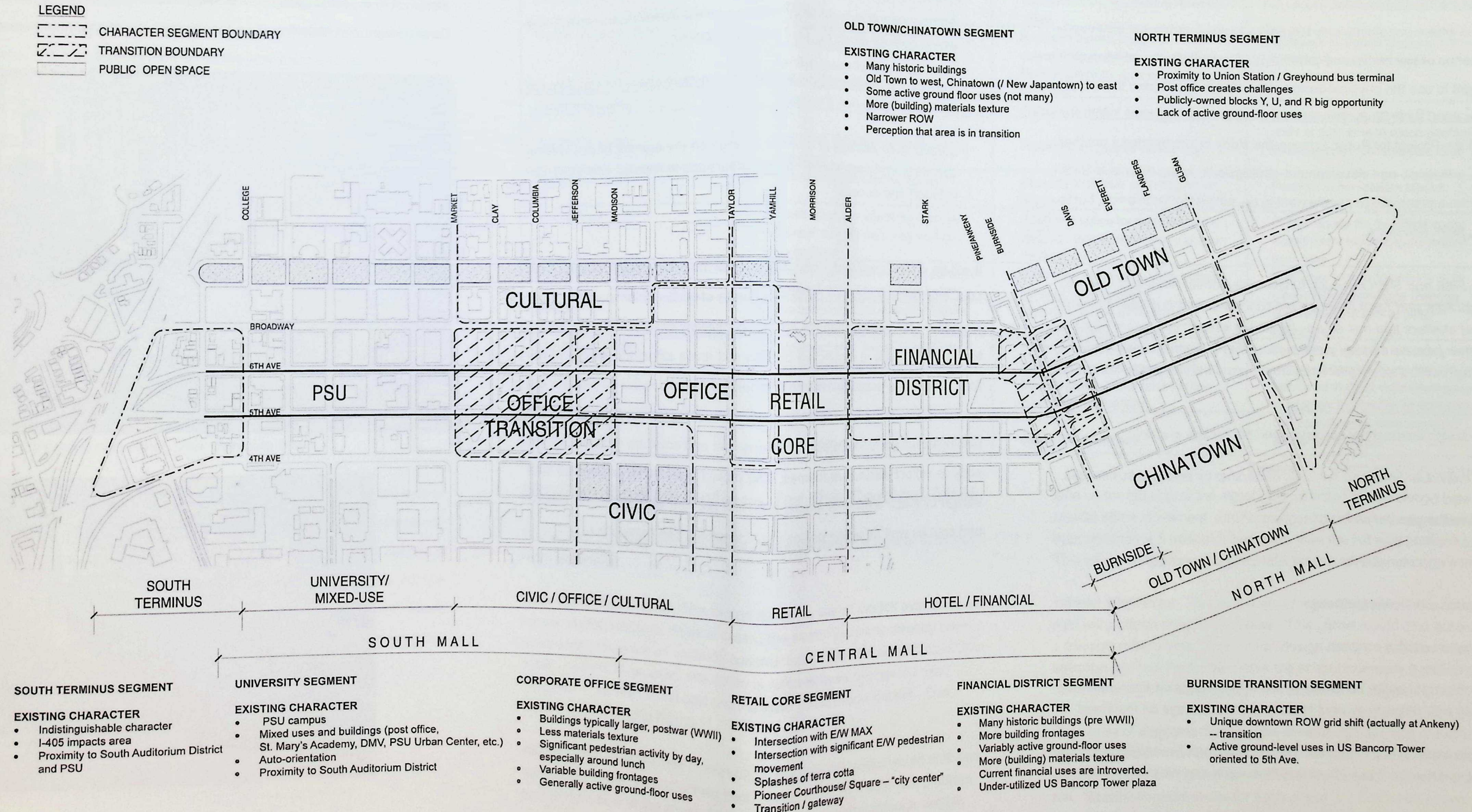


Figure 8: Opportunities and Constraints



## Mall Character



**Figure 9: Mall Character**



# PLANNING AND URBAN DESIGN

## Design Principles

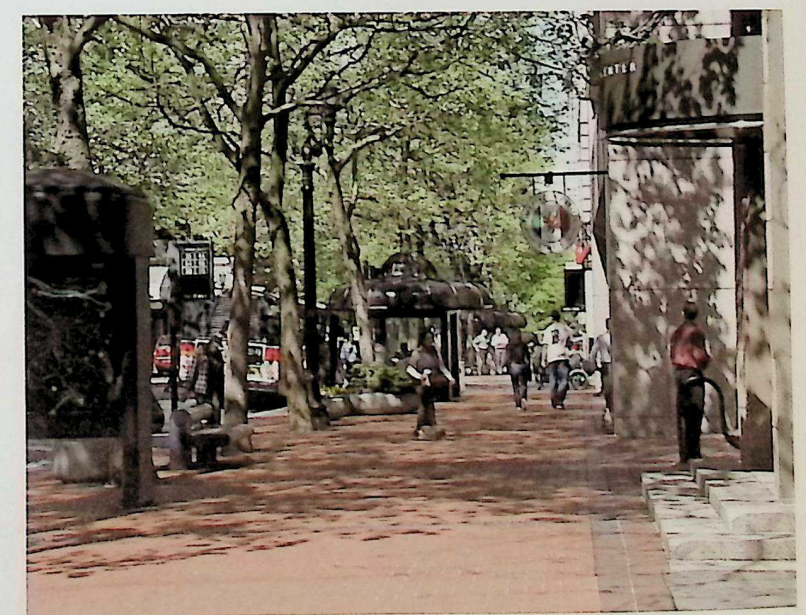
Consistent with the overall urban design approach to revitalization of the Mall, the project team has emphasized the importance of creating within the Mall places where people not only feel safe and comfortable, but also experience a sense of ownership and community. Accordingly, the urban design team sought to use the physical design of the Mall to accomplish that objective. The 2000 APP Study provided an excellent starting point. With the support of the Project for Public Spaces, the study recommended a number of design principles and development strategies to make Fifth and Sixth Avenues into a place where people want to be, not just to catch a bus, but to shop, eat, work and relax:

- *Make Fifth and Sixth Avenues function as a street not a bus mall. As long as Fifth and Sixth Avenues are conceived as a bus mall, Portland will get shelters and bus stops. When the streets' caretakers begin to see their jobs as making great places, they'll begin to seek sidewalk vending, outdoor seating for restaurants, more active building fronts and uses.*
- *Limit design elements of continuity and encourage diversity.*
- *Build individual pride and symbolic ownership by adjacent businesses.*
- *Remove the general patina of neglect.*
- *Enhance opportunities for natural light and open visibility.*
- *Add color and seasonal change.*
- *Develop a vending program.*
- *Open businesses to the street by identifying targeted properties and working with property owners to place more doorways on the street*
- *Activate underutilized locations like US Bancorp Tower Plaza at Oak Street and the Key Bank Plaza at Fifth Avenue and Washington Street."*

- *Develop a new sign system.*
- *Develop superior bus driving regulations to reduce the negative impacts of buses.*
- *Employ new bus technology such as hybrid diesel/electric buses that would operate along the Mall on battery power.*
- *Reduce the number of bus stops to create more space for vending and other activities.*
- *Extend Auto Access in order to strengthen the amount of street-level activity, particularly during off-peak hours and to improve downtown circulation and access.*

It will be challenging to dramatically change the design and function of the Mall. The Mall is an existing asset—a bundle of brick, mortar, steel and other elements. Its' design features are not completely flexible. The sidewalks, for example, bear a distinctive pattern and are a signature feature of the Mall; and, as a practical matter, it would be too expensive to replace the bricks. There are other features, however, such as shelters, signs and furnishings that are scheduled for replacement and could be designed differently to reflect distinctive themes. The project team believes that the final design of these elements should take into account technical performance and cost as well as urban design considerations. See Appendix I.

Perhaps the most dramatic change can be achieved through changes in the use and design of ground floor uses along Fifth and Sixth Avenues. The project team has outlined a strategy to encourage concurrent investment in the private properties along both streets. The strategies are set forth in the Development and Mall Management Strategies section of this Report.





# STATION DESIGN AND STREET CONFIGURATION

A pivotal issue in revitalizing the mall is the design of the new light rail stations and the configuration of the street for rail, bus and vehicle circulation. The focus of this analysis is on the Central Mall and the main issue is the way in which the 80-foot right of way on Fifth and Sixth Avenues accommodates pedestrian movements, transit waiting, bus movements and vehicle movements. The addition of light rail to the Mall adds another layer of design and operating complexity and will require changes in all three modes—light rail, buses and vehicles.

## North, South and Central Mall Configurations

It is proposed that vehicle movements be accommodated differently in each of the three segments of the Mall. In the North Mall, which has a 60-foot right of way, vehicles and buses will operate in a shared lane. In part of the South Mall, which has an 80-foot right of way, vehicles and buses will also operate in mixed traffic just as they do today. In the Central Mall and part of the South Mall, however, it is proposed that vehicles operate in a dedicated vehicle lane in order to avoid conflict with the high volume of buses that operate in the central mall during peak commute hours.

In the North and South Mall, the light rail alignment will be on the left side of the street. The existing sidewalk or a modest extension of the sidewalk will serve as a platform at station stops. In the Central Mall, the light rail line is proposed for the center lane in order to minimize hindrance of either vehicle or bus circulation. However, at LRT stations some interference with either bus or vehicle circulation may be necessary in order to provide an appropriate station platform.

Station Design Options Selection Considerations			
Considerations	Left Side Platform	Right Side Platform	Island Platform
Platform Capacity	Integration of sidewalk and platform provides flexible wait space	Integration of sidewalk and platform provides flexible wait space	13.5 foot platform has fixed capacity
Pedestrian through zone	Transit riders may wait in pedestrian zone	Transit riders may wait in pedestrian zone	No interference with pedestrian zone
Transit / Amenity Zone	In station blocks, integration of sidewalk and platform provides flexible space for furnishings and amenities	In station blocks, integration of sidewalk and platform provides flexible space for furnishings and amenities	Sidewalk in station blocks is same width as non-station blocks
Pedestrian Safety	Platform is part of sidewalk	Platform is part of sidewalk	Requires peds to cross LRT, bus and / or auto lane to reach platform
Vehicle Circulation	Interrupts vehicle lane as in current condition	Provides continuous vehicle lane	Provides continuous vehicle lane
Pull Out	Possible in non-station blocks	Possible in station and non-station blocks	Possible in non-station blocks
Ground floor	Uses Adequate space for merchant zone if transit riders may wait next to business	Adequate space for merchant zone if desired ; transit riders may wait next to business	Limited space for merchant zone; transit riders isolated from ground floor uses
Construction Impacts	Existing curb lines retained; portion of sidewalk rebuilt to platform height	Curb lines modified to accommodate curve of track at platform	Curb lines moved to provide auto lane and accommodate platform
Utilities	No added impacts in station blocks	May require additional utility relocations	May require additional utility relocations
Transit Operation	Most similar to existing conditions but requires buses to share second lane with light rail.	Adds complexity to light rail / bus integration with safety issues still to be addressed. Likely forces some bus routes off the Mall.	Preliminary analysis indicates that some bus service might need to be relocated to other downtown streets. in addition, integration of light rail and bus operations is more complex
Cost	Base case cost	Adds \$4.5 million	Adds \$9 million

Figure 10: Station Design Considerations

## Station Design Options for the Central Mall

The project team has identified three station designs that appear to be the most promising:

**Left Side Platforms:** This design assumes use of the left side sidewalk for the station platform. In most cases, the station locations already have extra wide sidewalks as originally constructed for the mall when it opened in 1978. In the EIS process, this option is referred to as the "base case" because it has the lowest cost and the least construction impact. This option is illustrated in Figure 11.

**Right Side Platforms:** In this option, the light rail tracks would shift one full lane to the right approaching each station to serve a sidewalk platform on the right side of the street. This option would permit a through vehicle

lane on the left side of the street. Construction of this station type would require some movement and reconstruction of curb lines and would cost approximately 4.5 million dollars more than the left side platform option. This option is illustrated in Figure 12.

**Island Platform:** This option would narrow the sidewalks and place the light rail platform on a center island. This option would also accommodate a through vehicle lane. This station design requires substantial reconstruction and has the highest price tag at approximately 9 million dollars more than the left side platform. It is illustrated in Figure 13.

The series of diagrams illustrate the construction impacts of each option and show in plan view and section view how each design would affect the configuration of the right of way for vehicles, buses, pedestrians and light rail. Specific considerations for each option are described above.



# STATION DESIGN AND STREET CONFIGURATION

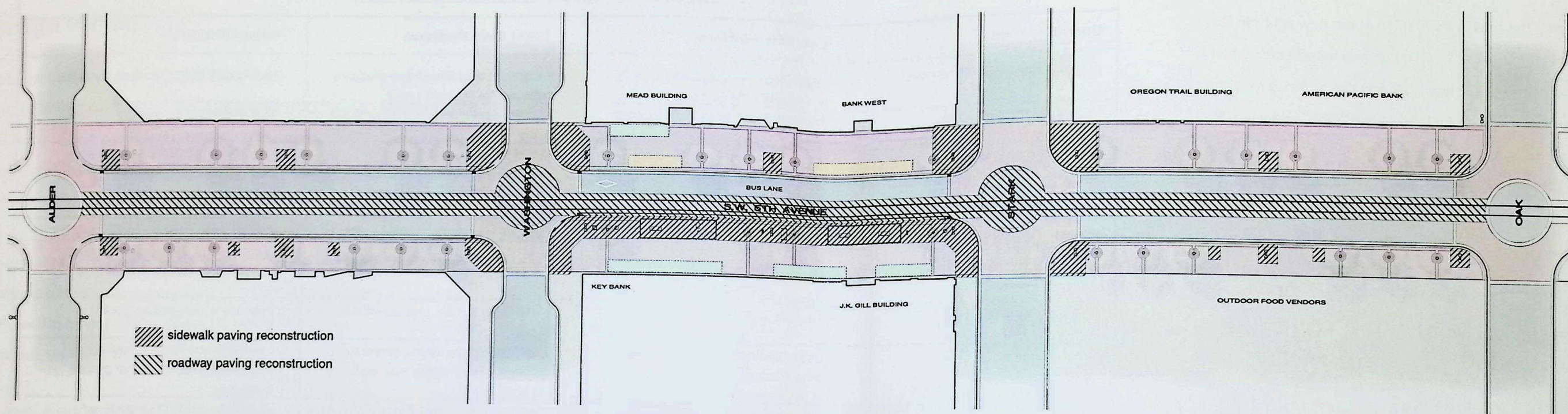


Figure 11 (a): Reconstruction  
Impacts--Plan View

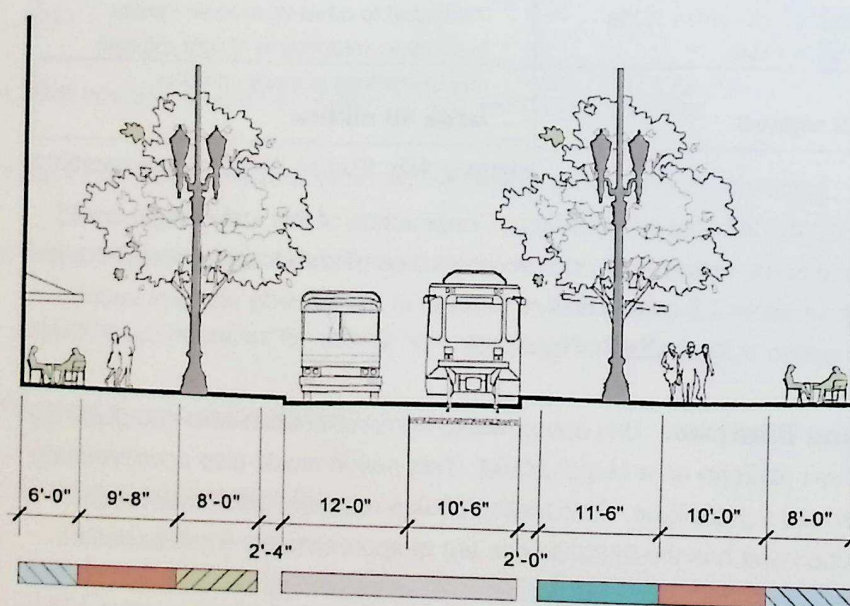


Figure 11 (b): Reconstruction  
Impacts--Section View

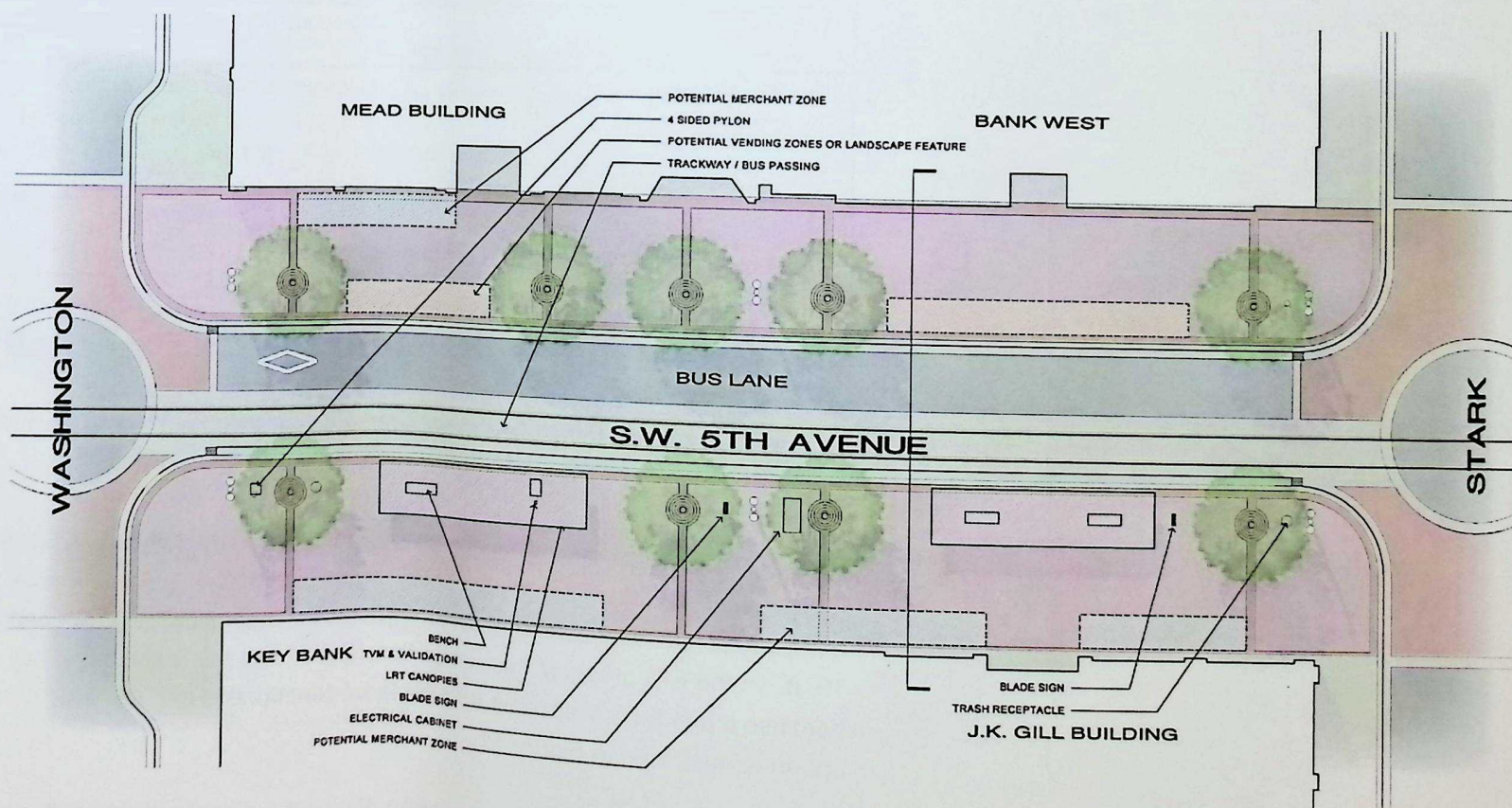
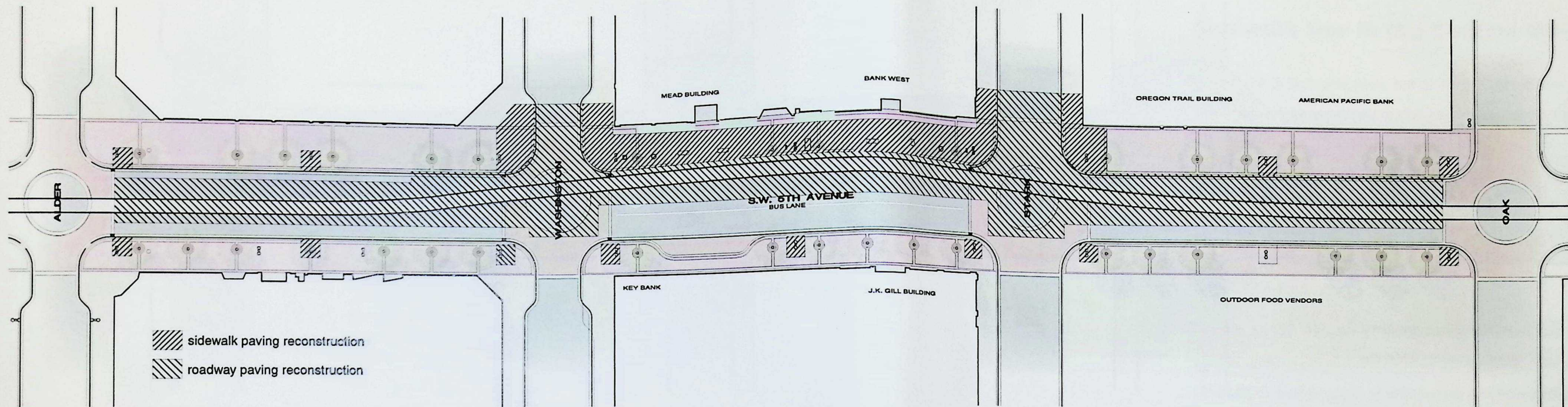


Figure 11 (c): Platform Design

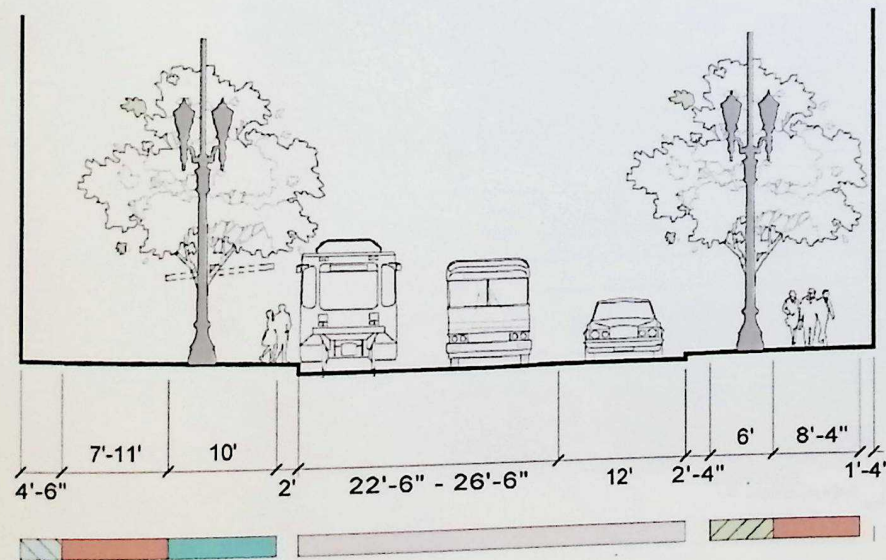
## Left Side Platform Option



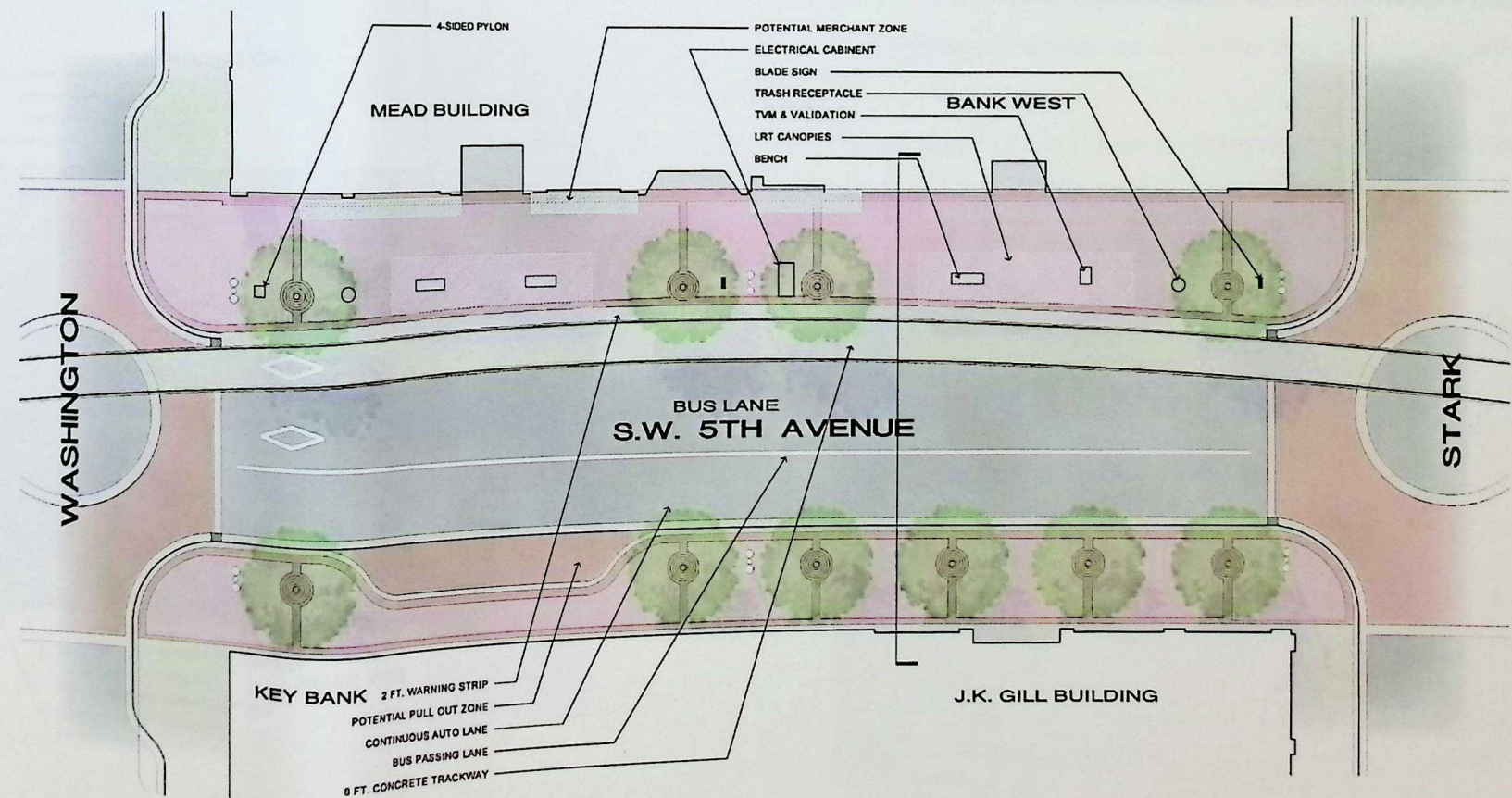
# STATION DESIGN AND STREET CONFIGURATION



**Figure 12 (a) Reconstruction Impacts--  
Plan View**



**Figure 12 (b) Reconstruction Impacts--  
Section View**



**Figure 12 (c) Station Design**

## Right Side Platform Option



# STATION DESIGN AND STREET CONFIGURATION

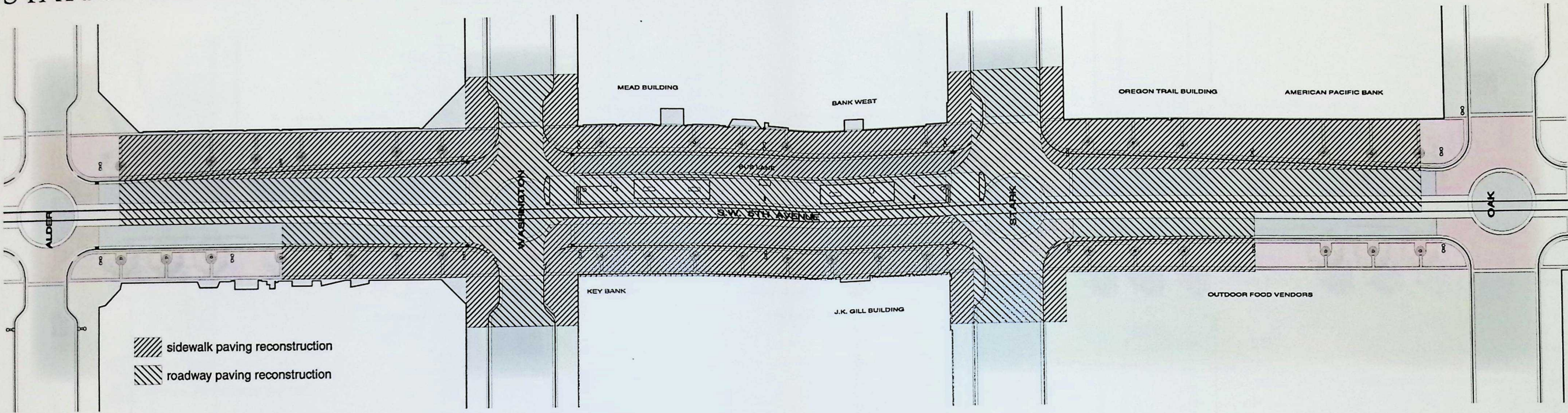


Figure 13(a) Reconstruction Impacts--Plan View

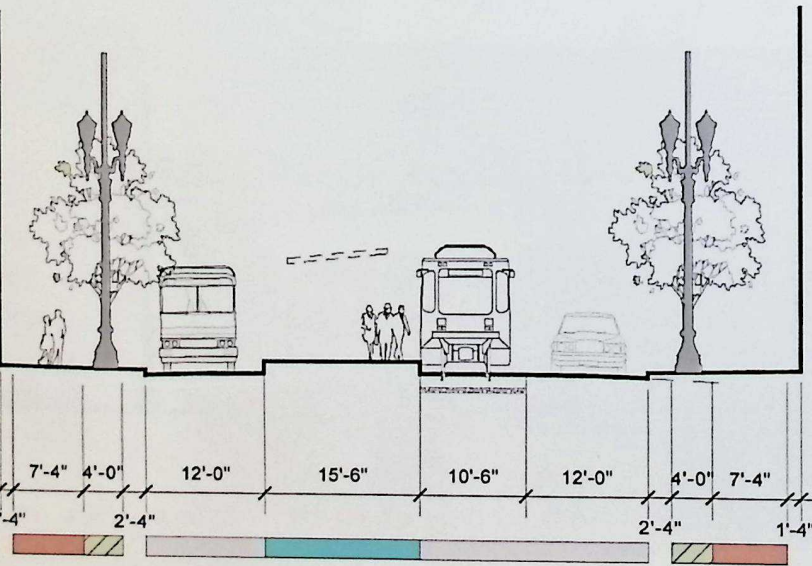


Figure 13(b) Reconstruction Impacts--Section View

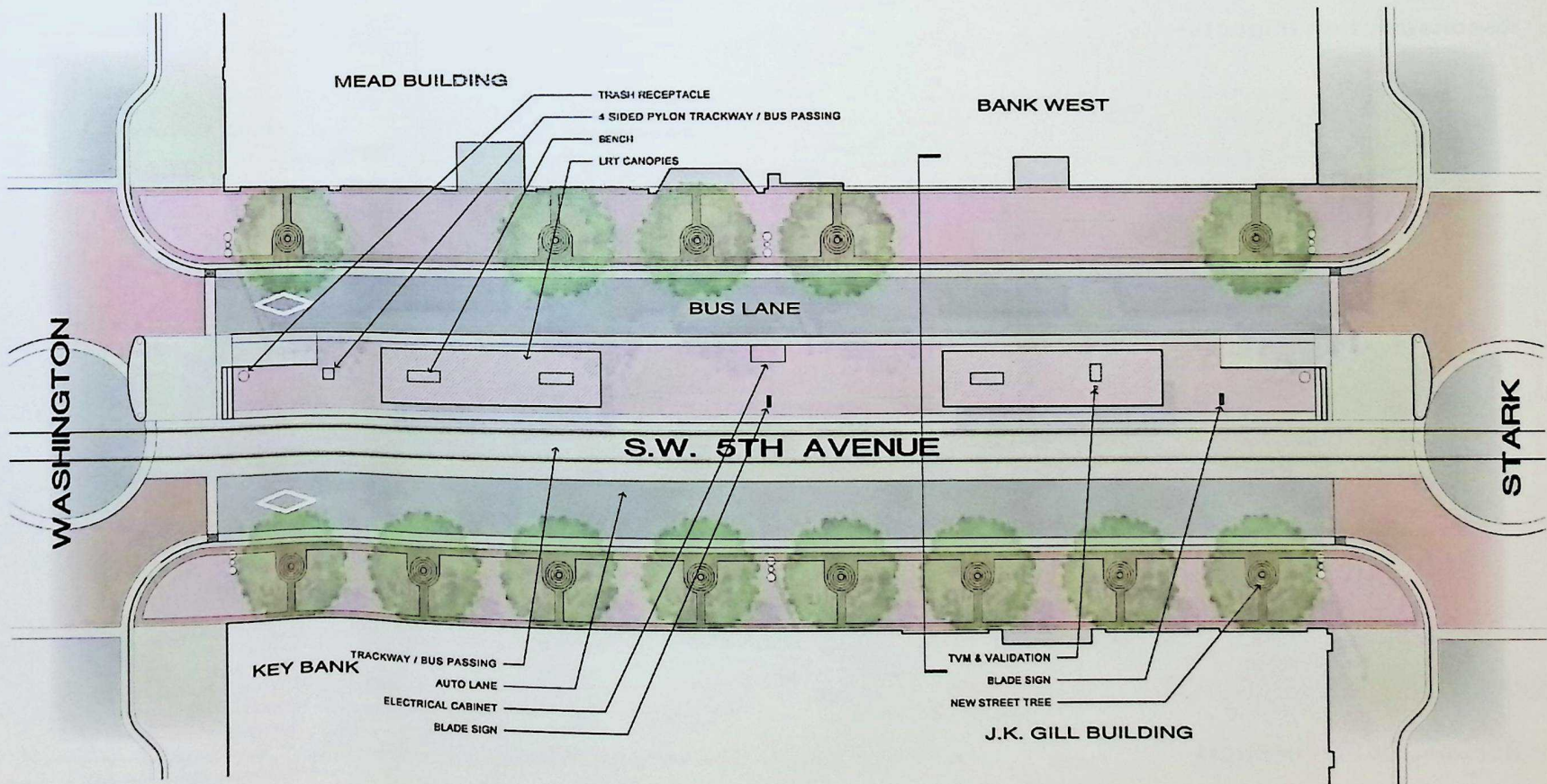


Figure 13(c) Station Design

## Island Platform Option



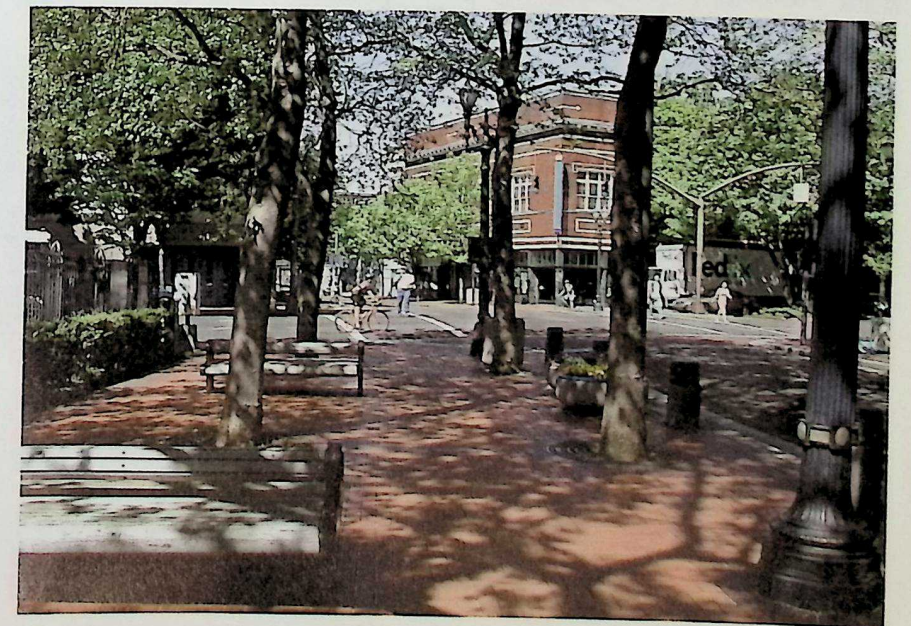
# STATION DESIGN AND STREET CONFIGURATION

## **Sidewalk Use in the Central Mall**

One of the design principles that emerged from earlier studies of the Mall was to encourage zones of use for the sidewalk area on the mall. Figure 14 (a) illustrates the existing configuration of the sidewalk in one of the station blocks-Stark to Washington on 5th Avenue. On these blocks, there is a generous amount of space on the non-bus (left) side of the street. This space typically is underutilized without adjacent activity or deliberate programming.

Figures 14 (b) through 14 (d) illustrate how the sidewalk area could be utilized under each of the station design options. The concept is to create sidewalk "zones" as a way of differentiating between different functions. Ideally, there is a merchant zone against the building face, a transit/amenity zone against the curb and the pedestrian zone between the other two.

Figures 15 and 16 further illustrate these ideas on the station block between Yamhill and Taylor on 6th Avenue, and on the North Mall. Note that the merchant zone is eliminated in the north mall due to the narrower right of way.





# STATION DESIGN AND STREET CONFIGURATION

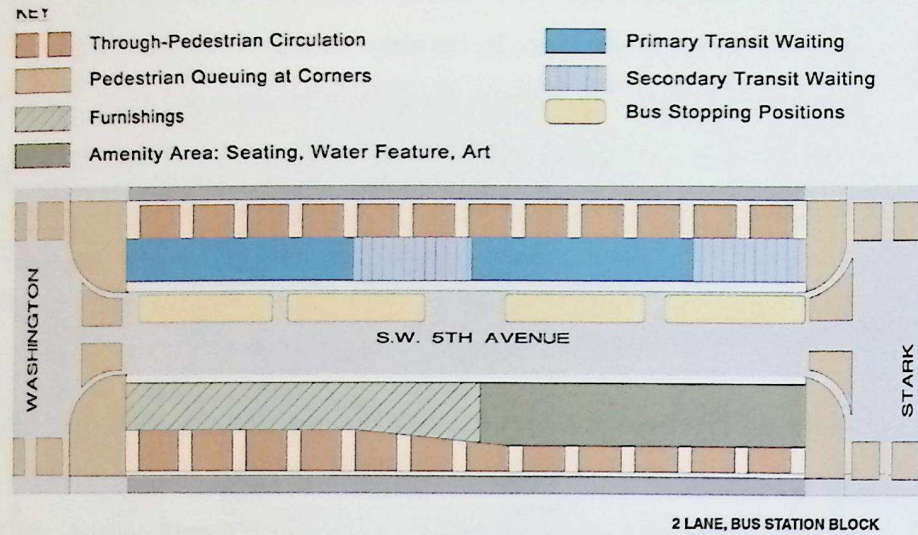


Figure 14 (a): Existing Mall Sidewalk Zones

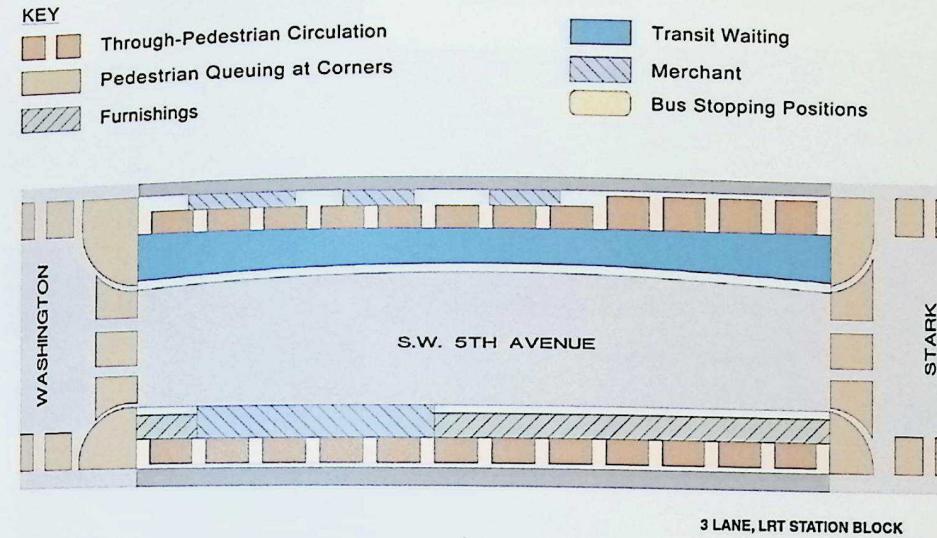


Figure 14 (c): Right Side Station Sidewalk Zones

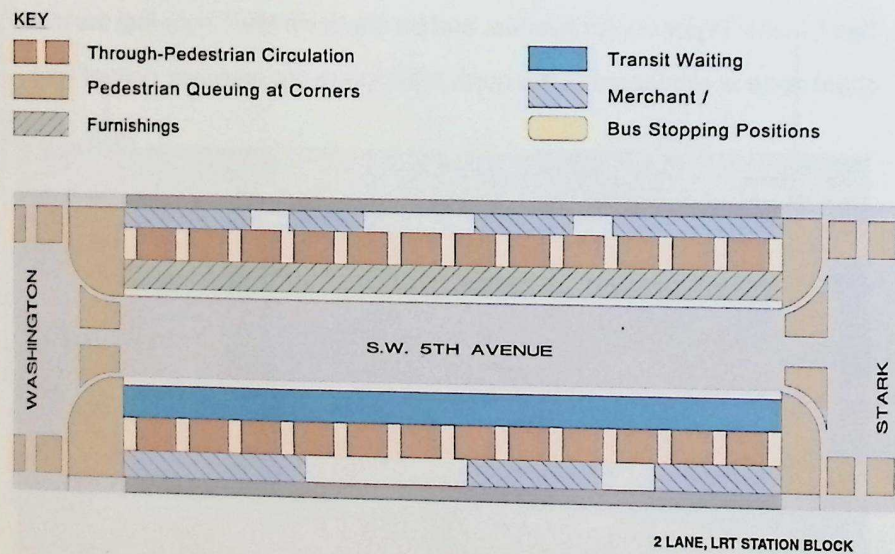


Figure 14 (b): Leftside Station Sidewalk Zones

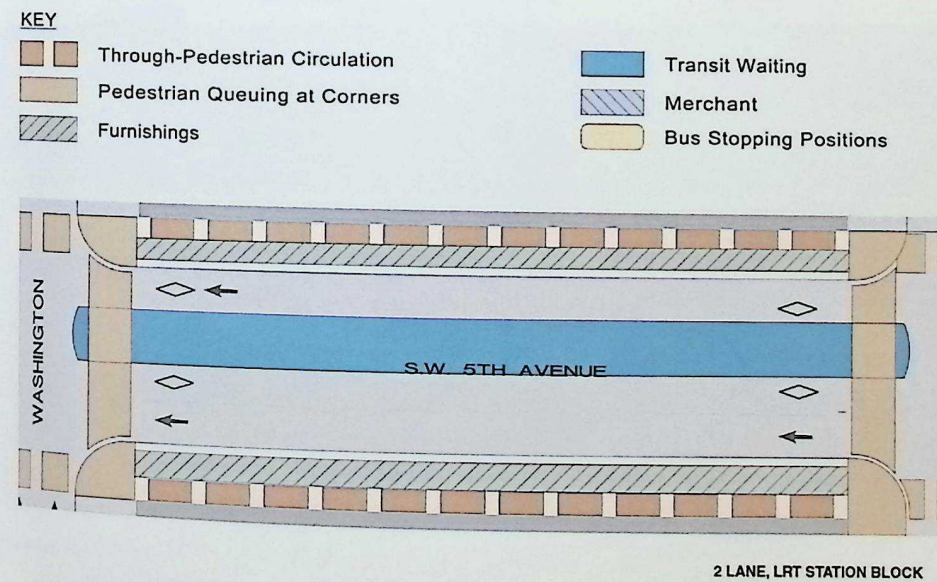
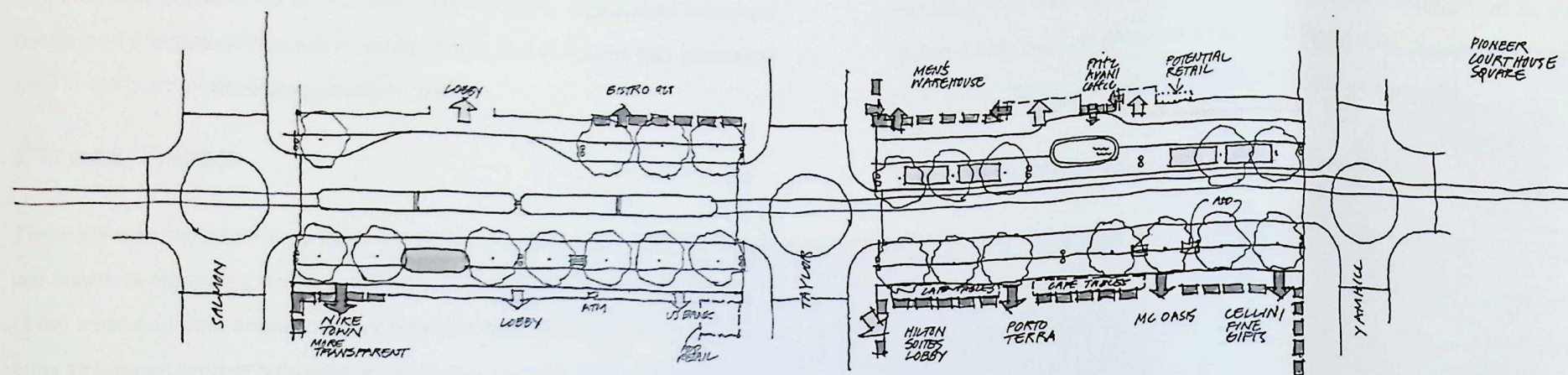


Figure 14 (d): Island Station Sidewalk Zones

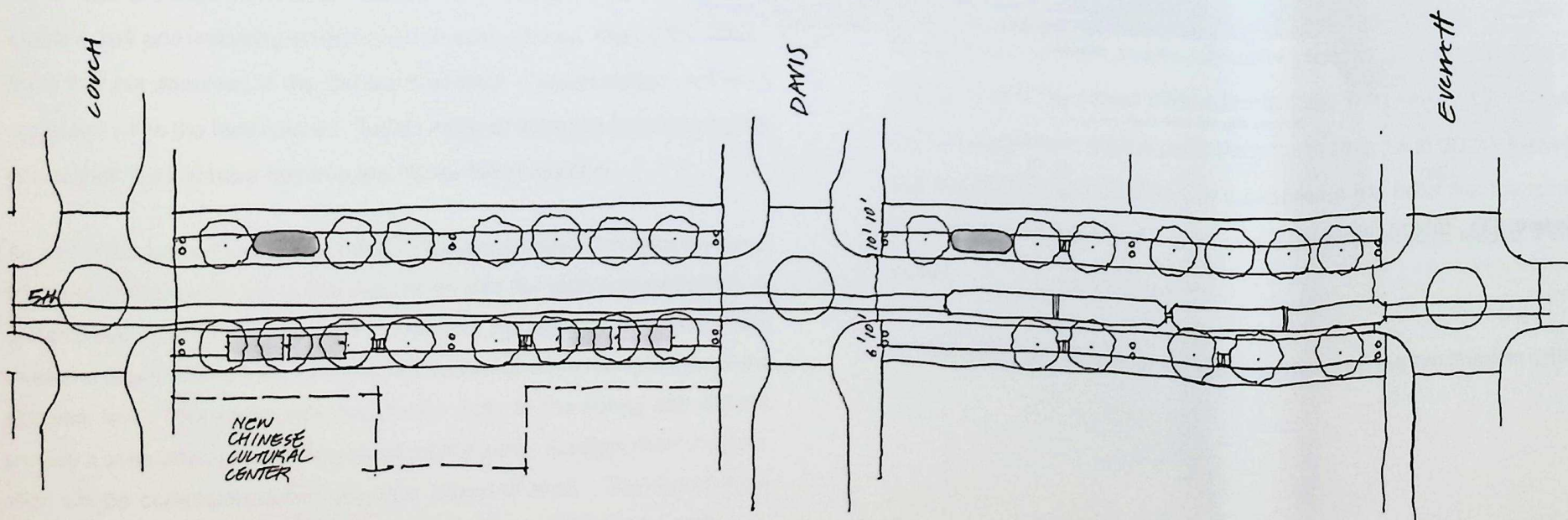


# STATION DESIGN AND STREET CONFIGURATION



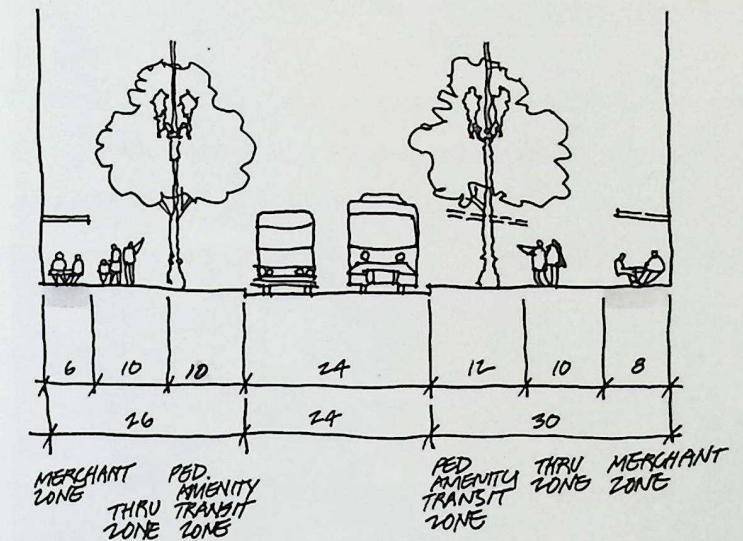
PIONEER SQUARE YAMHILL STATION

**Figure 15(a):** Central Mall Sidewalk Plan



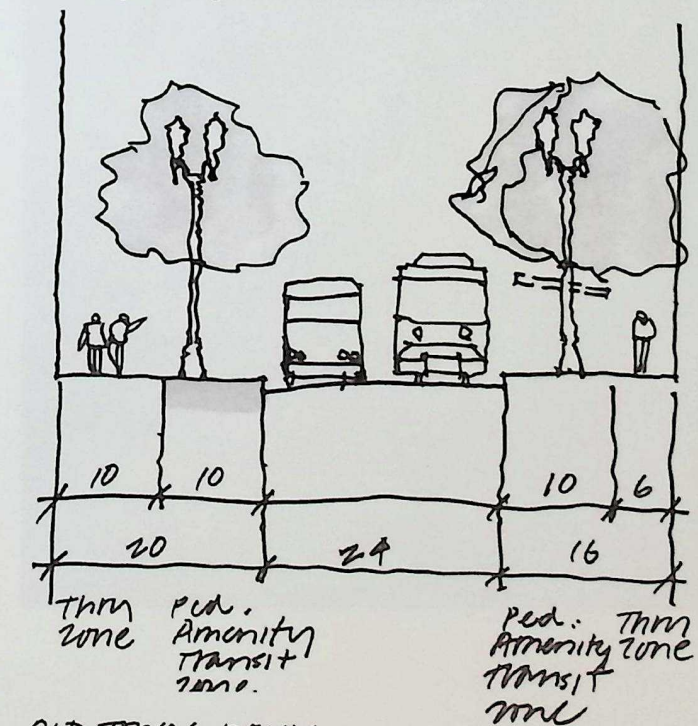
OLD TOWN DAVIS STATION

**Figure 16(a):** North Mall Sidewalk Plan



PIONEER SQ. YAMHILL

**Figure 15(b):** Central Mall Sidewalk Zones. In the Central Mall, ground floor uses could interact with the street by making use of the merchant zones.



OLD TOWN DAVIS

**Figure 16(b):** North Mall Sidewalk Zones. In the North Mall, the right of way is only 60 feet and the merchant zone is eliminated.

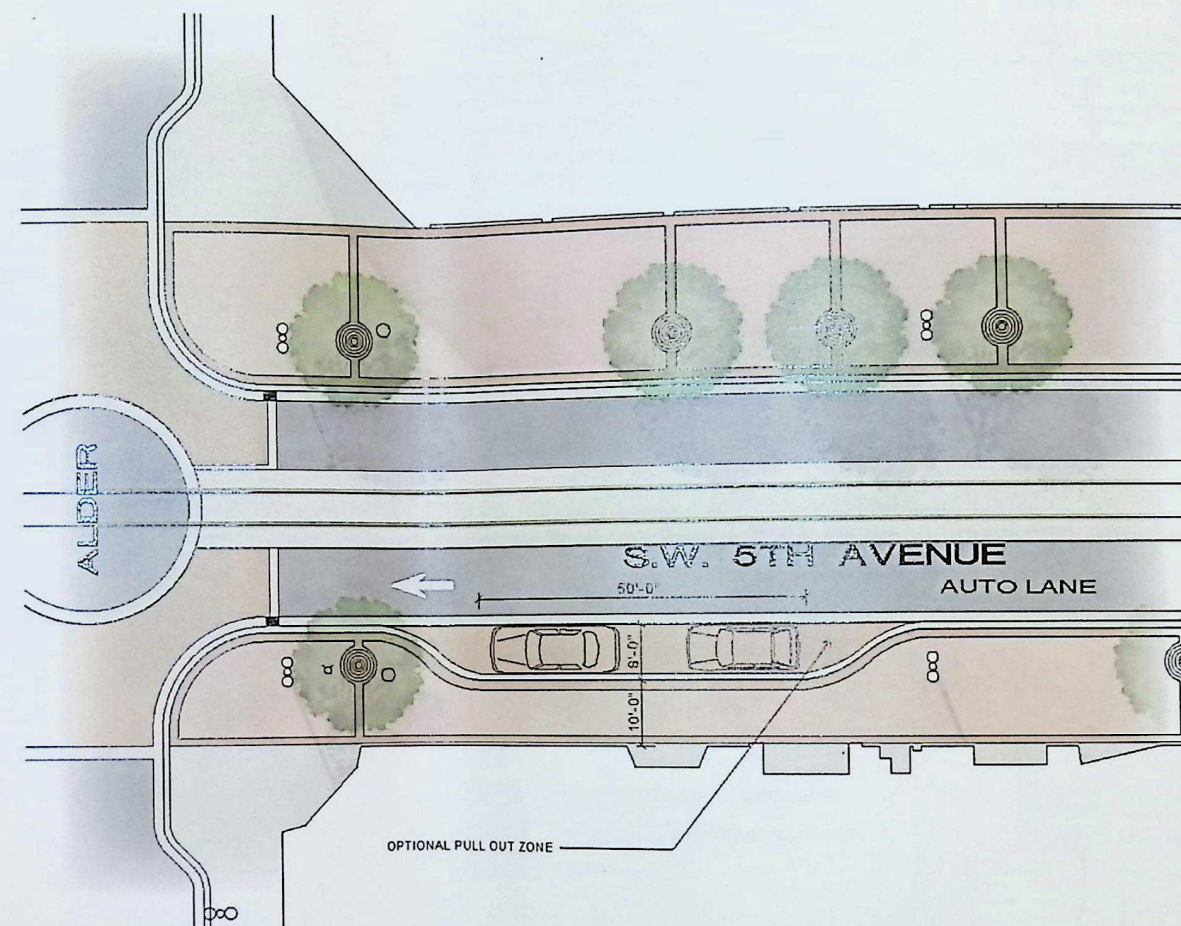


# STATION DESIGN AND STREET CONFIGURATION

## Vehicle Pullouts

One of the ways to enhance vehicle access to adjacent uses on the mall is to add vehicle pullouts where feasible (Figure 17). These pullouts would provide short-term parking for customers and space for delivery vehicles. These pullouts exist on Morrison and Yamill and contribute to access and enhance the perception of activity on those streets.

Pullout spaces may not be feasible in every block. Some buildings have basements that extend under the sidewalk that will limit the potential locations.



**Figure 17:** Vehicle Pullout.



There are a number of design issues that will affect the appearance, cost and development potential of Fifth and Sixth Avenues. The project team has developed alternative designs in some cases, but in others has preceded only to the point of developing design criteria.

## Street Trees

There are several issues to consider regarding street trees on the Mall. There are concerns regarding the lack of light penetrating to the street, the health of the trees and their impacts on potential station locations. Possible solutions include pruning or removing trees on the Central Mall to provide more light at the sidewalk level or removing trees altogether if they are diseased or to accommodate new LRT platforms.

The trees on Fifth and Sixth Avenues contribute to the quality and appearance of the Mall as well performing an important urban ecological function. However, there has been criticism that the trees are too dense in places and create a dark and uninviting environment on some blocks. The London Plane trees that are dominant in the Central Mall were a controversial choice 25 years ago when the Mall opened. Today, many of them are approaching the end of their lives or have become too big for their locations.

As part of this project it was important to develop a base of information about the trees to help guide the public discussion and the technical decisions. A professional arborist was retained to evaluate the general condition of the trees and to provide options for providing additional day and night light at the sidewalk level. The report was completed early in the spring and did not provide a complete picture of the health of the trees. A supplemental evaluation will be completed during the next phase of work. The report does provide guidance on other trees that may be appropriate for the mall environment. A copy of the arborists report is included in Appendix B. During the next phase of work, the team will be developing recommendations about the trees in general and the treatments in specific blocks.

The report was completed early in the spring and did not provide a complete picture of the health of the trees. A supplemental evaluation will be completed during the next phase of work. The report does provide guidance on other trees that may be appropriate for the mall environment.

## Intersection Design Treatments

The intersections in the Central Mall, built in 1978, consist of brick crosswalks, granite stopbars and accent circles and asphalt over concrete inside the circle and in the remainder of the intersection. This design serves to extend the pedestrian zone into and across the street to the next block. The circle design is one of the Mall's iconic elements, common to each of the intersections. Because of the construction of light rail trackway through the intersections, there is an opportunity to consider a change in the design of some or all of the intersections.

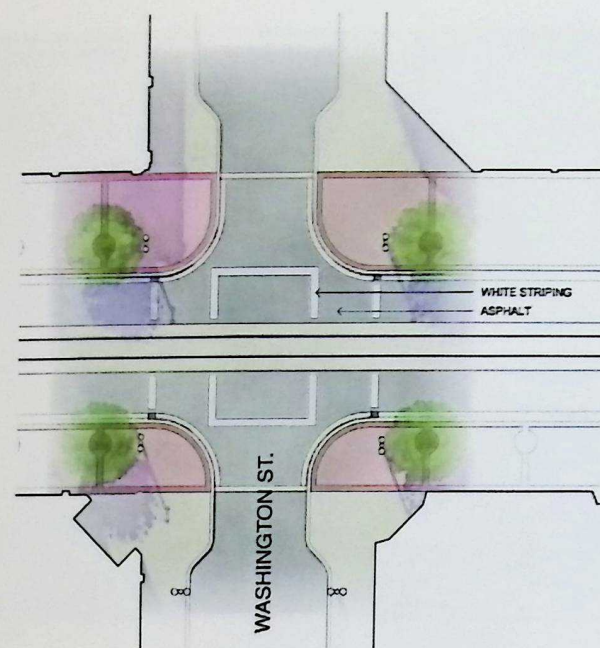
A change in the materials and or design (Figure 18) may be desirable for maintenance purposes as well. Over the years, the existing rigid brick and granite system has proven difficult to maintain. The heavy bus traffic takes a toll on any surface, but it is particularly harsh on rigid and flexible materials that are joined together. The City's experience has been that the current intersections have a life of 7 to 10 years before substantial repairs are required.

A major change in design or materials will lengthen the construction sched-

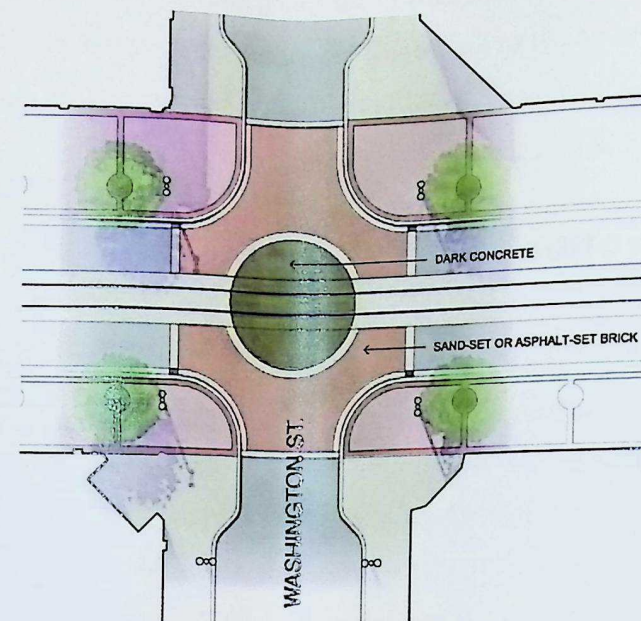




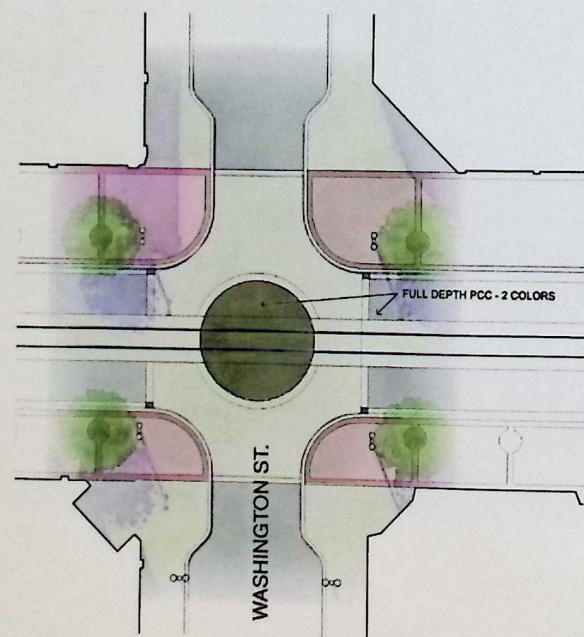
# STREETSCAPE



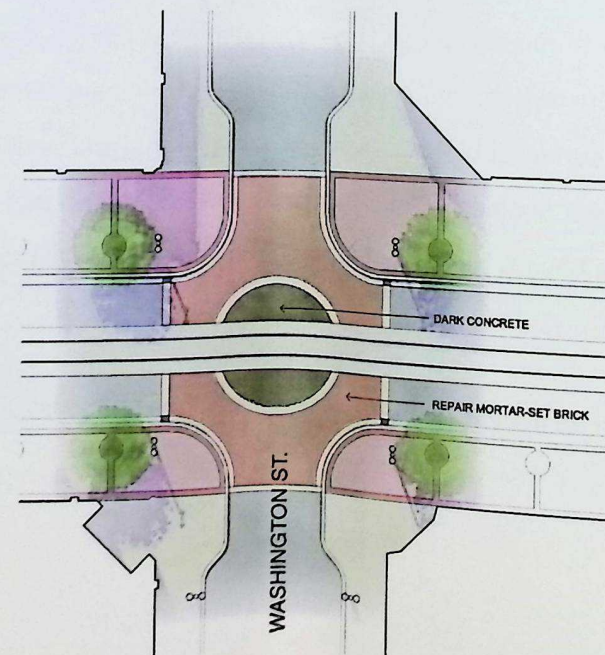
**Figure 18 (a): Asphalt.** The existing materials would be replaced by uniform layer of asphalt pavement. The crosswalks would be enhanced with thermoplastic striping.



**Figure 18(b): Pavers.** The existing materials and the substrate would be removed and replaced with a flexible paver system over a new substrate. The pavers can be either brick or colored concrete and would closely resemble the existing treatments. The pavers "float" on the set bed rather than being glued down. They are typically set on sand or an asphalt treated sand bed.



**Figure 18 (b): Concrete.** The existing materials would be completely replaced with full depth concrete. The circle design could be maintained by utilizing tinted concrete to create a center circle



**Figure 18(d): Repair and Restore.** This approach would remove and replace only failed materials. The substrate would not be replaced. Complete removal of materials would be avoided to minimize costs and impacts.

## Bus and LRT Shelters

The Mall is unique in the Tri-Met system. It represents the highest level of convenience, amenities and design for transit users. It serves the highest volume of riders in the highest density pedestrian area of the region. A fundamental concept of the original design that is still very relevant is the idea that transit accommodation is fully integrated into the downtown pedestrian environment. In other words, waiting areas for bus and light rail are designed as part of the sidewalk area, not as distinctly separate zones.

In the original Mall design, the provision of widened sidewalks allowed shelter canopies and other transit furnishings to be integrated within an enhanced area for pedestrians. The generous landscaping, custom signage, brick paving, seating and other furnishings benefit both transit riders and downtown pedestrians. This integration is being analyzed as part of this Project to determine how elements that are specific to transit elements can be even less conspicuous in the total street environment as light rail is added and bus stops are re-configured.

Like other mall features, the bus shelters are showing their age. Up close, they look "beat up" and they are increasingly expensive to maintain, in part because the components, such as the curved glass panels, must be custom made. There have also been complaints about the shelter's design. Some business complain that the shelters are too bulky, obscuring the view of the street from ground floor businesses and conversely the view of a business from across the street. In some locations, the shelters provide the wrong kind of protection by obscuring the views making the location feel less safe.



The project team has not yet developed alternative designs. Instead, the team focused on creating a set of criteria to guide the design process and decision-making on this issue. The criteria are based upon the Project Goals and Objectives, the studies of the Mall conducted by the Portland Business Alliance and the Urban Design Principles described in preceding sections of this Report.

Shelters for waiting bus transit patrons will be provided at all blocks in the Central and North Mall except at designated light rail station blocks. The South Mall may have shelters every other block depending on final route and stop designations. Two options exist for bus shelter design: one, refurbish the existing Central Mall shelters to comply with the following criteria, or; provide new bus shelters in a design that is derivative of the new light rail shelters for the Mall. Suggested design criteria are:

## Urban Design

- Represent the highest quality design and materials in TriMet's system, hence a visual icon for Fifth and Sixth Avenues
- Complement the formal design of the Mall
- Fit within designated sidewalk zones comfortably as part of family of furnishings
- Design and place shelter canopies to encourage transit patrons to use the shelter and now storefront/awning areas
- Provide maximum transparency to storefronts by minimizing the bulk of structural and roof elements

## Patron Comfort

- Basic canopy size: provide 250-350 square feet of covered area per stop
- Location: positioned to be convenient to two stopped buses, two shelters per block, most blocks

- Basic width: 10 – 12 feet
- Basic Length: 24 feet minimum
- Height of canopy: 7'-6" to 9'-0" to eave
- ADA accessible: position shelter and other furnishings so that a 10'x8' landing area is adjacent to bus front doors
- Rain diverter or gutter system
- Windscreen: provide maximum transparency—clear glazing, 12" base clearance to bottom of glass (for cleaning or to lessen damage), 7' maximum height, safety markings; TriMet standard glazing dimensions.
- Seating options: incorporate some seating under canopy—5' bench, leaning rail (optional)

## Assembly/Installation/Maintenance

- Design for shop assembly to the degree possible; minimal required lifting equipment/cranes
- Shelter design accommodates sloping platforms with a single design
- Easy replacement of components
- Stainless steel, vandal resistant fasteners
- Materials withstand high-pressure washing

## Stations Identity

- Station identification signage: may be incorporated into shelter canopy or other furnishings on platform

## Safety and Security

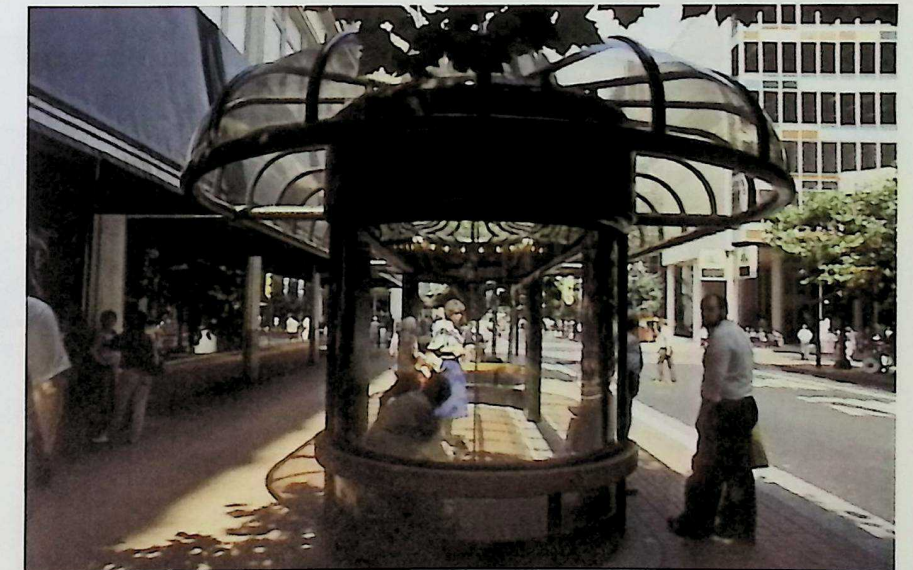
- Transparency from outside the shelter
- See Portland Transit Mall Stations and Stops criteria

## Art Program Options

- Shelter's design incorporates artist concept
- Shelter design incorporates art elements (windscreen glazing, display panel, light fixture)
- Artist collaborates on shelter design

## Specifications

- Structure options include powder coated aluminum, powder coated galvanized steel, stainless steel, abrasion resistant coating systems
- Roofs would include laminated tinted safety glass in TriMet standard sizes or impact/flame/ultra violet light/scratch resistant plastic
- Lighting: fluorescent or other high-efficiency lighting, 2.5 to 12.5 foot-candles interior, within canopy (average), shelter or advertising display panels comply with TriMet marketing requirements.





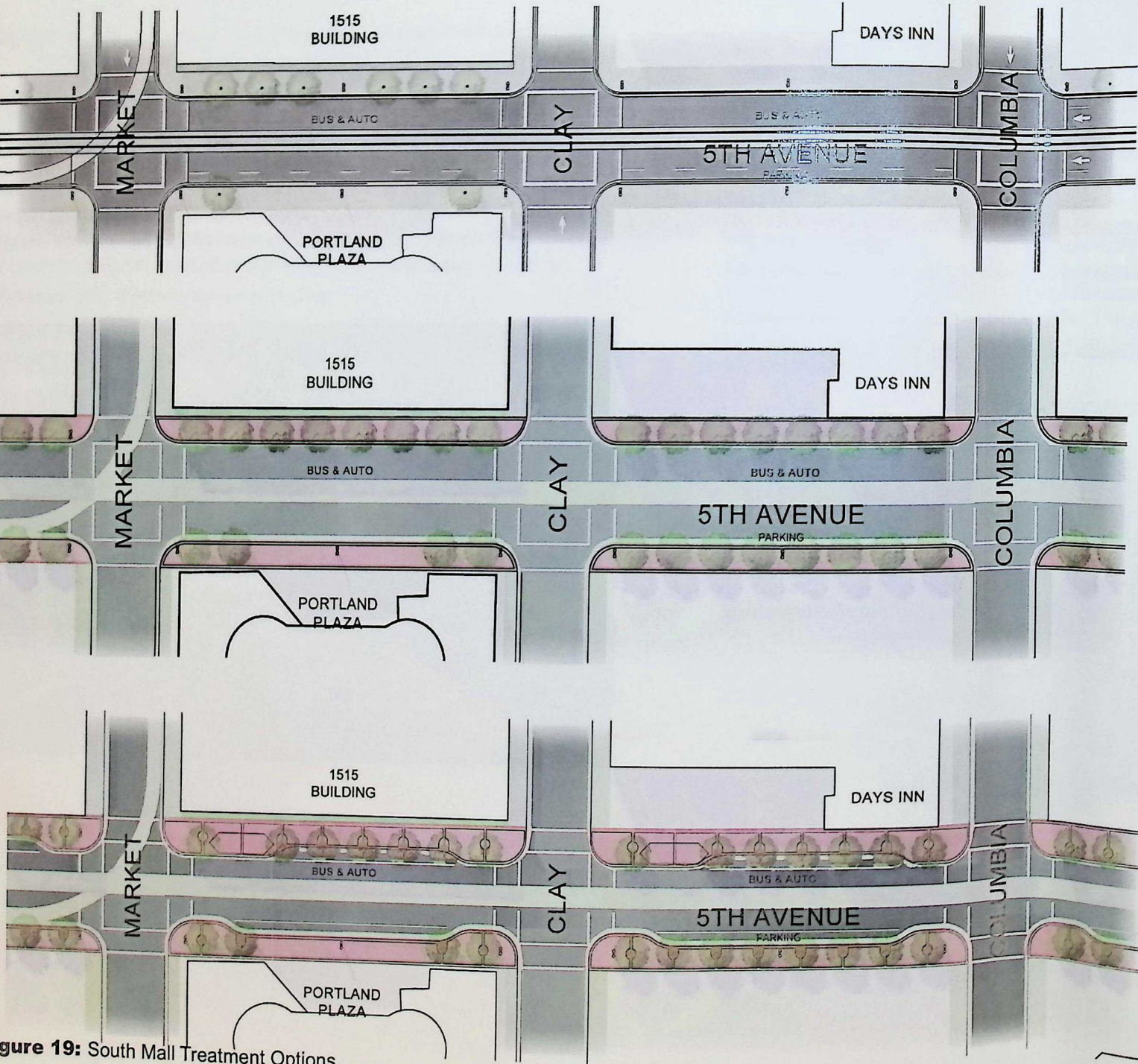
# STREETSCAPE

## South Mall Surface Treatments

The preliminary base budget for the project assumes that the standard Mall treatments, such as brick sidewalks and intersections, are not extended past Madison Street in the South Mall segment. The project team has developed five options to add special treatments to the South

Mall (Figure 19). Each option carries with it an added cost over the base budget. The treatment options are depicted and described in Figure 19 . The base case is option A. The additional cost of each option over the base budget is:

Option B	\$ 7.4 million
Option C	\$ 8.2 million
Option D	\$12.5 million
Option E	\$17.1 million



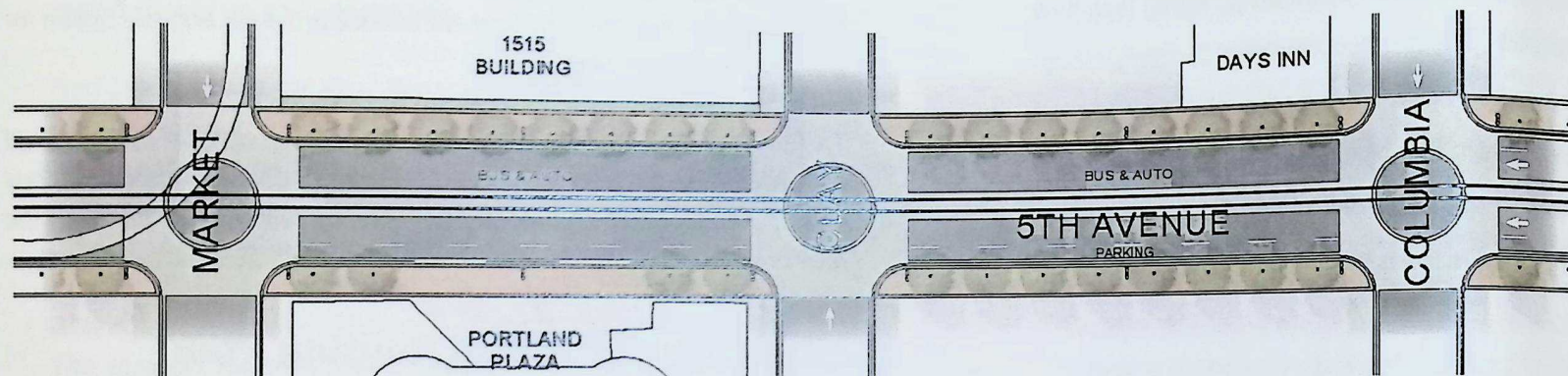
- Option A:**
- Existing curbs, sidewalks and trees to remain
  - Existing asphalt intersections to remain
  - New twin ornamental light / strain poles

- Option B:**
- New brick sidewalks, existing width, concrete curb
  - New street trees
  - New twin ornamental light / strain poles
  - Existing asphalt intersections to remain

- Option C:**
- New brick sidewalks, existing width (15') with extensions (23') at intersections, bus stops, and concrete curb
  - New street trees
  - New twin ornamental light / strain poles
  - Existing asphalt intersections to remain

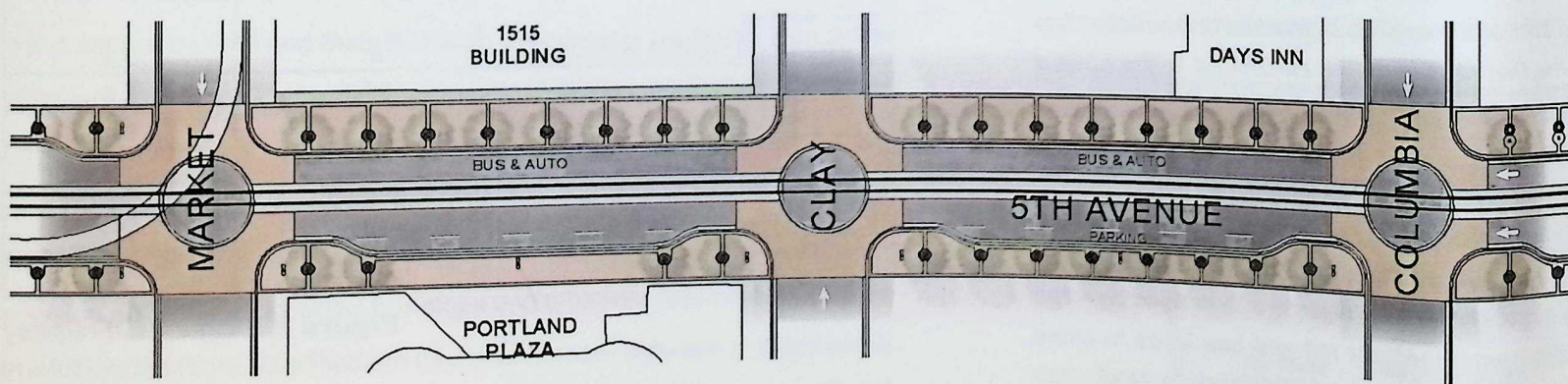
Figure 19: South Mall Treatment Options





## Option D:

- New brick sidewalks, existing width, concrete curb
- New street trees
- New concrete intersections
- New twin ornamental light / strain poles



## Option E:

- New brick sidewalks, extended
- New concrete curbs
- New brick and concrete intersections
- New street trees
- New twin ornamental light / strain poles



# TRANSIT OPERATIONS

A goal of the Project is to increase transit capacity and improve service on Fifth and Sixth Avenues. A number of changes in transit operations are anticipated as a result of the project. The addition of light rail service will be the most noticeable of those changes, but there will also be adjustments in bus service levels, bus stop locations and routing of light rail and bus lines.

## Light Rail Station Locations

Light rail station locations are proposed for: Union Station (Glisan/Hoyt), NW Couch/Davis, SW Washington/Stark, SW Taylor/Yamhill, SW Jefferson/Madison, SW Montgomery/Mill and at SW Jackson/College (Figure 21). This station spacing provides easy access to transit throughout Downtown with approximately 800-to-1,000 feet between stations. Station locations take into consideration land uses, traffic circulations, bus stop spacing and connections to the existing light rail system. Station locations will continue to be refined as additional technical and design work is completed. The final station location will be informed by this and other technical work as well as public comment.

## Bus Stop Locations

The addition of light rail to the Mall will require changes to current bus stop locations. In general, for each bus line, bus stop spacing will increase from two blocks to four blocks because the addition of light rail stations limits the locations where bus stops can be located. The precise sequencing and number of stops is determined by the location of light rail stations.

In the Central Mall, light rail stations will be located every fourth block. This means there is a three block section between each light rail station that are available for bus stops. However, each of the station designs under consideration will impact the ability of the immediately adjacent blocks to accommodate bus stops in slightly different ways. The primary issue is bus ma-

neuvering. In the case of all of the design options, nearside bus stops (on the half-block immediately before the light rail station) force a very tight maneuver for buses passing through the intersection (see Appendix C). Although this is possible, it requires very slow operations. It also requires bus operators to pay more attention to their mirrors and clearance from curb and light rail trains and buses. This would force operators to spend less time watching for pedestrians, potentially raising serious safety concerns for operations on the Mall. Near side bus stops could be moved forward somewhat to accommodate three buses in that block to improve customer comfort and efficiency. Far side bus stops (the block immediately after the light rail station) are similarly constricted in the island and right side platform options.

Based upon this analysis the project team determined that the following options were available:

- *Left Side Platform Option: It is recommended that there be five stops per section between light rail stations. The nearside stop causes safety and operational concerns that should not be introduced to the busiest transit facility in the region unless there is no choice.*
- *Right Side Platform Option: The right side platform has additional impacts on bus stops; i.e. neither nearside nor farside stops are feasible because the rails themselves take up the space that buses would otherwise use to serve these stops. An additional issue with this design is the signal system required to permit the light rail and bus lanes to cross each other. The location of the stop bar on the nearside block may require a further reduction in bus stops on that block.*
- *Island Platform Option: Neither nearside nor farside stops are recommended for the island platform option. The nearside stop creates an inoperable movement. The farside stop is similar, providing too little space for a maneuver that would be required by the majority of buses on each trip down the Mall. Therefore, the island platform option should include four bus stops per section.*

Regardless of the number of bus stops, there are other service considerations that have been and will continue to be evaluated. These include:

- *There will be changes in bus loading and dwell times. Many riders will experience changes in the bus stop locations they typically use today at the same time that the new light rail service provides another option for using transit on the Mall.*
- *The average walk time and distance to reach a chosen bus stop will increase by up to a block compared to today for about half of current bus riders. Although this change will be offset by faster travel times on the Mall once riders board the bus, it still carries impacts for mobility chal-*

## Preliminary Light Rail Routing Plan

Line	2008 projected Peak Headway in each direction (minutes)	2020 projected Peak Headway in each direction (minutes)
Cross-Mall (Morrison - Yamhill) combined	4	3.3
Blue ( Gresham - Hillsboro)	5.5	4.6
Red ( Airport - Beaverton)	15	12
Mall (Fifth - Sixth) Combined	5	3.8
Yellow (Expo - Mall)	10	7.5
Green ( Clackamas - Mall)	10	7.5

Figure 20: Light Rail Frequency

The Preliminary Operations Plan calls for adding light rail service on Fifth and Sixth Avenues and maintaining current levels of bus service (Figure 20). At the time that light rail service begins on the Mall in 2008 there will be four separate light rail lines in operation. The preliminary configuration of those lines is as follows:

- *I-205 Line – Service on the Mall. This new line will end in Downtown Portland and is planned for construction concurrently with the Mall.*



# TRANSIT OPERATIONS

- **Interstate MAX – Service on the Mall.** Because this line will also end in Downtown for now, routing the line on the Mall will maximize coverage and take best advantage of capacities. It will also provide high levels of service from opening day, providing the activity and service intensity needed to meet other Mall revitalization goals. Finally, routing on the Mall is also preferred, as this line would be expected to through route to the Milwaukie line in the future, and a line that runs north-south in the region should do so in downtown.
- **Red Line (Airport MAX) – Service on Morrison/Yamhill Streets.** The Line is expected to extend to Beaverton Transit Center in September, 2003, rerouting the Red Line to the Mall would mean it no longer connected to Beaverton. This connection is needed to balance service demand between Beaverton and Downtown Portland.
- **Blue Line (Gresham – Hillsboro) – Service on Morrison/Yamhill Streets.** The through route between Gresham and Hillsboro, in place since Westside opening would not be disrupted.

## Preliminary Bus Routing Plan

Although additional technical work is under way, it appears that any changes in bus service on Fifth and Sixth Avenues will primarily be determined by the selection of a design for the light rail stations. Analysis to date indicates that current bus volumes and service could continue on the Mall with the Left Side Platform option. Because the other two options, Island Platform and Right Side Platform, allow one fewer bus stop between stations, they put pressure on the capacity of the bus stops and therefore the volume of buses. In addition, the Right Side Platform has fewer spaces between stations where buses can pause to allow light rail trains to move past. This could mean that several bus routes would need to be rerouted to cross-mall routes or to other streets in the future. The actual number, if any, needed to move is currently under analysis. The potential relocation options are described below:"

- **Fifth Avenue and Sixth Avenue:** The preferred option is for all buses to continue to be routed on the Mall as today, unless capacity constraints require movement to other streets. Bus lines could be rerouted to improve capacity, efficiency and coverage of downtown transit service. The Mall serves the high-density office corridor along Fifth and Sixth and is relatively central to the length of Downtown. Serving the Mall provides clarity and simplicity to the system, while allowing buses to move relatively efficiently without delay caused by auto congestion. This also reduces impacts to parking, auto circulation and other issues connected to spreading buses and bus stops on many other streets.
- **Broadway and Fourth Avenue:** No buses are expected to be rerouted to this pair of streets for the long term. However, due to their proximity to Fifth and Sixth, buses may be rerouted to Broadway and Fourth as a temporary measure during construction. The distance between the two results in less certainty about where to access the buses. Impacts to parking accesses, hotel valet parking and other current uses especially on Broadway would present serious difficulties to placing bus stops and operating a number of buses. Broadway and Fourth Avenue could also be used for shorter stretches to access cross mall routings.
- **Third Avenue and Fourth Avenue:** This pair of streets may be considered for bus service if Fifth Avenue and Sixth Avenue do not have ad-

equated capacity or to improve efficiency. However, access and usage concerns listed for Broadway and Fourth Avenue also pertain to these streets. Fourth Avenue may be considered as an option for bus operations during construction.

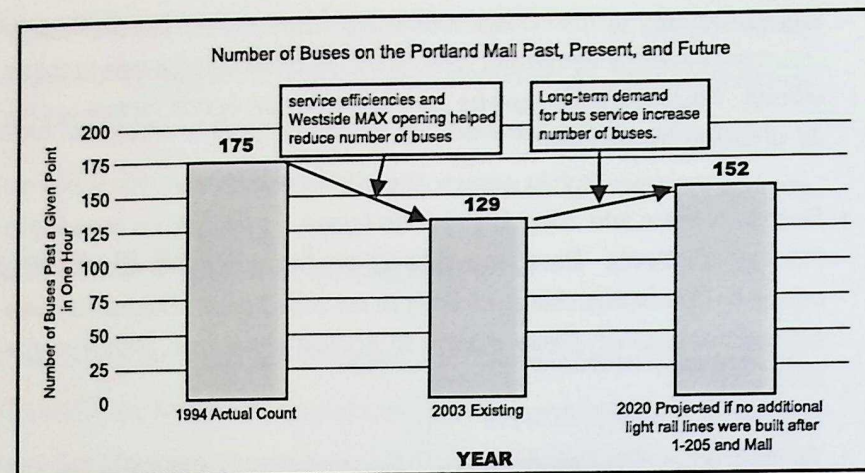
- **Second Avenue and Third Avenue:** No buses are likely to be rerouted to this pair of streets. Because other options exist that are closer to the center of Downtown, this is unlikely to be considered. Buses may use shorter sections of these streets to access cross-mall streets or the Mall.
- **Tenth Avenue Eleventh Avenue:** This pair of streets was seriously considered as an alternative for previous South/North studies. Interactions with Portland Streetcar would reduce total potential capacity and the streets are not ideally close to the Mall, the combination of existing developed stops for the Streetcar and coverage of the developing west end, may warrant consideration of 10th - 11th capacity constraints limit buses on the Mall.
- **Cross-mall routes** will be considered if necessary. However, moving from a mall alignment to a cross-mall alignment may significantly alter the route's coverage in downtown.



Figure 21: Proposed Light Rail Station Locations



# TRAFFIC MANAGEMENT



**Figure 22:** Bus Volume on Mall

The number of buses on the Portland Mall during any given hour has varied considerably over time. Figure 22 shows volumes in the past, today and projected for the future.

Today, during the peak hour (4 pm-5 pm), as many as 129 individual buses operate on some section of the portland Mall. All of these buses serve the Central Mall, with fewer on the North and South Mall. This number is down significantly from bus volumes prior to the opening of Westside MAX, when as many as 175 buses served the Mall during a given peak hour. Some of this change occurred through service efficiencies such as through routing that reduced the peak number of buses driving on the Mall, but serve riders just as well by allowing buses to serve both inbound and outbound riders simultaneously. Some of the reductions was from opening of the Westside MAX that replaced peak hour buses.

The future projected volumes show the number of buses that are projected on the Mall if no additional light rail lines are built and no buses were moved off the Mall to other alignments. In this case, future growth in demand increases the number of buses required to serve ridership on the Mall. In contrast to previous light rail lines, the I-205 line is unlikely to replace a large number of buses, though it will bring in new transit riders and increase overall use of the Portland Mall.

The addition of light rail to the Portland Mall results in changes to traffic circulation and capacities on certain streets. It could also create access restrictions on some blocks in the south mall. New signalization systems will be required to assure the safe flow of transit through the area. Additional modeling will be necessary during more detailed technical work later this summer. The list of impacts described below is intended to alert the public, landowners, businesses, local jurisdictions and institutions to potential changes and provide an opportunity to identify appropriate mitigation

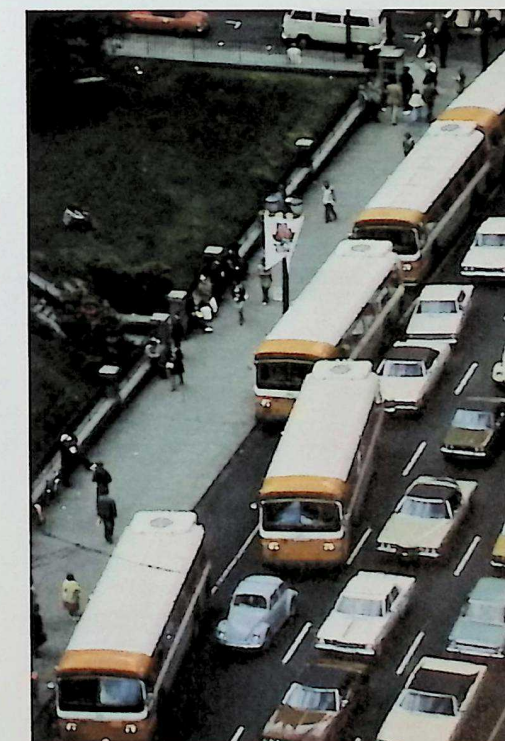
## Traffic Circulation

Traffic circulation and access would change least in the Central Mall (Madison Street to Burnside). The most significant change hinges on which platform design option is chosen as discussed below.

- Central Mall – Left Side Station Option.** In the Central Mall, traffic circulation and access would remain essentially unchanged from current conditions. There would be a vehicle lane, but continuity would be impeded by the extension of the sidewalk that serves as the transit platform. Circulation around blocks would still be allowed as it is today. The one exception would be at the far south end of the Central Mall, where a new station would limit traffic circulation from one block where it is now possible between Jefferson and Columbia.
- Central Mall – Right and Island Station Options.** This option would open traffic circulation to two blocks each on Fifth and Sixth Avenues that do not presently have a through auto lane— between Yamhill and Taylor and also between Stark and Washington.
- North Mall – All options.** The North Mall design and traffic circulation are the same for all platform options. Currently, autos travel in the left lane, while the right lane is reserved for buses. Once light rail is added to the North Mall, this configuration changes. Buses must remain on the right curb to be able to serve passengers. Light rail, therefore, must serve in the left lane. Because light rail and autos should not be mixed in regular traffic for serious safety and operational concerns, this means that autos must share the right lane with buses. Where today autos can only turn left from the North Mall because they are in the left

lane, with light rail service, autos will only be able to turn right because they are in the right lane. The attached Transit and Traffic Operations Graphic illustrates this change and the resulting changes in auto circulation movements. The change in lane usage will also have some potential impacts on capacities. A single shared lane for buses and autos will have a lower total capacity than the current two lanes. Buses will be able to use the light rail lane for passing only, as with the Central and South Mall, but cars will need to stay in the right lane for safety. Current auto volumes are very low on the North Mall, so this is unlikely to create significant impacts, other than delays to buses due to auto turning movements and delays to autos due to buses serving bus stops.

**South Mall – All Options.** Circulation changes will occur at many intersections where turns across light rail will be restricted for safety. The Transit and Traffic Operations graphic illustrates the expected changes in this area. One location at SW Jackson will have a specially constructed and protected right-turn only lane to allow restricted access across the light rail tracks because otherwise there would be not auto access to SW Jackson forcing acquisition of the properties on the block between Fifth and Sixth.





## Turning Movements and Access Impacts

The addition of light rail will have an impact on turning movements and access in some parts of the mall. The impacts are most pronounced in the north and south malls and are illustrated in Appendix D.

**North Mall:** New turning movements that are not currently allowed but will be in the future include:

- *Fifth Avenue – new right turns to: NW Glisan, NW Flanders, NW Davis, NW Couch, NW Burnside*
- *Sixth Avenue – new right turns to: NW Couch, NW Davis, NW Everett, NW Flanders*

Restricted turning movements that will no longer be allowed under the current design:

- *Fifth Avenue – restrict left turns for: NW Flanders, NW Everett, NW Davis, NW Couch, NW Burnside*
- *Sixth Avenue – restrict left turns for: NW Couch, NW Davis, NW Flanders, NW Glisan, NW Hoyt*

**Central Mall:** Few changes occur to the Central Mall, except in the Island Station Option and the Right Side Option where several new movements would be possible:

- *Through traffic from Fifth across SW Stark and from Fifth across SW Yamhill*
- *Through traffic from Sixth across SW Taylor and from Sixth across SW Washington*

For Left Side Station Option, two movements would be restricted:

- *Through traffic from Fifth across SW Madison*
- *Through traffic from Sixth across SW Jefferson*

**South Mall:** For the Main Street terminus option, no turning movement impacts would occur because light rail service would not be extended to PSU or the rest of the South Mall.

For all station options, the following turns would be restricted:

- *Fifth Avenue: right turns to SW Clay, SW Harrison, SW Hall, SW Coll-*

## Driveway Accesses

A number of driveways may be affected by the project, almost exclusively in the South Mall. Individual attention will be needed for each location to examine effects and mitigations:

- *Exit from PSU parking (under the Fifth Avenue Cinema building)*
- *Fire station access on Fifth at SW College would be maintained as today with full signal protection for fire vehicle ingress and egress*
- *Access to parking for PSU Center for Advance Technology on Fifth between SW Montgomery and SW Harrison*
- *Parking access on Fifth between SW Columbia and SW Clay*
- *Parking access to Columbia Financial Center*
- *Auto access drive in front of City Hall on Fifth (currently blocked by bollards) would be replaced by a station*
- *Freight access/loading on east side of Fifth between NW Davis and NW Everett*
- *Egress onto Fifth between NW Glisan and NW Hoyt replaced by a station*
- *Freight access/loading on west side of Sixth between NW Flanders and NW Glisan*
- *Two accesses on Sixth between SW Clay and SW Columbia*
- *Freight access/loading (typically blocked by dumpster) on Sixth between SW Jackson and SW College replaced by a station*
- *Direct access via Sixth Avenue from I-405 to the parking garage at Sixth/Salmon*

## Capacity of Roadways

All of the streets impacted by this project have relatively low volumes of auto traffic today. The most significant potential locations are the following:

- *Glisan at the west end of the Steel Bridge – Though a single lane at a signal on the bridgehead restricts capacity, current traffic volumes are low enough that this is not likely to be a significant capacity issue. Queue lengths from the traffic signal will need further technical analysis to identify potential impacts on transit and bridge operations.*
- *Fifth and Sixth Avenues in North and Central Malls – In the North Mall, existing volumes are low enough that capacity issues are not expected (though see above for a discussion of auto turning changes). For the Central Mall, the three options either maintain or increase capacity from the existing conditions.*
- *Fifth Avenue in the South Mall - The following auto volume counts were collected south of Jackson except as noted:*





# TRAFFIC MANAGEMENT

Year	Auto Count
1986	1101
1987	1130
1989	1195
1993	1050 (north of Jackson)
1995	806

Counts fell over time due largely to projects that improved traffic flow on Broadway on the south side of the freeway, attracting more autos away from Fifth Avenue. Although the more recent numbers are at or just above the generally accepted capacities for a street in the heart of Downtown, Fifth Avenue may still be adequate without other mitigations. At the minor intersections, more green time could be added to the signals for Fifth. Because volumes are close enough that some diversion to other streets might be possible in the long-term, additional technical work including traffic counts and traffic modeling in this area will be conducted during the summer and reported with the remainder of the federally-required technical analyses during the end of the summer.

- Sixth Avenue in the South Mall – The base design maintains two auto lanes as far as SW Clay. Initial analyses indicate this will be more than adequate for auto volumes in this section. Issues for this stretch of Sixth Avenue will center on auto accesses and turning movements (see elsewhere in this section) rather than volumes. One related issue will require more analysis during the summer: queuing near the entrance to Hwy 26 from Sixth Avenue where it crosses I-405 must be analyzed further to ensure that access to the freeway is not restricted.

## Signalization Issues

Changes in use require changes in signalization. Light rail operations require special signal operations and controllers. Signal operations on Fifth and Sixth are likely to be largely similar to the existing service on Morrison and Yamhill, but individual details will vary.

## Alternatives

Options considered are listed below:

- No change to existing system – not possible given complexity and safety considerations of light rail interactions with auto traffic and buses
- Small modifications to existing grid – existing signals would remain relatively unchanged with the exception of additional signals at currently unsignalized intersections and light rail signals augmenting auto signals at each intersection
- Train clearance signals – as discussed in the LRT and Bus Operations section, it may be necessary to add signals that allow bus operators to know that a light rail train is about to occupy the tracks in any given stretch between stations, allowing buses to clear the way for the train.

The addition of new signals at currently unsignalized intersections will increase safety at those intersections and provide additional crossing opportunities for pedestrians and cross-traffic. Modifications of existing signals will be comparatively straightforward, as they will mirror existing signals along Morrison and Yamhill. Because the traffic movements will be more complicated, they will require additional detail analysis, but the basic concepts remain.

Train clearance signals have been considered in the past, but are not well defined in detail. The potential need for these is discussed in the LRT and Bus Operations section. Theoretically, the equipment that would need to be installed anyway would be compatible with train clearance signals, but additional analysis and design work will be necessary to identify operations and design for these.





## Fire, Life, Safety Access

The Portland Fire Bureau has identified the following east-west streets as critical response routes: Burnside, Oak, Morrison, and Ash (only to Fourth). For the fire station on Fifth Avenue at PSU, the response route is Fifth to College (right or left turns). The Fire Bureau has requested signal treatments as follows:

- *Sixth/College - PTR2 (Part Time Restriction of movements to allow safe emergency vehicle access) and Opticom (signal preemption for emergency vehicles to block other movements including transit during the time emergency vehicles need to travel through the intersection)*
- *Fifth/Hall - Opticom control for exiting fire trucks*
- *Oak and Morrison (at Fifth and Sixth) - PTR2*
- *Burnside - PTR2 and Opticom*

Additionally, using Fifth and Sixth as response routes are still in Portland Fire Bureau's plans. The Bureau has expressed concern with the island platform option (especially with pedestrian flow between platform and sidewalk) and any additional parking cuts at station blocks.

The engine house at Fifth/College has had a seismic upgrade and is there to stay for the distant future. Upon return from calls, the trucks stop SB traffic on Fifth and use the entire roadway to turn trucks and back in to the station house. Signal plans will need to anticipate this use.





# CONSTRUCTION MANAGEMENT

## Utility Relocations

### Anticipated Scope of Work

The scope of required private and public utilities relocations is critical to project cost, schedule and impacts during construction. The number and complexity of the utility relocations drive the overall project schedule because they must be completed in advance of the follow-on improvements. In addition, the age of the utility systems and unforeseen underground conditions make cost for this work, as well as the time to perform it, difficult to predict.

The scope differs depending upon the termini locations, whether sidewalk or island light rail platforms are utilized, and the criteria for relocation mandated by the respective utility bureaus and private entities. The base case (Steel Bridge to Jackson Street) involves reconstruction of 58 intersections. In general, there are utilities that must be relocated in each of these intersections and in the blocks in between.

Because of the significant cost, schedule and impact consequences that would otherwise arise, TriMet has assumed a policy direction that utility relocations will be kept to an absolute minimum, essentially driven by direct conflicts and access needs. Even so, the base case scope of utility relocations is significant. Listed below are its major components, based upon a preliminary analysis without the benefit of a detailed survey:

- *Modification of water lines that cross under light rail tracks in 30 intersections*
- *Relocation of a 16" diameter water main on 6<sup>th</sup> Ave that is under the proposed light rail alignment, from SW Salmon to NW Davis streets*
- *Relocation of building water services in 93 locations*
- *Relocation of fire hydrants in 48 locations*

- *Relining of sewer piping that remains under light rail tracks*
- *Reconstruction of 37 sewer manholes in 26 intersections*
- *Reconstruction of 45 electrical utility vault tops in 17 intersections*
- *Gas line and telephone relocations in five blocks*
- *Relocation of 6 phone utility vaults in 5 intersections*

The scope of utility relocations is dependent upon the selected alignment and termini. In addition, a series of issues must be resolved in order to more clearly define the scope of work that will be undertaken as part of the Project. This includes resolving relocation criteria for:

- *Water mains that cross under light rail tracks*
- *Stray current mitigation for water facilities*
- *Water services behind curb lines and in sidewalk areas must be reconstructed*
- *Water line relocation work on side streets*
- *Track slab depth conflicts with underground utilities*
- *Fire hydrant work*
- *Sewer mains under light rail track*
- *Reconstruction of sewer manholes in light rail track*
- *Sewer laterals*
- *Water quality work*
- *Private property vault impacts*
- *Private utility relocations under City of Portland franchise agreements*

Base case issues are listed above. Should different criteria be adopted, further analysis with the utility bureaus will be required to determine the affect upon cost, schedule and impacts during construction. The base case assumes no relocations solely because of stray current concerns. Further, it is assumed that a solution other than lowering and encasing water line crossings of light rail tracks at intersections. Both of these assumptions are contrary to criteria applied on previous projects and must be resolved.

The island platform alternative adds reconstruction behind 6 block faces per platform in order to widen the roadway to accommodate the platforms and through traffic lane. The road widening adds scope to the base case utilities relocations because more services are affected and possibly more private property vaults. For the base case sidewalk platform, only one blockface requires reconstruction. Additionally, the island platform structure introduces loading in the center of the streets that requires analysis relative to the utilities under the platform.



## Key Conclusions

**Sewer Impacts:** The preliminary analysis of sewer impacts has concluded that relocation of existing sewer mains and manholes under the proposed light rail tracks on 5<sup>th</sup> and 6<sup>th</sup> avenues is not feasible because of cost, underground conflicts and space constraints, and the severe impacts to businesses and traffic flow that would be created during construction. Sewer lining and offset manholes have been discussed with the Bureau of Environment Services (BES) on a preliminary basis and are assumed for the baseline and alternate alignment cases ( Appendix F).

**Water Impacts:** Similar to sewer, the preliminary analysis of the water system has concluded that lowering and encasing all water mains that would cross under the proposed light rail tracks is not feasible because of cost, physical conflicts and constraints, and impacts due to extended closure of intersections to perform the work. A lesser impact alternative is assumed for the base case and alternative alignments. Alternatives have been preliminarily discussed with the Bureau of Water Works (BWW) and are under consideration by that Bureau. These include: leaving the crossing as-is if not in conflict; adding lining to the existing pipe; adding valves, isolation joints and cathodic protection to the crossing section ( Appendix E).

## Recommendations

The following is recommended for the next phase of analysis and preliminary engineering for the Project:

- Establish policy that utility relocations shall be kept to an absolute minimum and be limited to direct conflicts and access needs.
- Work with utility bureaus to establish criteria and scopes of work that fit the overall objectives for: (a) completion within budget; (b) shortest construction schedule; and (c) minimal impacts to businesses and traffic flow
- Confirm that private utilities will bear cost of private relocations under the City franchise agreements
- Given the complexity and uncertainty of the utilities relocation work, allow flexibility in construction schedule and work hours so that critical advance utilities relocations can be completed on-schedule and not delay follow-on improvements.

## Transit/Vehicular Construction Access

### Overview

Mall construction generally will impact:

- Buses and vehicular traffic from Union Station to Jackson Street, on 5<sup>th</sup> and 6<sup>th</sup> avenues
- Mall cross street vehicular traffic
- Emergency vehicle access

In addition, localized impacts will occur for:

- Buses and vehicular traffic from Steel Bridge onto Glisan street
- Light rail on Morrison and Yamhill at 5<sup>th</sup> and 6<sup>th</sup> avenue crossings, and at Steel Bridge tie-in
- Streetcar on Market and Mill streets, on 5<sup>th</sup> avenue and at PSU transit center

Speed of construction, public safety and worker safety are expedited if roadways can be closed to all but local and emergency traffic. On the other hand, major roadways must remain open and certain streets are not easily detoured. These considerations must be carefully balanced. To properly address them, a detailed traffic circulation study will need to be prepared. Specifically, further study is necessary to fully evaluate the following:

- Impact due to advance utilities relocations
- Cost
- Safety
- Civil and geometric constraints for bus reroutes
- Temporary signage, signaling and shelter requirements for bus reroutes
- Scope and duration of intersection work as part of Mall construction

- Steel bridge operations
- Freeway/high volume feeder route impacts, e.g., 6<sup>th</sup> Avenue off ramp from I-405
- Emergency access
- Local access including driveways
- Holiday and moratorium affects



# CONSTRUCTION MANAGEMENT

## Vehicular Access During Construction

The key issues related to vehicular access are:

- *Scope and duration of intersection reconstruction is a major consideration, and could range from 1 week to 6 weeks, depending upon the desired final treatment. Longest duration would be for demolition, new concrete subslab, cure, new pavers and cure.*
- *The proposed Mall construction on 5<sup>th</sup> and 6<sup>th</sup> avenues will require closure to through traffic within each 3 to 4 block work zone of all lanes on each street during roadway reconstruction.*
- *Major intersections that cannot be closed will be constructed in halves.*
- *Preliminary assessment of potential intersection closures (36 total) include: Jackson ("T" at 5<sup>th</sup>); College; Hall; Harrison; Montgomery ("T" at 5<sup>th</sup> and 6<sup>th</sup>); Mill; Madison; Main; Salmon; Yamhill; Morrison; Oak; Pine; Couch; Davis; Flanders; Hoyt ("T" at 5<sup>th</sup> and 6<sup>th</sup>) and Irving.*
- *Intersections to remain open and constructed in halves (22 total) include: Market; Clay; Columbia; Jefferson; Taylor; Alder; Washington; Stark; Burnside; Everett; Glisan.*
- *Vehicular traffic across the Steel Bridge will be impacted during tie-in of the new light rail tracks and interconnection of the new structure at the West end of the bridge.*
- *Parking on 5<sup>th</sup> and 6<sup>th</sup> Avenues south of Madison will be impacted during construction.*

## Transit Access During Construction

Another basic dilemma is how to route the existing high density bus transit operations that serve the Mall. Preliminary assessment by PDOT And TriMet has reduced the number of options that require further study to the following:

**Option 1 - 5<sup>th</sup>, then 6<sup>th</sup>, Contra-Flow:** For full length of Mall, remove buses off of 5<sup>th</sup> avenue to accommodate one year of construction on 5<sup>th</sup> Avenue, running the buses contra-flow on 6<sup>th</sup> Avenue. Then vice-versa for second year of construction.

**Option 2 - 4<sup>th</sup> and Broadway:** Remove buses from 5<sup>th</sup> and 6<sup>th</sup> Avenues, full length of Mall for two years of Mall construction. Run buses on 4<sup>th</sup> and Broadway.

**Option 3 - Hybrid Contra Flow:** In North and South Malls, remove buses off of 5<sup>th</sup> and 6<sup>th</sup> Avenues for two years of Mall construction. Run buses in North and South Malls on 4<sup>th</sup> and Broadway. In Central Mall, remove buses from 5<sup>th</sup> Avenue for one year of construction, running the buses contra-flow on 6<sup>th</sup> Avenue. Then, vice-versa during second year of construction.

**Option 4: Hybrid Non-Contra Flow:** In North and South Malls, remove buses off of 5<sup>th</sup> and 6<sup>th</sup> Avenues for two years of Mall construction. Run buses in North and South Malls on 4<sup>th</sup> and Broadway. In Central Mall, for one year of construction, run buses on 4<sup>th</sup> and 5<sup>th</sup>; for 2<sup>nd</sup> year, run buses on 6<sup>th</sup> and Broadway.

In order to limit public safety concerns, changes to established traffic flow patterns and to control cost, the contra flow options are least preferred. In addition, several alternatives have been dismissed:

- *Continue to run buses on 5<sup>th</sup> and 6<sup>th</sup> Avenues during construction, with local detours around construction work zones. Dismissed because it would be impractical to implement, customer unfriendly, and confusing for two years.*
- *Convert 4<sup>th</sup> Avenue into a contra-flow street, running northbound and south bound buses on it, full length of Mall. Dismissed because it is too costly, major parking impacts, major safety concerns.*
- *Run buses on 3<sup>rd</sup> and 4<sup>th</sup> avenues, full length of Mall. Dismissed because 3<sup>rd</sup> not continuous to termini, too far removed from Mall, major parking impacts.*
- *Run buses on Park blocks full length of Mall. Dismissed because of road way constraints, too far removed from Mall.*

The remaining options will continue to be considered in keeping with public comment, business needs, and operational, capacity and safety needs.

## Light Rail Impacts

The following summarized the impacts to existing MAX service running on Morrison and Yamhill Streets:

- *Existing light rail tracks must be removed on Yamhill and Morrison at the intersections of 5<sup>th</sup> and 6<sup>th</sup> avenues. Rail crossings will be installed. The optimum light rail service disruption would be two 3-day, weekend closures for the rail work. However, this depends upon the final sequencing of work plan, how buses are rerouted, and crew availability. Vehicular traffic would be closed through the intersections until they are fully reconstructed.*
- *With regard to the tie-in of rail to the existing light rail tracks on the west end of the Steel Bridge, the rail turnout and switches are more complex. This work may require one week to complete, forcing light rail operations to turn back on each side of the Steel Bridge during that period. In the event that Steel Bridge upgrades are required, it would be coordinated with the rail tie-in work to minimize overall impacts.*



## Streetcar Impacts

The existing Portland Streetcar system would be impacted as follows:

- *Existing streetcar tracks will be crossed by the new light rail alignment on Market and Mill streets. During installation of the rail crossings and completion of the intersection work, streetcar operations would likely require a "bus bridge" to span the impacted area. The intersections may require closure to vehicular traffic as well. The work at Market is particularly complex given the existing grades and track superelevation. Several weeks are anticipated to complete the above work so that streetcar service to PSU can be resumed.*
- *Additionally, light rail construction on 5<sup>th</sup> avenue will be parallel to street car operations between Market and Montgomery streets. It is currently assumed that the Mall construction on 5<sup>th</sup> avenue in these blocks will not significantly impact streetcar operations. This assumption will require verification during final design.*

## Conclusions

Circulation during construction for vehicular and transit traffic requires further detailed study beyond the scope of this report. Emergency and local access must be maintained at all times. Study should be completed as soon as possible because of its impacts to planning and design.

## Recommendations

Perform a detailed analysis of traffic circulation options during construction early in preliminary engineering. Analysis to recommend preferred options and to serve as basis for final design.

## Guidelines for the Construction Operations

### Construction Guidelines

Over the last 15 years, TriMet light rail and Portland Streetcar projects have successfully used Construction Guideline plans to communicate and manage the "rules of the road" for contractors. Elements of the Construction Guidelines include information on how construction will be staged and sequenced, maintenance of traffic and transit access, construction and environmental site controls and a community relations plan.

During the final design phase of the Portland Mall Revitalization Project, TriMet and the City of Portland Office of Transportation will develop a plan to keep light rail construction impacts on traffic and neighboring businesses and residents to a minimum. The Downtown community will have an opportunity to review and comment on this "Conduct of Construction" document before it is finalized and incorporated into contract documents.

A draft outline of the Construction Guidelines is attached in Appendix A.

### Construction Staging Plan

The construction staging plan will define the area and duration of construction on the Mall at any one time. From a project resource perspective, construction staging decisions help balance costs and the duration of impact in any particular segment. The plan will describe the proposed sequence of major phases, including: (1) utility relocation; (2) sidewalk and street reconstruction; (3) trackway construction; and (4) landscaping, final striping and installation of station furnishings. The plan will also describe how construction will progress within each phase while allowing full pedestrian access and limited vehicle access to properties.



# CONSTRUCTION MANAGEMENT

Additional sections of the construction staging plan will define the hours of construction work, locations for construction staging, and plans for contractor and employee parking.

The staging plan will be developed in accordance with the special needs of Downtown businesses, schools, public facilities and special events throughout year. Special consideration will need to be given to curtailing of construction operations during the Christmas Holiday period in certain areas of the Downtown.

## **Maintenance of Traffic and Transit Access**

A section on construction zone traffic control will reflect City ordinances and policies for directing the safe and most efficient movement of vehicular and pedestrian traffic through construction areas. Careful advance planning will minimize traffic delays. Special attention will be devoted to the design of Downtown intersection reconstruction and managing cross traffic through the different traffic configurations of each section of the Mall.

Special signs will provide street closure and detour information in advance of temporary or permanent closures. Traditional "black on orange" traffic control signs will be used for lane designations, speed control, etc.

A system of temporary lighting will be designed for areas where construction activities require removal and replacement of existing street lights. Temporary lighting will provide for the safety and security of pedestrians and motor vehicles passing through the work zone.

## **Construction and Environmental Site Controls**

The plan will address street and sidewalk cleaning and maintenance within the project limits. The contractor will be required to keep all streets and permanent and temporary walkways clean and free of debris on a daily basis.

In cooperation with the City's Urban Forestry Commission, a plan will be developed to protect existing street trees or those designated as historic during construction activities.

A noise/vibration control and monitoring program will keep noise and vibration within required limits, minimize disruption and protect areas designated as sensitive. Construction activities will be required to comply with the City of Portland noise ordinances, although special circumstances may require the project to seek a variance. Traffic detours will be developed with consideration to noise and vibration issues.

Construction activities creating dust, fumes and smoke will be required to comply with Federal, state and local air quality standards. An environmental management plan will:

- *Identify any materials that require covering during transport or watering to control dust on construction sites.*
- *Limit numbers of vehicles where needed to control increases in carbon monoxide.*
- *Provide for compliance with air quality standards.*

Control of runoff from exposed excavation surfaces and dewatering techniques will be developed to limit impacts to water quality in storm sewers in accordance with City regulations.

Underground storage tanks identified for removal or found during excavation of streets or utilities must be removed in accordance with regulations of the Oregon Department of Environmental Quality and the Portland Fire Bureau. In addition to plans for known hazardous materials, a process will be developed for handling and disposal of unanticipated hazardous materials.

## **Community Relations Program**

The Construction Guidelines will include a comprehensive community relations and public information program to assure that all Downtown stakeholders, in particular businesses and residents, are informed of the project as it affects them. The goal is to establish a climate of mutual respect and a balance between the needs of those impacted by the construction and those managing it. Key aspects of the community relations program include:

**Business and Community Input.** Before developing of the Construction Guidelines, project staff will meet with Downtown businesses, property owners and residents along the alignment to discuss construction issues, timelines, community and business concerns and access needs. They will be invited to review and provide input on the Construction Guidelines before it is translated into contract specifications.

**Communications and Business Support Tools.** During construction, a wide range of communication tools will be used to keep Downtown communities informed, including newsletters, email, direct mail, media outreach, presentations and fact sheets. Materials will be translated into other languages as needed. Special emphasis will be given to environmental justice issues as they apply to Downtown residents and patrons of social service providers. A business support program will include measures such as maintaining access and providing signs to guide customers to businesses' front doors. TriMet will also assist businesses in improving their visibility with technical, marketing and graphic support. In addition, the project will look for creative solutions tailored to the needs of individual businesses, such as coupons, special events and promotions.



**One-on-One Outreach.** TriMet Community Affairs staff, working as part of the project construction team in the field, will each be assigned to specific sections of the Mall project. Staff will develop one-on-one relationships with property and business owners during the design and construction phases so staff can provide up-to-date information and resolve concerns as they develop. A 24-hour hotline number will be established for Downtown businesses and residents to contact community affairs personnel regarding construction complaints. This individualized attention to each project "client" along the alignment has proved the most effective outreach element on previous rail projects.

## Construction Contracting Options

Very early in the development of the project, the City and TriMet will need to decide on what basis the project will be contracted out to the construction industry. Contracting methods used on recent transit projects include low bid, design/build and Construction Manager/General Contractor, known as "CM/GC". The most appropriate contracting methodology will create the best opportunity to meet the project's overriding objectives and, in turn, utilize the most effective construction techniques given the unique circumstances of construction a large public works project in Downtown Portland.

Overriding objectives for Mall construction that impact the decision regarding contracting methodology include:

- *Meet critical schedule milestones*
- *Minimize construction disruption to public and third party claims*
- *Meet budget*
- *Control project costs through value engineering and constructability reviews during design*
- *Assure public safety and safe traffic management throughout construction*
- *Assure adequate quality control and meet community/City/TriMet expectations*

- *Assure maximum responsiveness to community needs*
- *Provide best opportunity for local and Minority Business/Disadvantaged Business Enterprises (MBE/DBE) contractors/workforce diversity*
- *Procure services from experienced, expert contractors that match needs of project*
- *Avoid construction claims and litigation*
- *Create owner/contractor/designer "team approach" to resolve issues/complexities*

As the above objectives indicate, successful Mall construction depends upon considerations other than the initial low bid price for construction. Recent experience by TriMet indicates considerable success with alternative contracting methods on project involving complex urban construction. Therefore, alternatives to low bid should be considered.

### Alternative Contracting Methodologies

In order to select the best match for particular work, the advantages and disadvantages of each alternative contracting method must be understood, and analyzed against project objectives. Although low bid award is generally required, Oregon and federal law allow exemptions to low bid award when agency findings support such an exemption. The following describes the key alternative methods for contracting of the Project.

#### Low Bid

Low bid has certain disadvantages that conflict with overriding objectives for the Mall project. These include:

- *Lowest contract award price is not a reliable indicator of the final cost to the owner for construction because of risk of claims and bids not reflective of intended scope.*

- *Prior to award, there is no opportunity for the Owner to work with the construction contractor regarding technical requirements, scope and quantity reconciliation, value engineering opportunities, construction techniques, work plans, etc.*
- *Items such as quality control, safety and MBE/DBE/workforce participation may not be accounted for in the bid as desired by the owner.*

### Design-Build

Given the nature of the Mall project and the fact that extensive jurisdictional process and community participation will be required during design, the owner should retain control over the final design. A delicate balancing by the City and community of many factors will be necessary in order to fashion a project that accomplishes Mall revitalization. Consequently, design-build is not a preferred option.

### Construction Manager/General Contractor (CM/GC)

A final alternative is CM/GC. In the CM/GC procurement, final design is controlled by the Owner. Under separate contract, a construction contractor is selected and involved during design. It is appropriate where:

- *Construction contractor input early in design is considered a key to successful project performance and lowest cost.*
- *Owner desires to retain control of design because of in-house expertise and/or unsettled matters such as property access, permitting, environmental issues, community process, development opportunities, aesthetic requirements and/or technical compatibility issues.*
- *Community expectations are high that impacts will be mitigated during construction.*
- *Owner needs budget and schedule certainty at time of contract award.*

All of the above considerations are important to the success of the Mall construction.



# CONSTRUCTION MANAGEMENT

A major advantage of CM/GC is that an “owner-designer-construction contractor” team may be formed early in design to maximize value engineering opportunities, to develop work plans and scheduling/ sequencing of the work, and to incorporate cost effective construction techniques. Through such a collaborative process, lessons learned from Street Car and Interstate MAX will be considered and successful techniques will be incorporated into the project.

## Conclusions

Both Street Car and Interstate MAX have successfully utilized the CM/GC contracting methodology. The collaborative team approach has resulted in the development of numerous construction techniques that have expedited construction, reduced cost, and minimized impacts during construction. With respect to specific construction techniques, the most efficient techniques will be utilized. Techniques to be utilized in the intersections depend upon the selected final design treatment.

## Recommendations

TriMet and the City will consider these alternatives early in the development of the Project and will likely decide among the alternatives prior to initiating preliminary engineering of the Project. Recommendations for the process going forward include:

- *Select a final design team through traditional quality based selection*
- *Use a single CM/GC contract for construction*
- *Involve the construction contractor early in the design process*
- *Consider all successful construction techniques from Street Car and Interstate MAX*
- *Determine as soon as possible the preferred final design treatment for intersections*
- *Form a collaborative team that encourages value engineering opportunities and further innovation in design and construction*
- *Utilize the contractor in the development of the conduct of construction work plan and schedule*

## Construction Techniques

### Objectives

Examples of successful construction techniques that are applicable to Mall construction and that will reduce cost and impacts include:

- *Overlay of existing streets vs. full roadway reconstruction*
- *Minimize scope of demolition through reuse of existing concrete substrate*
- *Keep track slab thickness and width to minimums, thereby avoiding utility conflicts and greater demolition*
- *Design to existing curb flow lines where feasible*
- *Utilize prefabricated boot and slab/rail construction techniques that control stray current*
- *Minimize cross street reconstruction*
- *Rather than piecemeal construction, close intersections where possible so that the duration of local construction impacts is shortened*
- *Focus work in 3-4 block work zones, restore traffic, then move to next work zone*
- *Utilize the clock to “get in, get out” with construction through flexibility and double shifting*
- *Provide regular community meeting forums and updates on construction plans and progress*



Intersection Construction

Construction techniques applied to the intersections depend upon the selected final design treatment. Additionally, different techniques may be applied in the North, Central and South Mall segments. Existing roadway intersections in the North and South Malls are asphalt paving. Existing roadway intersections in the Central Mall are a mix of materials including brick pavers, precast concrete, asphalt, and poured in place concrete.

Where intersections are not closed to cross traffic, construction will take longer because work activities below become more complicated:

- Traffic control including flagging, signage and traffic signaling
- Work sequence including limits of work each day
- Equipment and material staging
- Pedestrian and vehicular public safety
- Worker safety immediately adjacent to vehicular traffic

The primary options are described in Figure 18.

Construction Schedule

Overall, the schedule “critical path” runs through utilities relocations followed by civil roadway/intersection construction and installation of light rail systems (Figure 24). The duration of the overall schedule varies depending upon the following major factors:

- Whether sidewalk or island platforms are the proposed solution
- Termini locations
- Scope of utility relocations
- Intersection treatments
- Final track slab design and constructability

- Scope of roadway and sidewalk reconstruction
- Scope of under-sidewalk vault reconstruction
- Scope of restoration elements
- allowable work hours and work shifts
- moratorium on construction and other schedule/sequencing constraints
- Number of permissible concurrent construction work zones
- Number of intersections that can be closed vs. piecemeal construction
- Unforeseen conditions

The base case (Steel Bridge to Jackson turnaround) involves construction in 58 intersections. The base case with sidewalk platforms, in general, avoids significant construction behind existing curb lines and on cross-streets and requires the least time to construct. In contrast, the island platform option requires significantly greater reconstruction behind existing curb lines in 6 block faces at each island platform location (6 total), and greater cross street construction in order to match revised grades.

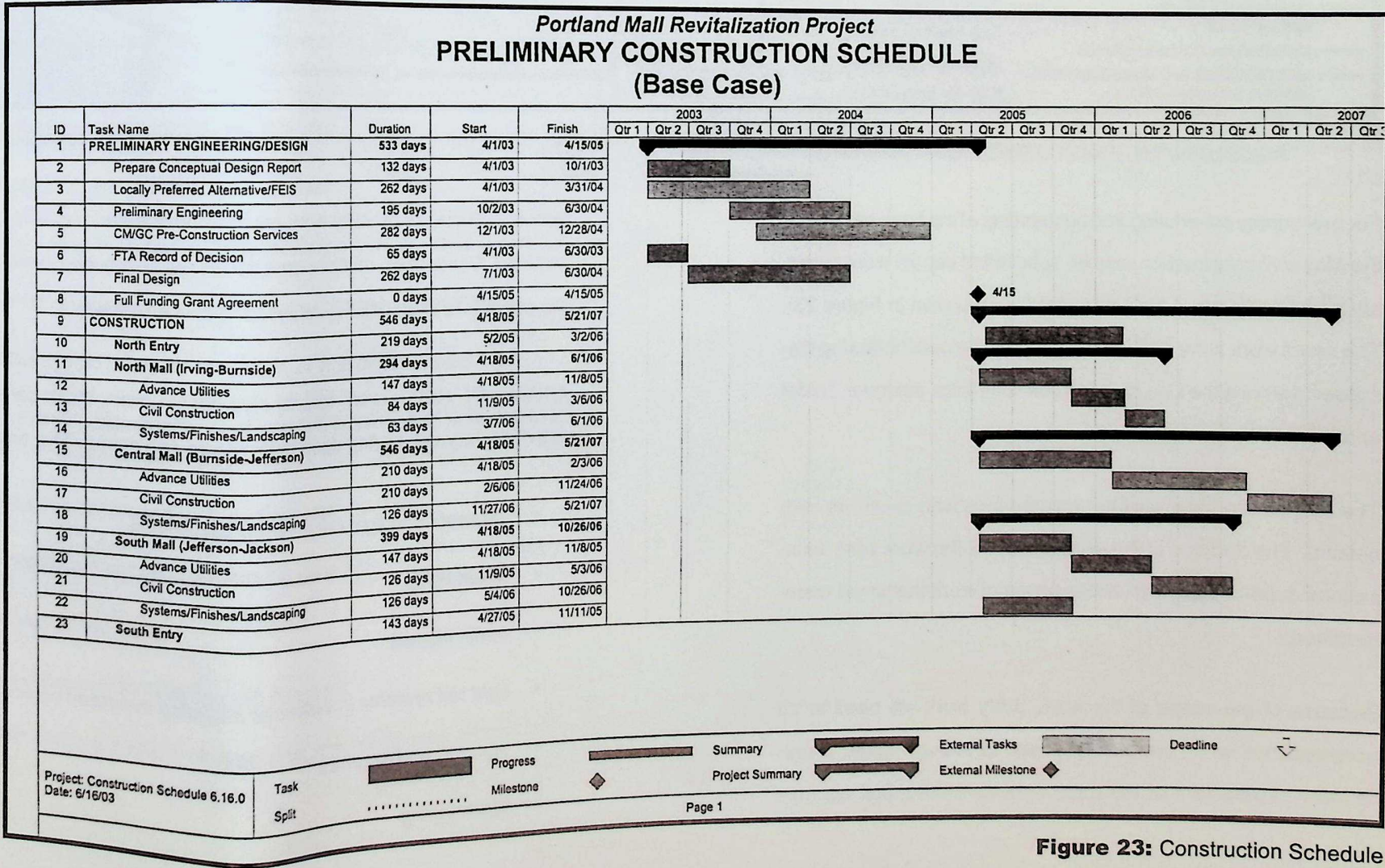


Figure 23: Construction Schedule



# CONSTRUCTION MANAGEMENT

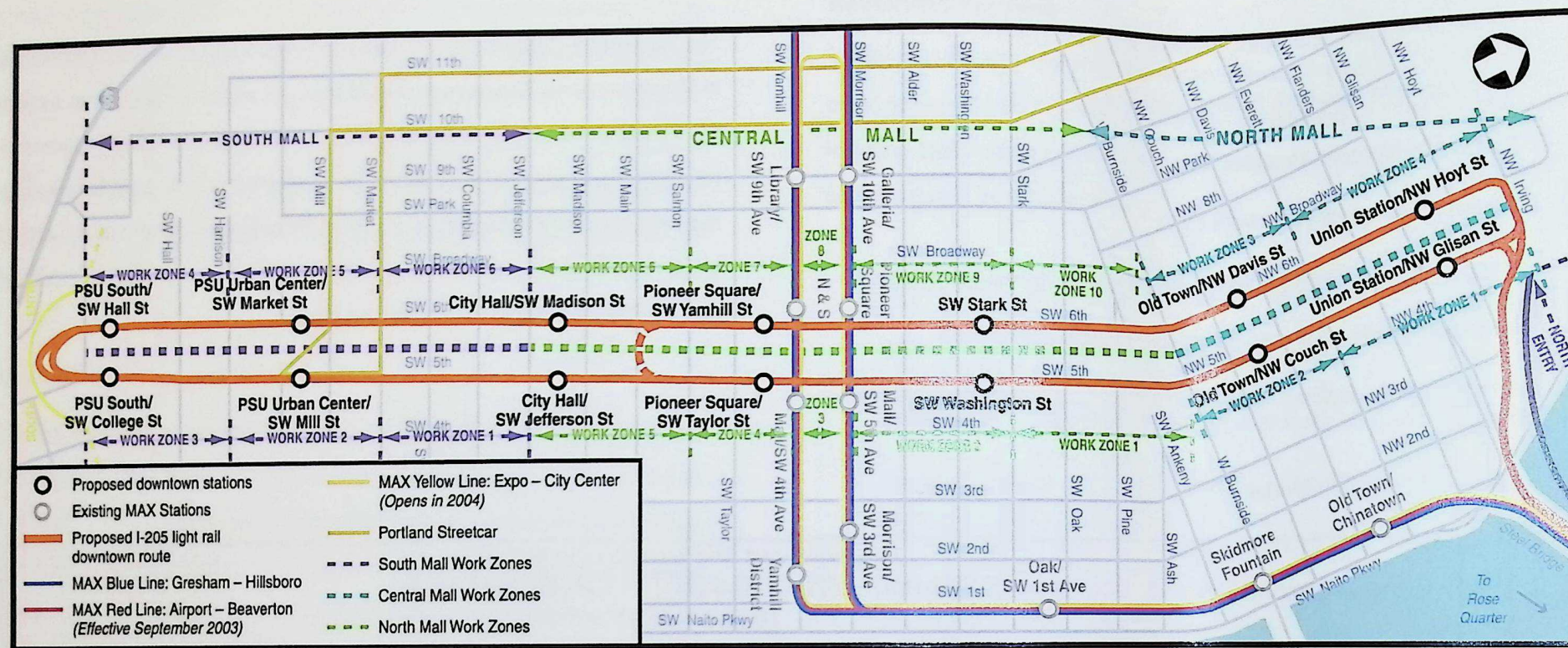


Figure 24: Proposed Work Zones

For preliminary scheduling and sequencing of the base case work, the Mall civil construction may be subdivided into 25 work zones, each generally 3 to 4 blocks in length (as shown in Figure 23). The exact work zone delineation will be developed following discussions among the City, construction contractor, designer, TriMet and business community.

The civil construction will be preceded by advance utilities relocations. The duration of the relocations and the work zone delineations depend upon the utilities scope of work that is yet undetermined.

Because of the scope of the work, utility work will need to be accomplished when the Mall is closed to through traffic. A preliminary assessment of the base case concludes that approxi-

mately 100 weeks of utility work for both private and public relocations are required. Concurrent, multiple work zones will be required in order to shorten the overall duration of utility relocations and adjustments.

Additionally, certain work follows civil construction. Work zones for these activities vary depending upon their nature and scope. This work includes:

- sidewalk and light rail platform furnishings
- street lights
- traffic signals
- light rail systems installations including overhead catenary wire
- signage and graphics
- landscaping

## Alternatives Impacting Construction

Listed below are schedule impacts that are additive to the base case for each alternative. These durations are generalized and will vary depending upon final scope of work and actual conditions within each area.

## Intersection Treatments:

- Base case: Asphalt in North and South Malls; existing treatment retained and restored in Central Mall; 8' wide trackslab cut through similar to Streetcar
- PCC, full depth: 1 to 2 weeks additional
- Pavers on sand or asphalt, new concrete base: 1 to 2 weeks additional
- Brick pavers set in mortar, new concrete base: 4 to 6 weeks additional

## Island Platforms to Accommodate Through Traffic:

- Base case: sidewalk platforms that avoid full blockface reconstruction
- Island platforms, requiring reconstruction behind existing curb lines in 6 block faces for each island platform: 4 to 6 weeks per each island platform work zone
- Under-sidewalk property vaults: 4 weeks per vault



# CONSTRUCTION MANAGEMENT

## Water line Crossings of Trackway in Intersections:

- *Base case: assumes a solution leaving crossing in place*
- *To lower and encase each crossing: 1 to 3 weeks, depending upon conditions*

## Sidewalks:

- *Base case: leave/repair existing sidewalk treatment, retain existing curb/flow lines*
- *Reconstruct with brick pavers (no vaults, existing curb line): 4 weeks per work zone*
- *Reconstruct with brick pavers (no vaults, new curb line): 6 weeks per work zone*

## Construction Parameters/Constraints:

- *Base case: assumes 50% intersection closures; 3 to 4 concurrent utility relocation work areas; 2 concurrent work zones with double shifts for civil roadway and rail construction; minimal sidewalk reconstruction behind curb line*
- *Complete closure of intersections allows for the most efficient and quickest construction and should be done wherever allowed by the City. Where intersections must be constructed in halves, under traffic: Double duration for the selected intersection construction.*
- *Multiple work zones/shifts: reduce time proportionally*

## Conclusion

Given recent experiences on Streetcar and Interstate MAX, an overall period of 2 years is adequate for base case with sidewalk platform Mall construction, provided flexibility is allowed in the planning and execution of the construction. Civil construction would be preceded at least 6 months in advance by utility relocations. In addition to the implementation of the recommendations below, further assumptions include:

- *Long lead items such as poles and equipment are procured during design*
- *All utility locations are accommodated in advance of major civil construction*
- *No requirement to lower and encase water line crossings in intersections*
- *Only water lines under tracks are relocated*
- *No relocation of sewer lines and manholes*
- *Concurrent work in at least 4 utility relocation work zones is permitted*
- *Concurrent work in 2 civil construction work zones is permitted*
- *Track slab design is kept to minimum 24 inch depth impact zone*
- *Selected intersection treatment allows for completion of work in 1 to 2 weeks*
- *Sidewalks are not reconstructed in general*
- *Cross-streets are not reconstructed in general*
- *Roadways are overlaid*
- *Final civil design is to existing curb flow lines*
- *Vehicular and bus traffic is cleared from immediate work zones*

The base case two year construction duration is likely extended by 6 months if island platforms are required because of the linear nature and added scope of reconstruction and assuming no major under sidewalk vault reconstruction.

## Recommendations

The following are recommendations for the next phase of development of the Project:

- *Develop final schedule as a team, inclusive of the construction contractor, City, business community, TriMet and designer*
- *Ensure that final design facilitates quick, efficient construction*
- *Allow flexibility in construction planning/execution including double shifts and extended work hours*
- *Close intersections where possible to expedite construction*



# PROJECT COST AND FINANCING

## Project Costs

A conceptual design cost estimate for the Portland Mall Revitalization Project has been prepared by TriMet based on recent experience with construction of the Interstate MAX and Portland Streetcar projects. This estimate will be further refined during the preliminary engineering phase on the basis of a detailed civil survey of the Downtown alignment and resolution of series of outstanding design and engineering issues as outlined in this report.

The total estimated cost of the Downtown segment of the Portland Mall from Union Station to PSU is currently estimated at approximately \$150 million. A summary of the conceptual cost estimate is outlined in Figure 25, and the Key Assumptions and Cost Factors are shown in Figure 26. A detailed breakdown of the conceptual cost estimate and the key assumptions behind the estimate are outlined in Appendix G.



CONCEPTUAL DESIGN COST ESTIMATE SUMMARY		
Revised June 2003		
ITEM DESCRIPTION	COST	TOTAL
Bus Shelters and Light Rail Platforms	\$22,750,000	
Sidewalk Elements	9,976,000	
Roadway Elements	19,592,000	
Light Rail Elements	34,010,000	
North Entry - Steel Bridge to Irving Street	11,732,000	
South Entry - Jackson Street Turnaround	1,523,000	
Utilities	14,682,000	
Real Property Acquisitions	5,891,000	
Impacts	5,110,000	
TOTAL IN 2002 DOLLARS		<b>\$125,266,000</b>
TOTAL IN MID-YEAR 2006 DOLLARS		<b>\$149,443,000</b>

*The costs for the Project are driven by a series of significant assumptions regarding the configuration of the project. Some of these issues, key exclusions and alternates are summarized in Figure 26.*

Figure 25: Conceptual Design Budget Summary

The Portland Mall Revitalization project is proposed as part of the South Corridor Project which includes expansion of light rail along the I-205 Corridor and future expansion to Downtown Milwaukie. I-205 and the Portland Mall project would be built at the same time at a total cost of approximately \$350M. The following analysis examines the methods proposed for raising the local share of to fund the Downtown Portland portion of the project.

For purposes of determining potential sources of local funding a match ratio of 60% Federal/40% Local has been assumed. Therefore, the local funding requirement for the full Downtown segment is approximately \$60 million. Local match requirements for a shortened Transit Mall alignment (e.g., one that ends at S.W. Main Street) would be lower. At this time, the focus of the financing analysis has been on identifying local funding for the entire segment, as this is the preferred outcome.

Beyond the initial construction funding for the Project, there is also a desire to identify potential resources to fund on-going management, operation, maintenance and security of the Mall (see Development and Mall Management Strategies section of this Report). To a degree, both the present physical and social condition of the Mall is reflective of the unavailability of such resources in the current environment. Therefore this analysis looks beyond the local funding required for construction and provides start-up funds for the establishment of a management and oversight function for the Mall.



# PROJECT COST AND FINANCING

## CONCEPTUAL DESIGN COST ESTIMATE KEY ASSUMPTIONS AND COST FACTORS Revised June 2003

### KEY COST FACTORS INCLUDED IN THE ESTIMATE

### COST FACTOR\*

1. Replace all bus shelters in the Central Mall	\$8,661,000
2. Sidewalk brick replacement	716,000
3. ADA modifications - Limited to LRT station blocks only	335,500
4. Repairs to existing basement extensions are limited to LRT station blocks only	524,000
5. Tree Trimming and removal	1,253,000
6. North Mall intersections (16 intersections) - Extensive reconstruction assumed to be avoided based on built-in "rail readiness"	143,000
7. Intersection work (22 intersections) in the Central Mall - Limited to repair of existing pavers and replacement of existing brick circles with concrete	2,362,000
8. Intersection work in the South Mall (20 intersections) limited to retaining of existing asphalt and minimal adjustments to cross streets	180,000
9. Utility relocations and upgrades, including minimal stray current protection, relocation of water mains under the trackway, adjustments to crossing mains and storm water quality	17,500,000
10. Temporary traffic control. Assume half intersections closures and 3-4 block work zones	2,386,000
11. Schedule mitigation/overtime. Assumes two shifts	2,147,000
12. Cost to relocate buses off the Mall during reconstruction	600,000
13. Traffic signal replacements	16,943,000

### KEY EXCLUSIONS/ALTERNATES

### COST FACTOR\*

1. Substitute Island Platforms for Side Platforms in the Central Mall	\$8,975,000
2. Central Mall Option A - Re-build intersections with full-depth concrete and concrete circles	2,612,500
3. Central Mall Option B - Re-build intersections with asphalt set pavers on new concrete subbase with concrete circles	5,015,000
4. Central Mall Option C - Re-build intersections with mortar-set brick pavers on new concrete subbase with concrete circles	5,810,000
5. South Mall Option B - New brick sidewalks and street trees; existing curbline (excludes intersections)	7,459,700
6. South Mall Option C - New brick sidewalks and street trees; new curb lines and cross-street re-work (excludes intersections)	8,237,600
7. South Mall Option D - New brick sidewalks and trees; existing curbline; new intersection work and combination ornamental lights/ catenary support poles	12,579,000
8. South Mall Option E - New brick sidewalks and trees; new curb lines; new intersection work and combination ornamental light/catenary support poles	17,185,000

\*Expressed in 2006 Dollars

Figure 26: Cost Estimate Key Assumptions

Figure 28 provides a description of possible sources of local funding together with ranges in amounts that meet initial tests of reasonableness in the view of the inter-agency Finance Team. In addition to the sources outlined in Figure 28, there is an opportunity to update on-street parking management practices in the Downtown that will result in increased net revenues

after enforcement costs. These revenues could be made available by the City for both capital and operating side requirements. Figure 29 provides an estimate of the revenues that could be made available from a series of changes to the parking meter system in the Downtown.



# PROJECT COST AND FINANCING

PROPOSED FUNDING FOR SOUTH CORRIDOR PROJECT AS OF JUNE 2003	
SOURCE	AMOUNT
Federal Transit Administration	\$270M
Metro	\$39M
TriMet	\$20M
City of Portland/Other Local Funds	\$60M
Clackamas County	\$35M
ODOT	\$20M
Other	\$6M
<b>TOTAL</b>	<b>\$450M</b>

Figure 27: Proposed Funding Sources

POTENTIAL LOCAL FUNDING OPTIONS FOR DOWNTOWN ALIGNMENT PORTION OF SOUTH CORRIDOR PROJECT AS OF JUNE 2003		
SOURCE	EXPLANATION	\$\$ RANGE
Urban Renewal Funds (Tax Increment Financing)	The downtown alignment is within or adjacent several existing urban renewal districts including the River District, Downtown Waterfront and South Park Blocks. Through reprogramming of existing projects, it appears that funds could be made available for the Project.	\$20 to \$30M++
System Development Charges	The Office of Transportation currently has programmed System Development Charge revenues for the South/North Light Rail Project. These funds are exclusive of a previous \$500,000 Expenditure associated with the Portland State University Urban Plaza Mall/Light Rail Improvements.	\$3.65M
City Utility Relocation Costs	Current project estimates include in the range of \$15 million associated with the relocation, reconstruction/ and upgrading of municipally owned sewer and water facilities. It is estimated that this work will result in increased value in terms of the extension of useful life of this facilities in the range of the local funding requirement of 40%, or \$4.6 million. This is the minimum reasonable participation by these utilities in the cost of the Project.	\$4.6 - \$15M
Portland State University	PSU is one of the few urban college campuses in the United States that relies on regionally dispersed student housing. As the University continues to acquire additional property and expand its educational and research facilities, providing transportation choices to both students and faculty plays an ever more important role in lessening requirements for structured parking.	\$5 - \$10M*
State Match of PSU Funding	For major PSU investments, the State has in many past cases matched dollars raised on the local campus one to one with State dollars.	\$5 - \$10M*
Property Owner Participation	Most recent major infrastructure investments have included some level of participation from the benefiting property owners. This was the case with recent transportation improvements in the Lloyd District, construction of the current downtown MAX lines and Portland Streetcar. In considering the amount of direct property owner participation in the project it is important to be cognizant of the cost and value of other improvements property owners can and should be encouraged to make with respect to building frontages. Sensitivity to the existing business climate is also warranted. However, the formation of a Local Improvement District is at least two years away and assessments to property owners are not levied until completion of the Project. Payment programs for assessments, at tax-exempt interest rates, are available for periods up to 20 years.	\$4 - \$10M
TriMet and Metro Contributions	TriMet and Metro have a long-term interest in completion of the full Downtown alignment and have already allocated \$20M and \$39M respectively to the South Corridor Project. Contingent on development of a final strategy (including property owner and PSU participation) for completion of the full alignment, these agencies could increase regional participation. These funds may be in the form of local working capital or formula federal funds dedicated to the region.	\$5 - \$10M*
<b>TOTAL</b>		<b>\$52.25 - \$90.65M</b>

\*These resources would likely be limited to the extension of the Portland Mall to serve PSU.  
 ++Includes possible funding for City of Portland match for I-205 portion of the South Corridor Project

In addition to the sources outline in Table D there is an opportunity to update on-street parking management practices in the Downtown that will result in increased net revenues after enforcement costs. These revenues could be made available by the City for both capital and operating side requirements. Table E provides an estimate of the revenues that could be made available from a series of changes to the parking meter system in the Downtown.

Figure 28: Local Funding Options



# PROJECT COST AND FINANCING

POTENTIAL USE OF NEW PARKING METER REVENUES TO FUND THE PORTLAND MALL REVITALIZATION PROJECT		
SOURCE	EXPLANATION	\$\$ RANGE
<b>Metering on Sundays &amp; holidays</b>	Several decades ago few retail stores were open in the Downtown on Sundays and holidays. Today, with the exception of a few major holidays, these businesses operate on a daily basis. Because the meter system is only in operation six days a week and honors nine holidays, retail and office uses do not fully benefit from the parking turnover metering is designed to create. Through a combination of Sunday/holiday metering and extended hours, additional revenue to support the Project can be generated while enhancing the retail environment in the Downtown.	\$690,000/year
<b>Extended Meter Hours</b>	Meter operation currently ceases at 6:00 PM while many retail establishments are open until at least 8:00 PM. Extending meter hours until 8:00 PM would create additional turnover while not disadvantaging the entertainment sector. It should be noted that this is already done in the Lloyd District.	\$850,000/year
<b>Overtime Citation Increase</b>	The fine for overtime parking citations is currently \$16 and has not been increased since FY1997-98. The gradual increase in the number of citations issued indicates that it is now appropriate to consider increasing the fine amount.	\$285,000/year
<b>Long-Term Meter Rate Increase</b>	The long-term meter rate is currently 60 cents/hour and has not been increased since FY1997-98. Consideration should be given to increasing the rate to \$1.00/hour	\$205,000/year
<b>Short-Term Meter Rate Increase</b>	The short-term meter rate is \$1.00/hour and has not been increased since 1997-98. Consideration should be given to increasing the rate to \$1.10/hour.	\$950,000/year
<b>Metered Truck Loading Zones</b>	Truck loading zones have become increasingly busy, and to some degree, abused over the past several years. This has resulted in an increasing number of trucks "double parking" and causing congestion and driver frustration in the downtown. Metering the loading zones would increase the turnover rate and create better utilization.	\$1,240,000/year
<b>MAXIMUM ADDITIONAL ANNUAL REVENUE</b>		<b>\$4,220,000</b>
<b>ADDITIONAL ANNUAL REVENUE</b>		<b>\$1.8 - 2.0M/year</b>

Figure 29: Potential New Parking Meter Revenues

Through some combination of the above measures, it seems reasonable that between \$1.8 and \$2 million per year in additional revenue can be generated. In order to partially address the need for management, oversight and security of the Transit Mall, it is recommended that at least \$500,000 per year be set aside for this purpose from the increased revenue stream. Additional funding for these operations should be negotiated within the confines of existing agency budgets and existing outlays for these types of services. This is an important step toward the total revitalization of the retail and office corridor adjacent and surrounding the Mall.

The residual revenue, ranging from \$1.3 to \$1.5 million per year, should be bonded for a period of ten years to create additional local funding capacity for the project. Bond proceeds under this scenario are conservatively estimated at 6% per annum to be in the range of \$9.57 to \$11.04 million.

Combined with the potential sources outlined in Figure 28, this brings the range of total available local funding to between \$61.82 and \$101.69 million. The upper end of this range provides some flexibility in determining the ultimate source of local funding for the project while the lower end falls slightly short of meeting the full local funding requirement. As additional programmatic investment strategies are developed these estimates can be further refined and a final strategy developed.

During the first 10 years existing maintenance budgets would continue to be used, but as with any new infrastructure, heavy maintenance requirements would be expected after the first 7-10 years of operation. Unspent maintenance funds in the early years should be reserved to bolster out year requirements. At the end of the ten-year debt term, the debt service funds would be dedicated exclusively to maintenance of the facility to insure long-term, high quality maintenance of the Mall. Usual and customary increases in future hourly parking rates should be made to accommodate inflationary pressure on maintenance activities.



# DEVELOPMENT AND MALL MANAGEMENT STRATEGIES

## Introduction

Completed in 1978, the Portland Mall was one of several key catalysts to the nationally-recognized revival of Portland's Downtown. The Mall dedicated 11 blocks of S.W. Fifth and Sixth Avenues from Burnside to Madison Street primarily to transit and pedestrian traffic. With auto access significantly reduced, sidewalks were widened and paved with brick and granite curbs. Public art, fountains, bus shelters and other street furniture was added to create a pedestrian-friendly environment. TriMet re-routed most Downtown bus lines to the Mall and added transit information systems. The result was an attractive and highly-functional transit hub. In 1994, the Mall was extended from Burnside north to Union Station.

## Background

Over the last decade, the physical condition of the Mall and the way adjacent buildings related to the Mall as resulted in concern about the physical and economic health of the Mall. Several recent studies have brought these concerns into focus. These reports are outlined in greater detail in the Planning and Urban Design section.

In July 2000, the Association for Portland Progress (APP) completed a key report on the status of the Mall. The report was undertaken with the assistance of the Project for Public Spaces, one of the leading firms in the country that deals with the design and success of public spaces. The APP report concludes in part:

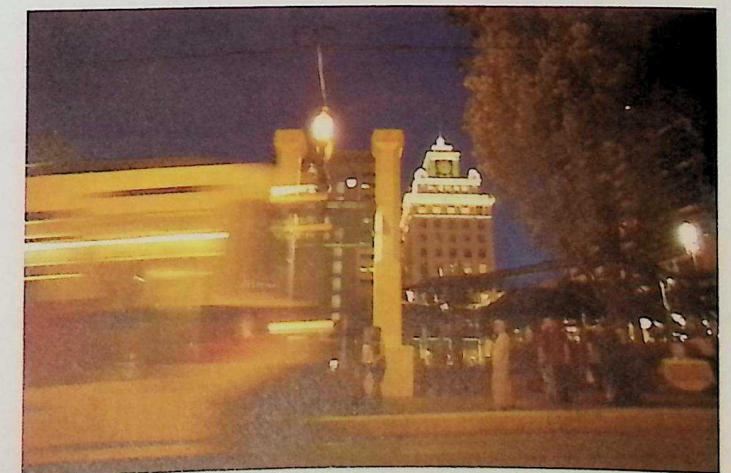
"By its magnitude, design, function and location, the Transit Mall plays a defining role in the downtown core. Yet, today, the Mall is facing a number of economic challenges: higher than average office vacancy rates, higher than average retail vacancy rates, lower than average street-level retail rents, and few opportunities for evening shopping and dining. A number of social problems also gravitate to the mall: panhandling, drug trafficking, transient camping and graffiti."

The APP report also served to increase awareness of the broader business community of the problems on the Mall. The report process brought together over 40 private and public stakeholders to review conditions and make recommendations. Key conclusions of the stakeholder group included:

- *The Mall works as a mass transit hub and is one of the best-designed urban spaces in the country*
- *The Mall is physically "tired" and in need of repair*
- *The Mall suffers from pockets of high crime and negative street activity*
- *There are collections of vacant retail and office space*
- *Specific physical problems with the Mall include: deteriorated brick intersections; overgrown street canopy, overwhelming bus noise, inadequate shelter designs, imperfect shelter locations and street furniture installed at random*

The APP report goes on to make a series of recommendations that are discussed in Chapter \_\_\_ of this report. Since completion of the APP report in 2000, APP merged with the Portland Area Chamber of Commerce to form the new Portland Business Alliance (PBA). Few of the specific actions contained within the APP report have not been undertaken by PBA, TriMet or the City in the interim. At the same time, none of the identified problems have gone away.

A critical conclusion that can be reached from the previous study of physical and economic conditions along the Mall is that more than just a physical solution to the problems is needed. That is, refurbishing the Mall, in and of itself is unlikely to be enough to improve business conditions on the Mall. As such, this report presents several preliminary concepts concerning a broader development and management strategy for the Mall that would be undertaken in concert with the proposed physical changes and improvements to the Mall.





# DEVELOPMENT AND MALL MANAGEMENT STRATEGIES

## Proposed Development Strategy

### Description of the Problem

A significant short-coming in the downtown development process has been a consistent disconnect between planning and design of the Portland Mall and development planning. Rather than making a direct connection between the two, public policy decisions have often taken distinct tracks. This has resulted in a delay of many years between the time a decision is made to make a major investment in the Mall and the preparation and implementation of specific, complementary development strategies.

To be successful, the Portland Mall Revitalization Project needs to result in a significant change in development patterns along the Mall. These changes fall into three main categories:

- *Undeveloped properties, i.e., existing surface parking lots need to be converted to higher and better uses such as office buildings, retail or housing.*
- *Underdeveloped building, i.e., those that are currently vacant or that are not developed to their highest economic potential, need to be improved or redeveloped.*
- *Ground floor uses along the Mall need to be modified in a manner that will create a stronger relationship between the building and the portion of the Mall that it open out on to. This will involve changes to both the adjacent public and private spaces.*

### Proposed Actions/Implementation:

The City Council should request that the Portland Development Commission (PDC) undertake preparation of a specific "Portland Mall Development Plan". The strategy would be intended to: (a) establish a plan for inducing the development of key parcels along the Mall that are current undeveloped or underdeveloped; and (b) create a program of incentives to encourage modifications to ground floor uses and storefronts along the Mall.

The objectives of the Mall Development Strategy should be:

1. Create shared commitment to the Mall among private and public owners;
2. Create in-fill development opportunities that leverage new public and private investments in the Mall; and
3. Bring about changes in how ground floor uses within buildings and use of public space along the Mall work together to create a better business environment

An outline of the steps necessary to prepare a Portland Mall Development Plan" includes:

1. Identify opportunity sites. Potential sites include:
  - "TN Building" (Sixth Avenue and Oak Street)
  - Fifth Avenue/Stark-Pine
  - U.S. Bank Parking Garage (Fifth Avenue/Ankeny-Pine)
  - Old Water Bureau Building
  - St. Mary's Block

2. Identify Opportunities for enhanced ground floor uses. Encourage changes to the ground floor use of existing buildings and design public space improvements to complement such changes. Opportunity sites include:

- *Meier & Frank*
- *U.S. Bank Plaza (Fifth Avenue and Oak Street)*
- *Key Bank Plaza (Fifth Avenue and Washington Street)*

3. Identify incentives needed to encourage complementary development
4. Develop incentive programs, e.g., low interest loans, SDC waivers
5. Develop finance plan
6. Seek property owner commitments
7. Prepare Development Plan for City Council approval





# DEVELOPMENT AND MALL MANAGEMENT STRATEGIES

In addition to, and contemporaneously with, preparation of the Portland Mall Development Plan, the Portland Mall Revitalization Project should undertake urban design studies and site-specific design work in the following areas:

1. Public Space Design. Undertake redesign and reconstruction of public spaces along the Mall to be complementary to new/improved use of ground floor space within adjacent buildings. Include consideration of:

- Semi-permanent vending locations with utility services and demountable structures
- Improved fountains and art
- Program space for small-scale entertainment, art displays or markets
- Improved street furniture design and location
- Addition of seasonal color through an improved signage program, flower pots and banners

2. Create "Activity Zones". As part of the Mall design process going forward, it is recommended that a series of "Mall Activity Zones" be identified and targeted for specific action. The goal would be to positively change the use of certain block faces through a combination of changes to adjacent buildings and use of the public right of way. Target locations include:

In sum, taken together, the Portland Mall Development Plan and design changes developed as part of the Portland Mall Revitalization Project, would create a framework for significant physical changes to the way the Mall and adjacent buildings relate to each other.

## Mall Management Strategy

### Statement of the Problem:

- Mall maintenance is currently split between the City, TriMet and the Portland Business Alliance Clean and Safe program. While Mall maintenance expenditures have varied over the years, these agencies currently typically spend between \$520,000 and \$884,000 per year for daily and capital maintenance on the mall. Although the current maintenance responsibilities do not necessarily overlap, they are opportunities to improve coordination and to develop a mall maintenance program that is more responsive and efficient.
- Coordination of redevelopment activities and transit projects has seldom been undertaken on a comprehensive and coordinated basis. To be successful, the Mall Revitalization Project will need to produce measurable changes in how existing and new buildings related to the Mall. There needs to be a concerted effort by the City and TriMet to produce changes in development patterns as part of the project.

### Proposed Approach to Mall Management

- The City, TriMet and the business community would work to create a single umbrella organization to oversee management and operation of the Mall. The organization could consist of a new non-profit corporation with a board of directors made up of representatives of property owners, tenants, users and agencies that operate on the mall. Pioneer Square, Inc. is a local example of a non-profit that could serve as a model for the Mall.
- The new entity would serve as a central management entity for all mall maintenance. This could be accomplished through contracts with the

City, TriMet and PBA to perform current maintenance duties. In addition, certain maintenance tasks could be contracted to private firms. The key change from the current situation is that a Mall Maintenance Plan would be reviewed and approved by the Board of Directors each year. This will put those with a clear stake in the Mall in charge of determining maintenance priorities and should result in a more responsive maintenance program.

### Objectives:

The following are the key objectives for the establishment of a formalized process of Mall Management:

- Create shared commitment to the Mall among private and public owners
- Consolidate and leverage existing and future public and private maintenance commitments
- Improve communications among stakeholders on matters related to the health and vitality of the Mall
- Coordinate maintenance, crime prevention and public space programming
- Improve responsiveness to on-going and capital maintenance issues
- Provide for common management of Mall activities, i.e., vending, seasonal decorations, advertising

### Proposed Actions/Implementation:

An outline of a proposal for a Mall management process is outlined in Appendix H.



**Appendix A:** Draft Construction Guidelines

**Appendix B:** Transit Mall Tree Examination  
(Pacific Resources Group)

**Appendix C:** Bus/LRT Operations Alternatives

**Appendix D:** Conceptual Traffic Flow Diagrams

**Appendix E:** Water System Input (Portland  
Bureau of Water Works)

**Appendix F:** Preliminary Assessment of Facility  
Impacts (Portland Bureau of Environmental Services)

**Appendix G:** Conceptual Design Cost Estimate

**Appendix H:** Development and Mall Management

**Appendix I:** Above Ground Project Elements



**The Complexities of  
Panhandling Policy  
&  
Implementation**

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*Operational Strategy  
For  
The City of Portland*

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***EXECUTIVE SUMMARY***

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Margot Peralta  
Jamie Werner

June 20, 2002



## EXECUTIVE SUMMARY

Residents and visitors to many urban centers confront panhandlers every day. A walk down a major street in cities large and small will likely result in at least one solicitation by a beggar seeking spare change. A handful of streets in almost every city come to resemble an obstacle course, with citizens dodging and weaving in order to avoid confrontations.

Although some courts have deemed panhandling to have some constitutional protection as "speech," communities have substantial leeway in devising regulations on how and where panhandling may occur. In recent years, dozens of communities have taken steps to address this problem including: Washington, D.C., Baltimore, Cincinnati, Seattle, San Francisco, Santa Barbara, Long Beach, Philadelphia, Sacramento, Raleigh, New Haven, and Santa Cruz.

Enforcing laws restricting panhandling is a difficult task and may prove problematic due to the possible infringements of the first amendment right, however it has been done. In 1974, an Arizona appellate court upheld an ordinance prohibiting loitering for the purpose of begging (State ex rel. Williams v. City Court of Tucson); for a more indepth evaluation of panhandling laws, refer to the Panhandling Policy Implementation: Operational Strategy for the City of Portland.

The state of Oregon and the city of Portland do have laws that can be enforced to discourage and possibly reduce panhandling on city streets, however they tend to be equal to minor offenses that District Attorneys are not likely to prosecute and if they did choose to prosecute these minor offenses, the penalty for such an offense is inclusive of minimal jail time and violation fines. The following list are Oregon laws that may be used for Panhandling policy;

- ◆ *Disorderly Conduct—ORS 166.025*
- ◆ *Menacing—ORS 163.190*
- ◆ *Robbery in the 3<sup>rd</sup> Degree—ORS 164.395*
- ◆ *Assault in the 4<sup>th</sup> Degree—ORS 163.160*
- ◆ *Robbery in the 3<sup>rd</sup> Degree—ORS 164.395*
- ◆ *Pedestrians—PCC 14.20.060*
- ◆ *Pedestrians—PCC 12.20.060*
- ◆ *Harassment—ORS 166.065*

The vision of social service organizations are focused on enhancing the lives of those who are less fortunate by offering food, shelter, and job training. These organizations attempt to assimilate these people back into society by giving them the help and resources they need in order to do so. Social services focus on recovery for panhandlers. Only when these individuals are able to break away from existing paradigms can they be assisted and rehabilitated. With reference to panhandlers, few organizations have been enthusiastic in the expansion of their outreach services. The following ideas have been presented by various dedicated non-profit organizations:



- ◆ Social Services open houses in Pioneer Square
- ◆ Mobile Crisis Teams
- ◆ Businesses directly contact social services with location of panhandling offender
- ◆ Social services as a neutral zone where tickets can be worked off
- ◆ Active on-street interventions

These suggestions offer some insight into the vexing dilemma of panhandling in the inner city, however, all of the proposed suggestions listed above are independent and pulling the stated activities together to form an integrated panhandling policy may be problematic. An effective panhandling policy that will withstand environmental changes must be created through a collaborative effort between public organizations and must be created in a vertical integrated structure from the police department, the city attorney's office, business institutions, to the non-profit sectors.

Our recommendation is that the City of Portland instituted a requirement for panhandlers to obtain a city permit for panhandling. By implementing a permit requirement structure for panhandling, the city may be able to curb the panhandling quandary in urban areas. Existing laws are in place to address the issue of aggressive panhandling and currently, the police department has the authority to address aggressive panhandling therefore, additional policy creation in this area is unwarranted (OR 120.1).

Our recommendation is that if an individual commits an illegal offense currently in place by Oregon statute, the offender is then remanded to the police department for registration purposes. At this point, the offender can then clear their record of panhandling offenses by visiting a non-profit organization or rehabilitation center dedicated to homeless constituents.

For example, if a panhandling offender is arrested and prosecuted for panhandling, the penalty may require the panhandler to register with Social Services and require a visit to a non-profit organization for a stated period of time (shelter or rehabilitation organization) as an alternative to a fine that the offender may not be in a position to pay (a panhandler may not have the revenues to pay a fine). In addition, this structure of panhandling policy may be able to address the question of adequate space in city jails (the jails are not able to hold the increased number of jailed offenders).

From a political perspective, implementing an aggressive panhandling policy that includes fines and jail time may be an area sensitive to political pressure; if implemented, an aggressive panhandling policy may impair the ability to cultivate productive relationships with civil rights advocates and interest groups and it may to many constituents, appear that the policy is created to "hide" the poorest population in the city.

On the other hand, by stimulating a collaborative effort on behalf of panhandling policy, the city has the ability to increase the credibility of many valuable non-profit organizations within the city and by doing so, sends a message that "we care" about all our constituents in Portland regardless of income status. In addition, by using the "registration / visitation" piece of the proposed panhandling policy, the city will not be facing an increase in the costs associated with holding panhandling offenders in city jails.



While these constructive alternatives represent a step in the right direction, they are by no means ideal or perfect. They are offered as examples of what Portland can do when addressing the problem of inner city panhandling and public space issues. However, in most cities where constructive approaches are implemented, punitive approaches still exist. Further, constructive alternatives often provide solutions to the visible ramifications of panhandling while still failing to address the underlying causes





# PORTLAND'S CULTURAL DISTRICT

ON THE SOUTH PARK BLOCKS RESIDE PORTLAND'S PRIMARY CULTURAL VENUES. INDIVIDUALLY IMPORTANT, AS A COLLECTION, THESE VENUES OFFER EVEN GREATER POTENTIAL FOR ARTISTIC, CULTURAL, AND ECONOMIC ACHIEVEMENT. TO REALIZE THIS POTENTIAL, THE CULTURAL DISTRICT COUNCIL IS DEDICATED TO FORGING A COLLABORATION AMONG THESE VENUES AND ASSOCIATED ENTERPRISES TO FOSTER NEW CULTURAL EVENTS OF SIGNIFICANCE, COOPERATIVE PROGRAMS AND NEW AUDIENCES.

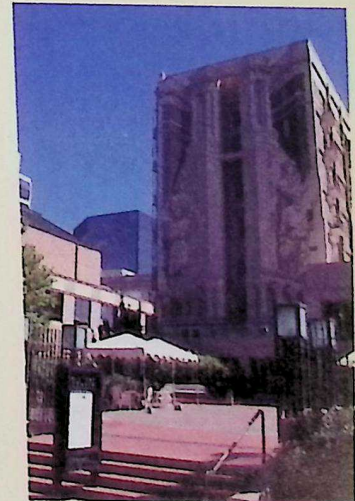
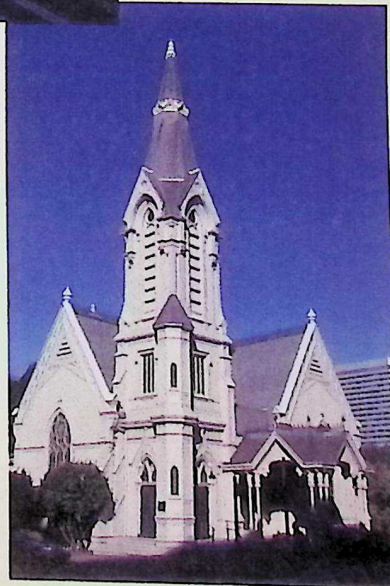
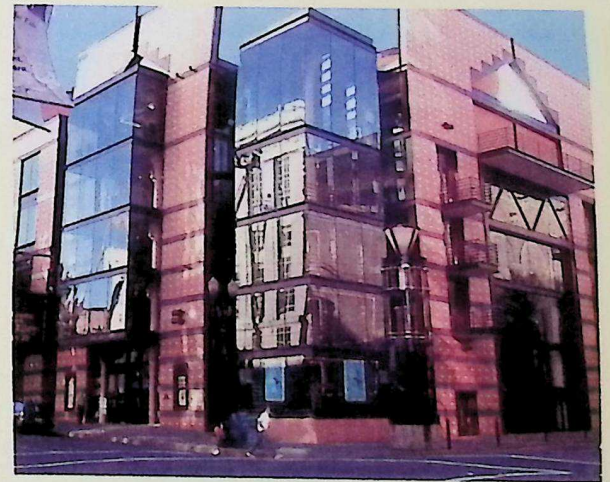
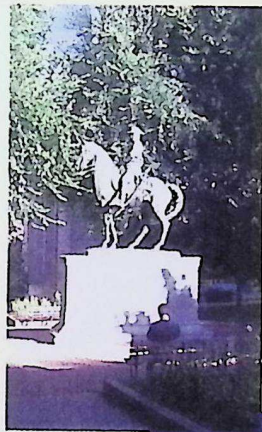
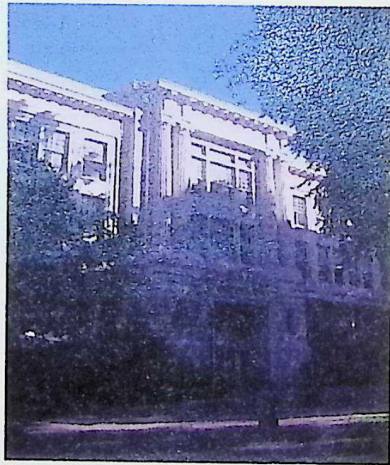
## SPONSORS:

CULTURAL DISTRICT COUNCIL  
ASSOCIATION FOR PORTLAND PROGRESS  
PORTLAND DEVELOPMENT COMMISSION

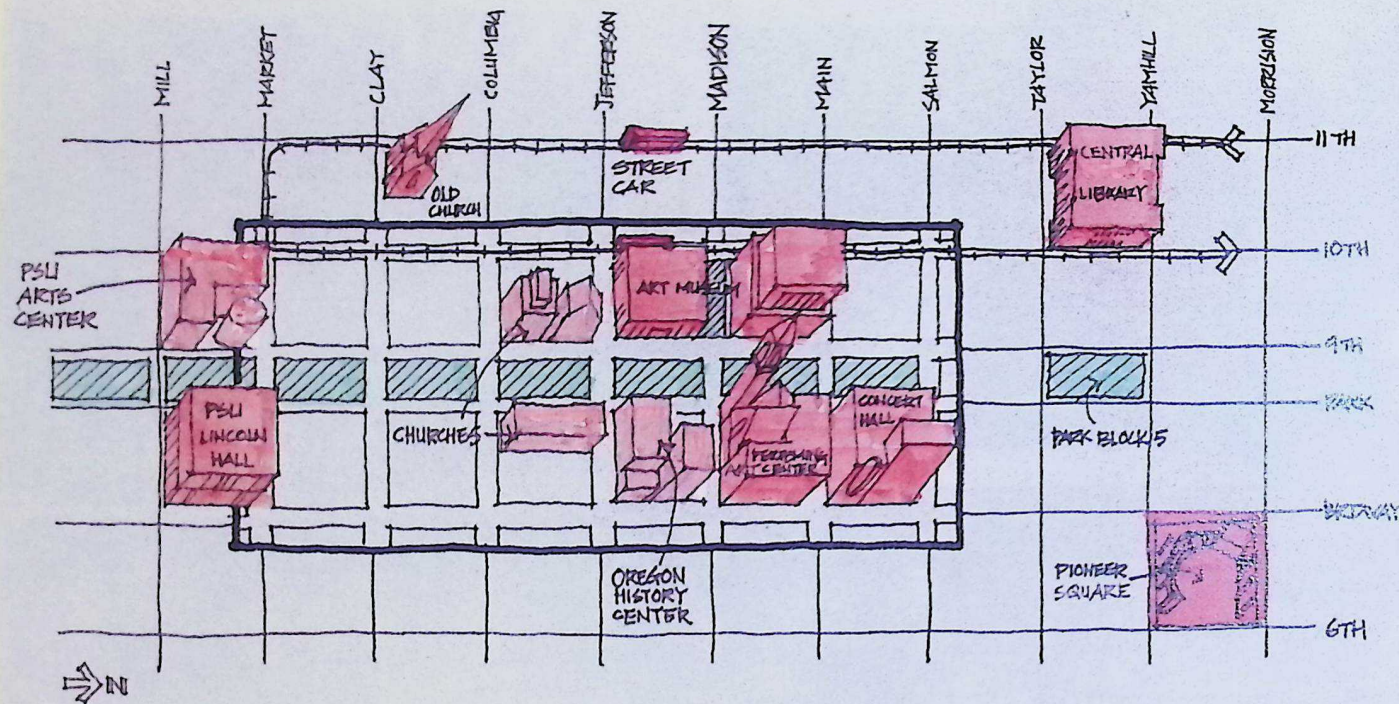


# *THE CULTURAL DISTRICT:*

CHERISHED CULTURAL RESOURCES LINKED BY  
A RIBBON OF EMERALD GREEN. . .







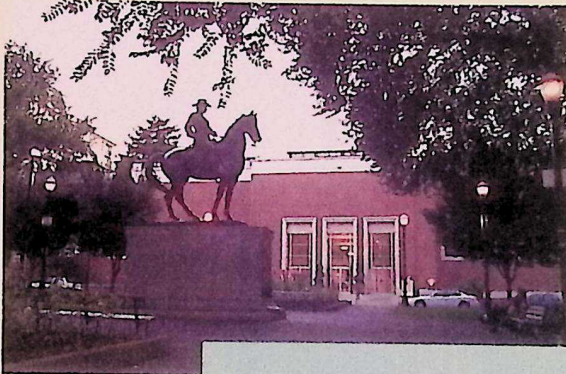
"ESTABLISH A CULTURAL DISTRICT ON THE SOUTH PARK BLOCKS. THIS DISTRICT WILL BE BOUNDED BY SALMON, MARKET, BROADWAY AND 10TH STREETS. THIS CULTURAL CENTER WILL PROVIDE A RICH ENVIRONMENT FOR PEDESTRIANS. TEMPORARY STREET CLOSURES FOR CULTURAL EVENTS, PUBLIC ART DISPLAYS AND OUTDOOR PERFORMANCES WILL REINFORCE THE AREA'S CULTURAL FACILITIES."

— 1988 CENTRAL CITY PLAN, P. 98.



# CREATE A *MAGICAL* GATHERING PLACE

## IN THE HEART OF A GREAT CITY.



THE PORTLAND ART MUSEUM, FOUNDED IN 1892, IS THE REGION'S OLDEST AND LARGEST VISUAL AND MEDIA ARTS CENTER. MORE THAN 600,000 VISIT THE MUSEUM'S PERMANENT COLLECTIONS, TRAVELING EXHIBITIONS AND SPECIAL EVENTS EACH YEAR.

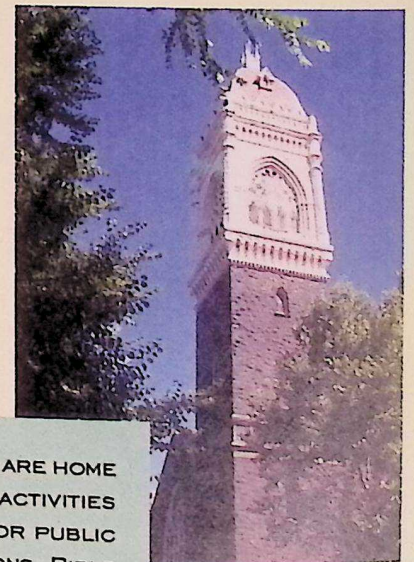


THE OREGON HISTORY CENTER IS THE HEADQUARTERS OF THE OREGON HISTORICAL SOCIETY. FOUNDED IN 1873, THE SOCIETY IS ONE OF THE NATION'S OLDEST AND MOST RESPECTED STATE HISTORY ORGANIZATIONS. THE HISTORY CENTER HOLDS OFFICES, LIBRARY, EXHIBIT GALLERIES AND A MUSEUM SHOP FEATURING A WIDE VARIETY OF GIFTS AND BOOKS ON THE CULTURAL AND NATURAL HISTORY OF THE PACIFIC NORTHWEST.



### ARTS FESTIVALS

- \* PORTLAND ARTS FESTIVAL
- \* INDIAN ART NORTHWEST
- \* HOMOWO FESTIVAL



HISTORIC CHURCHES ARE KEY FEATURES OF THE CULTURAL DISTRICT. THEY ARE HOME TO SUNDAY SERVICES AS WELL AS A RICH COLLECTION OF DIVERSE ACTIVITIES THROUGHOUT THE WEEK. THE COMMUNITY RELIES ON THESE CHURCHES FOR PUBLIC LECTURES, THEATRICAL PERFORMANCES, CHOIR PRACTICE, FAMILY CELEBRATIONS, BIBLE STUDIES, CHILD DAY CARE AND NEIGHBORHOOD ASSOCIATION MEETINGS.



THE GRACIOUS SOUTH PARK BLOCKS HOST A *SHIMMERING* ARRAY OF ACTIVITIES, FROM ARTS FESTIVALS TO THE FARMERS' MARKET, NURTURED IN AN ATMOSPHERE OF DIGNITY AND TRANQUILITY.



PORTLAND STATE UNIVERSITY ATTRACTS FIVE MILLION VISITS TO THIS URBAN CAMPUS EACH YEAR, INCLUDING 49,000 STUDENTS AND 1,900 FACULTY AND STAFF MEMBERS. THE SCHOOL OF FINE AND PERFORMING ARTS IS THE FASTEST GROWING COLLEGE IN THE UNIVERSITY. LINCOLN HALL, AT THE EDGE OF THE CULTURAL DISTRICT, CURRENTLY HOUSES WORKING SPACE, GALLERIES, PRACTICE ROOMS AND PERFORMING ARTS VENUES.

MORE THAN 550,000 PEOPLE ATTEND MORE THAN 700 EVENTS ANNUALLY IN THE ARLENE SCHNITZER CONCERT HALL, NEWMARK THEATER AND THE DOLORES WINNINGSTAD THEATER OF THE PORTLAND CENTER FOR THE PERFORMING ARTS. THE VENUES DRAW PATRONS OF ALL AGES AND PREFERENCES, FROM SYMPHONY SUPPORTERS TO FANS OF STAND-UP COMICS.



PORTLAND FARMERS' MARKET



RESTAURANTS



WHERE

DO WE GO

FROM HERE?

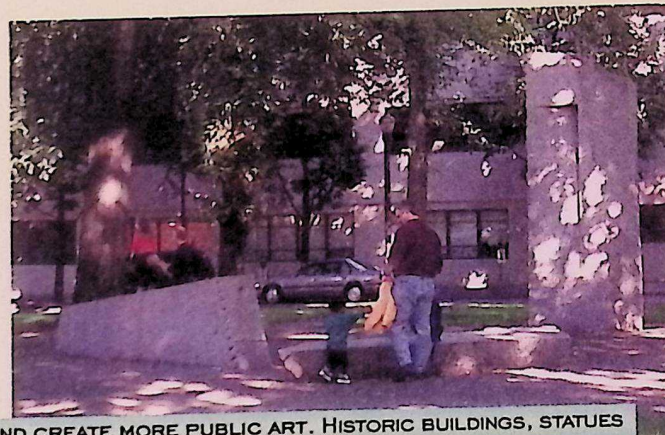
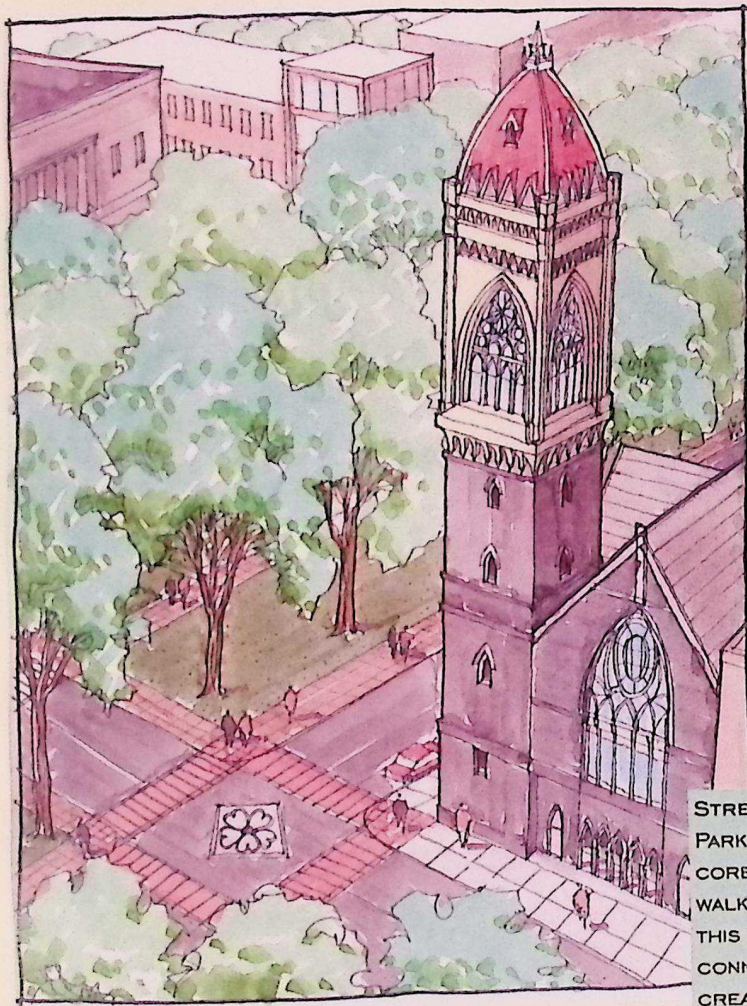


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# WISE STEWARDSHIP

WE ARE BLESSED WITH AN EXTRAORDINARY RESOURCE: ORGANIZATIONS RANGING FROM YOUNG TO MORE THAN 100 YEARS OLD; BUILDINGS THAT SHOWCASE GENERATIONS OF ARCHITECTURAL EXCELLENCE; AND A CHAIN OF PRECIOUS GREENSPACE IN THE CENTER OF A CITY. SIMPLY PUT, WE NEED TO APPRECIATE WHAT WE HAVE AND TAKE CARE OF IT:



PROTECT, ENHANCE AND CREATE MORE PUBLIC ART. HISTORIC BUILDINGS, STATUES AND FOUNTAINS PLAY A CRITICAL ROLE IN CREATING THE AMBIANCE OF THE SOUTH PARK BLOCKS. THE ART MUSEUM'S OUTDOOR SCULPTURE GARDEN WILL FURTHER ENHANCE THAT AMBIANCE. WE NEED TO EMBRACE THIS QUIET ASSET, ENSURE THE ADDITION OF MORE PUBLIC SCULPTURE AND ACTIVELY PROMOTE THE PUBLIC'S APPRECIATION.

STRENGTHEN THE PEDESTRIAN ENVIRONMENT. AS EARLY AS 1972, THE CITY RECOGNIZED THE SOUTH PARK BLOCKS AS AN IMPORTANT PEDESTRIAN LINK BETWEEN PORTLAND STATE UNIVERSITY AND THE RETAIL CORE. AS THE CULTURAL DISTRICT HAS GROWN, THE IMPORTANCE OF THE PARK BLOCKS AS A PLACE TO WALK, SIT, CONTEMPLATE, READ, RELAX AND REFLECT CANNOT BE OVERSTATED. WE NEED TO LABOR ON THIS BEHALF, CREATING SAFE CROSSWALKS AND SUBLIME SETTINGS. INFILL DEVELOPMENT MUST EMPHASIZE CONNECTIONS WITH THE PARK BLOCKS, WHILE OUTDOOR ART, PLANTINGS, BUILDING LIGHTS AND BANNERS CREATE A SUBTLE, SAFE SENSE OF PLACE.



# NEIGHBORLY INITIATIVES:

## STRENGTHEN OUR CONNECTIONS

THE CULTURAL DISTRICT DRAWS VITALITY FROM ITS LOCATION – THE CENTER OF ONE OF THE CONTINENT'S MOST EXCITING CITIES. AT THE SAME TIME, THE DISTRICT ADDS TO THE FLAVOR OF NEARBY NEIGHBORHOODS. GOOD PLANNING AND GOOD RELATIONSHIPS ENHANCE BOTH THE DISTRICT AND ITS NEIGHBORS.

### NORTHWEST

*PEARL DISTRICT.* THE PEARL DISTRICT IN NORTHWEST PORTLAND HAS EVOLVED AS ITS OWN CULTURAL CENTER, FEATURING GALLERIES, ARTISTS' LOFTS, THE PACIFIC NORTHWEST COLLEGE OF ART, PORTLAND INSTITUTE FOR CONTEMPORARY ART, RESTAURANTS AND CLUBS. THE CENTRAL CITY STREETCAR AND THE NORTH AND SOUTH PARK BLOCKS HAVE THE POTENTIAL TO LINK THE PEARL WITH THE CULTURAL DISTRICT, CREATING AN EXCITING NEW ASSET FOR PORTLAND – THE CULTURAL CRESCENT.

### WEST

*WEST END DISTRICT.* THE AREA WEST OF THE CULTURAL DISTRICT OFFERS ENORMOUS OPPORTUNITY FOR A SOCIALLY AND ECONOMICALLY MIXED NEIGHBORHOOD – A GREAT PLACE TO LIVE, WORK AND PLAY. THE CULTURAL DISTRICT'S ASSETS AND LOCATION SHOULD BE A CATALYST IN MAKING THIS AREA A PREFERRED RESIDENTIAL ADDRESS WHERE OWNING A CAR IS OPTIONAL. EQUALLY, THE DISTRICT'S RESIDENTIAL POPULATION SHOULD PROVIDE A STRONG BASE OF PATRONS TO SUPPORT THE INSTITUTIONS.

### NORTH

*MIDTOWN PARK BLOCKS.* PARK AND NINTH AVENUES ARE CHARMING, SMALL-SCALE STREETS WITH QUAIN BUILDINGS AND UNIQUE RETAIL SHOPS. NEW STREETSCAPE IMPROVEMENTS WILL PROMOTE RETAIL DIVERSITY THROUGH AN ENHANCED PEDESTRIAN ATMOSPHERE. WITH ANCHOR TENANTS SUCH AS *SOUTHPARK*, *PIONEER MUSIC* AND *THE REAL MOTHER GOOSE*, THE MIDTOWN PARK BLOCKS ARE A CENTER OF CULTURALLY ORIENTED RETAIL ACTIVITY, LINKING THE DISTRICT WITH THE DOWNTOWN RETAIL CORE.

### SOUTH

*UNIVERSITY DISTRICT.* PSU'S UNIVERSITY DISTRICT COMPRISES A 52-BLOCK AREA ADJACENT AND SOUTH OF THE CULTURAL DISTRICT. WITH THE URBAN CENTER AS A FOCAL POINT, THE DISTRICT IS DEVELOPING INTO A MIXED-USE NEIGHBORHOOD WITH A STRONG SENSE OF PLACE BUILT AROUND A WELL-DESIGNED TRANSIT PLAZA. ITS CULTURAL VISION CALLS "TO EXTEND THE CULTURAL DISTRICT TO OFFER A RICH VARIETY OF EDUCATIONAL, EXHIBITION AND PERFORMANCE OPPORTUNITIES." PSU IS A FORCEFUL ALLY IN PORTLAND'S EFFORTS TO CREATE A WORLD-CLASS CULTURAL CENTER.

### EAST

*BROADWAY BRIGHT LIGHTS DISTRICT.* HISTORICALLY, BROADWAY PROVIDED AUTO ACCESS TO PORTLAND'S THEATER DISTRICT, HOSTING ENTERTAINMENT RANGING FROM FINE PERFORMING ARTS TO VAUDEVILLE. BRIGHTLY-LIT MARQUEES AND NEON CHARACTERIZED THE AVENUE. TODAY, IT IS HOME TO MOST OF DOWNTOWN'S HOTELS, A SIGNIFICANT NUMBER OF ITS RESTAURANTS AND, SOON, A MAJORITY OF DOWNTOWN MOVIE SCREENS. BROADWAY'S BRIGHT LIGHTS CREATE AN ENERGETIC CORE OF PORTLAND'S COMMERCIAL NIGHTLIFE, TOURISM AND DOWNTOWN'S RETAIL ACTIVITIES.

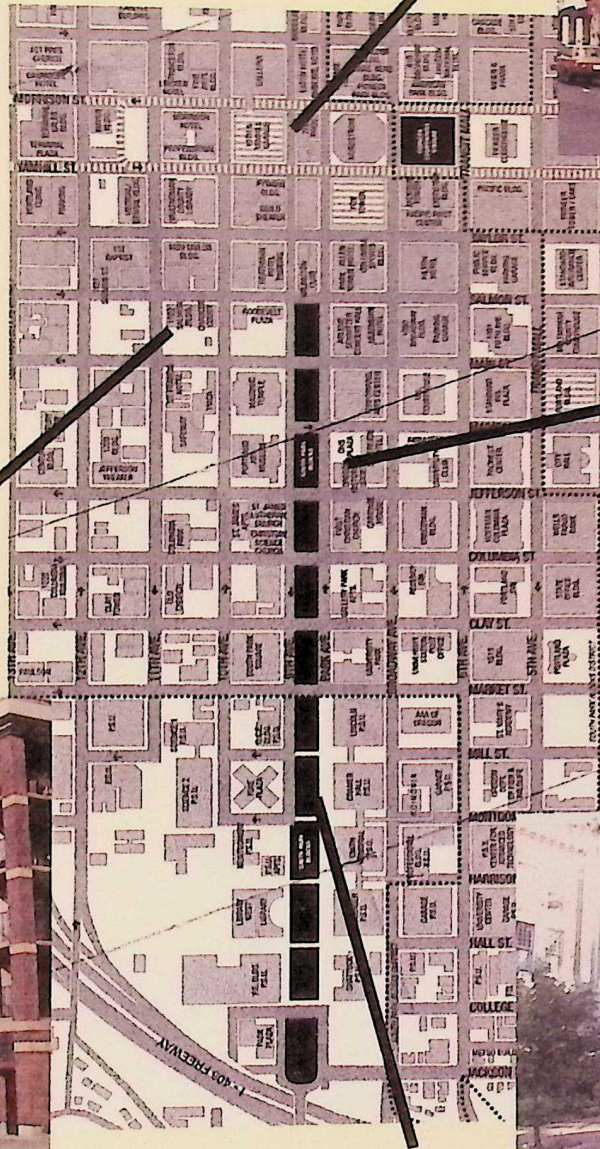




PEARL DISTRICT  
(NW PORTLAND)

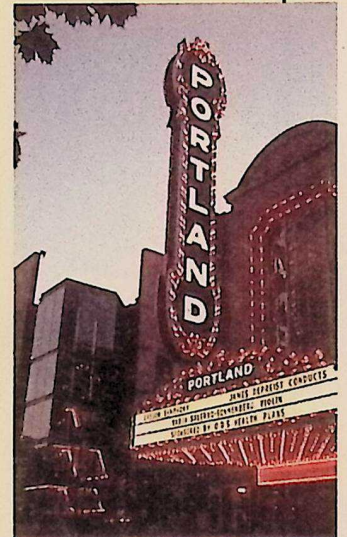


MIDTOWN  
PARK BLOCKS

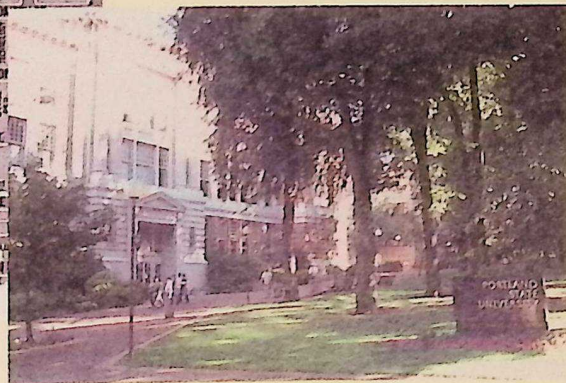


WEST END

BROADWAY  
BRIGHT LIGHTS



UNIVERSITY DISTRICT



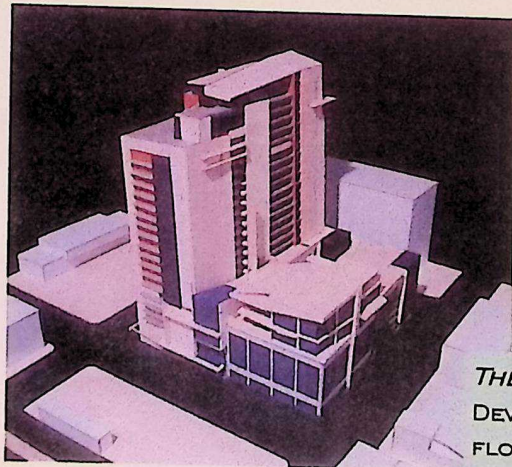


# FORWARD THINKING:

## MAKE THE MOST OF OPPORTUNITIES

CURRENT PLANS AND FUTURE PROJECTS OFFER AN OPPORTUNITY FOR THE CULTURAL DISTRICT TO CREATE A DYNAMIC CRITICAL MASS. THE STREETCAR WILL LINK THE CULTURAL DISTRICT CENTER OF ENERGY TO OTHER NEIGHBORHOODS AND DISTRICTS. NEW DEVELOPMENT OF HOUSING AND RETAIL SPACE OFFERS THE POTENTIAL TO CREATE A TRUE CULTURAL NEIGHBORHOOD COMPLEMENTING DOWNTOWN'S MANY OTHER USES.

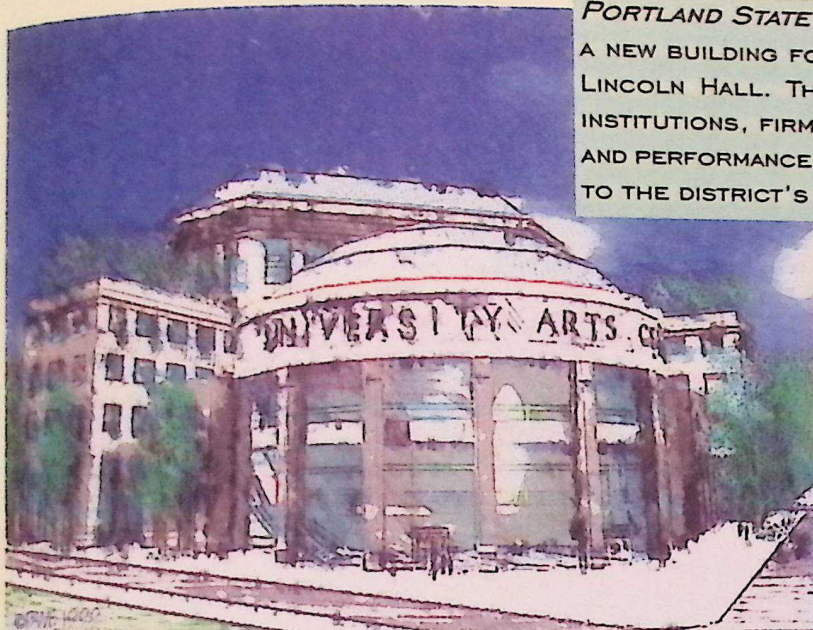
**CENTRAL CITY STREETCAR.** THE CENTRAL CITY STREETCAR CONNECTS PSU TO THE WEST END, THE RIVER DISTRICT AND NORTHWEST PORTLAND, WITH THE POTENTIAL FOR FUTURE LINKS THROUGHOUT THE CITY. THE STREETCAR WILL CARRY MORE THAN 5,000 PEOPLE DAILY AND WILL STOP AT THE CULTURAL DISTRICT (SW 10TH AND 11TH AT JEFFERSON STREET). TO MAKE THE MOST OF THE STREETCAR'S POTENTIAL, THE CITY SHOULD DEVELOP UNIQUE FEATURES INDICATING THE ENTRANCE TO THE CULTURAL DISTRICT. GOOD SIGNAGE CAN DIRECT VISITORS TO KEY ACTIVITIES AND BUILDINGS ON THE SOUTH PARK BLOCKS.



SIENNA ARCHITECTURE COMPANY

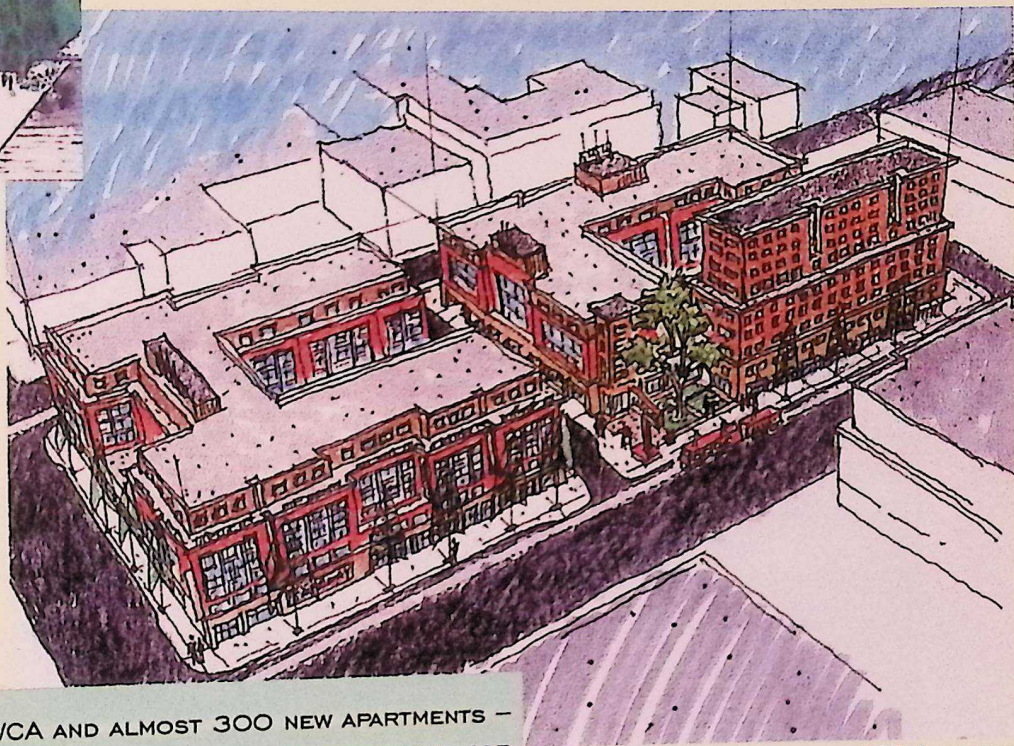
**THE JEFFERSON BLOCK.** ADJACENT TO THE STREETCAR IS THE JEFFERSON BLOCK, OWNED BY THE PORTLAND DEVELOPMENT COMMISSION. CURRENT PLANNING FOCUSES ON A HIGH-DENSITY CONDOMINIUM PROJECT WITH GROUND FLOOR RETAIL AND AN OFFICE COMPONENT. THE POTENTIAL BENEFIT TO THE CULTURAL DISTRICT LIES WITH A STRENGTHENED STREETScape, OWNERSHIP HOUSING AND THE POTENTIAL FOR CULTURALLY-RELATED RETAIL. A RESTAURANT TO REINFORCE THE CULTURAL DISTRICT'S ROLE AS A DESTINATION IS A DISTRICT PRIORITY.





PORTLAND STATE UNIVERSITY

*PORTLAND STATE UNIVERSITY'S NEW PERFORMING ARTS DEVELOPMENT.* PSU IS CONSIDERING A NEW BUILDING FOR THE SCHOOL OF FINE AND PERFORMING ARTS AND RENOVATION OF THE HISTORIC LINCOLN HALL. THE SCHOOL'S GOALS INCLUDE STRONG RELATIONSHIPS WITH PROFESSIONAL ARTS INSTITUTIONS, FIRMS AND STUDIOS, A NEW PERFORMANCE CENTER AND GALLERY, AN OUTDOOR GALLERY AND PERFORMANCE AREA AND EXTENSIVE ARTS LABORATORIES. SUCH A FACILITY WOULD ADD SUBSTANTIALLY TO THE DISTRICT'S CAPACITY AND DIVERSITY.



GBD ARCHITECTS

*MUSEUM PLACE.* AN EXPANDED SAFEWAY, A REVITALIZED YWCA AND ALMOST 300 NEW APARTMENTS — LOCATED DIRECTLY ACROSS FROM THE PORTLAND ART MUSEUM — COULD MEAN NEW PARTNERSHIPS FOR THE CULTURAL DISTRICT. THE PROJECT SHOULD EMPHASIZE LINKS WITH THE DISTRICT THROUGH ACTIVE STOREFRONTS, SAFE AND CONVENIENT PEDESTRIAN CONNECTIONS AND COMPLEMENTARY RETAIL.



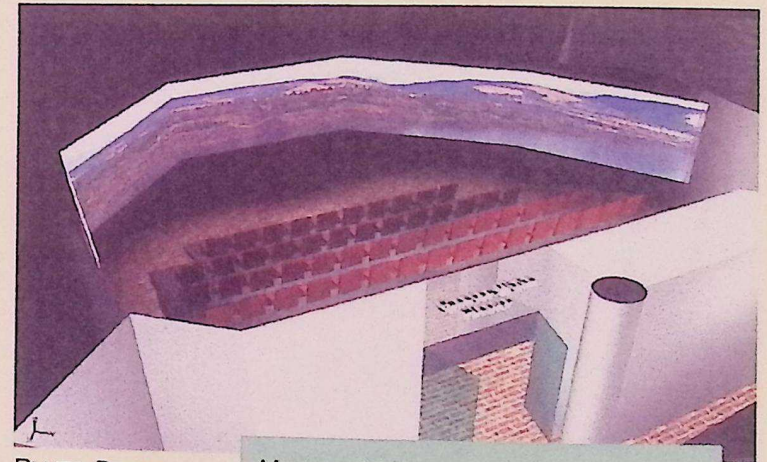
# BRIDGING THE BOUNDARIES:

## CREATE AND STRENGTHEN ALLIANCES

TO THRIVE AS A DESTINATION, THE CULTURAL DISTRICT NEEDS TO STRENGTHEN ITS CONNECTIONS AND ALLIANCE TO OTHER ORGANIZATIONS AND INTEREST GROUPS PURSUING COMMON GOALS.

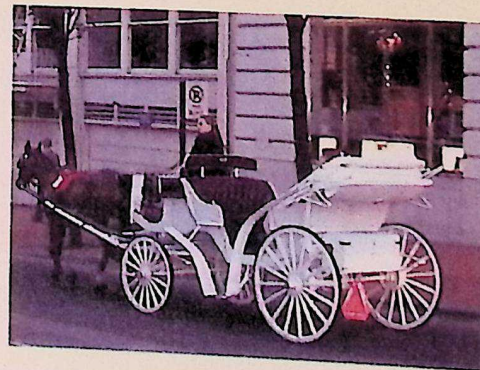
**ARTS AND CULTURE.** THE CULTURAL DISTRICT REPRESENTS SOME OF THE MOST ESTABLISHED OF ARTS AND CULTURE GROUPS. YET, ENTHUSIASTIC CREATIVITY AND SCHOLARSHIP IS FOUND THROUGHOUT THE CITY, BOTH IN ORGANIZED AND INDEPENDENT ACTIVITIES. THE CULTURAL DISTRICT SHOULD ACTIVELY IDENTIFY AND FOSTER VIRTUOSITY — WHEREVER IT RESIDES — AND ENCOURAGE AND AID THOSE PEOPLE AND GROUPS WHO ARE ARTISTICALLY GIFTED.

**TOURISM.** EACH YEAR, 2.5 MILLION PEOPLE VISIT PORTLAND. CULTURAL ACTIVITIES BRING A SIGNIFICANT PERCENTAGE OF THESE TOURISTS. TOURISM REPRESENTS 35 PERCENT OF DOWNTOWN'S RETAIL AND DINING SALES — ALMOST \$500 MILLION — AND THE NUMBER OF VISITORS TO PORTLAND IS EXPECTED TO GROW BY 40 PERCENT IN THE NEXT DECADE. WHILE THE INDIVIDUAL COMPONENTS OF THE CULTURAL DISTRICT PLAY A CRITICAL ROLE IN THE CITY'S CULTURAL TOURISM, AS YET THE "DISTRICT" ITSELF HASN'T LIVED UP TO ITS POTENTIAL AS A TOURIST ATTRACTION. ONLY A DISTRICT-WIDE MARKETING STRATEGY CAN GUARANTEE PRESENCE OF THE DISTRICT AS A WHOLE ON THE TOURIST RADAR SCREEN.



PLUTO DESIGN

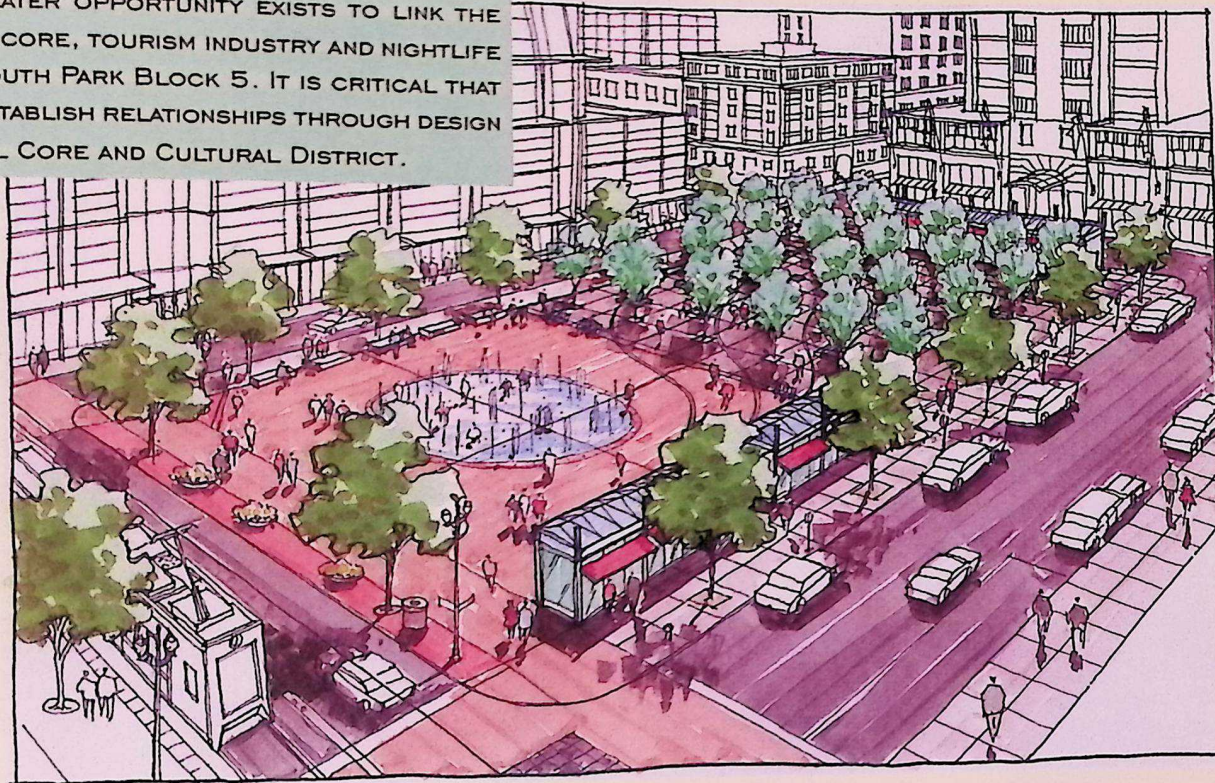
**NEW MODEL FOR VISITOR INFORMATION CENTER AT PIONEER COURTHOUSE SQUARE.** PIONEER COURTHOUSE SQUARE IS CREATING A JOINT CUSTOMER ASSISTANCE COUNTER FOR TRI-MET AND THE PORTLAND OREGON VISITOR ASSOCIATION (POVA). LOCATED IN THE ENCLOSED LOBBY AREA OF PIONEER SQUARE, THIS NEW CUSTOMER SERVICE MODEL WILL INCLUDE VIDEO DISPLAYS, INTERACTIVE KIOSKS AND A "SURROUND-VISION" THEATER TO PROMOTE PORTLAND AND OREGON. OTHER SERVICES INCLUDE TICKET SALES, PUBLIC TELEPHONE, DIRECTIONS, RESERVATIONS, MULTI-LINGUAL ASSISTANCE, SOUVENIRS AND OTHER AMENITIES.





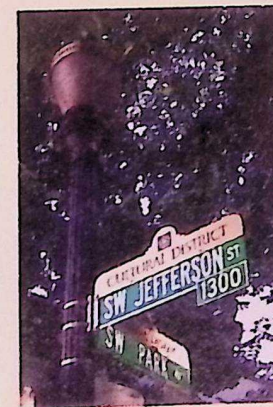
**SOUTH PARK BLOCK 5.** NO GREATER OPPORTUNITY EXISTS TO LINK THE CULTURAL DISTRICT WITH THE RETAIL CORE, TOURISM INDUSTRY AND NIGHTLIFE ACTIVITY THAN DOES THE FUTURE SOUTH PARK BLOCK 5. IT IS CRITICAL THAT PARK PLANNING AND DEVELOPMENT ESTABLISH RELATIONSHIPS THROUGH DESIGN AND PROGRAMS BETWEEN THE RETAIL CORE AND CULTURAL DISTRICT.

THE CITY OF PORTLAND IS ENGAGED IN AN EXTENSIVE PUBLIC DISCUSSION REGARDING THE DESIGN OF SOUTH PARK BLOCK 5. THE ADJACENT SKETCH REPRESENTS ONE ARCHITECT'S PERCEPTION AND IS NOT INTENDED TO SUGGEST A PREFERRED PARK DESIGN.



**SPECIAL EVENTS.** THE SOUTH PARK BLOCKS, INCLUDING PSU, HOST A VARIETY OF SPECIAL ARTS-BASED EVENTS. MAJOR WEEKEND FESTIVALS INCLUDE THE PORTLAND ARTS FESTIVAL, HOMOWO FESTIVAL OF ARTS AND INDIAN ART NORTHWEST. SMALLER EVENTS INCLUDE THE PORTLAND FARMERS' MARKET. ACTIVITIES SUCH AS THESE OFFER DIVERSITY AND BROADER EXPOSURE TO THE DISTRICT. THE CULTURAL DISTRICT NEEDS TO WORK WITH PSU, SOUTH PARK BLOCK RESIDENTS AND ALL NEIGHBORING INSTITUTIONS TO CREATE A STANDARDIZED EVENT LOCATION AND FORMAT OFFERING THE GREATEST POTENTIAL WITH THE LEAST DISRUPTION.

THE PARK BLOCKS ALSO HAVE THE CAPACITY TO ABSORB MORE, SMALLER ACTIVITIES — LIKE OUTDOOR REHEARSALS, PERFORMANCES BY STREET MUSICIANS AND SMALL ARTS MARKETS — WITHOUT DISTURBING THE PARK'S TRANQUILITY OR INTERFERING WITH ROUTINE ACTIVITIES.





# BEING BOLD:

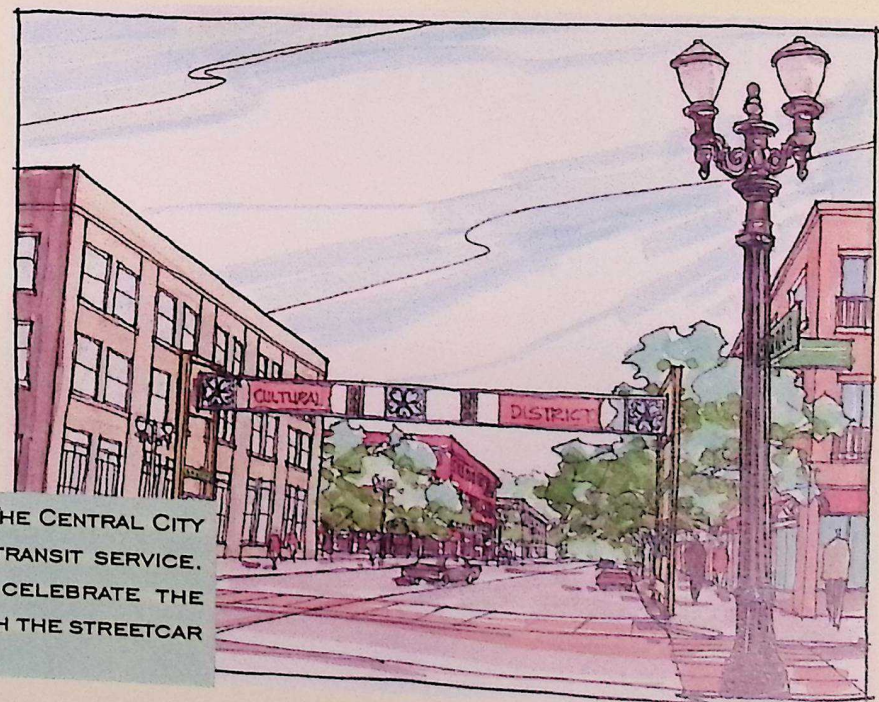
## PURSUE OUR PRIORITIES

THE CULTURAL DISTRICT IS A TREMENDOUS RESOURCE, JUST AS IT IS. BUT THE DISTRICT AND ITS AFFILIATE ORGANIZATIONS HAVE THE OPPORTUNITY TO CREATE SOMETHING TRULY REMARKABLE – A PLACE THAT IS UNIQUE AND WORLD CLASS. TO ACCOMPLISH THIS WILL REQUIRE VISION AND COMMITMENT, AS WELL AS INNOVATIVE STRATEGIES FOR RESOURCE DEVELOPMENT. BUT IT ALL MUST BEGIN WITH A FEW SMALL STEPS. THE CULTURAL DISTRICT COUNCIL HAS IDENTIFIED THE FOLLOWING PRIORITIES:



**RESTAURANTS AND RETAIL.** THE CULTURAL DISTRICT IS HOME TO AN EXCITING ARRAY OF RESTAURANTS AND SHOPS, INCLUDING THOSE FOUND IN THE INSTITUTION. HOWEVER, THE DISTRICT WOULD BENEFIT FROM MORE RESTAURANTS, CAFÉS, WINE BARS AND SPECIALTY SHOPS AS WELL AS A STRONGER DESTINATION MARKETING PROGRAM.

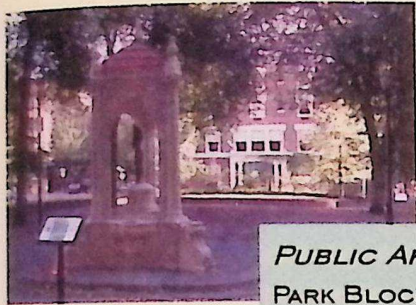
**ADVOCATE ARTS AND CULTURE FUNDING.** EACH CULTURAL DISTRICT PARTNER MUST BE ASSURED THAT RESOURCES WILL BE AVAILABLE TO KEEP ITS DOORS OPEN TOMORROW. UNTIL THAT ASSURANCE EXISTS, INSTITUTIONS DO NOT HAVE THE CAPACITY TO LOOK BEYOND THEIR OWN BUILDINGS TO CREATE A THRIVING DISTRICT.



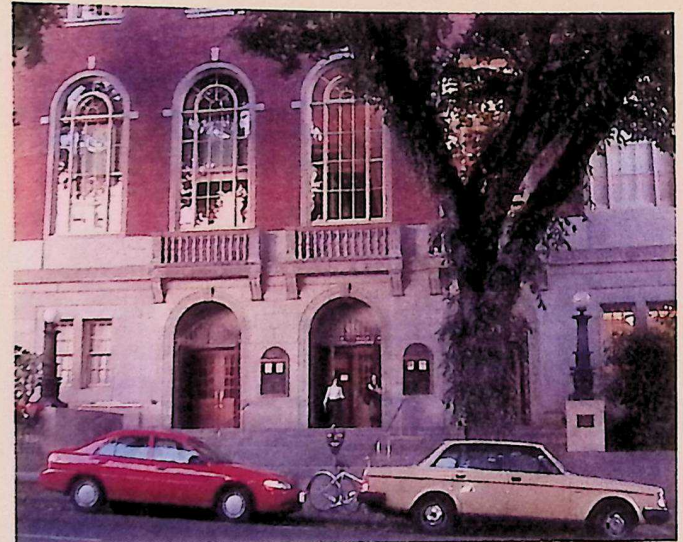
**A DISTRICT GATEWAY FOR THE STREETCAR.** THE CENTRAL CITY STREETCAR WILL PROVIDE AN EXCEPTIONAL NEW TRANSIT SERVICE. GATEWAY STREETCAR STOPS THAT EVOKE AND CELEBRATE THE DISTRICT'S CREATIVE CHARACTER CAN BENEFIT BOTH THE STREETCAR AND THE DISTRICT.



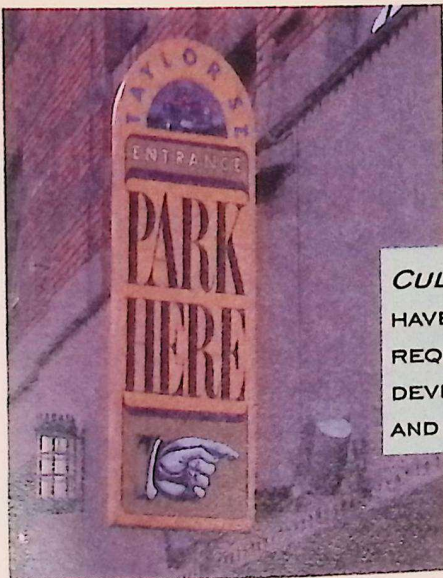
*COOPERATIVE MARKETING.* THE CULTURAL DISTRICT SHOULD BE LARGER THAN THE SUM OF ITS PARTS. TO STRENGTHEN THIS INTEGRATED ENTITY, THE DISTRICT SHOULD FOCUS ON OPPORTUNITIES TO SUPPLEMENT EXISTING MARKETING AND PRODUCTS. A FIRST STEP IS TO ATTRACT NEW RESOURCES THAT DO NOT COMPETE WITH CURRENT FUNDING SOURCES.



*PUBLIC ART.* LIGHTING THE SCULPTURE ON THE SOUTH PARK BLOCKS IS A FIRST STEP IN ENHANCING PUBLIC ART IN THE DISTRICT. NEXT STEPS CAN INCLUDE BRINGING EXISTING WORKS UP TO PROFESSIONAL STANDARDS, COMMISSIONING NEW PUBLIC ART ON THE PARK BLOCKS AND WORKING WITH NEW DEVELOPMENT TO INCORPORATE ART INTO EVERY PROJECT.



CENTRAL LIBRARY



*CULTURAL DISTRICT PARKING.* SINCE 1988, ARTS AND CULTURAL ORGANIZATIONS HAVE IDENTIFIED THE NEED FOR MORE PARKING. AN AUTOMATED PARKING STRUCTURE, REQUIRING A MINIMAL AMOUNT OF SPACE, CAN BECOME THE CORNERSTONE OF NEW DEVELOPMENT MEETING OTHER COMMUNITY NEEDS LIKE MARKET-RATE HOUSING, RETAIL AND COMMERCIAL SPACE.



# FREE THE IMAGINATION:

## *EXPECT THE OUTRAGEOUS*

ANY CONVERSATION ABOUT THE POTENTIAL OF THE CULTURAL DISTRICT ELICITS GREAT IDEAS, SMALL AND LARGE, WITHIN REACH, OR HARD TO ACHIEVE. CONSIDER THIS LIST TODAY'S DREAMS AND TOMORROW'S PRIORITIES.

**COOPERATIVE PROGRAMMING.** IN 1999 THE PORTLAND ART MUSEUM FEATURED THE NATIONAL "SHIMMERING SKY" EXHIBITION. THE DOWNTOWN RETAIL COUNCIL ORGANIZED ITS "WALK WITH BEAUTY" FOLLOWING A THEMATIC TONE SET BY THE INDIAN ART NORTHWEST FESTIVAL. SUCH COOPERATIVE PLANNING AND DYNAMIC BRAINSTORMING CAN RESULT IN A SIMILAR SERIES OF THEME-BASED PROGRAMS THAT ENGAGE THE FULL ARRAY OF CULTURAL INSTITUTIONS AND NEIGHBORING BUSINESSES.



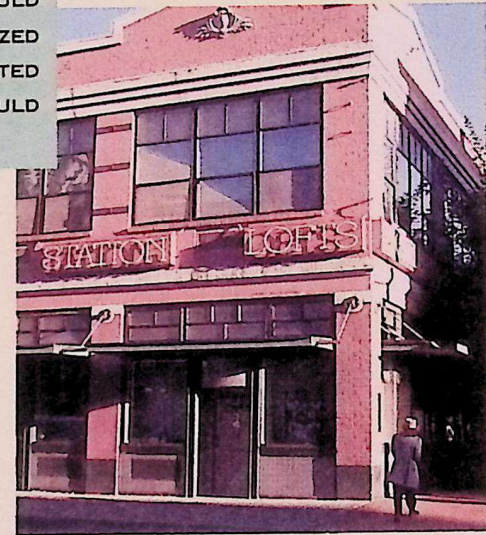
**TAKE THE ART TO THE STREETS.** IT SEEMS STRANGE, BUT THERE IS VERY LITTLE NON-ORGANIZED ARTISTIC ACTIVITY IN AND AROUND THE CULTURAL DISTRICT. THE BALLET THEATER ORGANIZED OBT EXPOSED, WITH ANNUAL OUTDOOR PERFORMANCES. OCCASIONALLY, MUSICIANS PERFORM IN THE PARK BLOCKS. IT WOULD BE NICE TO HAVE MORE UNSTRUCTURED AND IMPROMPTU ARTISTIC ENDEAVORS.



**PEDESTRIAN IMPROVEMENTS.** THE SOUTH PARK BLOCKS OFFER A PHENOMENAL PEDESTRIAN OPPORTUNITY. CURRENTLY, HOWEVER, STREET CROSSINGS ARE DANGEROUS AND DIRECTIONAL SIGNS LACKING. SUCH SUBTLE ACCENTS AS BANNERS OR FLOWER BASKETS WOULD BRING COLOR, VITALITY AND A HEIGHTENED SENSE OF PLACE. BUILDING LIGHTS COULD STRENGTHEN THE EVENING ATMOSPHERE BY ACCENTING THE GRACIOUS HISTORIC ARCHITECTURE WHILE ENHANCING A SENSE OF SAFETY AND SECURITY. THE DISTRICT MUST ASSESS FULLY THE PEDESTRIAN ENVIRONMENT AND SET OUT A COURSE OF IMPROVEMENTS TO TRANSFORM THE PARK BLOCKS WITHOUT OVER-DESIGNING IT.



*DEVELOP ARTIST HOUSING AND CREATIVE SPACE.* IT SEEMS LIKE A CULTURAL DISTRICT SHOULD HAVE PRACTITIONERS LIVING AND WORKING IN THE NEIGHBORHOOD. IN AN AREA WITH SUBSTANTIAL SUBSIDIZED HOUSING AND A UNIVERSITY, IT SEEMS LIKE THIS IDEA SHOULD BE WITHIN REACH. THE SYNERGY CREATED BY LIVING AND WORKING SPACES FOR ARTISTS, CLOSE TO THE REGION'S MAJOR CULTURAL CENTER, COULD FURTHER ADD TO THE CONTINUOUS VITALITY OF THIS PART OF DOWNTOWN.

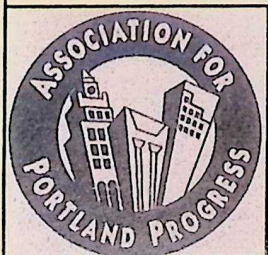
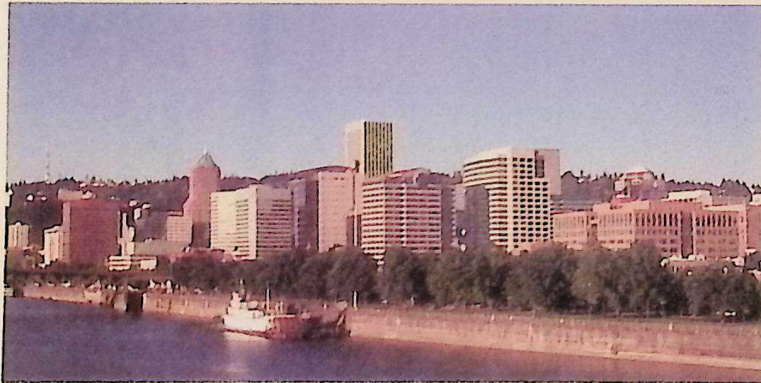


*CREATE SIGNATURE ARTWORK FOR THE STREETCAR STOPS.* ONE OF THE TRULY GREAT PORTLAND PARTNERSHIPS IS MAX AND PUBLIC ART. IN THE SAME SPIRIT, THE CENTRAL CITY STREETCAR CAN BECOME THE CENTERPIECE OF AN ONGOING ARTS TOUR, WITH DELIGHTFUL ART PIECES HERALDING STOPS BETWEEN NW 23<sup>RD</sup> AND THE CULTURAL DISTRICT.

*SHARE A SHUTTLE.* NEARBY PARKING IS AT A PREMIUM NEAR THE CULTURAL DISTRICT. ACCESS MAY BE PARTICULARLY DIFFICULT FOR OLDER OR DISABLED ARTS AND CULTURE PATRONS AND CHURCHGOERS. HAVING TO PARK EVEN A FEW BLOCKS A WAY MAY DISCOURAGE SOME VISITORS TO THE DISTRICT. SHARING A SHUTTLE FROM PARKING STRUCTURES AND NEARBY RESIDENTIAL BUILDINGS COULD HELP KEEP SEATS FULL AND VENUES BUSY.







**PDC**  
PORTLAND  
DEVELOPMENT  
COMMISSION

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DATE PUBLISHED: OCTOBER 1, 1999



# CENTRAL EASTSIDE DEVELOPMENT OPPORTUNITY STRATEGY

APRIL, 2002

SERA ARCHITECTS PC  
123 NW SECOND AVE.  
PORTLAND, OR 97209



SERA



# CENTRAL EASTSIDE DEVELOPMENT OPPORTUNITY STRATEGY

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# TABLE OF CONTENTS

1.0 Executive Summary	3	Graphic: Concept Plan A	18
2.0 Introduction	5	Graphic: Concept Plan B	19
2.1 Project Goals	5	5.0 Market Feasibility	20
2.2 Study Area & Significant Features	5	5.1 Market Context	20
2.3 Committee & Process	6	5.2 Distinctive Subareas	20
2.4 Opportunities & Constraints	6	5.3 Financial Feasibility	21
3.0 DOS Area Vision	8	5.4 Sensitivity Analysis	21
3.1 Vision Statement	8	Table: Development Proposals	22
4.0 The Vision Plan	11	6.0 Transportation Analysis	24
4.1 Land Use & Development	11	6.1 Introduction	24
4.2 Circulation, Traffic & Parking	12	6.2 Potential Impact of Studied Projects	24
4.3 Stormwater Management	13	6.3 Transit Impacts	24
4.4 Open Space and Parks	13	6.4 Conclusions	25
4.5 Transit, Bikes, & Pedestrians	13	6.5 Recommendations	25
4.6 Urban Design & Streetscape	14	7.0 Strategies	27
4.7 Post Freeway Vision	15	7.1 Land-use and Development Strategies	27
Graphic: Land Use & Development Plan	16	7.2 Transportation and Circulation Strategies	27
Graphic: Transportation & Circulation Plan	17	8.0 Actions & Implementation Table	28
		9.0 Index of Technical Memos	30

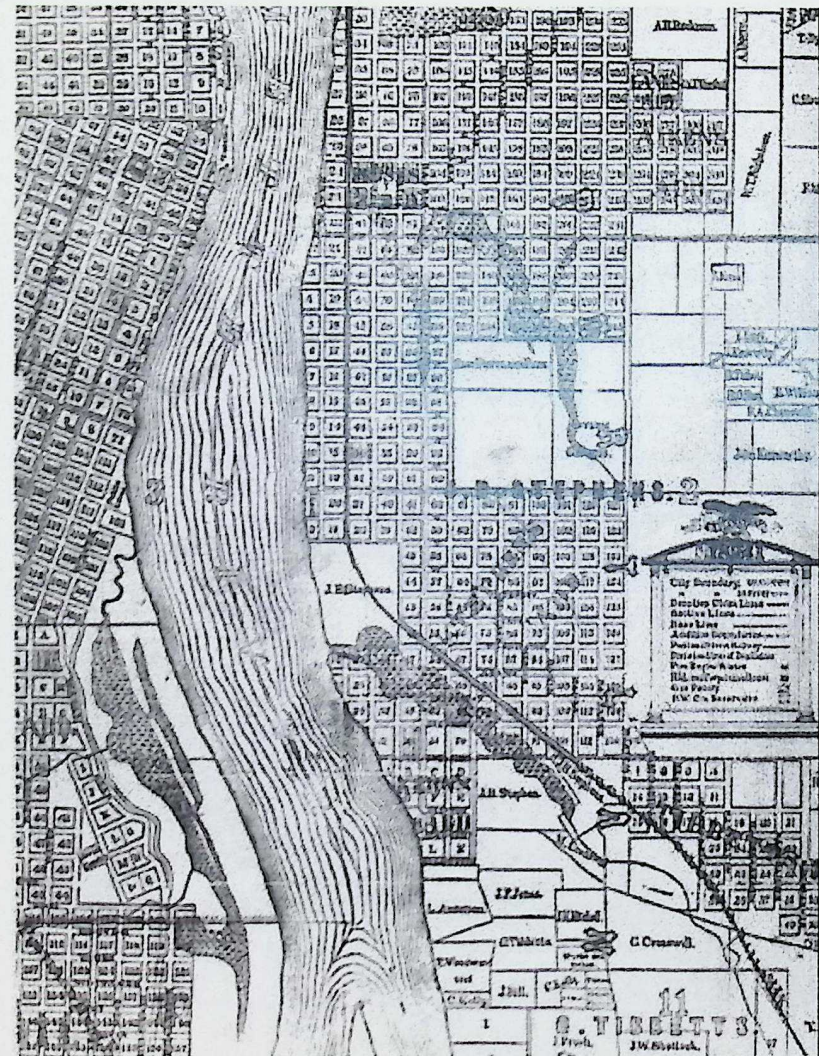


# EXECUTIVE SUMMARY

The 30 acres designated for Portland's Central Eastside Development Opportunity Strategy (CES DOS) are a select portion of the Central Eastside Urban Renewal District (CES URD). This exceptional riverfront location has excellent potential to capture more employment intensive business and progressive types of jobs emerging in our regional, national and global economy. Existing and proposed amenities, adequate existing infrastructure, and abundant vacant land for development all afford good prospects for this area to attract cutting edge businesses, jobs and services for the central city.

During the spring of 1999, PDC staff and the leadership of the Central Eastside Industrial Council (CEIC) collaborated to develop a program to reinvigorate and increase employment in the Central Eastside. Staff working with the CEIC, identified the project boundary of the Morrison bridgehead to the north, Caruthers Street to the south, the rail lines to the east and the Willamette River to the west. A process was outlined which includes a wide range of community interests from property owners, neighborhood representatives, the business association, CEIC and city officials.

The CES DOS steering committee was formed to guide the efforts of creating a vision and a development strategy for this area of the CES. The committee is composed of property owners, area businesses, neighborhood representatives, and the area business association representatives within the project boundaries. They have crafted a bold vision, substantial and balanced strategies, and specific action items, which will move that vision forward. They desire an area with employment emphasis that is vital 24 hours a day, and is better connected to the central city and surrounding districts. The area should also include a mix of business services and local-serving retail/cafes, clustered around certain street nodes. Urban design, landscape and streetscape improvements will reinforce the pedestrian character of the sub-area, and promote better links to adjacent neighborhoods and the renewed river edge.



Portland 1874 (Oregon Historical Society)



# EXECUTIVE SUMMARY

The vision was developed into an integrated land use and transportation plan, with approximately 1.3 million square feet of new building space. These buildings occupy 2 concentrations on the north and south ends of Water Avenue, each linked to a central workforce training/educational/science sub-area focused on PCC and OMSI. The south cluster has an R&D/corporate HQ emphasis in 3 story structures, organized around a proposed river oriented garden amenity. The north cluster has an incubator/high-tech emphasis in 6 new blocks of 4-8 story buildings. The "ideal" tenant was imagined to be a software or hardware developer with office/lab spaces above, feeding a micro-production facility at street level, where software is shrink wrapped and quick shipped on overnight courier vans, rather than large trucks. Residential uses are not contemplated in the area, although one business oriented hotel is proposed to provide business support, and work/live options would be explored later. Certain streets prioritize pedestrian oriented, active edges on one side, with business operations on the other.

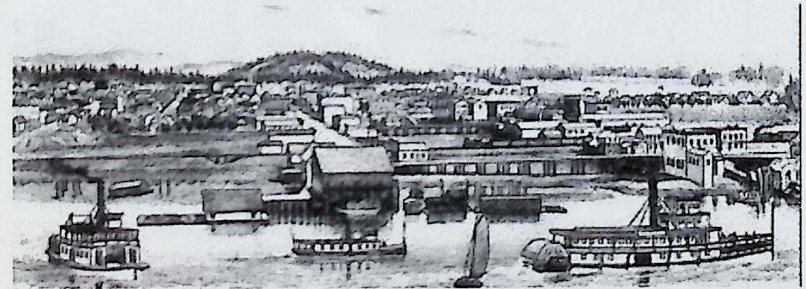
This development build out was tested for market feasibility and found to be ambitious but achievable, if the sub-areas are truly distinctive and rent levels can be attained. There is a strong interest by high-tech, dot-coms in central city locations - especially along fiber-optic lines, which are plentiful in the sub-area. Two sample development projects were also tested and found to be feasible.

The traffic and transportation impacts of the proposed development were also analyzed. A total of approximately 1,500 PM peak hour trips would be added by the committee's proposed development scenario. If the development occurs in the near future, it appears that these trips can be absorbed by the existing street network with relatively minor improvements. Improvements at key locations could give the district better access to the Grand Avenue/MLK Avenue corridor and help to disperse traffic in all directions. Particularly as regional traffic growth occurs, the regional transportation network within and near the study area

will suffer. Regional transportation projects previously identified in the Regional Transportation Plan (RTP) and other documents will become increasingly important to accommodate growth in the region as a whole and in the study area. Failure to make improvements to the regional system could result in currently-available transportation capacity being absorbed by regional growth, thus precluding the CES to develop as envisioned by the committee.

The importance of district access to southbound I-5 remains a critical transportation need and plays a positive role supporting future development. The identification of alternative southbound I-5 access would allow the redevelopment of an additional 3 acres of prime central land in the study area.

This report summarizes the key elements of the steering committee efforts and describes the vision, plan, strategies and action items. It also hopes to inspire all the relevant parties to implement positive change in this area, well poised for dramatic transformation.



East Portland 1886 (Oregon Historical Society)



# INTRODUCTION

## 2.1 PROJECT GOALS

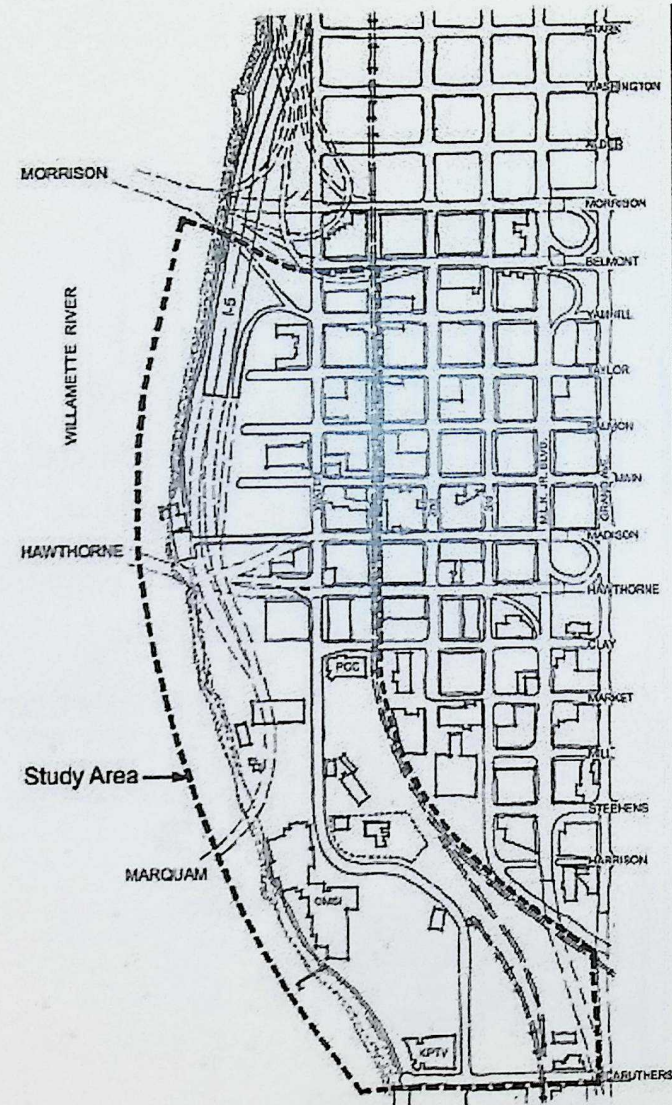
The primary objective is to create a Development Opportunity Strategy (DOS), which will establish an area vision and set specific actions to enable and stimulate economic development through increased employment in the study area. The DOS includes a market evaluation, transportation analysis and urban design framework, all developed in an integrated manner with the regular involvement of the Steering Committee.

## 2.2 STUDY AREA & SIGNIFICANT FEATURES

The specific study area is bounded by the Morrison Bridge and Belmont Avenue to the north, the railroad tracks and right of way along SE First Avenue to the east, SE Caruthers Street to the south, and the Willamette River to the west. This area includes approximately 30 acres of developable land, not including streets, of which about half is vacant or existing surface parking. The entire study area is located within the Central Eastside Urban Renewal District.

The Willamette River is the dominant feature of the study area and the Central City. With its abundance of natural and human activity, enhanced connections across the river and panoramic views of the downtown skyline, it is the primary open space and focal point for the Central Eastside connecting the district to Downtown.

There are several large undeveloped or underdeveloped parcels within the study area, including the PGE property between OMSI and Caruthers Street. Approximately five vacant acres north of Madison Street are under public ownership, with potential for development. The Eastbank Riverfront Park will complete a riveredge trail from the Lloyd District to SE Caruthers, and a major riverfront park and multi-use facility are currently being studied south of Hawthorne Street. Many buildings are underutilized.





# INTRODUCTION

## 2.3 COMMITTEE & PROCESS

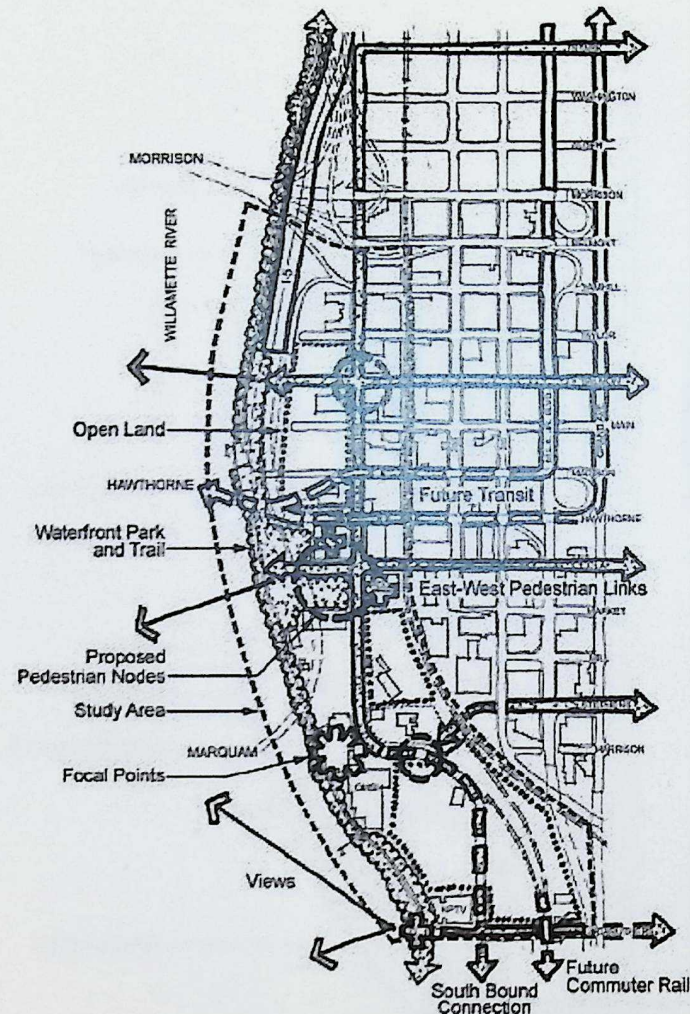
The Committee was selected to represent various stakeholders in the area and adjacent, including: property owners, businesses, members of the Central Eastside Industrial Council, Buckman and HAND neighborhood associations, and representatives of various city agencies (see complete listing on title page). The committee undertook a basic three-step process, supported by consultant technical studies:

1. Develop and agree on a 2020 VISION for this study area, including land uses, types of jobs and activities, circulation and connections to context, district amenities and character.
2. Develop STRATEGIES to focus and guide the transition toward the vision, including key issues such as zoning, transportation, infrastructure, financing and other mechanisms to promote the desired kinds of development.
3. Generate a list of specific ACTION /IMPLEMENTATION ITEMS, which will implement the vision and strategies, including the designated implementers and approximate timeframes

## 2.4 OPPORTUNITIES & CONSTRAINTS

The study area has views of the river and downtown skyline along about seven blocks of river frontage, which, combined with the future park, provide a major visual and recreational amenity. There are abundant vacant parcels providing development sites for centrally located businesses, jobs and services. The surrounding land uses are supportive manufacturing, distribution and light industrial, and the existing building stock is recent or capable of renovation.

The study area is relatively well-served by utility infrastructure. Some areas are missing electric service (SE Hawthorne and the area between SE Market and Stephens, Water and 3rd Avenues). There is good telecommunication coverage, including known fiber optic lines along Caruthers, Yamhill and Clay crossing the river, and the entire length of SW First, continuing south along the railroad right of way.



## OPPORTUNITIES

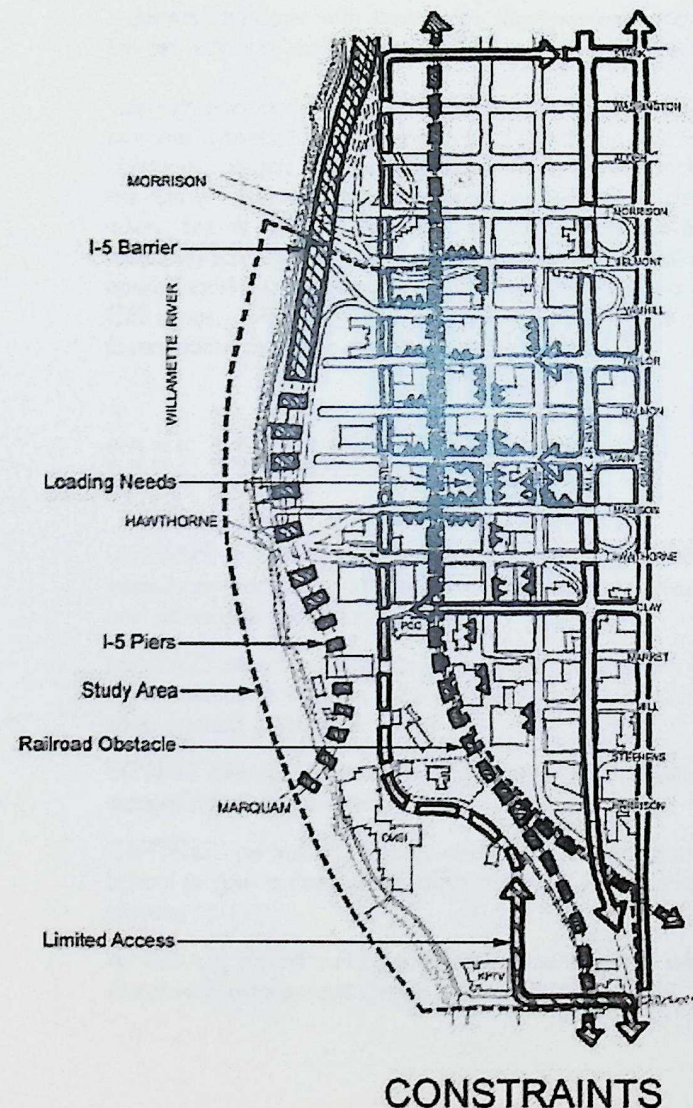


# INTRODUCTION

PCC, KPTV and OMSI facilities are recent investments, and create an educational/technology/media focus in the south half of the study area.

A topographic bluff along the East Side of the rail line defines the south half of the area, while established industrial uses define the east edge of the district along First Avenue, north of Market Street. The I-5 ramps create a physical barrier to the river at the north three blocks of the study area, and support piers and traffic noise effect the central riverfront portion. The at-grade railroad mainline bisects the study area and limits the number of street crossings, especially south of Clay Street. Trains frequently block the at-grade crossings to auto and truck traffic. High traffic volumes on the Grand/MLK couplet make access from the district onto or across Grand and MLK difficult. Due to traffic volumes, pedestrian crossings of the couplet are essentially limited to the few signalized intersections, minimizing the access from the neighborhoods to the east with the riverfront.

Much of the major regional traffic in the area traverses the study area by moving above the surface streets: I-5 carries north-south traffic above the district, while the viaducts serving the Hawthorne and Morrison Bridges carry east-west traffic above the surface streets and the railroad mainline. Without crossing the tracks, traffic from the study area is able to access the Hawthorne Bridge and exit the area to the south. For traffic destined to the north and to the east, the tracks can be a significant barrier preventing access to the Grand/MLK couplet.



## CONSTRAINTS



# DOS AREA VISION

Following a detailed analysis phase, the Steering Committee undertook a structured brainstorming process to develop a year 2020 vision for the study area. This was informed by analysis of opportunities, but unbridled by existing constraints such as zoning or access. After considering a wide range of possible land uses and activities, the committee agreed on the following essential points:

- The study area must emphasize employment and increase employment density well beyond that of typical warehouse, distribution and industrial uses. Yet employment density is not the exclusive criterion; call centers or pure offices are not desired. The ideal user would combine some office/idea activities with associated manufacturing/production, even if at a modest scale.
- This study area should not allow pure residential uses. Work-live options will be encouraged after the majority of sites are employment-developed.
- Various uses and strategies are crucial to insure the area does not "close at 5:00" and remains active and safe around the clock. These include street level restaurants and services, safety oriented urban design, and one business oriented hotel to provide a 24-hour presence.

The complete range of goals is described in the Vision Statement below:

## 3.1 VISION STATEMENT

CREATE an area with employment emphasis that is vital 24 hours per day and is well-connected to the Central City and surrounding districts. INCLUDE a mix of uses, such as research, development, high tech, manufacturing, distribution, creative services, office, incubator business, arts/cultural uses, commercial services and compatible recreational opportunities. RESPECT the historic character of the area by encouraging redevelopment within renovated structures and new infill development to be compatible with surrounding built fabric. ENHANCE the existing

industrial character with streetscape improvements and by adding art, signage, open space and other civic amenities.

This sub-area of the Central Eastside is specifically targeted to become a special type of employment sanctuary, one which encourages, attracts and accommodates cutting-edge industries of the future. These future businesses are difficult to define precisely, but all will link ideas and products and have employee densities/square foot - higher than traditional production/warehouse industries. This emphasis area intends to respect adjacent CES areas. Any potential impacts from this area will be managed to maintain existing functions outside the study area.

### GOAL 1: CREATE A BROADER AND DENSER EMPLOYMENT BASE.

MAXIMIZE density of employees, employment types and employee intensity on each site. Recruit firms engaged in creative services and advanced technology.

MINIMIZE peak-hour impacts on the circulation system by focusing on industries such as software development/production that often operate at off-peak hours.

EXPAND telecom infrastructure (fiberoptics, etc.) to attract information/creative industries.

CAPITALIZE on training opportunities at PCC and Benson High School to give a competitive advantage to Central Eastside employers.

RENOVATE vacant buildings as employment centers where consistent with employment targets.



# DOS AREA VISION

## GOAL 2: IMPROVE ACCESS TO AND WITHIN THE DISTRICT.

IMPROVE vehicular/truck access to and through the district. Include improvements to the street grid system and focus on minimizing local traffic conflicts.

PROVIDE an improved southbound access to Interstate-5.

EXPAND local street capacity by providing direct connection between Highway-99E and Interstate-5.

INCREASE public transit links to and within the district for employees and visitors. Consider all forms of public transit including bus, light rail and streetcar.

IMPROVE pedestrian circulation and streetscape amenities. Manage at-grade railroad conflicts.

UTILIZE the river as a transportation corridor and develop ferry and water taxi landings. Connect the river to the land transportation system.

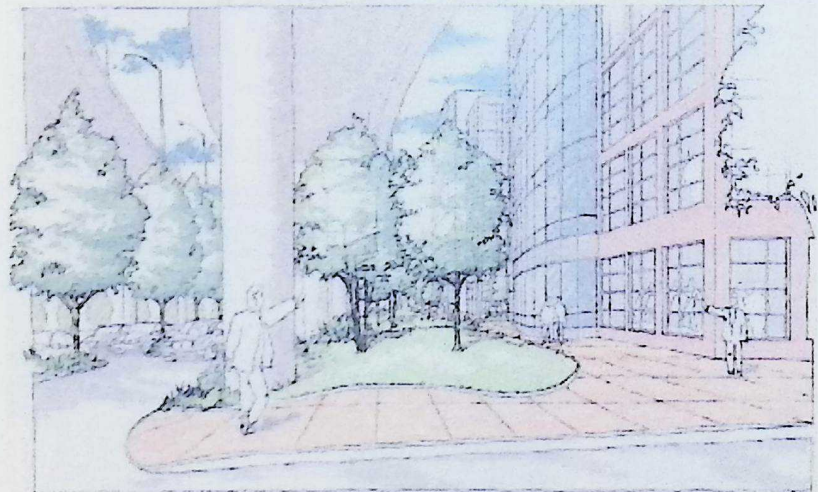
## GOAL 3: ADD NEW DEVELOPMENT.

ENCOURAGE buildings with vertically mixed uses, for example, with office above and retail employment below. Implement shared parking and strategically placed parking structures.

PROMOTE 24-hour life near the river at the park and on inland streets to increase neighborhood vitality and safety. Support industries with nonstandard (9-5) work hours.

CAPATALIZE on vacant land to capture new employers and reinforce public attractors and park usage.

MAXIMIZE existing business vitality and proactively assist with any relocation resulting from redevelopment activities.



New development adjacent to Interstate-5 would overlook the river and greenway.



# DOS AREA VISION

## GOAL 4: STRENGTHEN CHARACTER OF AREA AND CREATE AMENITIES.

REINFORCE public amenities –recreation, views, etc.– to attract employment and visitors.

INCORPORATE innovative integrated stormwater management design strategies.

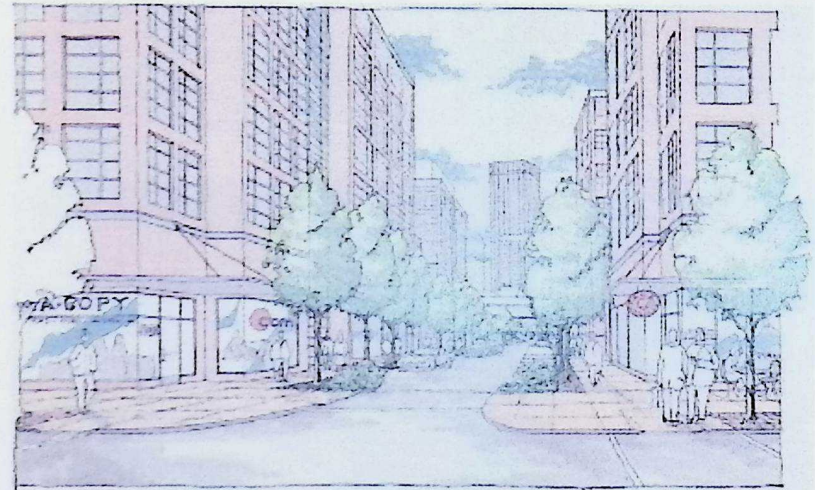
ENCOURAGE public and private art within the district, and positive streetscape amenities throughout the study area and vicinity.

INCLUDE retail, restaurants and business services that support adjacent employment uses and reduce vehicle trips.

STRENGTHEN the connection between OMSI and the Convention Center with a river trail, river taxi, streetcar loop and inland connections.

IMPLEMENT proactive, comprehensive strategy to ensure safety and police presence throughout the study area, especially along the riverfront.

MINIMIZE the negative effects of the existing I-5 and rail corridors on the district.



New development at Main and Water Avenue would provide active ground floor uses and a connection to the river.



# THE VISION PLAN

With the Committee vision in mind, the consultant team explored preliminary market, transportation and infrastructure concepts, then presented development build-out scenarios to the Committee. These coalesced into an integrated land use, development and circulation plan, which is represented on the two plan drawings following on pages 1.10 and 1.11. Key components of the plan are summarized below and a complete list can be found under Strategies.

## 4.1 LAND USE AND DEVELOPMENT

Capitalize on the two concentrations of vacant land at the north and south ends of the study area. Give each a strong use and visual identity to attract similar tenants. Support both a central education/service subdistrict in the zone between OMSI and Hawthorne Street, consolidating PCC Work Force Training Programs, OMSI educational outreach, and a potential Industrial Arts/Trade School proposed by representatives from the Mayor's office. The intersection of Water and Clay Streets is reinforced by PCC, a public plaza, and by a proposed eight-story hotel, creating a 24-hour mixed use node at the center of the study area. This node is further reinforced by a proposal now being considered for redevelopment of the adjacent Holman Building at Clay Street and Water Avenue into a mixed use public attractor.

The PGE-owned land at the south end targets research and development users; at 250 ksf, it is large enough to accommodate a corporate headquarters. Along with KPTV, they are organized around an east-west, garden amenity incorporating stormwater treatment features which enhances adjacent development. There is the potential for the firms to emphasize sustainable products or services and use this feature as a demonstration site. The six blocks flanking Water Avenue between Madison and Taylor are developed into a high-tech, incubator subdistrict with business support services, retail, and a fitness center. The west parcels are publicly owned; two of the east parcels are combined into a superblock with an east-west pedestrian concourse.





# THE VISION PLAN

These new buildings are proposed to be five- to seven-story structures designed to define the street edge. Some of the existing buildings are viable candidates for renovation, and a special form and use are proposed for the odd-shaped bridgehead site between the viaducts and Water Avenue.

## 4.2 CIRCULATION, TRAFFIC AND PARKING

In connection with the redevelopment of the study area, the existing street grid system is to be retained and enhanced. The grid system would continue to provide access to all parcels, maximize circulation options, and distribute traffic to the regional transportation network. Water Avenue is emphasized as the primary north-south street with connections to the major street network via Stark, Clay, Caruthers, and the Hawthorne Bridge. Water Avenue's role as a multi-modal street will be expanded and include provisions for pedestrians, bicyclists, transit and on-street parking along its entire length. Caruthers, Clay, and Salmon streets would be the primary east-west multi-modal streets and would include pedestrian enhancements on the sunnier, north side; Salmon is the northernmost east-west street with clear access to the river all the way from the neighborhoods to the east. Easy freight movement through the study area will continue to be important.

Adequate on-site parking is necessary for additional employment. Providing preservation parking and shared parking would prevent an excessive quantity of parking spaces, while parking structures would minimize land use for parking. Five major parking structures are proposed. Three are proposed to be located adjacent to OMSI, but will be shared with adjoining uses. Other parking structures are shown "side-by-side" with affiliated development. Several are proposed in locations where they might also act as acoustic buffers to the railroad.

To make maximum use of the opportunities in the study area, minor changes to the street system are proposed. These include some previously identified proposals for traffic operations improvements and ramp changes, plus some potential new signals. Many of these were previously identified in the 1990 Central Eastside Transportation Study (CETS).

To accommodate the anticipated regional traffic growth, the vision for the district includes the previously identified needs including the direct connection of McLoughlin Boulevard with I-5 and improvements that provide for enhanced access to southbound I-5 from the district.

The committee supports a combination of projects that would improve access from the CES to southbound I-5 within the context of the Regional Transportation Plan. The committee's preferred alternative, which still needs to be refined by further study, would involve improved connections from the CES to the east end Ross Island Bridge and from the western end of the Ross Island Bridge to southbound I-5. The committee, furthermore, continues to support the previously-identified "Water Avenue Ramp" alternative as a "next best" alternative for gaining access to southbound I-5.

The committee supports the reconfiguration of I-5 such that the freeway is less disruptive to the development of the CES and the transportation needs of the district's stakeholders. The reconfiguration is a long term solution that exceeds the planning horizon of the current Regional Transportation Plan.



# THE VISION PLAN

## 4.3 STORMWATER MANAGEMENT

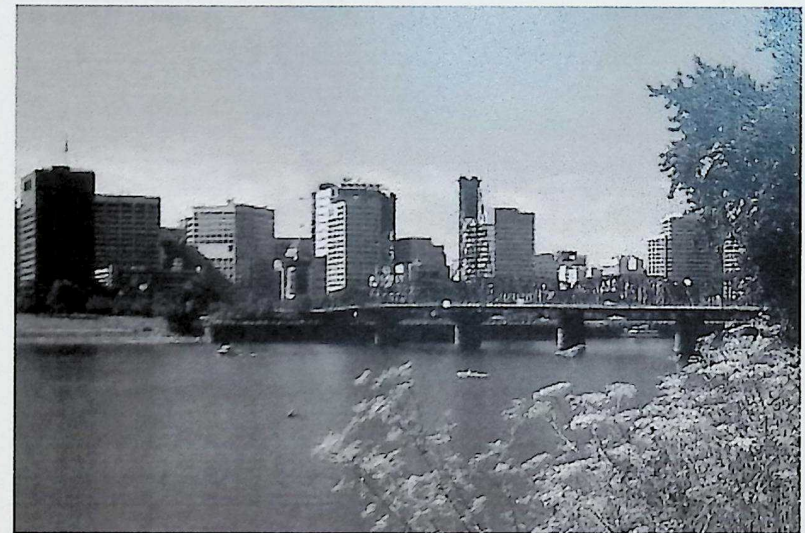
All new development and redevelopment within the Central Eastside study area will fall under the City's new stormwater management requirements (effective July 1, 1999) for reducing the impacts of stormwater runoff (water quantity) and pollution (water quality). Since stormwater quality facilities will be required of all developments at the expense of the property owners and the study area is well suited to a centralized stormwater management facility, the CES DOS project lends itself to a unique stormwater management initiative for a landmark urban redevelopment project. Incorporation of water features that address sustainable stormwater runoff in their design would weave the entire area together functionally, visually, and aesthetically and enhance connections to the river. The primary benefits of a centralized facility would be "economy of scale" cost savings to property owners and positive environmental impacts. Exciting opportunities exist to demonstrate state-of-the-art stormwater management practices on a large scale, given the size of the study area, the extent of anticipated redevelopment and the visibility of the Central Eastside district.

## 4.4 OPEN SPACE AND PARKS

The East Bank Esplanade and planned Crescent Park are the major park features in the study area and larger Central Eastside. The esplanade is a defining catalyst and will complete a riverfront loop connecting downtown, the Rose Quarter/convention center, and the Central Eastside. The esplanade and park are supplemented by a series of special east-west landscape and water elements, connecting Water Avenue to the river. These elements may incorporate sustainable principles, interpretation, and/or stormwater features, and occur every three to four blocks along the west (river) side of Water Avenue (at Caruthers, Stephens, Clay, Madison, and Salmon). They terminate at riverfront viewpoints, several of which make likely stops for future water taxis.

## 4.5 TRANSIT, BIKES & PEDESTRIANS

Three of the above east-west feature streets (Caruthers, Clay and Salmon) are also designated as primary pedestrian streets connecting the riverfront, CES and the residential neighborhoods to the east. These connections are important objectives of the neighborhood plans and the Central City Plan and, by enhancing pedestrian access, will support the success of the park. Consistent street trees and on-street parking will provide pedestrian safety, amenity and scale along these streets, in addition to Water Avenue. Im-





# THE VISION PLAN

proved vertical connections are proposed from the bridgehead viaducts down to the riverfront trail and at Water Avenue. Bikes are accommodated throughout the study area according to city classifications, with Water Avenue continuing as the primary north-south route. The Eastside Espalade also serves as an important north-south bicycle and pedestrian link.

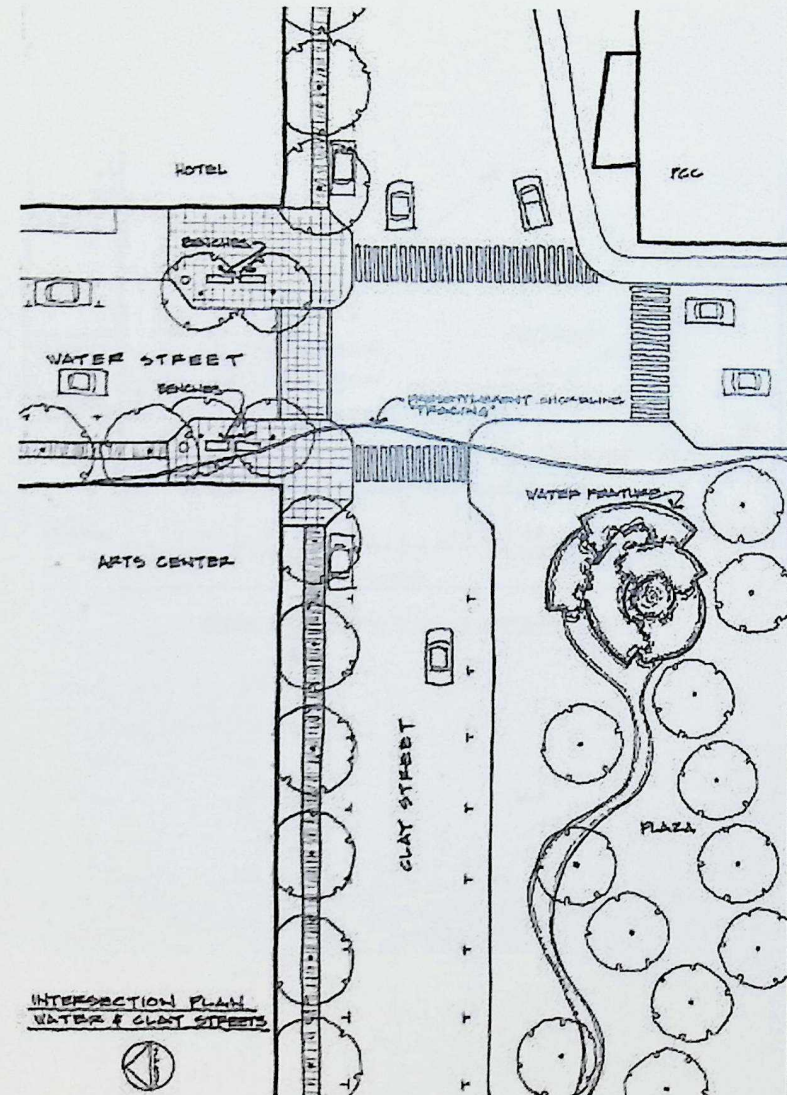
There is potential for the district to serve as a multi-modal link between the eastside streetcar loop, Eastside light rail connector, commuter rail, and high speed rail if a major station connecting these modes was located in the area. The Central Eastside would then serve as an important gateway for the city.

Improved Tri-Met bus service to and through the study area is required, preferably along Water Avenue, with more stops as development occurs. The Eastside streetcar loop adopted by City Council in 1990 is strongly endorsed as a crucial link to Downtown and the Lloyd District, with vertical connections to ground from the Hawthorne viaducts. The plan also accommodates the potential south-north light rail alignment, with a proposed station just south of OMSI near the river.

## 4.6 URBAN DESIGN & STREETScape

In addition to the various urban design elements described in other sections above, the following aspects will further improve the pedestrian, mixed use function, and unify the identity of the public realm in the study area.

- Strengthen the pedestrian character of Water Avenue with widened sidewalks, regular street trees, undergrounded utilities, pedestrian-scaled streetlights and street furniture. This is especially important along the west side, which may also incorporate a tracing of the original waterline, inlaid into the sidewalks, lobbies and floors of adjacent new buildings, serving to interpret the meaning of "water" avenue (see plan sketch).
- Further strengthen Water Avenue with adjacent building edges which emphasize transparent, storefront facades and active,

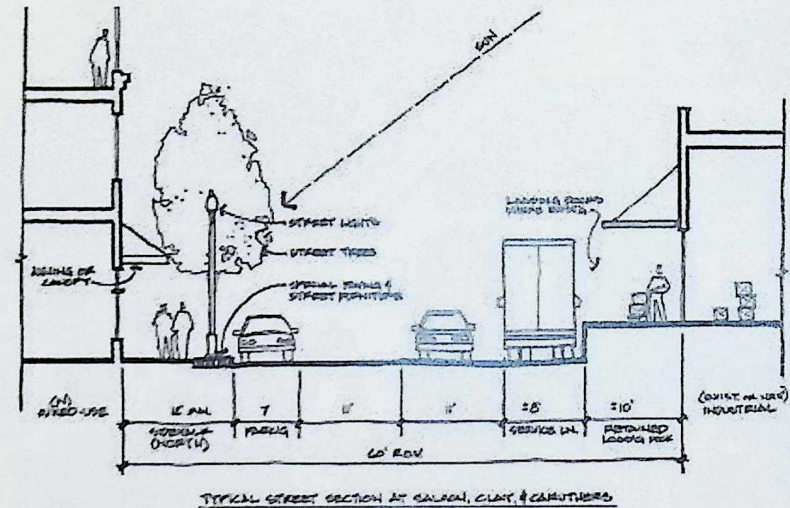




# THE VISION PLAN

ground floor uses such as showrooms, cafes, copy centers, a fitness center etc. These active edges also extend along the north side of the three east-west pedestrian emphasis streets, which also incorporate streetscape improvements similar to Water Avenue. The intent is to encourage business services, cafes and small-scale retail that support adjacent businesses and create 24-hour life, rather than "destination" retail.

- To provide positive connections, pedestrian enhancements need to occur continuously, at least on one side of each street. The opposite side then easily accommodates loading docks and various functions that may be retained; the streets need not be symmetrical or fully converted to a genteel, downtown image (see typical street section drawing).
- Provide a series of water features that weave the entire area together functionally, visually, and aesthetically through the incorporation of sustainable stormwater runoff practices and strong connections to the river.
- To ensure quality development and architectural treatment, some type of Design Guidelines or Design Review should be developed for the study area (and perhaps beyond). The goal is to respect the industrial character and heritage of this specific area, yet allow more progressive forms and materials that express the hybrid nature of the emerging study area.

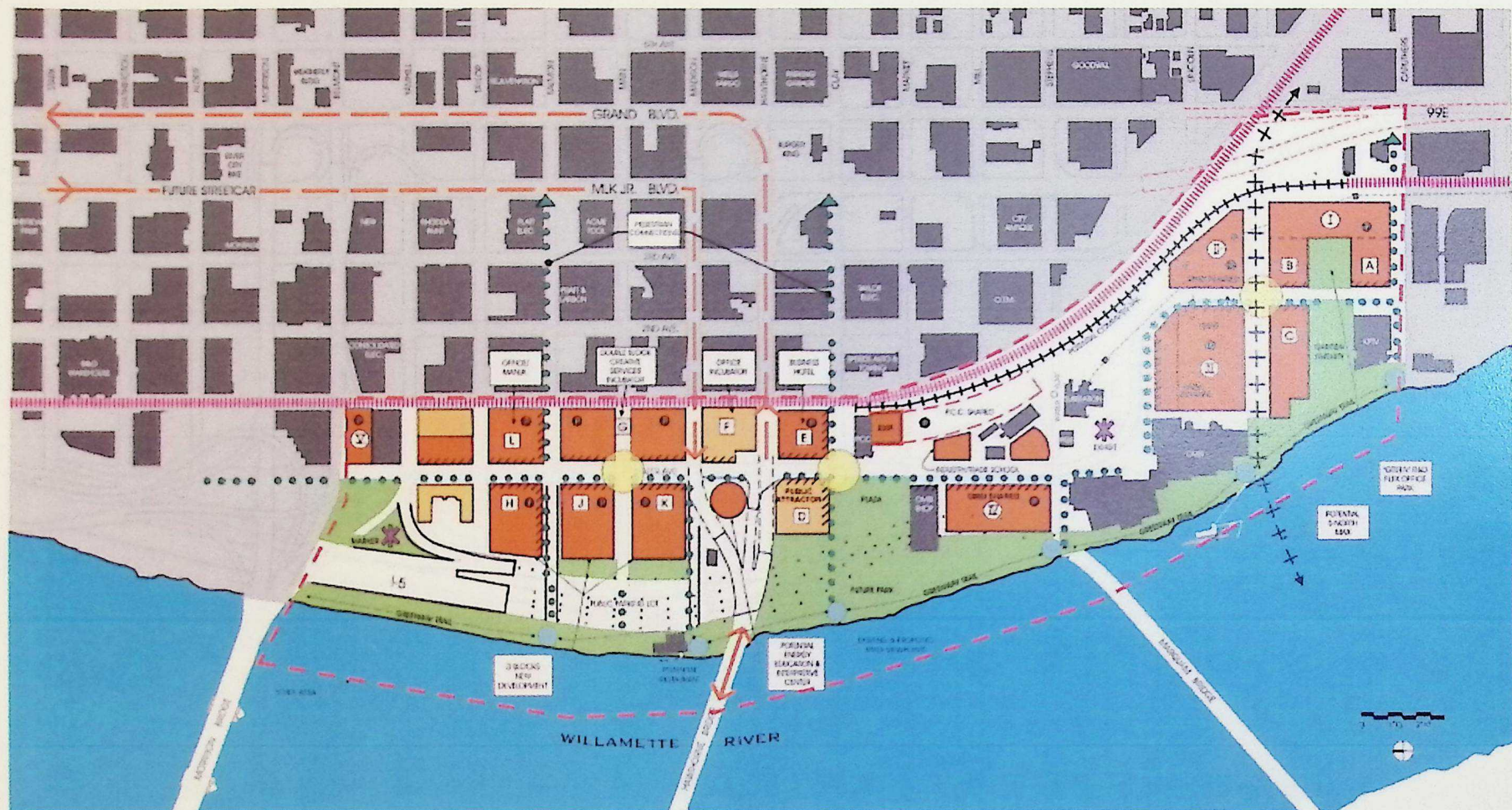


## 4.7 POST FREEWAY VISION

Two concept plans, illustrated on pages 18 and 19, show visions for development and open space that can be gained should the I-5 freeway be removed from its current waterfront location. Concept A illustrates an active recreation emphasis showing opportunities for new public attractors and outdoor recreation sites. Concept B illustrates a greater emphasis on public attractors and passive open space.



# THE VISION PLAN



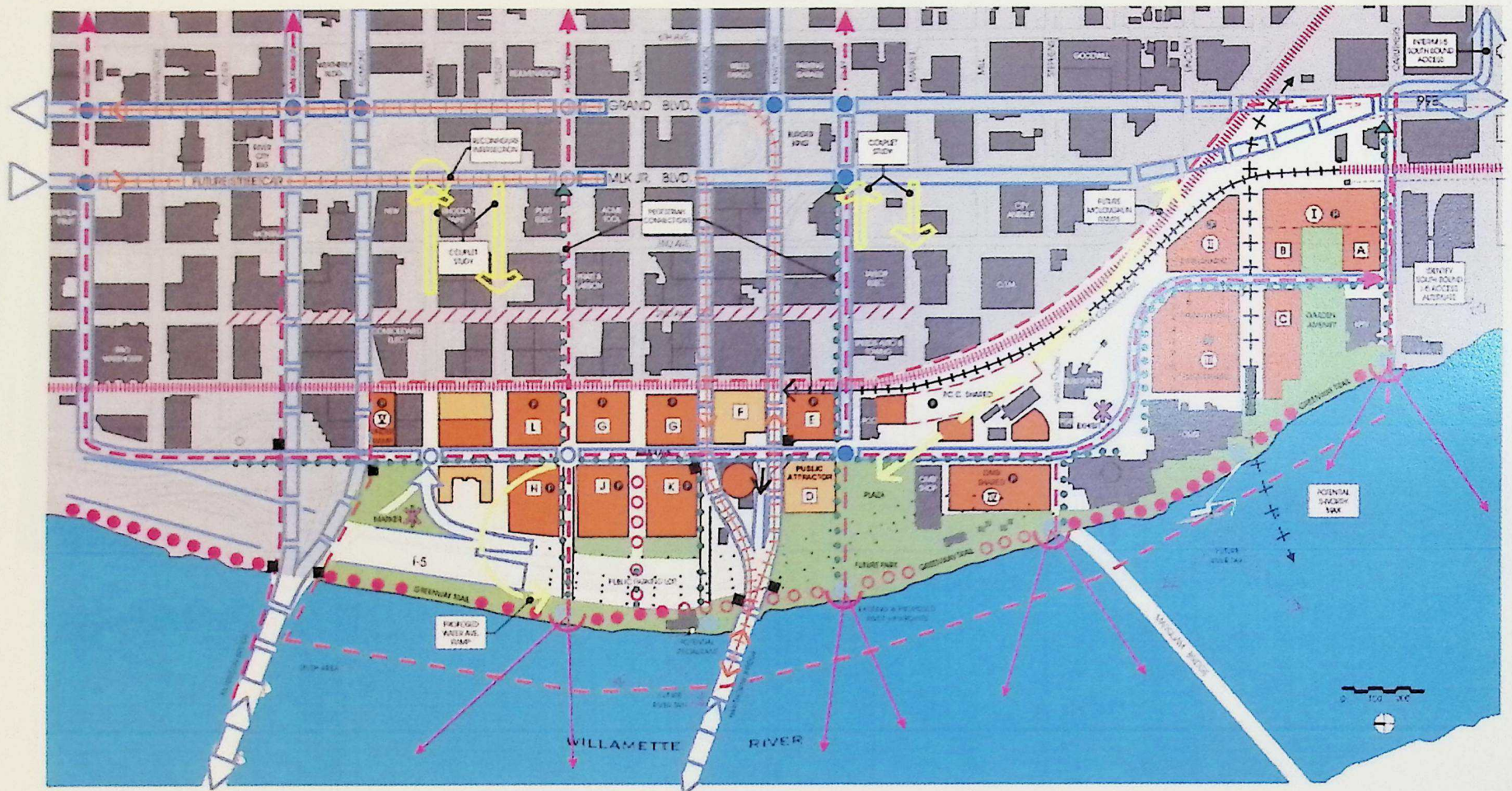
## LAND USE & DEVELOPMENT PLAN

- Proposed New Development
- Renovate Existing Structure or Wall
- Active Ground Floor Uses  
Neighborhood Retail & Showrooms

- Existing Building Footprint
- Structured Parking Integrated Within Building
- Business Services & Other Support Retail, Cafes, Etc.



# THE VISION PLAN



Proposed:

- Pedestrian Emphasis Street
- Future Streetcar
- Vertical Pedestrian Circulation
- Structured Parking Integrated Within Building
- Truck Priority Street
- Proposed New Development
- Renovate Existing Structure or IRL

## TRANSPORTATION & CIRCULATION PLAN

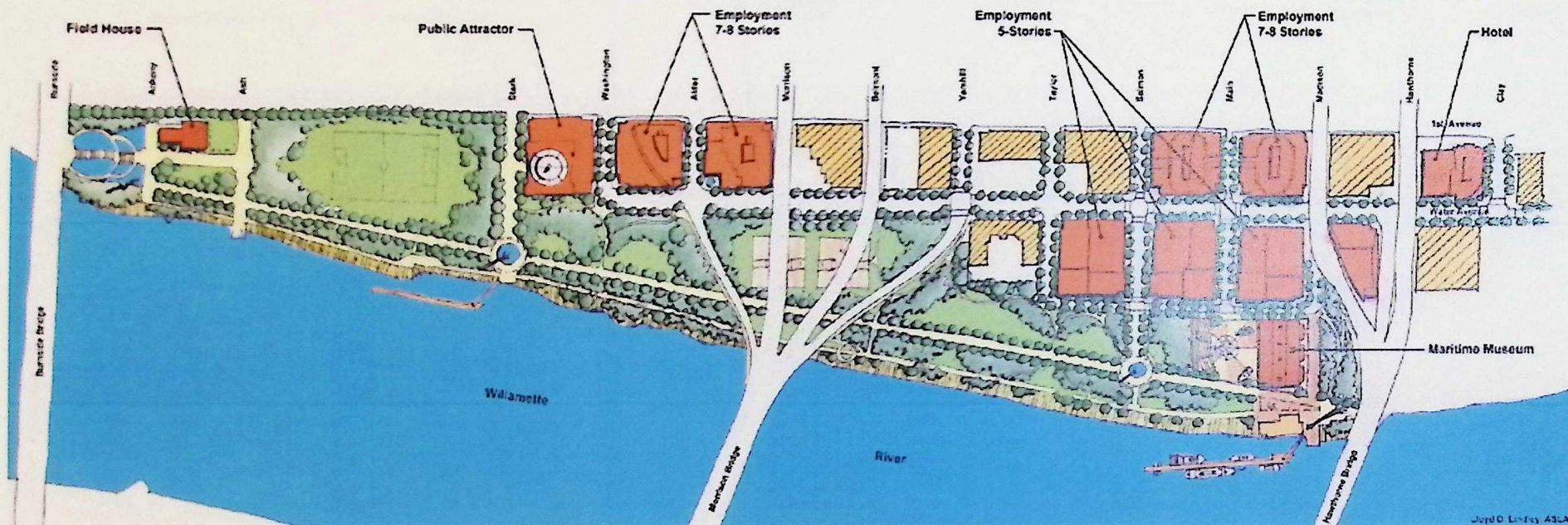
Existing:

- Major Traffic Street
- Signal
- Proposed Signal
- Existing Building Footprint
- Railroad Mainline

**NOTE:** This Map is not a composite of official city street designations.



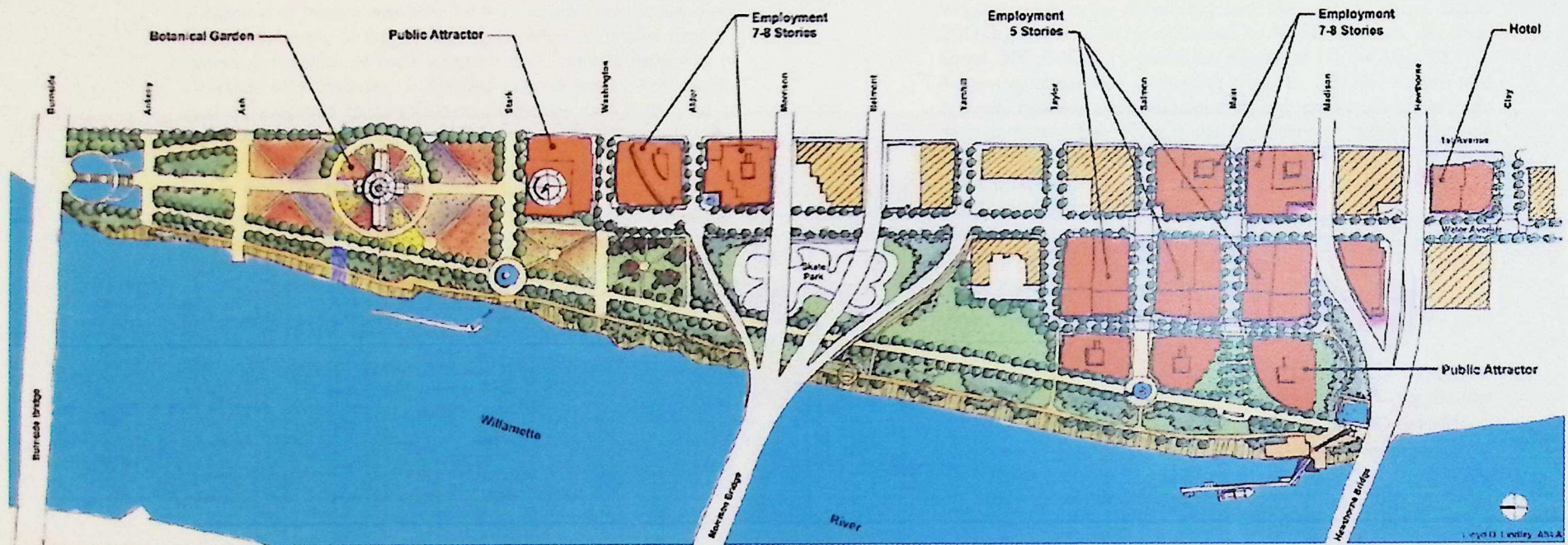
# THE VISION PLAN



CONCEPT PLAN A



# THE VISION PLAN



CONCEPT PLAN B



# MARKET FEASIBILITY

E.D. Hovee & Company participated in the Committee vision deliberations and offered market insights. They conducted an evaluation of market feasibility for the Central Eastside Development Opportunity Strategy involving a review of market context, potentials for each of three subareas and financial feasibility of development prototypes. A detailed table of the 11 most significant development proposals was developed and is located at the end of this section (pages 1.14 and 1.15)

## 5.1 MARKET CONTEXT

This development opportunity strategy (DOS) comes at an opportune time – as traditional distinctions between manufacturing, wholesale, retail, distribution, service and office uses are increasingly blurred. Of particular importance for Portland's Central City industrial districts are the emerging information and creative service industries.

The DOS looks to creation of a refined model of employment sanctuary – uniquely fitted to the new opportunities of the 21<sup>st</sup> century. Important drivers of this emerging concept include:

- Recognition that Central City job growth has been relatively flat in recent years, and that Multnomah County's share of the region's industrial job base has been eroded.
- Growing presence of new industries such as creative services, information and showroom activities that show strong interest in locations at the edges of the Central City; however, current zoning does not readily fit changing requirements of these growth industries.
- Growth of nontraditional service sector employers away from a high-rise environment toward mid-rise and campus-oriented business park sites.
- Ability for flex space to accommodate more jobs on a per square foot basis and to better support the rent levels required for new construction than traditional manufacturing and warehouse-distribution buildings.
- Increased interest in nontraditional hours and work/live concepts that add vitality beyond the traditional 8-5 work week.

This DOS suggests potential for up to 1.4 million square feet of showroom/manufacturing, R&D, office and neighborhood-oriented lodging/retail to be developed over the next 20 years. Up to 250,000 S.F. could be absorbed in the first 5 years; an additional 500,000 S.F. could be expected by the year 2010. Achieving absorption averaging close to 70,000 square feet annually represents an ambitious, though potentially achievable development target. Keys to the realization of build-out include creation of distinctive subareas and demonstration of financially feasible development prototypes, especially to "kick-start" the first 5 year projection of 250,000 S.F.

## 5.2 DISTINCTIVE SUBAREAS

These subareas are identified for the DOS area situated between First Avenue and the Willamette River, Caruthers and Belmont:

- An R&D subarea at the southern end of the DOS area – anchored by OMSI and with potential for 250,000 square feet of R&D/lab, office/service and office space on three sites.
- A service, educational and cultural core extending north from OMSI to Madison Street beyond the Holman Building – comprising approximately 300,000 square feet of development opportunity on three key blocks for an a public attractor, business hotel, showroom/manufacturing and office space plus longer term potential for an industrial arts/vocational tech center.
- A mid-rise high tech/dot.com village extending from Madison north to Belmont (and served by fiber optic telecommunications capability in the rail right-of-way), with opportunity for development of more than 800,000 square feet on five blocks for showroom manufacturing, flex/office and supporting neighborhood retail.



# MARKET FEASIBILITY

## 5.3 FINANCIAL FEASIBILITY

A preliminary financial feasibility analysis has been conducted as part of the Development Opportunity Strategy, for two different prototype developments:

- Block B – a three-story, 90,000 square foot office/R&D facility on 1.8 acres (located at the southern end of the DOS area).
- Block J – a seven-story mixed-use project with 130,000 square feet of neighborhood retail, showroom manufacturing and offices located on 1.45 acres adjoining the I-5 freeway at the northern end of the district.

## 5.4 SENSITIVITY ANALYSIS

Project feasibility for these two project prototypes varies widely – depending on the assumptions applied regarding:

- Rental rates – with alternatives for top-of-market versus current rates typical for the CES district.
- Cost of Building Construction – contrasting effects of current typical CES construction versus a building product offering higher levels of finish and amenities.
- Parking Arrangement – surface versus structured parking.

Preliminary results of this pro forma financial analysis are summarized as follows:

- Block B – two of eight financial scenarios appear to be clearly feasible, essentially requiring top of the market rents and low construction costs. The remaining scenarios all indicate weak financial feasibility.
- Block J – the strongest scenarios reflect at top of the market rents: two with low cost (typical) CES construction and one at higher cost (and higher amenity) construction but with surface parking.

The pro forma analysis assumes availability of required infrastructure to the project site and private financing. Consideration of

public financial assistance (comparable to what has occurred elsewhere in the Central City) may be appropriate as an incentive to encourage higher quality of development, including structured parking.

Also reviewed, but with less detailed analysis, has been the financial feasibility of a Block L 100,000 square foot structure (with 20,000 square feet of showroom manufacturing and four floors with 80,000 square feet of office space). Feasibility of this project can be expected to be equal or superior to that of Block J because of: (a) an anticipated mix of higher rent-generating uses; and (b) a simpler parking solution (with five parking trays located behind the office/showroom structure toward the First Avenue rail right-of-way).

### Block B:

	CES Typical Construction Cost		Higher Amenity Construction	
	Surface Parking	Structured Parking	Surface Parking	Structured Parking
Rental Rates				
Current Typical Rent				
Top of Market Rent				

### Block J:

	CES Typical Construction Cost		Higher Amenity Construction	
	Surface Parking	Structured Parking	Surface Parking	Structured Parking
Rental Rates				
Current Typical Rent				
Top of Market Rent				

### Financial Feasibility Indicators:

Weak	
Moderate	
Strong	

Source: E.D. Hovee & Company, March 1, 2000. Results are illustrative and subject to change as project concepts are refined.



# DEVELOPMENT PROPOSALS

BLOCK	SPECIFIC USE (TRUE USE)	LAND USE CATEGORY	APPROXIMATE SITE AREA (G. SQ. FT.)	FLOOR AREA (G. SQ. FT.)	F.A.R.	HEIGHT # STRS.	NUMBER OF EMPLOYEES FACTOR (EMP./KSF)		PARKING MARKET PREFERRED FACTOR (SPACE/KSF)		MIN. PARKING REQUIRED * FACTOR (SP./KSF)		MIN. PARKING AREA REQ'D (@350GSF/SP.)
A	R&D OFFICES/LAB OFFICE/SERVICE	OFFICE (R&D CENTER) OFFICE/SERVICE	85,000 (1.9 acres)	30,000	1: 0.7	2	3.3	99	3.0	90	2.5	75	36,750
				30,000			2.5	75	1.0	30	1.0	30	
				60,000				174		120		105	
B	R&D OFFICES/LAB OFFICE	OFFICE (R&D CENTER) OFFICE	82,200 (1.8 acres)	30,000	1: 1.1	3	3.3	99	3.0	90	2.5	75	78,750
				60,000			3.1	186	3.0	180	2.5	150	
				90,000				285		270		225	
C	R&D OFFICES/LAB OFFICE  (ASSUMES KPTV @ 40 KSF)	OFFICE (R&D CENTER) OFFICE	120,900 (2.7 acres)	52,000	1: 0.8	2	3.3	172	3.0	156	2.5	130	87,500
				48,000			3.1	149	3.0	144	2.5	120	
				100,000				320		300		250	
D	N'HOOD RETAIL PARKING EXHIBITION/ARTIST STUDIOS OFFICES  [HOLMAN BLD'G RENOV.]	RETAIL & SERVICE	40,000 (0.9 acres)	10,000	1: 2.5	4	1.4	14	4.0	40	2.0	20	46,813
				20,000									
		MANUF. & PROD. OFFICE		35,000			1.0	35	1.0	35	0.8	26	
				35,000			3.1	109	3.0	105	2.5	88	
E	N'HOOD RETAIL PARKING (2FL. = 170SP.) HOTEL (150 ROOM - 6 FL.)	RETAIL & SERVICE	40,000 (0.9 acres)	10,000	1: 4.0	8	1.4	14	4.0	40	2.0	20	38,500
				60,000									
		RETAIL & SERVICE		90,000			0.7	63	1.0	90	1.0	90	
F	N'HOOD RETAIL SHOWROOM/MANUF. OFFICE  [RENOVATION & INFILL]	RETAIL & SERVICE	40,000 (0.9 acres)	10,000	1: 3.0	3	1.4	14	4.0	40	2.0	20	72,625
				50,000									
		MANUF. & PROD. OFFICE		60,000			0.5	25	1.0	50	0.8	38	
							120,000	3.1	186	3.0	180	2.5	
G	N'HOOD RETAIL SHOWROOM/MANUF. PARKING OFFICE	RETAIL & SERVICE	96,000 (2.2 acres)	20,000	1: 4.6	8	1.4	28	4.0	80	2.0	40	161,000
				160,000									
		MANUF. & PROD.		140,000			0.5	80	1.0	160	0.8	120	
				120,000									
				440,000				480		600		460	

Block letters refer to those shown on land use plan drawing



# DEVELOPMENT PROPOSALS

BLOCK	SPECIFIC USE (TRUE USE)	LAND USE CATEGORY	APPROXIMATE SITE AREA (G. SQ. FT.)	FLOOR AREA (G. SQ. FT.)	F.A.R.	HEIGHT # STRS.	NUMBER OF EMPLOYEES FACTOR (EMP./KSF)		PARKING MARKET PREFERRED FACTOR (SPACE/KSF)		MIN. PARKING REQUIRED * FACTOR (SP./KSF)		MIN. PARKING AREA (@350GSF/SP.)
H	N'HOOD RETAIL PARKING (2 FL.) SHOWROOM/MANUF. (1FL.) OFFICE (4FL.)	RETAIL & SERVICE	55,000 (1.2 acres)	10,000	1: 3.9	7	1.4	14	4.0	40	2.0	20	73,938
		MANUF. & PROD. OFFICE		90,000			0.5	28	1.0	55	0.8	41	
				55,000			3.1	186	3.0	180	2.5	150	
				60,000									
				215,000				227.5		275		211	
J	N'HOOD RETAIL PARKING (2 FL.) SHOWROOM/MANUF. (1FL.) OFFICE (4FL.)	RETAIL & SERVICE	63,000 (1.4 acres)	10,000	1: 3.7	7	1.4	14	4.0	40	2.0	20	75,250
		MANUF. & PROD. OFFICE		100,000			0.5	30	1.0	60	0.8	45	
				60,000			3.1	186	3.0	180	2.5	150	
				60,000									
				230,000				230		280		215	
K	N'HOOD RETAIL FITNESS CENTER PARKING (2 FL.) SHOWROOM/MANUF. (1 FL.) OFFICE (4 FL.)	RETAIL & SERVICE	63,000 (1.4 acres)	10,000	1: 3.7	7	1.4	14	4.0	40	2.0	20	89,250
		RETAIL OR COM. SERV.		20,000			1.0	20	4.0	80	2.0	40	
		MANUF. & PROD. OFFICE		80,000			0.5	30	1.0	60	0.8	45	
				60,000			3.1	186	3.0	180	2.5	150	
				230,000				250		360		255	
L	SHOWROOM/MANUF. OFFICE (4 FL.)	MANUF. & PROD. OFFICE	40,000 (1.0 acres)	20,000	1: 2.5	5	0.5	10	1.0	20	0.8	15	75,250
				80,000			3.1	248	3.0	240	2.5	200	
				100,000				258		260		215	
TOTAL	R&D OFFICE/LAB	OFFICE (R&D CENTER)		112,000			3.3	370	3.0	336	2.5	280	
	OFFICE/SERVICE	OFFICE/SERVICE		30,000			2.5	75	1.0	30	1.0	30	
	SHOWROOM/MAUNF.	MANUF. & PROD.		405,000			0.5	203	1.0	405	0.8	304	
	EXHIBITION/ART STUDIOS	MANUF. & PROD.		35,000			1.0	35	1.0	35	0.8	26	
	OFFICE	OFFICE		583,000			3.1	1807	3.0	1749	2.5	1458	
	HOTEL	RETAIL & SERVICE		90,000			0.7	63	1.0	90	1.0	90	
	RECREATION CENTER	RETAIL OR COM. SERV.		20,000			1.0	20	4.0	80	2.0	40	
	N'HOOD RETAIL	RETAIL & SERVICE		80,000			1.4	112	4.0	320	2.0	160	
GRND.	GRAND TOTAL			1,355,000	1: 2.8	AVG.		2,684		3,045		2,388	
TOTAL	PARKING AREA (STRUCTURED)			490,000									835,625
	NUMBER OF SPACES			1,400		IN BLDGS.							2,388

\*There is no simple minimum parking required by the city in Central Eastside sectors 1 & 4. Calculations shown are based on NON-CENTRAL CITY requirements for land use category.



# TRANSPORTATION ANALYSIS

## 6.1 INTRODUCTION

Transportation consultants from David Evans and Associates participated in the discussions leading to the development vision, and then conducted traffic and transportation analysis of the proposed vision plan. Their analysis considers the impact of adding site generated trips from the conceptual development vision and considers a modest growth in background study area traffic for the next five years. Future intersection operations are evaluated and options to enhance development area access are addressed in their full technical memorandum, contained in the separate Appendix.

## 6.2 POTENTIAL IMPACT OF STUDIED PROJECTS

A number of projects to improve access to/from and circulation within the CES have been studied primarily as part of the 1991 Central Eastside Transportation Study (CETS). A description and present status of these projects was presented to the Central Eastside Development Opportunity Strategy (CES DOS) Committee in a separate technical memorandum. A number of projects could potentially improve access to/from and circulation within the study area. The impact projects include:

- Signalizing SE Salmon or Main Street across the MLK/Grand couplet
- Constructing the I-5/McLoughlin ramps
- Restriping SE Stark to two lanes eastbound and one lane westbound
- Implementing the Yamhill/Taylor and Clay/Market couplets

These and other identified projects would improve area access and circulation. However, none of the above-listed projects are currently listed under the Portland Department of Transportation's (PDOT) 2001-2006 Capital Improvement Program (CIP) or under the Oregon Department of Transportation's draft 2002-2005

Statewide Transportation Improvement Program (STIP). Prospective projects move from plans to funding documents on the basis of meeting policy and technical criteria but also benefit from political and agency advocacy.

## 6.3 TRANSIT IMPACTS

Based on existing p.m. peak-hour transit observations on the Hawthorne and Morrison Bridge viaducts, buses from downtown are standing-room-only outbound from the study area. Without expanded bus service through the development area, a substantial bus mode split does not appear feasible and was therefore not taken into account for the traffic analysis. Because of the mix of uses proposed by the development vision it was assumed that many of the new retail trips would both start and end within the immediate area or be made by walking. All of the remaining p.m. peak hour trips generated by the development were assigned to the area street network.

More frequent and more direct transit service in the study area is an important component of a multi-modal transportation system. If transit coverage and circulation were expanded to help bring about a 10 percent mode shift to bus, the expected impact would be modest. For example, with a 10 percent reduction in total p.m. peak-hour trips, from 1,467 to 1,320, the revised site-generated traffic volumes approaching each of the key intersections would be slightly reduced. The reductions due to increased transit would not, however, be enough of a reduction to substantially improve intersection operations.



# TRANSPORTATION ANALYSIS

## 6.4 CONCLUSIONS

The Committee's conceptual development vision will add over 1.2 million square feet of office, retail, and industrial/warehouse space and 150 hotel rooms to the CES. The development would result in the addition of nearly 1,500 total trips to/from the development site during the p.m. peak hour. Of the critical study area signalized intersections evaluated, the intersections of SE Clay, Taylor, and Stark Streets with SE MLK Blvd. and SE Grand Avenue would be most impacted. These are the main portals providing east-west access to/from the development area, as well as northbound access from the study area via SE Grand Avenue and Sandy Blvd.

The ability of the surrounding street system to accommodate the increase in traffic associated with the proposed new development is somewhat dependent upon the level of growth in regional traffic projected along the MLK/Grand couplet and the implementation of various regional improvement projects that would help alleviate this regional traffic growth. For the purpose of this transportation analysis, only modest increases in background traffic was assumed (five years growth) and no new regional transportation projects were assumed. This allows the analysis to focus on the impact of the proposed vision against current and known conditions.

In the absence of signal timing changes along the MLK/Grand couplet, the addition of full build-out site-generated traffic to existing volumes would severely impact east/west access to and from the development area. However, preliminary analysis indicates that changes in existing couplet signal timing could improve east-west access to/from the development area with an associated decrease in couplet level of service. Further traffic analysis of potential signal timing changes is beyond the scope of this study but would be required before any signal timing changes would occur; such a study would likely need to address the morning peak period as well as the evening peak period.

A number of regional traffic and transit improvement projects identified in the Regional Transportation Plan would likely affect background transportation conditions in the Central Eastside, such as the Water Avenue Ramp, the McLoughlin-I-5 connection and South Corridor transit improvements. An Eastside streetcar or bus loop service could also improve area access and circulation. However, none of these projects are funded. A substantial increase in transit mode split above current levels accommodating the development vision would be required to have a noticeable effect on reducing its traffic impacts.

## 6.5 RECOMMENDATIONS

- Potential appears to exist to improve CES DOS access by taking a modest amount of green time from the MLK/Grand couplet traffic signals and distributing it to the side streets within the study area. To better evaluate the potential to improve access and the associated impacts to couplet traffic progression, a separate corridor study extending at least between SE Burnside and Clay Streets would be needed.
- If the development build-out schedule is expected to extend much beyond the year 2005 as considered in this analysis, the importance of completing many of the regional projects identified in the CETS will become greater. Key regional projects include the McLoughlin - I-5 connection and improvements to enhance access from the district to southbound I-5. CES DOS committee members are encouraged to actively work with PDOT and ODOT staff to find the funding necessary to complete many of these key projects.
- If decided that the committee's development vision will result in a significant land use change or require a comprehensive plan amendment, a 20-year transportation impact analysis would be needed for the DOS area. This 20-year analysis would be required by ODOT and PDOT for the DOS proposal to move forward and would likely require agreement from both agen-



# TRANSPORTATION ANALYSIS

cies on how the analysis be conducted. A 20-year analysis may be needed simply due to the fact that the committee's development vision may be a more intensive development than is planned for in Metro's Regional Transportation Plan (RTP). A 20-year analysis may therefore incorporate possible RTP amendments to change the CES system to serve the DOS.

- Many short-term in-district projects may support the committee's development vision until larger regional projects can be completed. Some of these projects include the following:
  - Signalizing SE Salmon or Main Street across the MLK/Grand couplet: This project would create another east-west portal into and out of the DOS area. The expected shift of traffic from existing east/west portals at SE Clay, Taylor, and Stark Streets would improve operations at those portals.
  - Restriping SE Stark to two lanes eastbound and one lane westbound: This project would increase eastbound roadway capacity to better accommodate access out of the CEID.
  - Implementing the Yamhill/Taylor and Clay/Market couplets: These projects would increase roadway capacity for CEID access, but have other trade-offs which require detailed analysis.
- The proposed mixed-use development vision introduces a blend of employees and visitors into the area that may have different transportation service needs and expectations than that of the current businesses. Further refinement and implementation of the development vision in the DOS area should address potential street use conflicts that may occur concerning, on-street parking, loading activities, truck movements and traffic operations.



# STRATEGIES

The Steering Committee developed the following specific strategies to focus and guide the development of the DOS area.

## 7.1 LAND-USE AND DEVELOPMENT STRATEGIES

1. Create a corporate headquarters, R & D sub-district, south of OMSI, and incorporate a habitat park/storm water facility, which connects the west to the riverfront trail.
2. Develop a high-tech incubator sub-district along Water Avenue, between Madison and Yamhill.
3. Link the two sub-districts with a workforce training and science precinct centered on PCC - OMSI, and with a service commercial node at Water and Clay, adjacent to the plaza and 'Crescent' riverfront park. This node provides restaurants and daily needs for the study area, and perhaps a fitness center and a hotel.
4. For 24-hour vitality and security, establish some nonresidential uses which provide activity beyond "9:00-5:00", without diminishing the employment emphasis of the study area.
5. Develop and maximize structured parking resources to meet parking requirements in the study. Encourage maximum use of parking via shared parking agreements and other techniques. Require shared-use parking agreements from all publicly assisted development projects. Shared parking means opening private parking facilities for public use on weekday evenings and weekends.
6. Enhance public open spaces, pedestrian and other connections to the riverfront.
7. Implement a proactive safety/security program in the area, especially along the riverfront.

8. Explore incentives and programs to help mitigate infrastructure costs and encourage desired development.

## 7.2 TRANSPORTATION AND CIRCULATION STRATEGIES

9. Strengthen Water Avenue as the primary north-south multi-modal street with pedestrian enhancements, especially along the west (riverside).
10. Establish primary east-west multi-modal streets at Caruthers, Clay and Salmon, which extend to riverfront viewpoints/river taxi landings.
11. Expand the Central City Streetcar system to serve the Central Eastside, establishing an additional transit link between Downtown, the Central Eastside, and the Lloyd District.
12. Improve vertical connections to the ground at bridgeheads and viaducts, and intermodal transit linkages between buses and potential commuter rail, river taxi and streetcar.
13. Maintain existing loading docks & access especially along Second Avenue 'Truck Street.' Resolve parking conflicts so trucks are not forced onto adjacent streets.
14. Improve transit and other links to Eastside and Central City destinations.
15. Improve traffic access, local street connectivity, and circulation patterns that affect the DOS area.
16. Investigate, decide, and implement improved access for the Southern Triangle and from the study area to southbound I-5.
17. Consider future construction of a below-grade, integrated transportation facility, incorporating high-speed rail and the Union Pacific main line.



# ACTIONS & IMPLEMENTATION

After revising the strategies based on market feasibility and transportation findings, the culminating task for the steering committee was to determine specific actions which would implement the vision and strategies. The following action items are organized under their relevant strategies. The Steering Committee assigned public and private implementers, and established recommended time frames for each action item.

	Implementers	Timeframe			
		Immed- 2 Year	3-5 Years	6-20 Years	On- going
LAND USE ACTIONS					
• Create a corporate headquarters, R & D subdistrict, south of OMSI, organized around a recreated habitat park/storm water facility, which connects the west to the riverfront trail.					
1.1 Support property owners and/or developers for coordinated buildings and site development to emphasize sustainable practices.	PRIV				X
1.2 Encourage and recruit firms that emphasize R&D and encourage sustainable principles/practices.	PDC, PGE, PDX Energy Office				X
1.3 Adjust existing Samtrak tracks to maximize site potential east of Water Avenue	Samtrak, BNSF	X			
• Develop a hightech incubator sub-district along Water Avenue, between Madison and Yamhill					
2.1 Assemble a "superblock" east of Water Avenue between Salmon and Madison.	PDC	X			
2.2 Initiate and support private redevelopment strategies to increase employment density.	PDC, CEIC				X
2.3 Initiate developer RFPs for prototype mixed use buildings on public parcels.	PDC	X			
2.4 Explore zoning changes to allow more typical office, with high employee densities. Support exploration of a "Central City Industrial/Office" (K zoning category)	PDC, BOP, CEIC, NA	X			
2.5 Develop a business service node in the ground floors centered on Main and Water Avenue, with copy shop, FedEx mail center, cafes, bank and other business support services.	PDC, CEIC	X			
2.6 Encourage private utilities to anticipate and provide appropriate hi-tech infrastructure.	PGE, ETC, PDC				X
• Link the two sub-districts with a workforce training and science precinct centered on PCC - OMSI, and with a service node at Water and Clay, adjacent to the plaza and "Crescent" riverfront park. This node provides restaurants and daily needs for the study area, and perhaps a recreational facility and/or hotel					
3.1 Encourage development of industrial/trade training and expansion of PCC's courses, especially evening courses (24-hour activity).	PDC, PCC, Benson HS, CEIC		X		
3.2 Encourage active ground level uses and pedestrian amenities along Water and Clay Avenues.	PDC, CEIC	X			X
3.3 Support the development of a public attractor and public park west of Water and Clay Avenues.	PRIV, PDC, CEIC, RACC, Parks	X			

	Implementers	Timeframe			
		Immed- 2 Year	3-5 Years	6-20 Years	On- going
<ul style="list-style-type: none"> <li>For 24-hour vitality and security, establish some uses which provide activity beyond "9:00-5:00", without diminishing the employment emphasis of the study area.</li> </ul>					
4.1 Recruit and encourage "incubator" and other firms with non-traditional work hours.	PRIV, PDC, CEIC	X			X
4.2 Pursue development of a hotel, arts and culture, fitness center and other services active beyond 5:00 p.m.	PRIV, PDC, CEIC	X			X
4.3 Explore work/live options, especially along Water Avenue.	PDC, CEIC, BOP	X			
<ul style="list-style-type: none"> <li>Develop and maximize use of parking resources constructed in the study area. Encourage use of parking 24-hours per day.</li> </ul>					
5.1 Develop shared parking structures under ramps and at other strategic locations.	PRIV, Multn.Cnty. ODOT		X		
5.2 Encourage private parking follow the Preservation Parking concept to help serve nearby uses.	PRIV, PDC, CEIC			X	
5.3 Require shared parking during off-peak hours in publicly sponsored projects.	PDC			X	
<ul style="list-style-type: none"> <li>Enhance public open spaces, streetscapes, building design, pedestrian and other connections to the riverfront.</li> </ul>					
6.1 Develop special landscape and open space features to connect Water Avenue to the river.	PDC, PDOT, Parks, CEIC		X		
6.2 Explore and encourage innovative above ground stormwater treatment and coordination/interconnection between adjacent properties (public and private)	PRIV	X			X
6.3 Encourage landscape and streetscape design and practices that accomplishes clean water and ESA throughout the DOS area.	PDC, PDOT, Parks, CEIC		X		
6.4 Consider a physical "tracing" of the original waterline on sidewalks, lobbies, etc.	PRIV, PDOT, PDC	X			
6.5 Integrate a water feature between Water Avenue and the river every four to five blocks along Water Avenue, perhaps also integrating / innovative stormwater strategies.	PDOT, Water Bur.			X	
6.6 Explore design guidelines for new buildings in the study area.	PDC, BOP, CEIC, NA	X			
<ul style="list-style-type: none"> <li>Implement a proactive safety/security program in the area, especially along the riverfront.</li> </ul>					
7.1 Support and implement an East Bank Public Safety Plan. Include building and landscape design sensitive to safety issues.	CEIC, Police, PDC, Parks, NA	X			X
7.2 Encourage active uses and 24-hour employment adjacent to public spaces and the riverfront.	PDC, CEIC				X
<ul style="list-style-type: none"> <li>Explore incentives and programs to encourage desired development and help mitigate infrastructure and other costs.</li> </ul>					
8.1 Consider employee-based incentive programs (e.g. PDX Program).	PDC, CEIC	X			
8.2 Investigate utility incentive programs and credits, especially for energy/sustainable projects.	PDC, PGE, CEIC				X
8.3 Consider L.I.D. for substantial, coordinated street and public improvements (e.g. Water Avenue).	PDC, PDOT		X		
8.4 Capitalize on the fiber optic and telecom assets of the study area as an incentive to development/redevelopment	PRIV, PDC, CEIC	X			X



# ACTIONS & IMPLEMENTATION

	Implementers	Timeframe			
		Immed 2 Year	3-5 Years	6-20 Years	On- going
TRANSPORTATION & CIRCULATION ACTIONS					
<ul style="list-style-type: none"><li>Strengthen Water Avenue as the primary North-South multi-modal street with pedestrian enhancements, especially along the west (riverside).</li></ul>					
9.1 Implement sidewalk, street tree and lighting improvements on Water Avenue north of Clay Street	PDOT, PDC	X			
9.2 Investigate utility undergrounding, especially along Water, Clay and Salmon Streets	PGE, PDC, PDOT, CEIC		X		
<ul style="list-style-type: none"><li>Establish primary East-West multi-modal streets at Caruthers, Clay and Salmon, which extend to riverfront viewpoints/river taxi landings</li></ul>					
10.1 Implement special sidewalk, street tree, lighting and furnishings along streets leading to the river.	PDOT, PDC		X		
10.2 Extend pedestrian enhancements along at least one side Caruthers, Clay and Salmon streets.	PDOT, PDC		X		
10.3 Amend the CCTMP to change designated city walkway and bikeway from SE Main to SE Salmon Street.	PDOT, BOP, PDC	X			
<ul style="list-style-type: none"><li>Improve vertical connections to the ground at bridgeheads and viaducts, and intermodal transit linkages between buses and potential commuter rail, river taxi and streetcar.</li></ul>					
11.1 Improve stair/ramp access from Hawthorne viaduct directly to greenway trail and Water Avenue to improve safety and ADA compliance.	PRIV, PDOT, PARKS, MULT. CNTY		X		
11.2 Designate an eastside streetcar loop along Hawthorne and MLK/Grand, connecting the Eastside with downtown and the Lloyd District.	PDOT, CEIC NA/TRIMET			X	
11.3 Evaluate commuter rail and/or Samtrak reaching Hawthorne for intermodal connection.	SAMTRAK, BNSF, PDOT		X		
<ul style="list-style-type: none"><li>Maintain existing loading docks and access, especially along 2<sup>nd</sup> Avenue 'Truck Street.' Resolve parking conflicts so trucks are not so often forced onto adjacent streets.</li></ul>					
12.1 Improve 2 <sup>nd</sup> Avenue access for trucks and loading function.	PDOT, PRIV	X			
12.2 Implement parking controls and signage on 2 <sup>nd</sup> Avenue and other special locations to support truck functions.	PDC, PDOT	X			
12.3 Accommodate interim but gradually relocate loading docks off of Water, Clay, Salmon, Taylor and Yamhill Streets.	PRIV, PDOT, PDC			X	
<ul style="list-style-type: none"><li>Improve Transit and Other Links to Eastside and Central City Destinations.</li></ul>					
13.1 Support development of a Willamette River taxi system, linking both sides of the river.	PDC, CEIC NA		X		
13.2 Explore shuttles and taxis to the Convention Center/Rose Quarter, Lloyd District and other Eastside attractions.	CEIC, PDOT NA		X		
13.3 Initiate more frequent, regular, two-directional TriMet bus service along Water Avenue and along the length of MLK/Grand providing connections to the south CEID.	TRIMET, CEIC	X			
13.4 Preserve corridors previously identified so as not to preclude construction of the south-north light rail line.	CEIC, PGE, OMSI				X
13.5 Support expansion of Central City Streetcar to include Eastside Loop linking Downtown, Central Eastside and Lloyd District.	PDC, PDOT, CEIC, NA			X	X

	Implementers	Timeframe			
		Immed 2 Year	3-5 Years	6-20 Years	On- going
<ul style="list-style-type: none"> <li>Improve traffic access to the DOS area and circulation patterns that affect the DOS area.</li> </ul>					
14.1 Implement selected recommendations of the 1990 CETS and King/Grand study	PDOT, ODOT, CEIC, PDC			X	
14.2 Implement the proposed Belmont/King ramp revision and signal to enhance access to DOS area	PDOT, CEIC			X	
14.3 Commence on MLK/Grand corridor transportation study and/or a comprehensive 20-year impact analysis needed by ODOT and PDOT to amend the RTP for better service to the study area	PDOT, ODOT, CEIC, PDC	X			
14.4 Maximize regulated on-street parking in the DOS area, where it does not impact traffic flow or required truck access and maneuvers	PRIV, PDOT, CEIC		X		X
14.5 Support the planned I-5/McLaughlin Ramp connection as included in the RTP and seek to implement it as soon as possible	PDOT, CEIC			X	
14.6 Initiate a study of the King-Grand couplet leading to the installation of additional traffic signals (e.g., at Salmon or at Yamhill) to improve access to the district while maintaining the function of the couplet	PDOT, PDC, CEIC	X			
<ul style="list-style-type: none"> <li>Investigate, decide, and implement improved access from the study area to southbound I-5</li> </ul>					
15.1 Investigate a combination of projects that improves access from the study area to I-5 southbound that includes improvements at the east and west ends of the Ross Island Bridge	PDOT, ODOT, METRO, CEIC	X			
15.2 Support the retention of the Water Avenue Ramp in the Regional Transportation Plan until a feasible functionally equivalent improvement is found	PDC, CEIC, PRIV.				X
<ul style="list-style-type: none"> <li>Consider future construction of a below-grade, integrated transportation facility, incorporating high-speed rail and Union Pacific main line, and Interstate-5.</li> </ul>					
16.1 Investigate changes to the I-5 and rail corridors by combining them and lowering/tunneling them where feasible	PDOT, PDC, ODOT			X	
16.2 Consider possible South-North light rail alignments, with a preferred location at Caruthers	PDOT, CEIC, METRO, NA				X

## LEGEND:

BNSF Burlington Northern/Santa Fe Railroad  
 BOP Portland Bureau of Planning  
 CEIC Central Eastside Industrial Council  
 NA Neighborhood Associations  
 ODOT Oregon Department of Transportation  
 PARKS Portland Parks and Recreation

PCC Portland Community College  
 PDC Portland Development Commission  
 PDOT Portland Office of Transportation  
 PGE Portland General Electric  
 PRIV Private Landowners  
 RACC Regional Arts & Culture Commission



# INDEX OF TECHNICAL MEMOS

THE BELOW LISTED TECHNICAL MEMOS ARE CONTAINED IN AN APPENDIX DOCUMENT UNDER SEPERATE COVER

## SERA-PROJECT MANAGEMENT & URBAN DESIGN

- |    |  |                  |
|----|--|------------------|
| 1. | Wants & Opportunities                        | 07 July, 99      |
| 2. | Concerns & Constraints                       | 07 July, 99      |
| 3. | Vision Topics                                | 04 August, 99    |
| 4. | Building Scale                               | 01 September, 99 |
| 5. | Analysis                                     | 27 September, 99 |
| 6. | Planning Review                              | 27 September, 99 |
| 7. | Land Use Possibilities                       | 30 September, 99 |
| 8. | Building Images                              | 06 October, 99   |
| 9. | Development Proposals For Structured Parking | 05 January, 00   |

## E. D. HOVEE & COMPANY MARKET OVERVIEW

- |    |                                    |                  |
|----|------------------------------------|------------------|
| 1. | Presentation Notes                 | 04 August, 99    |
| 2. | Step 2 Discussion Notes            | 01 September, 99 |
| 3. | Preliminary Feasibility Assessment | 02 February, 00  |
| 4. | Preliminary Feasibility Assessment | 01 March, 00     |

## DAVID EVANS AND ASSOCIATES/ PDOT-TRANSPORTATION

- |    |  |                 |
|----|--|-----------------|
| 1. | Transportation Analysis                            | 05 January, 00  |
| 2. | Policy Considerations                              | 28 January, 00  |
| 3. | Future Traffic Operations                          | 07 March, 00    |
| 4. | Policy Considerations - Parking and Transportation | 28 January, 00  |
| 5. | Street Operation Considerations                    | 28 February, 00 |

## KPFF - INFRASTRUCTURE

- |    |                       |                  |
|----|-----------------------|------------------|
| 1. | Summary of Utilities  | 21 September, 99 |
| 2. | Stormwater Management | 25 May, 00       |

## ADDITIONAL PEOPLE CONSULTED

Kay Casey	The Heathman Group
Ed Hutchenson	Empire Rubber
Marty Brantely	KPTV
Tom & Michael McDowell	McDowell Family LLC
Kevin Kraus	Buckman Neighborhood resident

## PREVIOUS STUDIES CONSULTED

Hosford-Abernethy Neighborhood Action Plan  
Portland Bureau of Planning, February 1988

Central City Plan  
Portland Bureau of Planning, August 1988

Central Eastside Transportation Study  
PDOT, July 1990

Buckman Neighborhood Plan  
Portland Bureau of Planning, August 1991

Eastbank Riverfront Park Master Plan  
Hargreaves Associates, January 1994

Eastbank Riverfront Park Schematic Plan  
Hargreaves Associates, August 1998

Eastbank Riverfront Park Public Attractor Feasibility Study  
Economics Research Associates, January 22, 1998

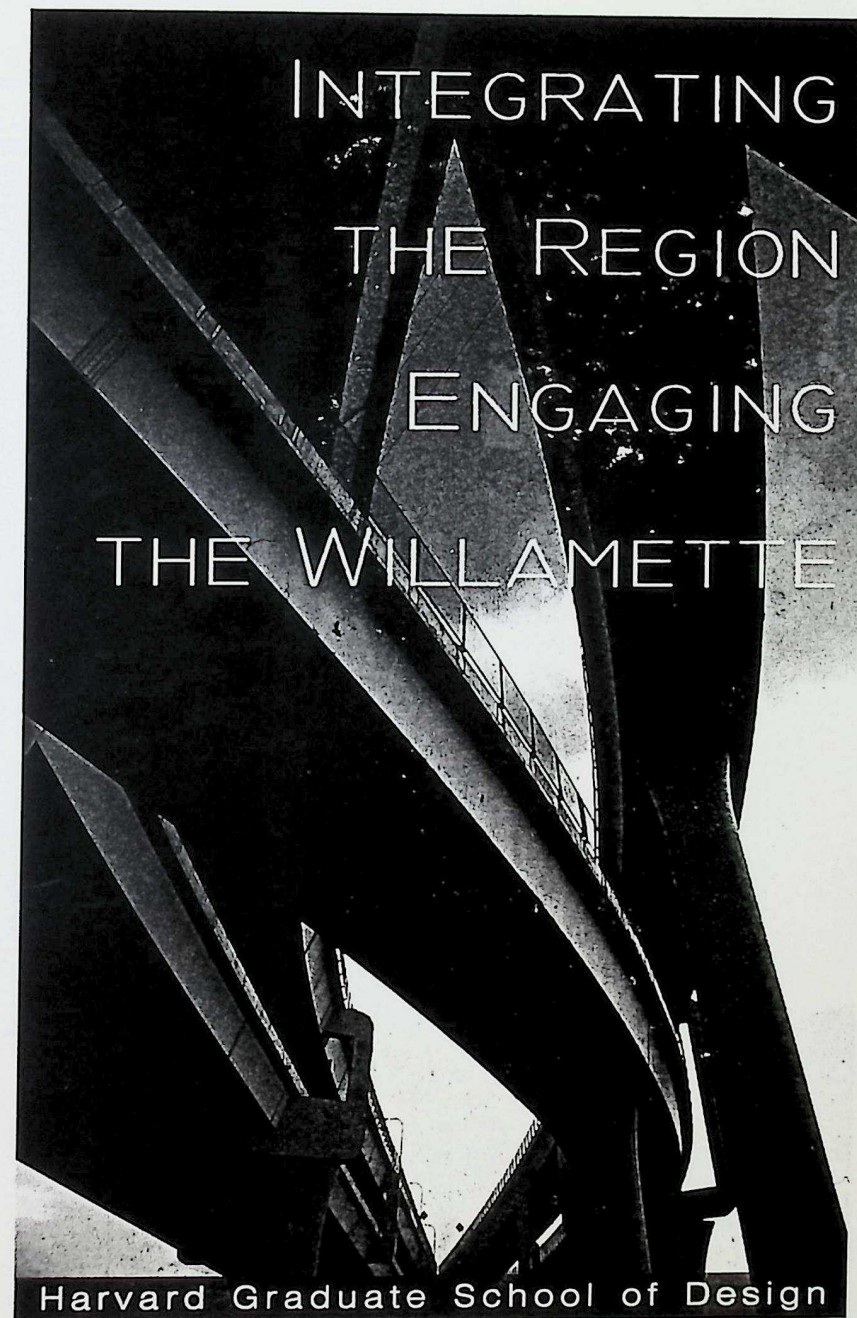
Art Center Scenarios  
Raven Arts Consulting, March 1999

Commercial Restrictions in Industrial & Employment Areas  
Portland Bureau of Planning, April 1999

Riverfront Neighborhood Access Study  
Mayer/Reed, June 1999



A Vision for  
Central Eastside





# Contents

| 1

Foreword	3
Objectives	5
Promoting Industry	6
Engaging the Waterfront	8
Improving Highway Network	10
Enhancing Local Access	12
Fixing the Environment	14
Precedents	17
Alternative Frameworks	25
Access	26
Neighborhoods and Uses	30
Open Space	34
Transit	38
Projects	43
Essay	57
Afterword	59



# Acknowledgments

2 |

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## Workshop Participants

Hank Ashforth of Ashforth Pacific, Earl Blumenauer of the U.S. House of Representatives, John Bradshaw of Portland Transmission, Martin Brantley of KPTV, Joe Brown and Alex Krieger of Harvard Graduate School of Design, Larry Brown and Abe Farkas of PDC, Bruce Burns of Burns Brothers, Otto Condon and Brian McCarter of Zimmer Gunsul Frasca, Jim Kelly of Rejuvenation, Chris Reed of Hargreaves Associates, Linly Rees of the Portland Mayor's Office, Vic Rhodes of Portland Department of Transportation, Vern Ryles of Poppers Supply, Zari Santner of Portland Parks and Recreation, Steve Schell of Black Helterline, Mark Teppola of National Builders Hardware

## Critics

Ann Forsyth, Alex Krieger, Richard Marshall, Eduard Sekler, and Frank Vigier of Harvard Graduate School of Design, Steve Hanson of Hargreaves Associates, Ben Hufford and Paddy Tillet of Zimmer Gunsul Frasca, Vic Rhodes of Portland Department of Transportation, Zari Santner of Portland Parks and Recreation

## Hosts

Greg and Joan Baldwin, John and Diane Bradshaw, Larry and Jan Bruton, Ben Hufford and Kim Clausing, Peter and Sharron van der Meulen, Zari Santner, Ron and Missy Stewart, Stefee Sloane and Mike Knudsen, Brian and Deborah White

## Photo Credits

The Central Artery/Tunnel Project, Chan Krieger and Associates, Richard Rogers Partnership, Zimmer Gunsul Frasca Partnership

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## Building the Heart of a City: Portland and Boston

The rationale for urban design is rooted in a fundamental conundrum. On the one hand, the quality that distinguishes the core of cities from other settlements is their ability to exploit the diversity of aggregated commercial, residential, and industrial activities. On the other hand, the functional, economic, and environmental differences characteristic of these uses hinder their physical coexistence. The purpose of this studio is to illustrate how a synthesis of diverse urban activities might be achieved in the center of a city.

### Context:

At a glance, Portland Oregon and Boston Massachusetts have many similarities. Rooted in 19<sup>th</sup> century New England ideals, both have dense urban cores, proximate historic neighborhoods, an attractive waterfront, and a community that is proud of its quality of life and planning tradition. Both have been planning and executing the successful redevelopment of their cores, but with differing approaches. Boston, with its Central Artery, has been fulfilling a commitment to process and a comprehensive agenda for the renewal of its heart. Portland has eschewed process and manipulated regional context to rediscover and reestablish its heart through an incremental sequence of opportunistic initiatives. Both cities have used the elimination or relocation of a freeway to focus initiative. Portland is about to consider the disposition of its third central city freeway (that separates Portland's Central Eastside Industrial District from the Willamette River). Boston is currently planning and

implementing the second and third generation of projects stimulated by the Central Artery.

### Objectives:

The objectives of the studio were twofold. First, to expose urban designers to an expanded array of skills and responsibilities that enable them to influence, design and implement urban projects effectively. Second, to produce analyses, concepts and strategies that would stimulate and inform those responsible for the future of Central Eastside.

The studio visited Portland twice for a series of interviews, investigations, and workshops. It conducted one video conference with representatives of Central Eastside business community and Portland bureaus. The final review in Cambridge included representatives from Portland, as well as planners, architects, and landscape architects from South America, Canada, and the US.



## Program

The studio was conducted in three segments.

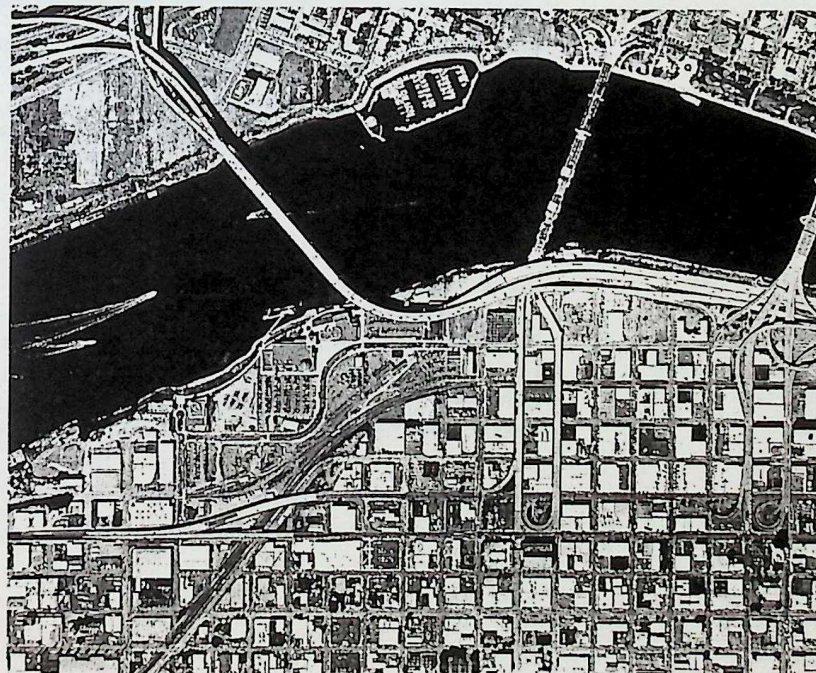
First, the studio investigated cities that are rebuilding districts with challenges and assets similar to those of the Central Eastside. Significant characteristics included waterways to which access is compromised by an adjacent freeway or arterial, valued industrial uses, proximity to a CBD, and a strategy for preserving desirable uses while attracting new development. The cities investigated include: Boston, Cincinnati, Geneva, Miami, Philadelphia, Shanghai, Singapore, an aggregation of towns in Taiwan, and Vancouver, BC. The studio examined in greater detail the experiences of Boston and Cincinnati in reconstructing freeways to enable community development.

Second, the studio identified and developed three visions for Central Eastside from a 2020 perspective, and the derivative design for framework plans for the transportation, storm water/environmental, open space, land use and development strategies that would shape those visions.

Third, the studio developed general programs and concepts for several projects that could stimulate and guide the implementation of a new vision for Central Eastside. These projects reflect both ideas previously considered and new to Central Eastside and Portland. Preliminary discussions suggest that some, such as a new international center for the study of storm water and the environment, may have the ability to attract the interest and support of local

institutions now. Others, such as a new multi-modal focus of transit, seem congruent with, if different from, existing planning efforts in the region.

In the aggregate, these investigations, visions, frameworks and projects provide enthusiastic promise for Central Eastside. They suggest that the CEID can have a remarkable future that exceeds the aspirations of the current industrial core, improve through and distributed traffic and add compatible uses that enhance the central city's focus in the region. And this suggestion is reassured by the experiences and intentions of other cities addressing similar opportunities.

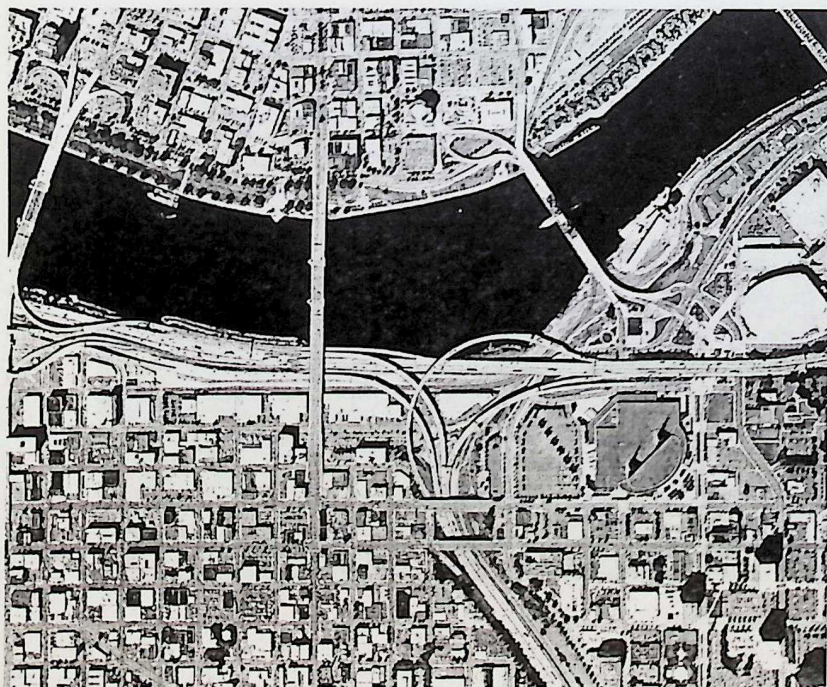




# Objectives

## Principles for a Renewed Future: Central Eastside

In developing a vision for Central Eastside's future, it is critical to identify some principles and objectives. After an initial site visit and preliminary discussions with Portland business leaders and officials, the studio investigated in detail the key issues of industry, land reclamation, highway access, and environment. The findings were synthesized and developed into five key objectives and guiding principles. The necessarily multi-disciplined findings are mutually contingent and should be evaluated in both present and future contexts. These are the issues to consider in answering the question "What lies in the future of Central Eastside?"



1 *Maintain and enhance the light industrial, distribution, and manufacturing use in Central Eastside to ensure job diversity, economic stability, and long-term sustainability of the Portland economy.*

2 *Release the eastern shoreline of the Willamette River from the east-side freeway for the enjoyment of Portland citizens and new uses suitable for such an important and visible location.*

3 *Expand allowable uses in the industrial sanctuary by introducing new, compatible industrial, warehouse and retail uses which will intensify and add jobs and value to the Grand Avenue Historic District and the Central Eastside Industrial Sanctuary.*

4 *Improve access to Central Eastside for trucks, transit and cars; improve pedestrian connections to the east shore of the Willamette River, from neighborhoods and downtown; and create a memorable, significant, and interconnected system of open spaces along the Willamette River.*

5 *Reduce or eliminate storm run-off in Central Eastside to assist in the restoration of the health and integrity of the Willamette River ecosystem.*



## Promoting Industry

Portland's urban appeal and economic success owe much to the large and healthy job base within the central city, particularly in the Central Eastside. The existing industrial sanctuary designation was fashioned and applied to protect the existing virtues of the Central Eastside business community while its future was resolved and secured. A vision for the District should recognize the privileged role of industry in the area, its critical contribution to the entire regional economy, and the competitive quality of the central city.

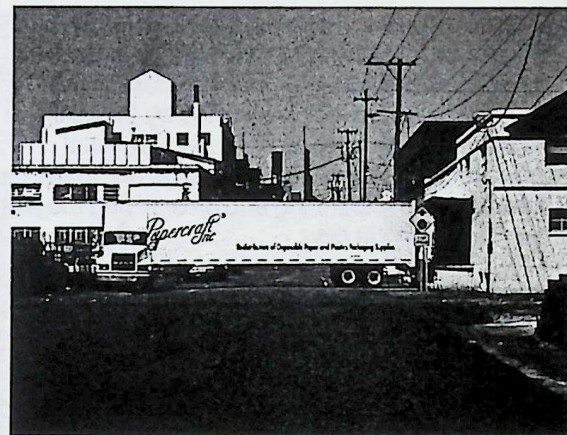
The principle industries in Central Eastside are light manufacturing, warehousing and distribution, and wholesale and retail. Operations such as auto parts, building hardware, and fresh produce all benefit from the District's central location and rely on superior access to regional and national markets. A vision for the project area should also assist in the development of appropriate modifications of the current zone designation so that the kind, density and behavior of land uses that are desired for the future can be preserved, promoted and accommodated. For example, a strategic combining of blocks into super blocks may better facilitate truck traffic and retain businesses that have outgrown an urban 200' by 200' block.

Central Eastside's proximity to OHSU and PSU campuses, soon to be strengthened by streetcar connection, may invite the development of bio-tech operations in the District. Both high-tech and bio-tech industries have enjoyed rapid growth in the Portland area. The courting of these emerging industries, or upstart companies in any field, demands a flexible building type that allows these companies to germinate and grow. The development of uses and development types on the site must balance the needs of the industrial Central Eastside and commercial core of metropolitan Portland.

*Industrial heritage:  
serving Portland and beyond*







*Tight corners and small blocks:  
reconfigured intersections and  
superblocks would better  
accommodate 72' trucks and  
expanding businesses*

*High value-adding industries for  
the future: central location,  
sophisticated infrastructure,  
flexible and efficient floor space  
for a new prototype of urban  
industrial park*





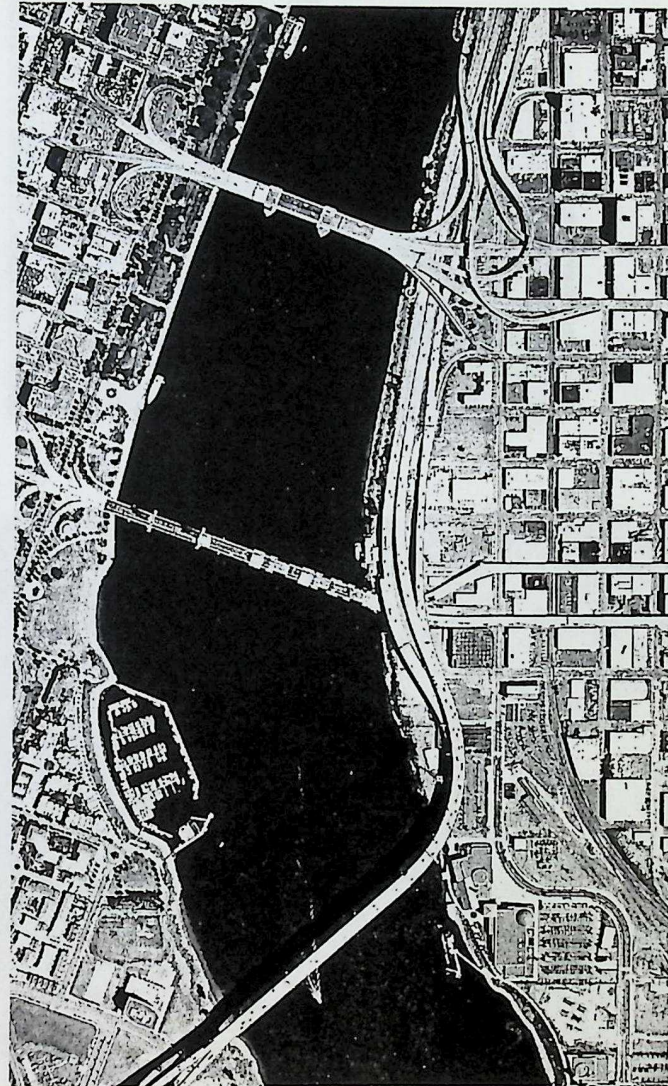
## Engaging the Waterfront

8 | The forty acres of waterfront land currently occupied by I-5 present an opportunity to redefine Central Eastside's future. The long-term needs of the District may be well reconciled by attracting new resident industries and related uses that extend the production-based heritage of Central Eastside, while expanding and diversifying the job base of the central city.

Modifying or even eliminating the highway will undoubtedly enhance Central Eastside's appeal to high-tech and bio-tech industries and attract complementary activities. The successful siting of OMSI demonstrates the viability of new uses in the District. These uses, provided with new structures, can make significant contributions to the virtues of Central Eastside while attracting the support of residents, visitors, and businesses on the west side of the Willamette River.

Engaging the east-side waterfront is an opportunity for Portland to leap toward the forefront of urban development in North America. The waterfront, with a spectacular view of downtown Portland and a central location, has the potential to offer the quality of life that brings people back to the city.

*Heart of the city: reclaiming the east-side waterfront for Portland*





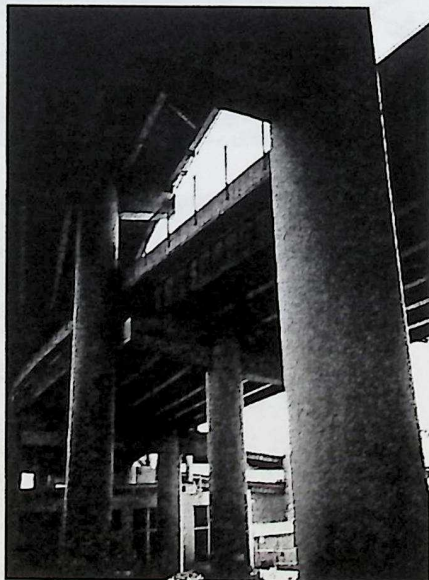


*Above: shadow, noise, and vibration: acres of idle real estate in the central city*

*Right: an 8-lane no access divide*



*Waterfront: social amenity and key to Central Eastside's economic future*





## Improving the Highway Network

The I-5 and I-405 central Portland highway loop grew incrementally without a comprehensive concept. It is fundamentally inefficient and imposes excessive environmental impact on adjacent developed and developable properties.

*1. The five-mile loop varies from 4 to 8 lanes, with 74 lanes entering and exiting. The resulting weaves and merges are so concentrated that they reduce throughput capacity to levels substantially less than that of I-5 north or south of the loop.*

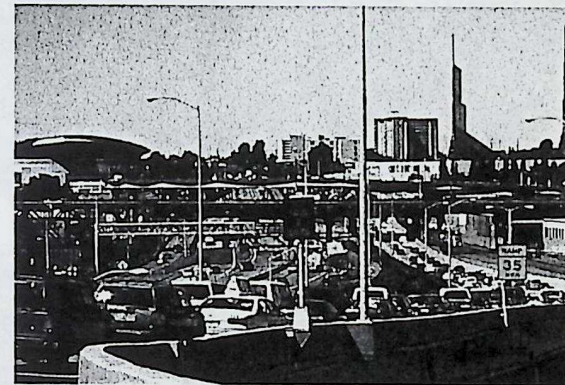
*2. The splitting of I-5 and I-405 at the two ends of the loop further constrains north-south through movement.*

*3. The loop serves as a local distributor for the central city, compromising regional highway capacity.*

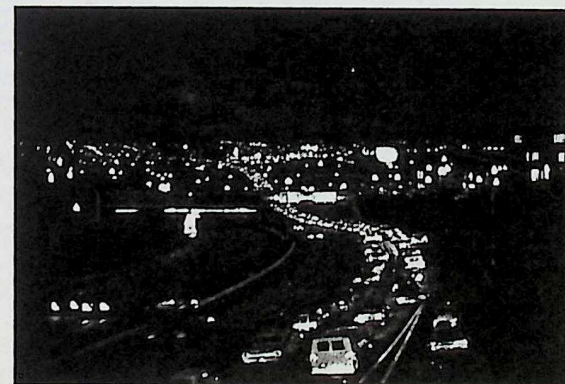
*4. Marquam Bridge is structurally and operationally aging. Its extraordinary environmental impact, in terms of noise and shadow, limits redevelopment on the west and east side of the Willamette.*

The capacity and speed of through and local access traffic are compromised by the numerous interchanges. A reduction and simplification of interchanges will streamline traffic flow. In the process, capacity can be expanded and access to the regional system improved.

Reclaiming the waterfront and improving the highway network appear to be necessarily at odds, but there appear to be solutions that promise to resolve the trade offs. The premise is to think about the highway in the long term, in both local and regional contexts.

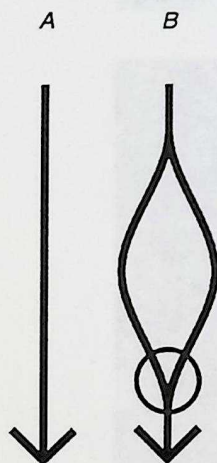


*Failing highways:  
0 miles an hour day  
and night*

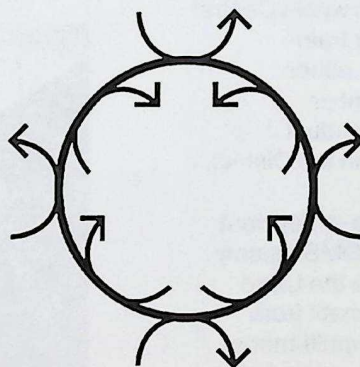




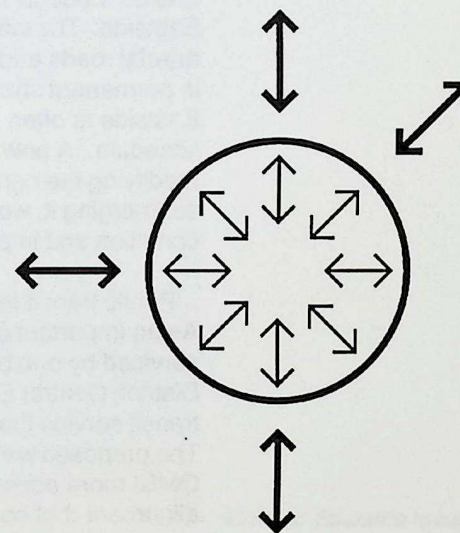
The throughput capacity of A is greater than that of B. The merging of two independent traffic flows creates a reduced capacity at the point of intersection, thereby lowering capacity of the total system.



In addition to serving as a regional highway interchange, the loop is an intracity distributor. While the loop may be sufficient for regional through traffic, a six-lane loop cannot also sufficiently support trips between different points of central Portland



30 lanes enter a loop of 4 to 8 lanes that exit onto 12 lanes of regional highway outlets. The imbalance between inflow and regional outflow creates numerous points of congestion, substantially hindering the proper functioning of the regional highway system.





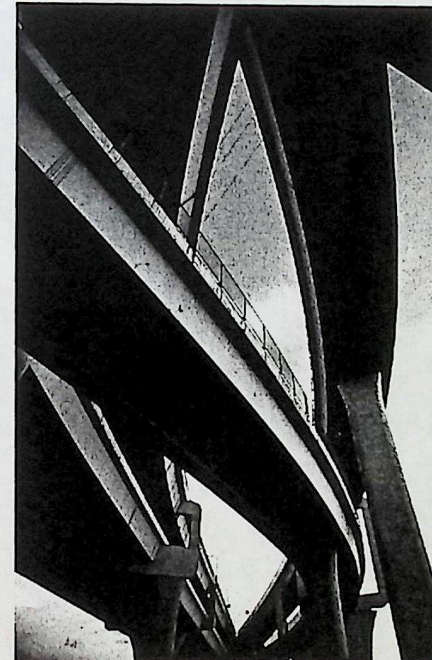
## Enhancing Local Access

While Central Eastside is host to I-5, the District's access to this regional thoroughway is ironically limited, with no southbound access at all. Any modification to the highway should consider ways to add access to and from Central Eastside to I-5 and I-84. The District has reasonable local access, with four bridge connections to the west side, three to the Lloyd District, and one artery to the south.

To bypass the railway mainline, Burnside, Morrison, and Hawthorne Bridges all have long and tall viaducts that extend deep into Central Eastside. The viaducts, however, only serve the arterial roads and cover large parts of the District in permanent shadow. Local traffic within Central Eastside is often stalled by a busy train schedule. A new railway strategy, either modifying the right of way alignment or submerging it, would mitigate the viaduct condition and improve local traffic in the District.

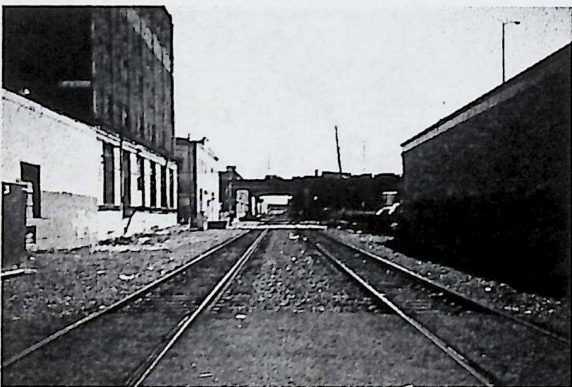
Public transit in Central Eastside is deficient. As an important public attraction, OMSI is only serviced by one bus per hour. Like the Lloyd District, Central Eastside would benefit from transit service that is frequent and multi-modal. The proposed water taxi service would make OMSI more accessible. A streetcar or light rail alignment that connects to Lloyd District to the north and Downtown to the west would undoubtedly make Central Eastside a more attractive and accessible district.

The recent renovation of Hawthorne Bridge represents Portland's continued commitment to pedestrian, bicycle, and transit traffic. Except for Marquam Bridge, the bridges between Central Eastside and downtown are well used by pedestrians and cyclists. Hawthorne Bridge in particular offers the most convenient and accessible crossing to downtown Portland, lending opportunities for development at its east-side bridgehead.

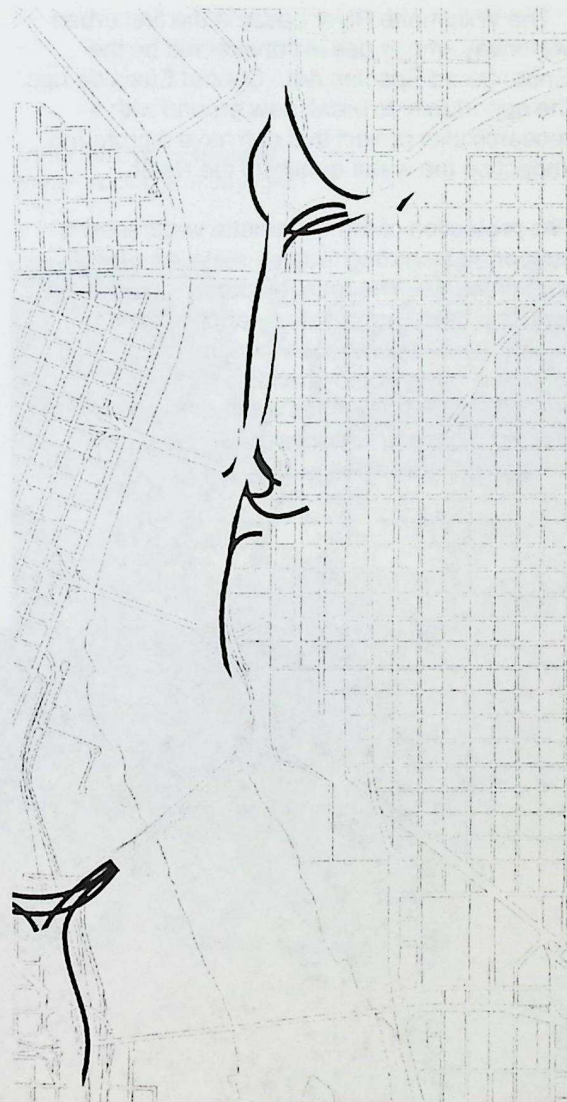


*Unappetizing spaghetti:  
Marquam Bridge ramps*





*Scheduled delays: the coastal mainline, carrying freight and Amtrack passenger rail, goes through Central Eastside and creates some ten grade crossings*



*Central Eastside is served by one off ramp on I-5 northbound, one on ramp on I-84 eastbound, and one off ramp on I-84 westbound; there is no on ramp access to I-5 southbound or westbound*

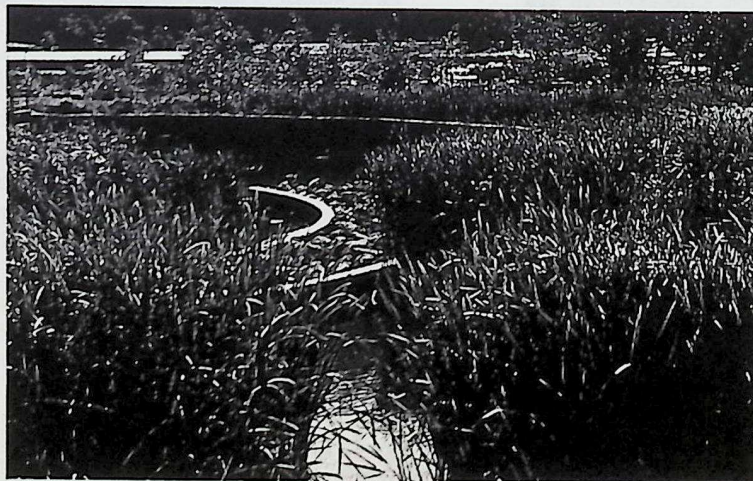


## Fixing the Environment

The Willamette River became the first urban waterway whose use is constrained by the Endangered Species Act. Central Eastside has the opportunity to break new ground with a research pilot project that can have a profound impact on the water quality of the River.

The protection of the Willamette watershed is supported by strong federal, state, and local commitments. The redevelopment of Central Eastside could aggressively apply existing and experimental approaches to storm water retention. This would provide a significant precedent for many cities around the world that compromise their waterways with periodic sewage and storm water discharge.

The known remedies to storm water impacts, such as wetland, daylighting, swamp, and chemical treatment have been incorporated into the studio proposals. But we also suggest that Portland go further and position itself as the leader in this endeavor, and pursue more innovative and aggressive solutions. For example, we propose that Portland establish an international research center for storm water and the urban environment, to be located in Central Eastside as a showcase for an ecologically responsible industrial district. Preliminary conversations suggest that area universities are interested in exploring strategic options for such a program.

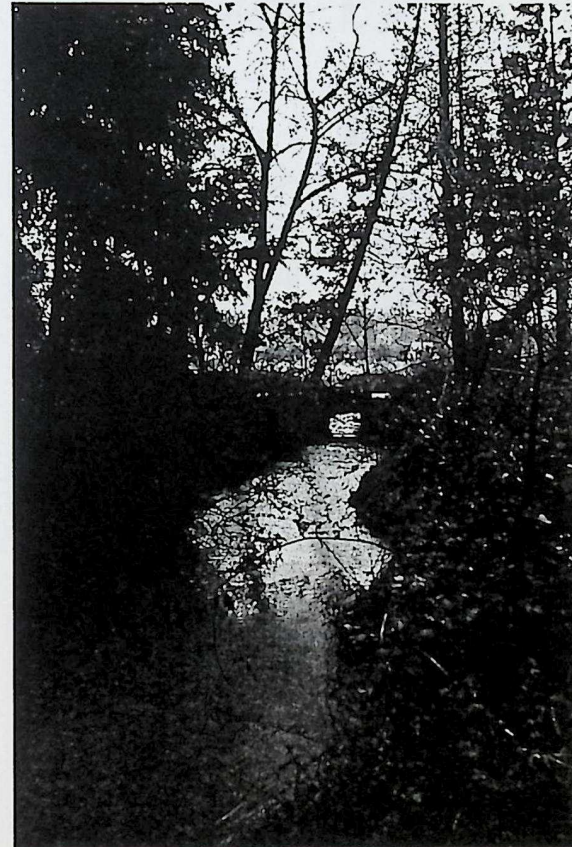


*A promising start: Portland Water Pollution Control Laboratory and urban wetland prototype*





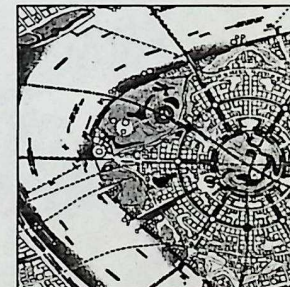
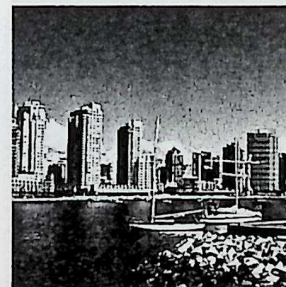
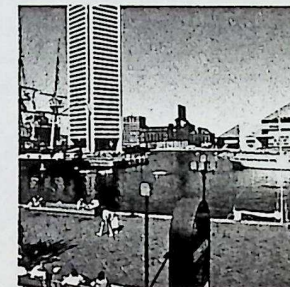
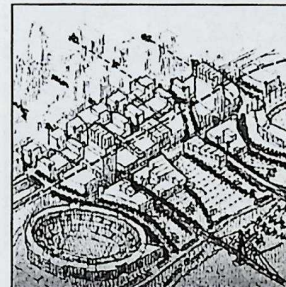
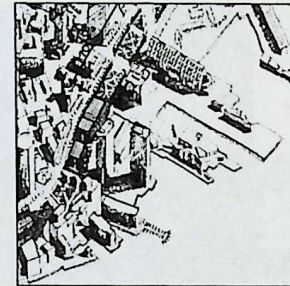
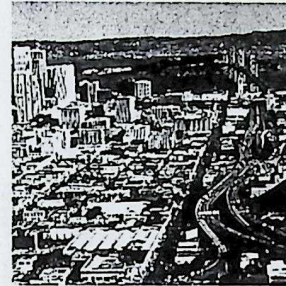
*Three natural treatments:  
plants, rocks, and daylight*





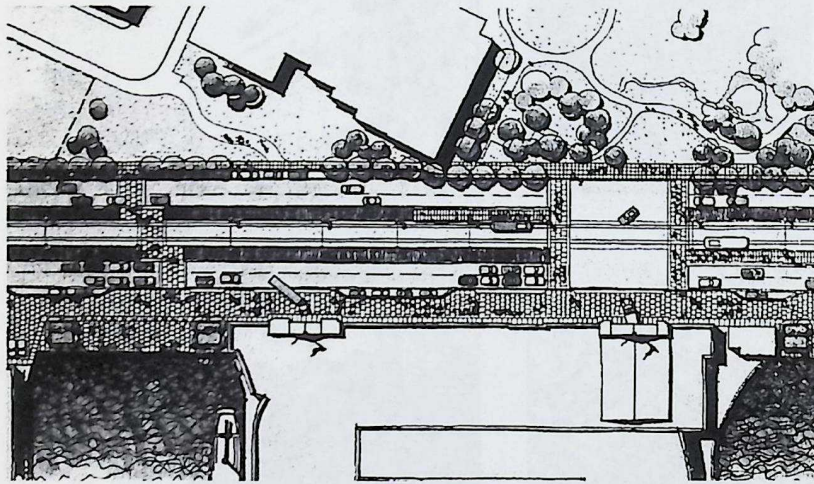
# Precedents

As Portland considers the future of its waterfront highway, it is useful to look at lessons from similar projects in other cities. Capitalizing on the students' diverse backgrounds, the studio studied relevant cases of waterfront highway and development. The cities investigated include Europe's Geneva, Asia's Shanghai, Singapore, Taipei, and Tokyo, and Baltimore, Boston, Cincinnati, Miami, Philadelphia, San Francisco, and Vancouver, BC in North America. The various treatments of highway reflect unique circumstances of place, time, and culture, and reveal a wide range of strategies. Of the six studies presented here, there are four different solutions to central city highways and two examples of waterfront development. With varying degrees of success, each of them provides provocative ideas and invaluable lessons as Portland ponders its own future.





## San Francisco: Take Down the Highway



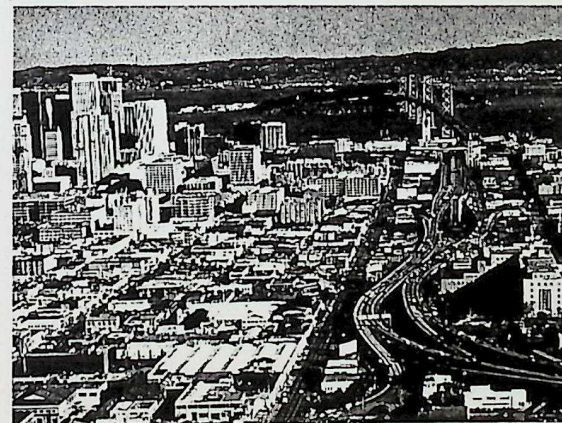
*Above: the Embarcadero rebuilt as multi-modal surface street*

The Loma Prieta Earthquake of 1989 brought down San Francisco's elevated Embarcadero, and a boulevard was allowed to emerge. The palm-lined street serves vehicular traffic, light rail, trolley transit, biking and jogging. Light rail and an efficient system of surface circulation enable the Embarcadero to carry the same amount of traffic as the elevated highway did. By civilizing and diversifying the transportation corridor, the forgotten waterfront is again accessible, property values have skyrocketed, and existing neighborhoods are invigorated.



*Right: the Embarcadero before the earthquake*

*Far right: the highway cutting across central San Francisco*

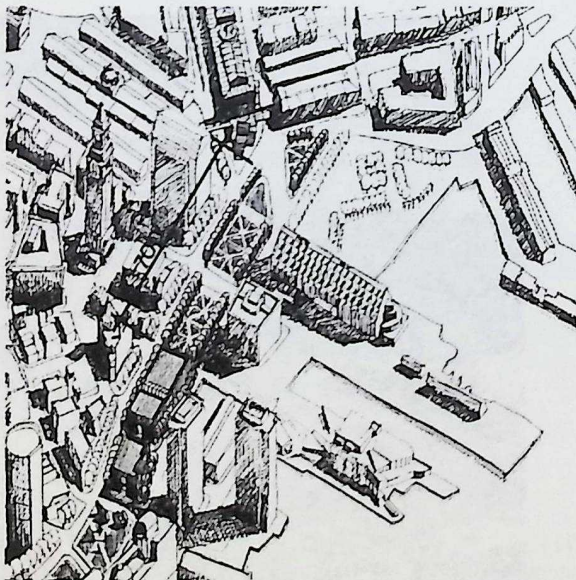




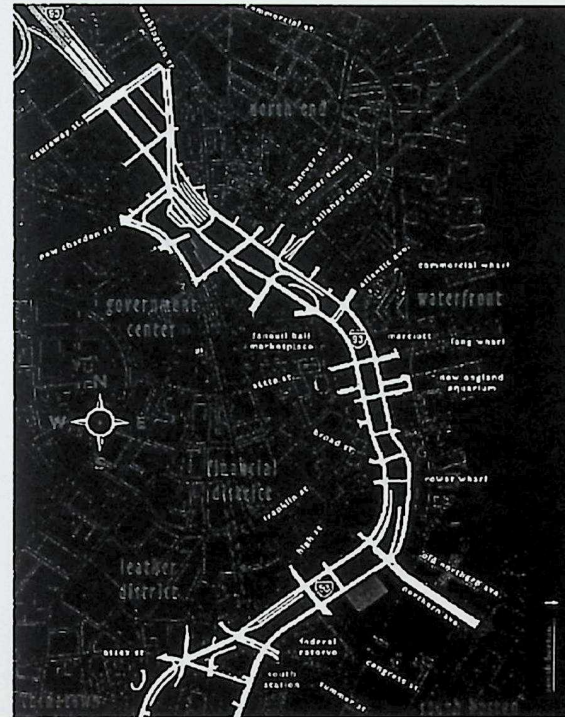
## Boston: Bury the Highway

A legacy of the Fifties, the elevated I-93 highway cuts off downtown Boston from the Harbor and the historic North End. The \$4 billion Central Artery Project, known as "the Big Dig," will bury this three-mile long barrier. Two lanes will be added to the existing six, and the number of ramps will decrease from 27 to 14. Throughput capacity will increase. Moreover, the 27 acres of land vacated by the highway will reconnect neighborhoods severed by the elevated highway and allow for more public open space.

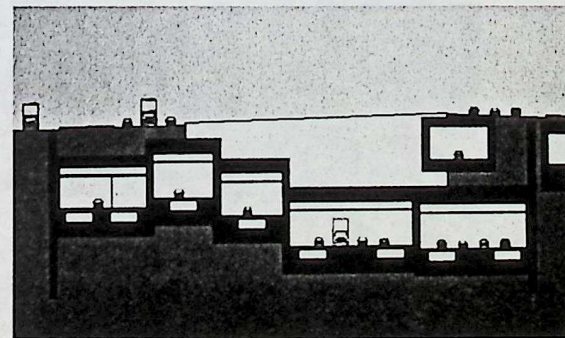
It remains to be seen, however, if such an expensive proposition will be justified. Adding lanes does little to ease the intrinsic congestion of a metropolis overly reliant on the automobile.



75% of reclaimed land will be public open space



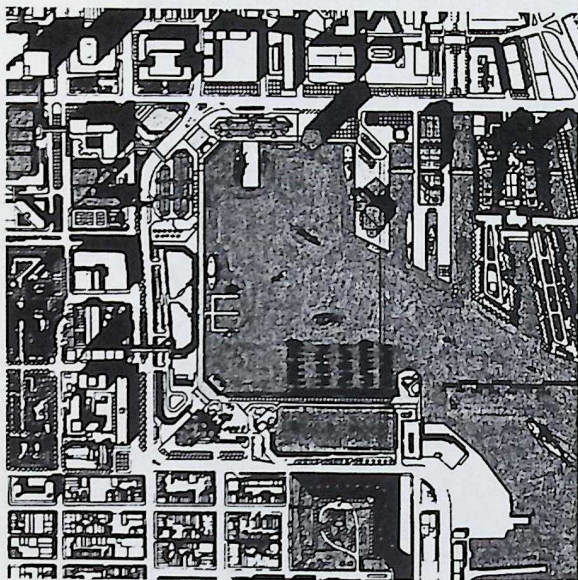
I-93 through downtown Boston: tunnels (blue), surface access roads (yellow), links and ramps (orange)



The complexities of an underground highway network



## Baltimore: Defend the Harbor



*Inner Harbor as popular attraction: public buildings (red), park (green), plazas and boardwalk (orange)*

Baltimore rejected a plan to build an interstate highway over its Inner Harbor in favor of a tunnel located remote from downtown. The salvaged harbor renewed opportunities to revitalize the old port city. Among the projects that followed were Harborplace, the classic festival market, the National Aquarium, and the Hyatt Regency Hotel. Today, the adjacent neighborhoods of Fells Point and Canton are exciting and desirable neighborhoods. The Inner Harbor has come to symbolize the renaissance of Baltimore. Its substantial attraction of both locals and visitors to the heart of Baltimore has been a financial and social benefit.



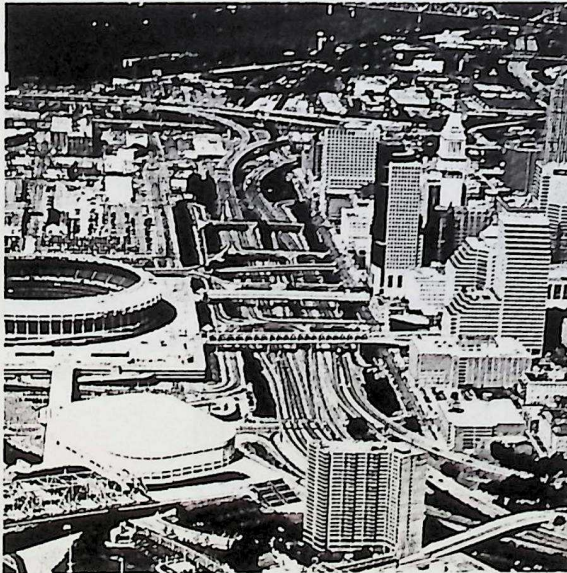
*Far left: Baltimore's Inner Harbor in the 1960s*

*Left: the Inner Harbor 20 years later*

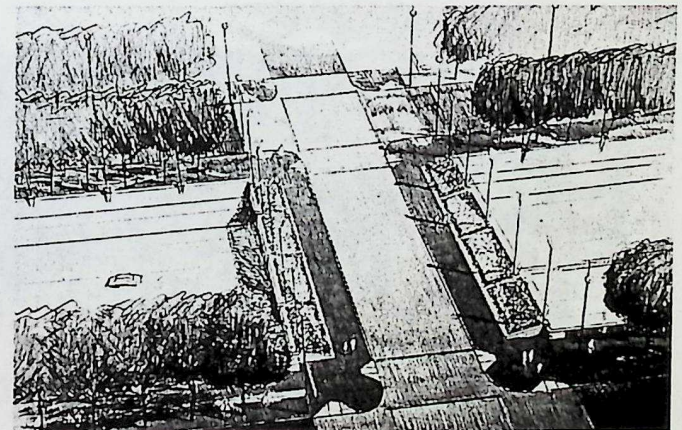
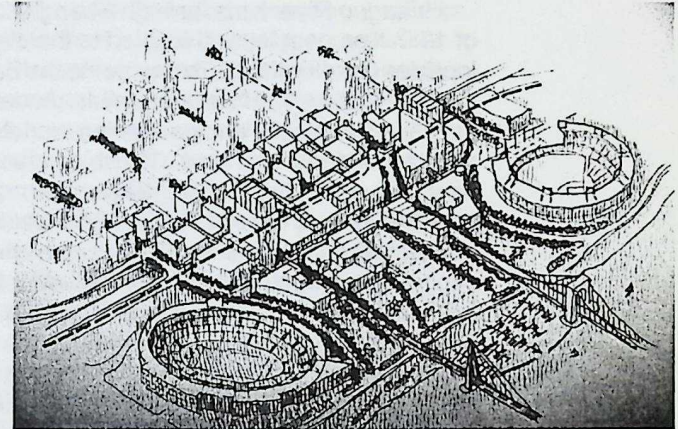


## Cincinnati: Civilize the Highway

Like I-5 in Portland, Cincinnati's Fort Washington Way runs along the edge of downtown along the Ohio River. A \$160 million project seeks to improve and develop new connections across the highway by reducing interchanges, narrowing and straightening the right of way, and dropping its grade below the ground plane of downtown. The highway divide is mitigated by intensified development along the edge, landscaping, and a calibrated lighting sequence. The five overpasses are widened to facilitate landscaped sidewalks. Bridging the highway divide is expected to renew the development potential of 170 acres of underused waterfront land.



*Fort Washington Way before*



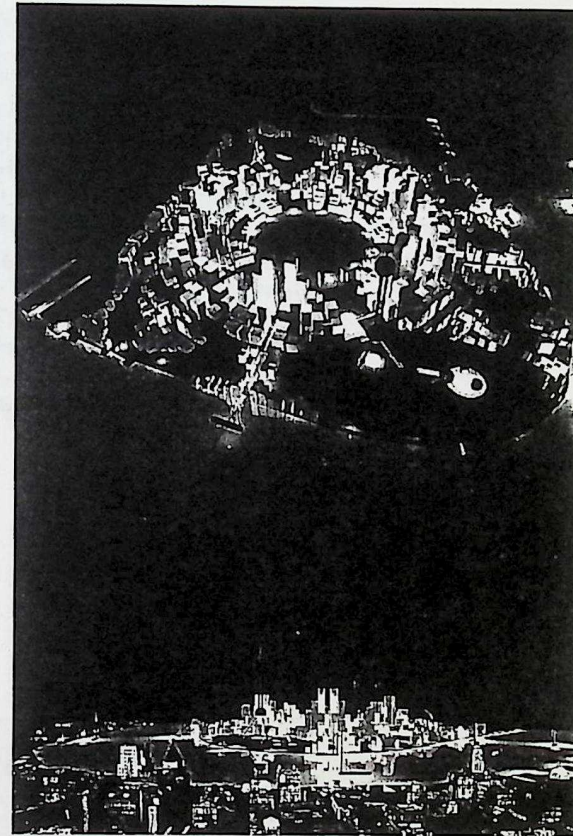
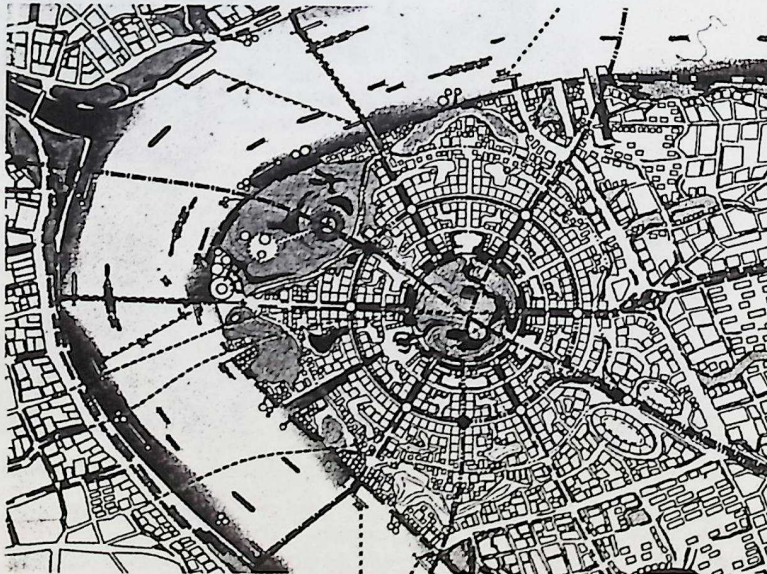
*Above: developing pedestrian access across the highway*

*Top: closing the seam over Fort Washington Way*



## Shanghai: Bridge the River

Huangpu River runs through Shanghai, a city of 13 million people, and has led to the city's lopsided development. To overcome the barrier of the River, Shanghai has built a multi-modal network of vehicular and pedestrian tunnels, subway, bridges, and ferry. These connections offer new development potentials on the underdeveloped east bank that would be simply impossible on the west bank. Through intense capital investment, the city hopes to transform itself into the financial center of East Asia.



*Model views of Richard Rogers's masterplan of Shanghai's east bank: aerial (top), view from west bank (above)*

*Schematic plan: multi-modal connections across the Huangpu River*



## Vancouver, BC: Urban Living

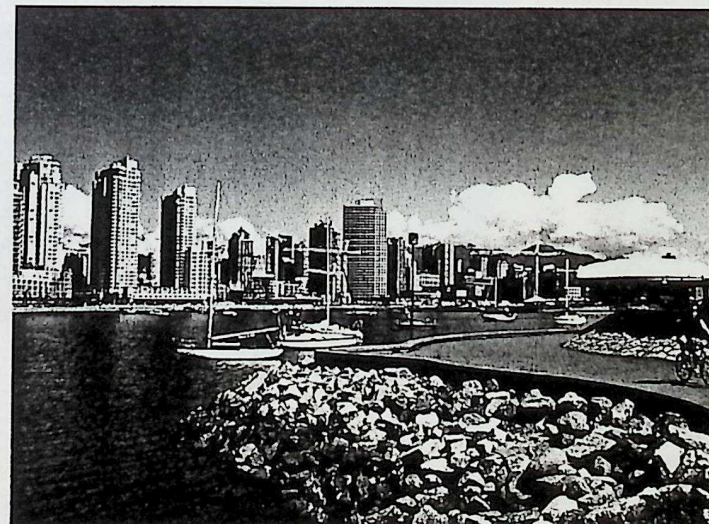


*False Creek North  
Masterplan*

Expo '86 left a 204-acre site along the False Creek waterfront in downtown Vancouver. The Pacific Place development explores a new urban living paradigm that is cosmopolitan and neighborly, expansive as well as intimate. A combination of towers and mid-rises, the development proposes 9000 units that accommodate a variety of family types. Unlike most urban residential developments, it appeals to young families by providing larger units, community facilities, schools, and a car-free environment. Centrally located, the project further capitalizes on the diversity of its neighbors such as the theater district, historic Yaletown, Granville Island Public Market, Science World, and BC Place Stadium.



*A new paradigm of urban  
residential community*

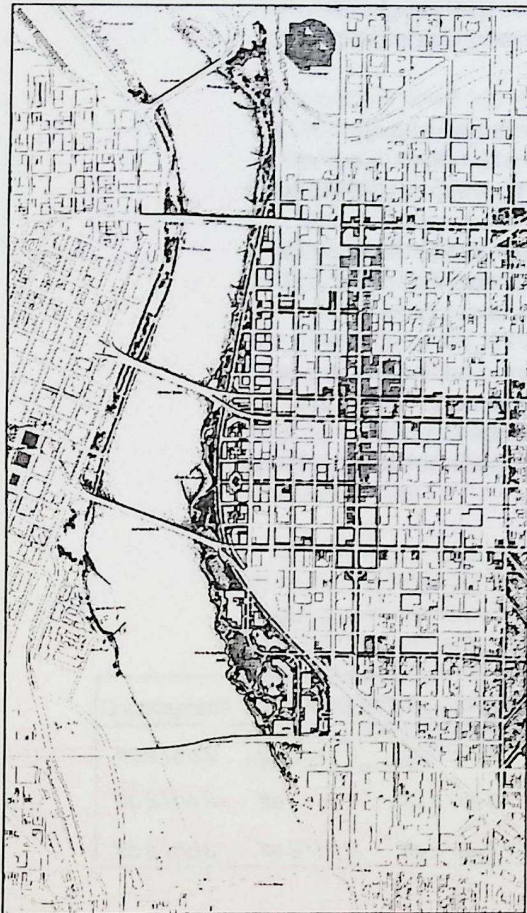




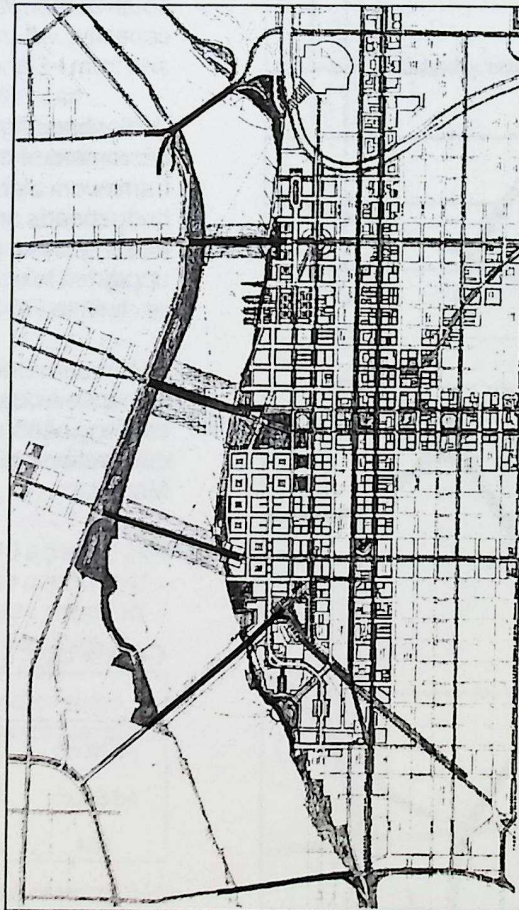
# Alternative Frameworks

The studio developed three framework plans for future development in Central Eastside. Each plan was developed by a group comprising of at least one architect, landscape architect, and

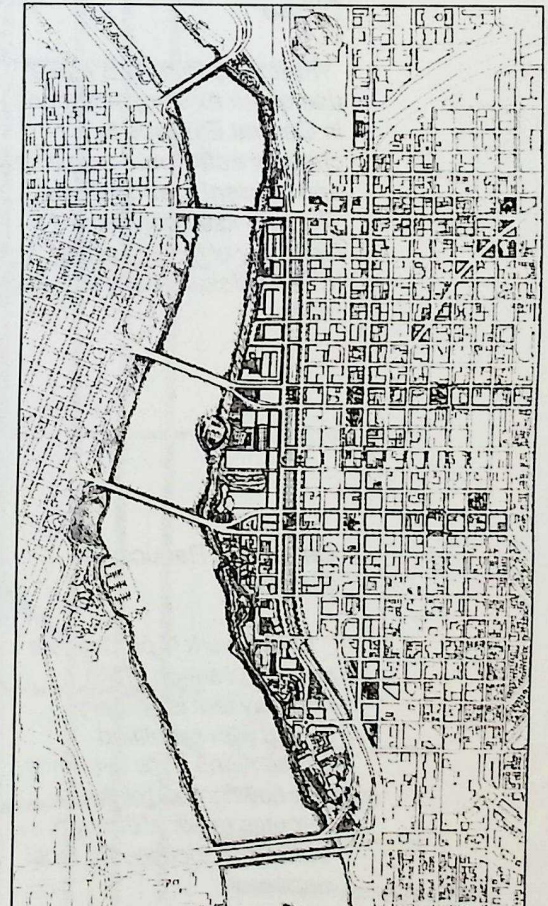
urban planner. All framework plans explored four main aspects of study and intervention: vehicular access, neighborhood redevelopment, open space systems, and transit network.



Framework A



Framework B

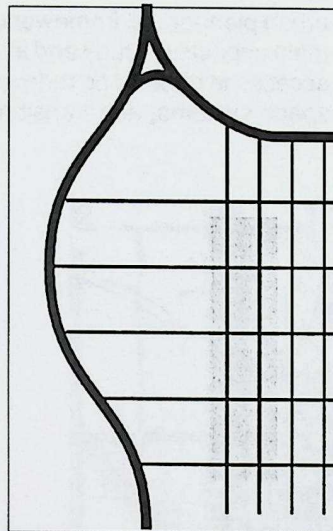


Framework C



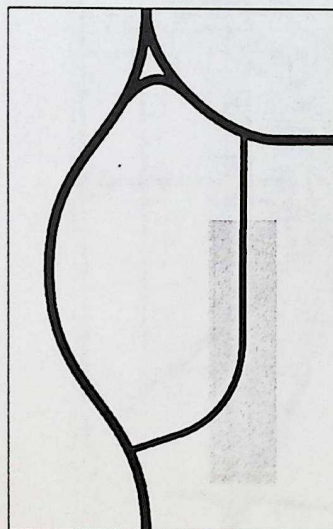
## Concept 1: Remove and Diffuse

Frameworks A & B make use of the existing street grid in Central Eastside to channel traffic onto a flexible and efficient road system. The grid itself consists of a hierarchy of high-capacity trunk routes and access roads.



## Concept 2: Reduce and Submerge

Framework C proposes a reduced version of the highway that is partially buried with simplified connections at its two ends. The downgraded highway reroutes regional through traffic and focuses on local access.



Each framework plan for vehicular access introduces an approach to expand regional access to and from Central Eastside. Recognizing the highway loop's inefficiencies, the proposed solutions all simplify or eliminate I-5 as an east-bank freeway to streamline the north-south corridor and increase its throughput capacity. All frameworks add district access to and from I-5 and I-84.

In enhancing local access and easing movement of truck traffic within the District, all framework plans simplify Hawthorne and Morrison bridgeheads and add internal capacity to the existing street grid. Selected local streets are upgraded to accommodate container truck traffic, each linked to highway access points.

Marquam Bridge is either modified or replaced with a new connection consistent with each strategy. All framework plans also add connections to Lloyd District, Brooklyn, and North Macadam.

## Comparison: added access by lane

	Existing	Framework A	Framework B	Framework C
I-5 North	1 on / 1 off	2 on / 2 off	2 on / 2 off	2 on / 2 off
I-5 South	0 on / 1 off	3 on / 3 off	4 on / 4 off	2 on / 2 off
I-84	2 on / 1 off	2 on / 2 off	2 on / 2 off	3 on / 3 off

\* I-5 figures include I-405



### Framework A

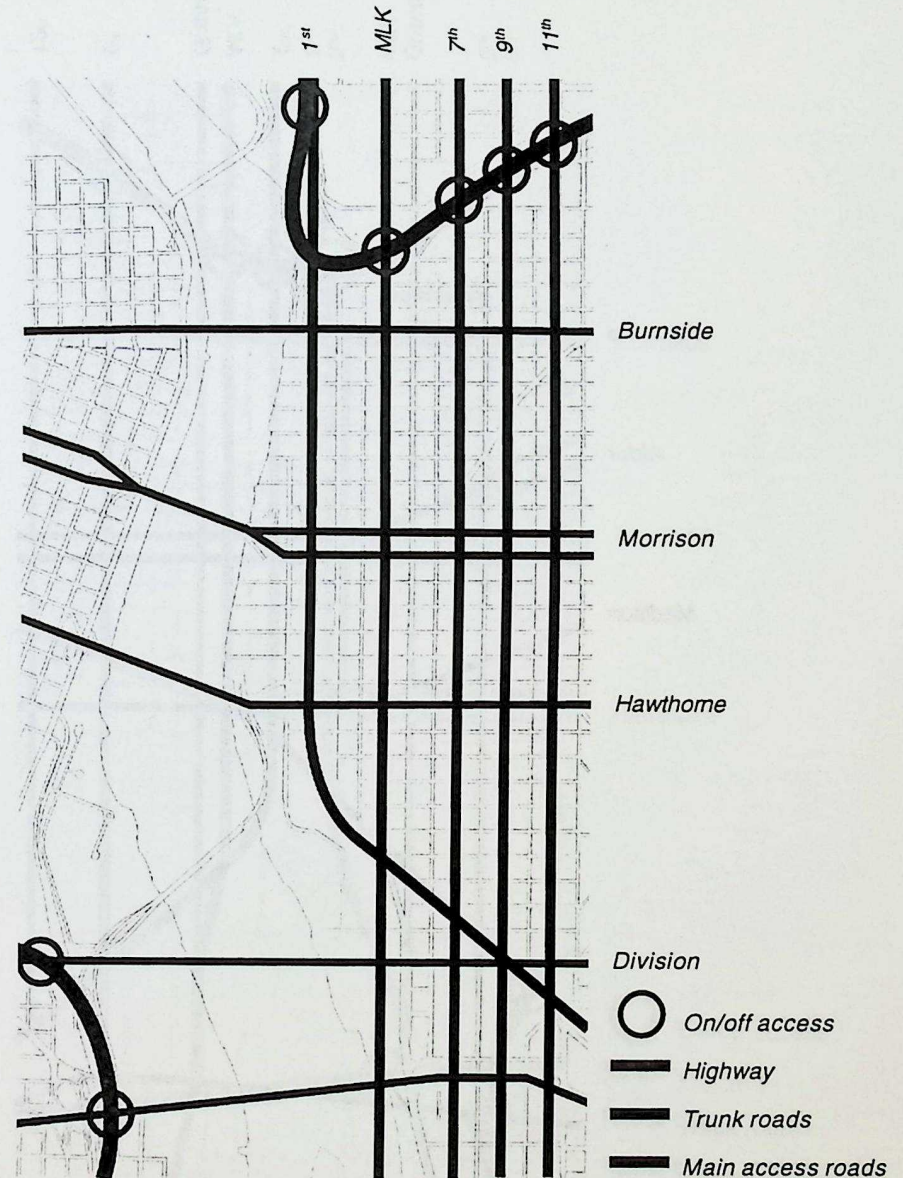
This framework replaces I-5 with a grid of north-south trunk roads: 1<sup>st</sup>, MLK, 7<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> Avenues. 7<sup>th</sup> and 11<sup>th</sup> Avenues form a one-way pair. Each trunk road connects to the five cross-river bridges, offering many more connections than there currently exist.

Each trunk road has 4-5 lanes that can accommodate 40' containers, and are controlled by traffic lights only at major cross-streets such as Burnside, Morrison, and Hawthorne.

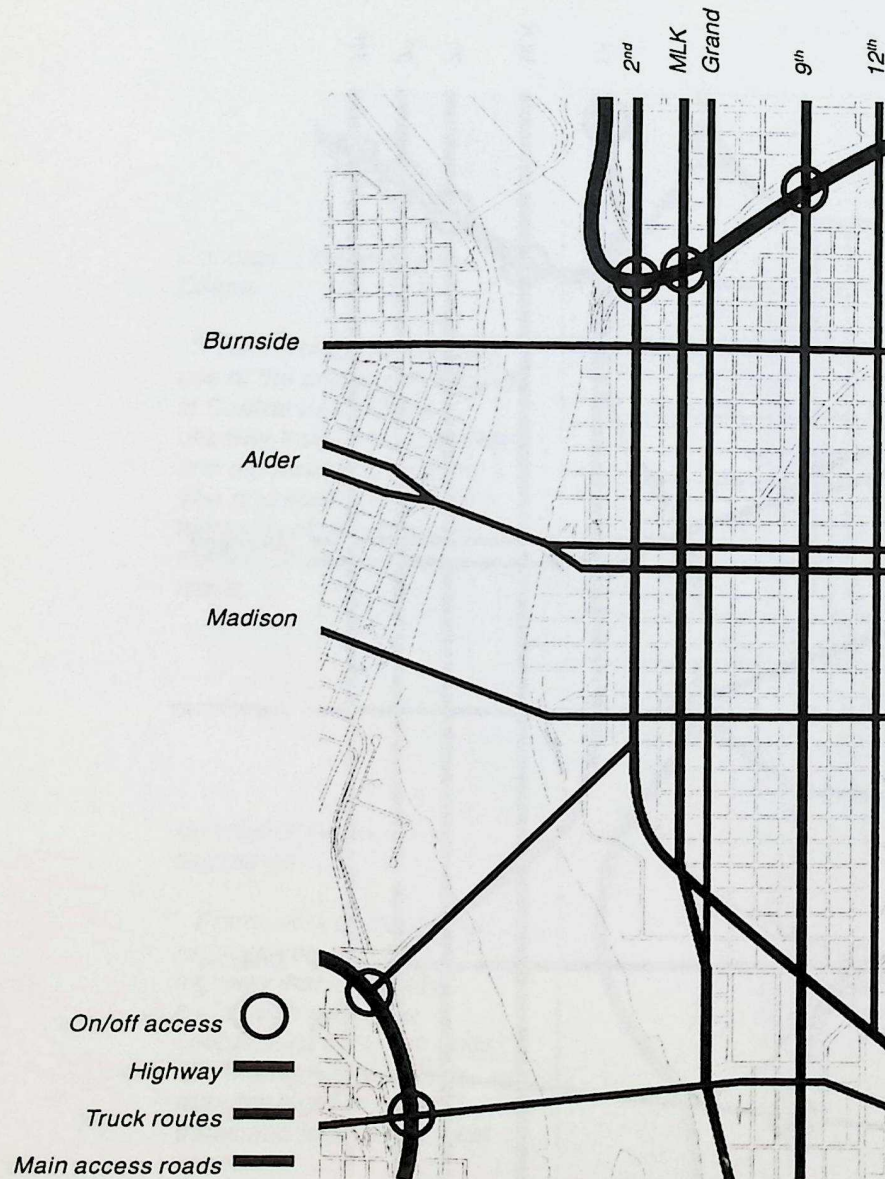
Marquam Bridge is replaced by a new connection at Division Street. The new bridge uses the existing Marquam Bridge right-of-way on the west side of the Willamette.

There are two pairs of on/off ramps in each direction on I-84. Access to I-5 southbound is facilitated by new connections at Ross Island and Division Bridges.

This framework reclaims some 40 acres of land from the highway by maximizing the capacity of existing surface streets. New access points to both I-5 and I-84 are added. The new Division Bridge also simplifies connection to new development in North Macadam, and enables development presently in the shadow of Marquam Bridge's ramps.







### Framework B

*This framework replaces I-5 with a hierarchy of surface streets. Automobile traffic is redistributed onto three two-way arterial streets: 2<sup>nd</sup>, Grand, and 12<sup>th</sup> Avenues.*

*Truck traffic travels on its own grid, consisting of two north-south truck routes and east-west curbless access roads. The truck routes are MLK and 9<sup>th</sup> Avenues, and the access roads are placed at alternate streets.*

*Though on the same alignment, Marquam Bridge is lowered and extended to 2<sup>nd</sup> Avenue, which is one of the arterial roads.*

*I-5 southbound is accessible by the modified Marquam Bridge, and on/off ramps to I-84 are relocated in relation to the new arterial roads.*

*This framework also releases waterfront land from the highway by reengaging the surface roads. Highway access in all directions is improved by rationalizing the approach and locations.*



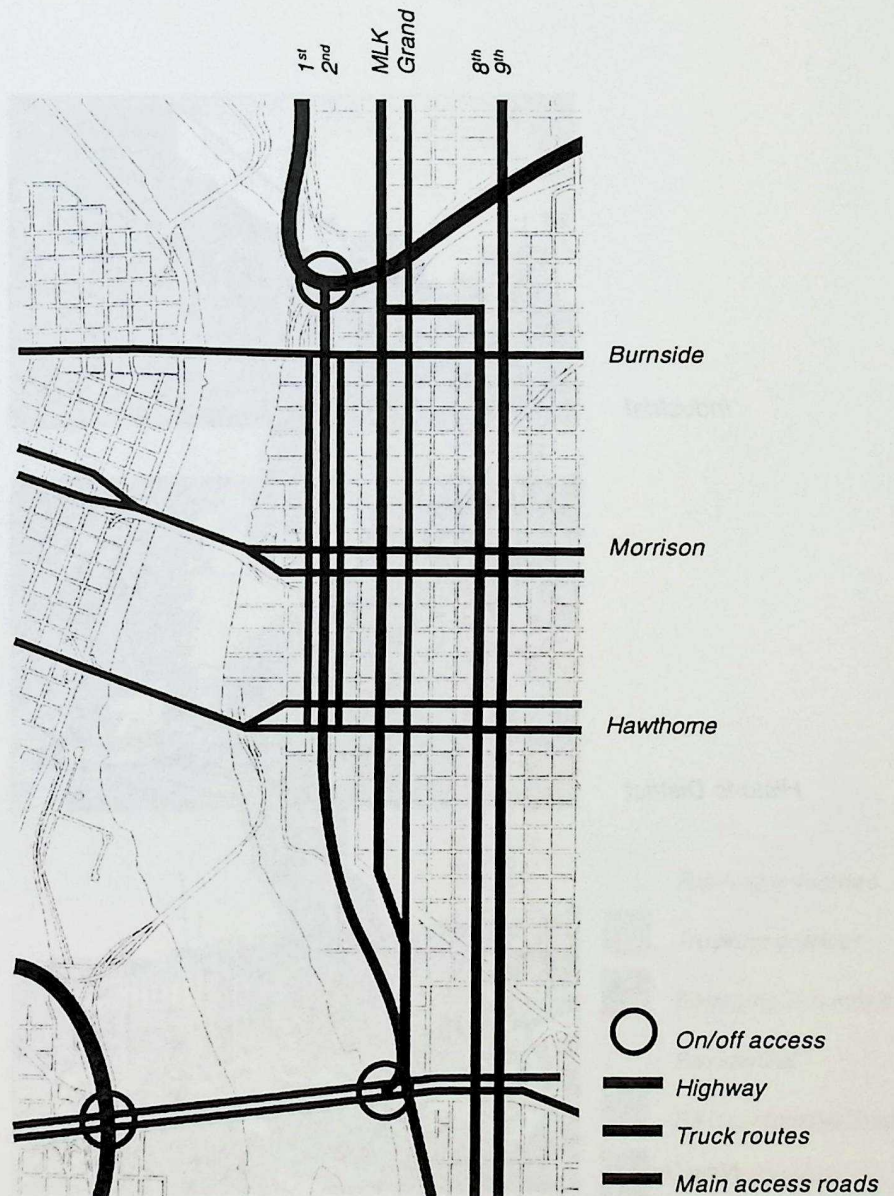
### Framework C

This framework moves I-5's alignment eastward, reduces its width and partially submerges it between 1<sup>st</sup> and 2<sup>nd</sup> Avenues. The highway is downgraded from a 6-8 lane interstate to a 4 lane expressway. There are entrance and exit points at either end of Central Eastside. Flanking the highway are two one-way frontage roads: 1<sup>st</sup> and 2<sup>nd</sup> Avenues.

Marquam Bridge is replaced by a new connection adjacent to Ross Island Bridge, forming a one-way pair.

Within Central Eastside, MLK, 8<sup>th</sup>, and 9<sup>th</sup> Avenues are the major truck routes. First, Second, and Grand Avenues are the main access roads.

The strategy is to maintain some high-speed capacity through the District, while recapturing the waterfront and improving local access. There are a number of crossing points over the submerged highway. This arrangement allows the recaptured waterfront area to develop new uses without negatively affecting the Industrial Sanctuary.





## Alternative Frameworks: Neighborhoods and Uses

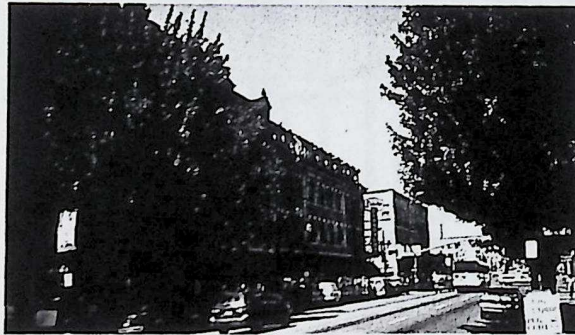
30 |

*Industrial*



A key principle in each framework is to maintain and enhance the industrial nature of Central Eastside. All three frameworks have preserved the Central Eastside Industrial Sanctuary and improved its regional access and local distribution. Among the proposals are strategic street closures allowing block agglomerations and curbless truck access roads to ease truck movement.

*Historic District*



The Grand Avenue Historic District is centrally located and symbolic of Central Eastside's prominence in Portland's commercial history. Currently it is the commercial corridor of the District. All three schemes intend to expand retail activities and enhance their potential with a new streetcar alignment, widened sidewalks, and new urban plazas.

*New Uses*



The relocation of I-5 and removal of Marquam Bridge offer exciting development opportunities. Emerging industries, such as high-tech and bio-tech, can be introduced to the District. The area around OMSI can be the site of a new type of urban campus. Close to Downtown and on the waterfront, the reclaimed land also lends itself to recreation activities, research facilities, and housing. Some of the new uses, such as research and housing, complement the traditional businesses within the District.



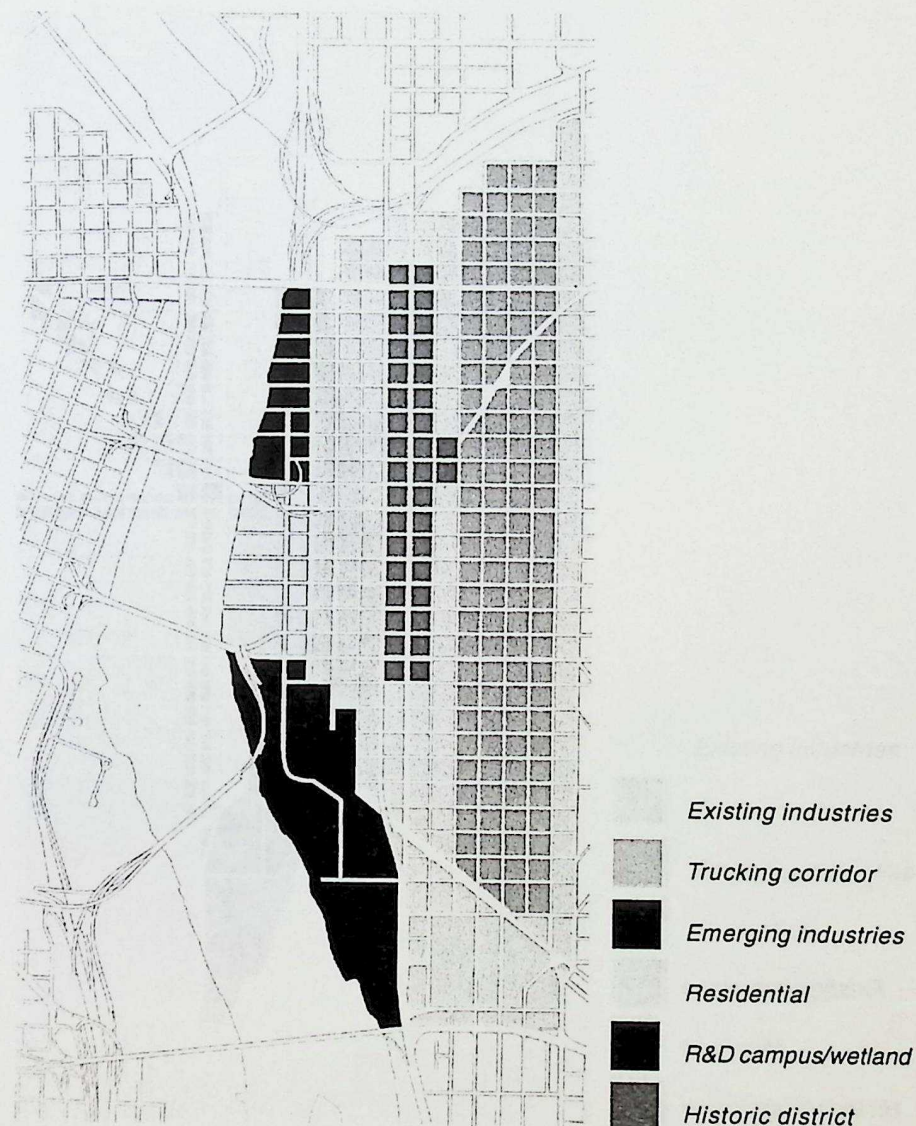
### Framework A

The removal of the highway and bridge ramps makes 40 acres of land available for development. The area between Hawthorne and new Division Bridges, centered at OMSI, becomes the new R&D campus. A 10-acre strip of waterfront land, between Hawthorne and Morrison Bridges can be developed as high-density housing. The reclaimed land between Morrison and Burnside Bridges can also be used for emerging industries.

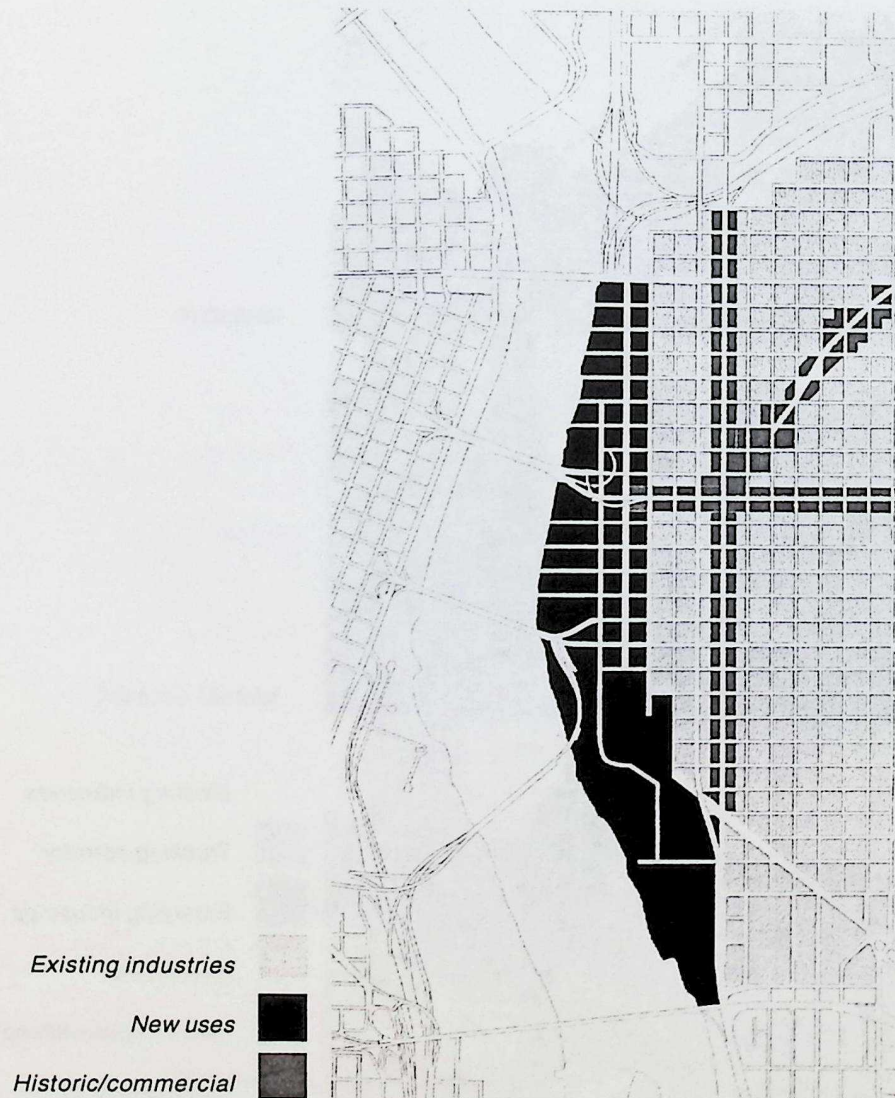
While preserving the Industrial Sanctuary, existing uses are strengthened by an adaptation zone defined by the new 7<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> Avenue trunk roads. 8<sup>th</sup> and 10<sup>th</sup> Avenues can be closed at strategic crossings to enable conglomeration of blocks and truck loading zones.

The Historic District becomes the commercial and retail core of the area, serving the regional market. The scheme proposes widened and landscaped sidewalks, streetcar access, and increased parking facilities.

The area north of Burnside Street is designated as a transitional zone. With increased bridge crossings over the I-84 divide, the area will benefit from the activities in the Lloyd District.







### Framework B

*While preserving the industrial nature of Central Eastside, this framework seeks to intensify activities within the Historic District and promote development of new subdistricts on the reclaimed waterfront land.*

*The existing commercial and retail uses in the Historic Districts are enhanced by infill projects along Grand Avenue. The goal is to extend commercial activities the full length of Grand Avenue and along Belmont Street. The Grand/Belmont crossing becomes the commercial center of the District. A streetcar alignment is configured to support businesses along the Grand Avenue corridor.*

*The waterfront area consists of a R&D campus and a residential district. These new uses enforce an accessible and active waterfront.*

*The warehouse and distribution operations in Central Eastside should benefit from an improved grid of dedicated truck routes and curbside east-west access roads.*



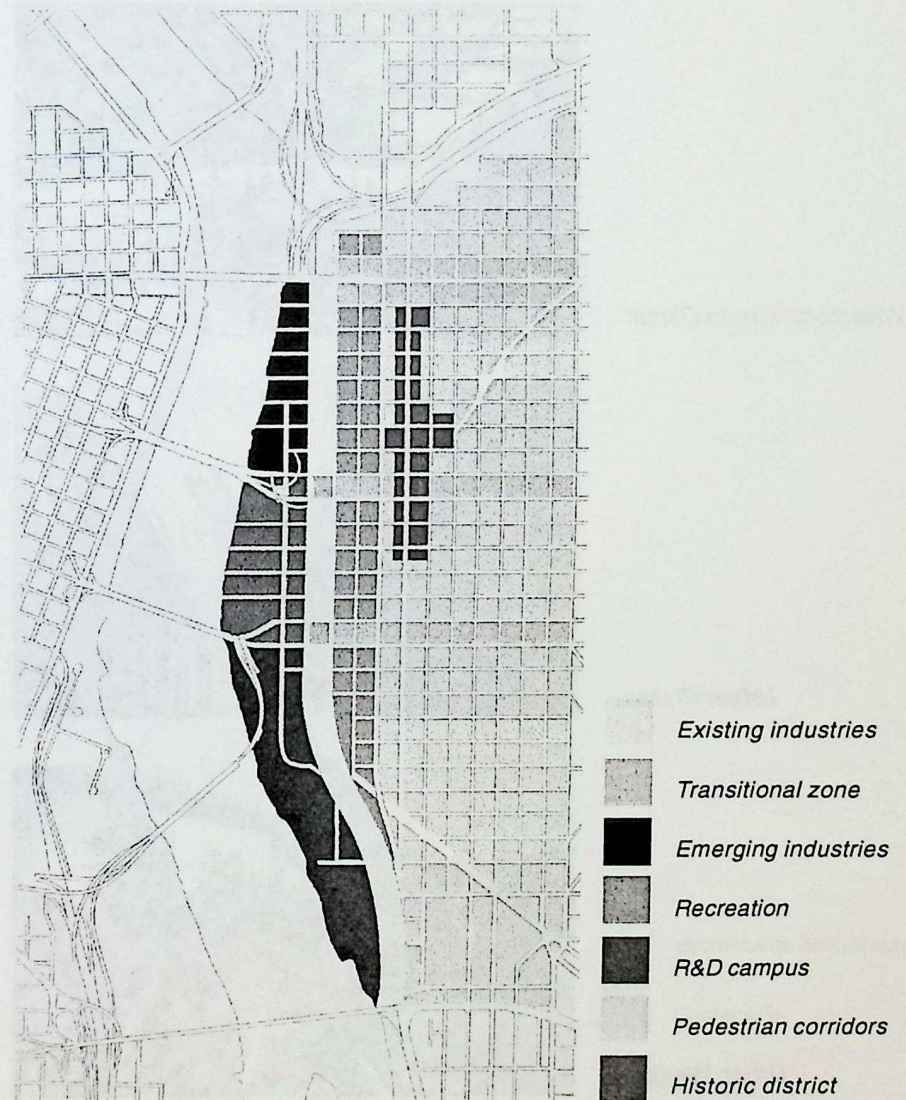
### Framework C

Realigning and submerging I-5 allows the reclaimed waterfront land to develop without any major impact on the existing uses in Central Eastside. Institutional, recreational, recreational, and potentially housing are proposed along the waterfront.

The southern end of Central Eastside becomes an institutional district, allowing for large research facilities and expansion space for PCC and OMSI. In the recreation subdistrict between Hawthorne and Morrison is a large public athletic facility. Emerging industries are located in the waterfront blocks between Morrison and Burnside, and may spread to the frontage blocks along the realigned I-5 corridor.

The long strip between 2<sup>nd</sup> Avenue and MLK is an industrial transition zone. Existing industries may remain, and emerging industries are accommodated. Throughout the District, east-west adjacent blocks are strategically combined.

The Historic District is retained as the commercial core of Central Eastside. Along the major east-west arteries, such as Belmont, Burnside, and Hawthorne, corridor subdistricts link the residential districts to the waterfront. These links are facilitated by ground-floor retail, public plazas, bicycle lanes, and widened, landscaped sidewalks.

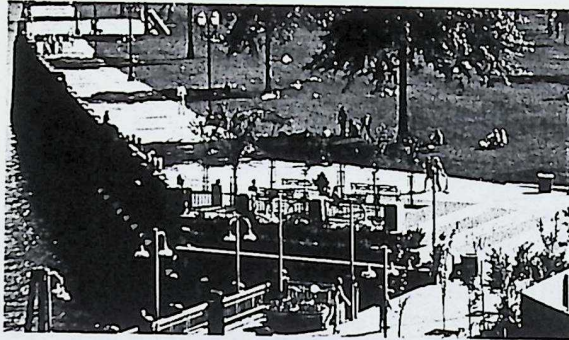




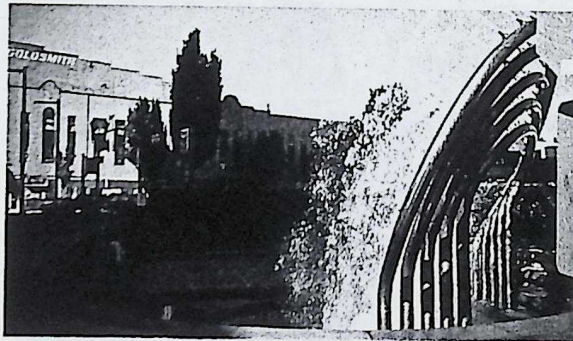
## Alternative Frameworks: Open Space

34 |

*Willamette Green Circuit*



*Urban Plazas*



*Urban Wetland*



Portland created its west-side esplanade when it removed its west-side highway, and a similar opportunity exists on the east bank. An east-side esplanade would complete an urban green circuit extending from Steel Bridge to Ross Island Bridge. Along this circuit are some of Portland's most important landmarks and attractions: the Saturday Market, the Rose Quarter, OMSI, Riverplace, and Downtown. All frameworks propose new attractions along this ring and reaffirm the Willamette as the heart of the city.

Urban parks and plazas bring fragments of nature into the city's fabric. They are effective along busy commercial corridors and can organize complex intersections. All three frameworks propose plazas along the Grand Avenue Historic District, taking advantage of vacant lots. Frameworks A & B both place a park along Sandy Boulevard, to mediate its intersections with the street grid. These open spaces also serve as stepping stones between neighborhoods to the east and the waterfront.

As part of an overall strategy to reduce or eliminate storm water runoff in the District, Frameworks A & B both propose an urban wetland at the waterfront area between OMSI and KPTV. The wetland's contours approximate the Willamette's historic shoreline. Storm water from the District is first accumulated in detention ponds and channeled into the wetland for polishing. Adjacent to OMSI, the urban wetland will also serve as an ecology laboratory.



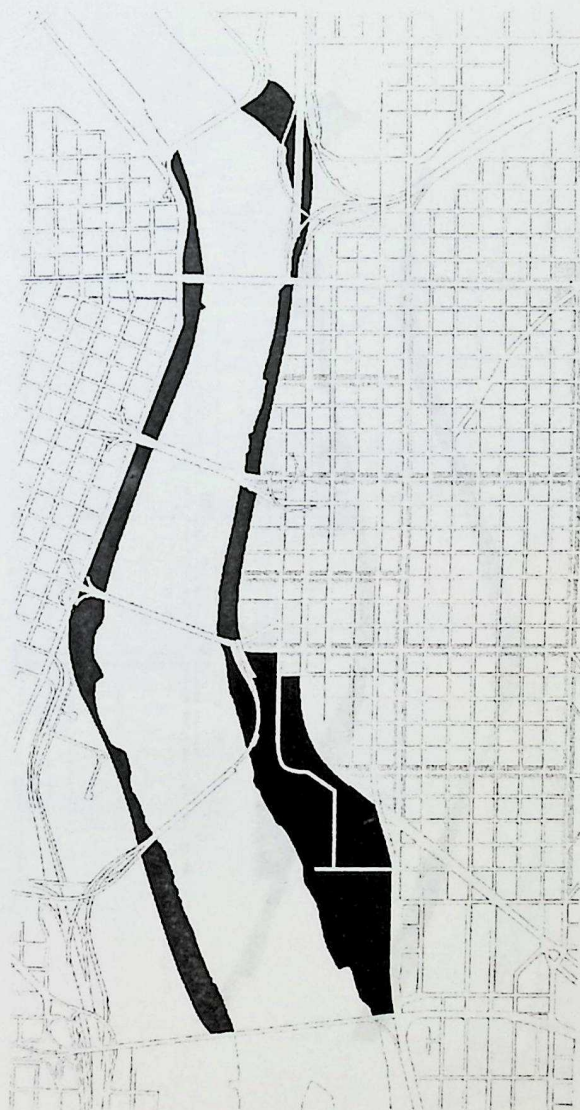
#### Framework A

*In creating a sensitive and active waterfront and urban park experience, this framework proposes a waterfront linear park, an urban wetland, and urban plazas throughout Central Eastside. The goal is to provide social amenities that engage a variety of uses while fulfilling environmental responsibilities.*

*An east-bank esplanade completes the Willamette urban green circuit. The waterfront is punctuated with a variety of events and spaces, including water taxi piers, amphitheaters, fountains and pavilion overlooks.*

*In the R&D campus district, an urban wetland is proposed. The wetland is part of a district-wide system to treat storm water runoff. The system consists of detention ponds, streams, and swamps. The wetland area approximates the historic shoreline of the Willamette River.*

*Within the district, an urban green grid provides necessary open space, a permeable street surface, and reinforces pedestrian links to the waterfront. Water, Grand, and 12<sup>th</sup> Avenues have widened and landscaped sidewalks. Important intersections such as Sandy at Burnside and Hawthorne at Grand Avenues are marked with small urban plazas.*

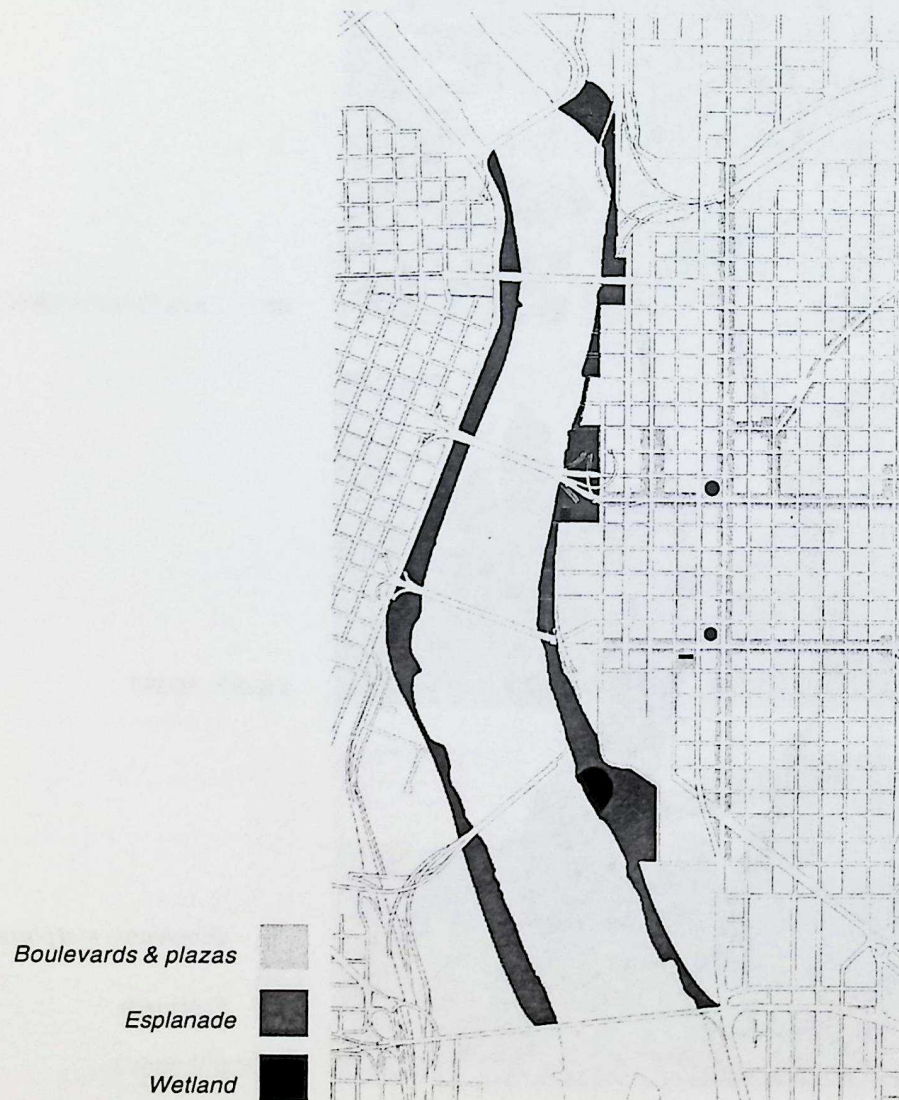


Boulevards and plazas

Esplanade

Wetland





## Framework B

*This open space framework combines the urban park system with a comprehensive storm water runoff system. The waterfront linear park and green links on Belmont and Hawthorne form an integrated environmental mechanism.*

*Part of the storm water runoff is collected on Burnside Street and directed to a conventional treatment center under the I-84/I-5 interchange. The rest of the runoff is directed onto Belmont and Auburn Streets, partially daylighted, and is guided through a series of wetlands and detention ponds. The storm water is purified and recycled for industrial uses.*

*The storm water run off program includes reusing existing features such as bridge ramps to incorporate them into new landmarks and recreational areas in Central Eastside. These landmarks become the centerpieces of the District's urban plazas.*



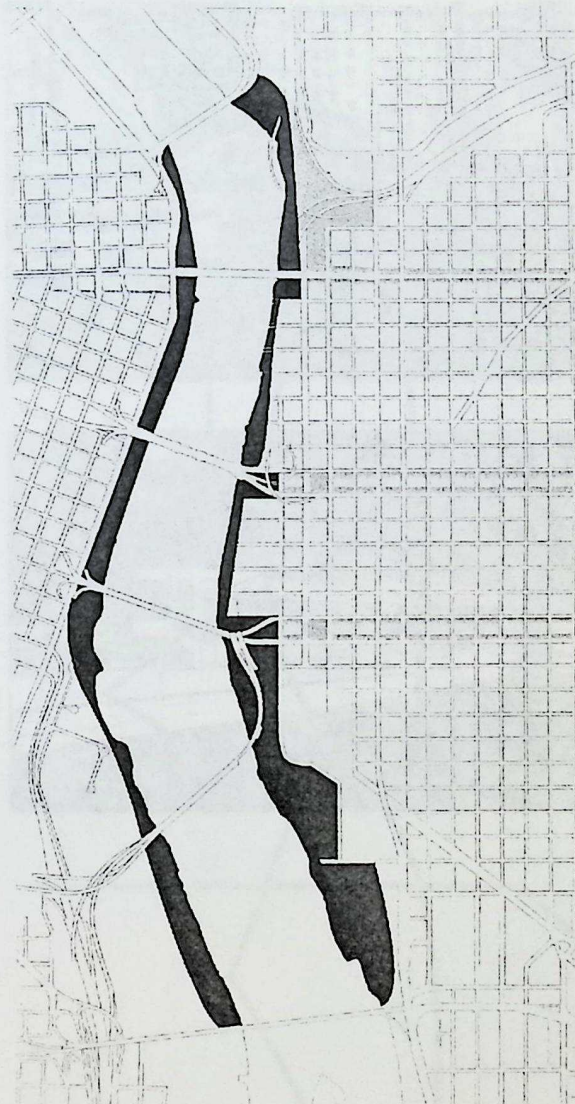
### Framework C

*This open space framework is focused on facilitating pedestrian movement through specific corridors of Central Eastside. The east-side esplanade becomes the centerpiece of the District's open space strategy, linking the pedestrian corridors on the east side to the west-side esplanade.*

*Parks and plazas are placed throughout Central Eastside for the enjoyment of employees of the District. A larger public open space is proposed in front of the indoor athletic facility at the foot of Morrison Bridge.*

*Anchoring the various public spaces are major public buildings and institutions, such as OMSI, the new research center, and recreational facilities. They provide tangible nodes to a sequence of open spaces.*

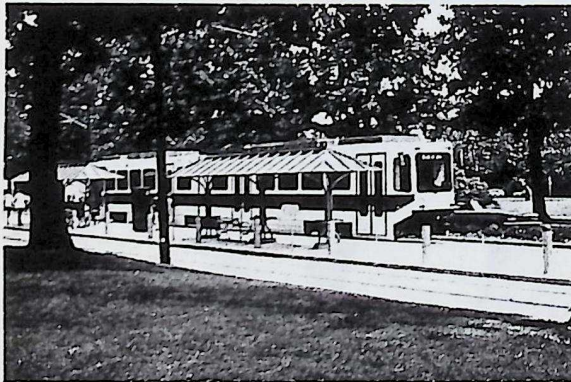
*The key east-west arteries—Burnside, Belmont, Hawthorne, and Caruthers—have improved pedestrian links.*



Boulevards and plazas

Esplanade





In establishing itself as a regional center of commerce and industry, Central Eastside should aggressively bring multi-modal transit into the District. The framework plans seek to bring a wide range of transit modes, from high-speed rail to water taxi, into the District.

The existing railway mainline through the District can be upgraded to accommodate regional high-speed rail or commuter rail, and eliminate existing grade crossings at the same time. A new station in Central Eastside may actually offer much better connections to Central Portland than the current Union Station. This station can leverage comprehensive economic growth in Central Eastside.

Aligning the north-south LRT corridor through Central Eastside would benefit the District. Streetcars could provide better access to the central city, with more frequent stops, shorter headway, and lower capacity. All three frameworks propose streetcars along the Grand Avenue retail corridor, eventually reaching west-side destinations like Downtown and PSU.

A water taxi service connecting a number of important destinations along the Willamette waterfront will soon be a reality. All three frameworks incorporate this promising program, proposing stops at key destinations such as the central athletic facility, housing developments, and the R&D campus.

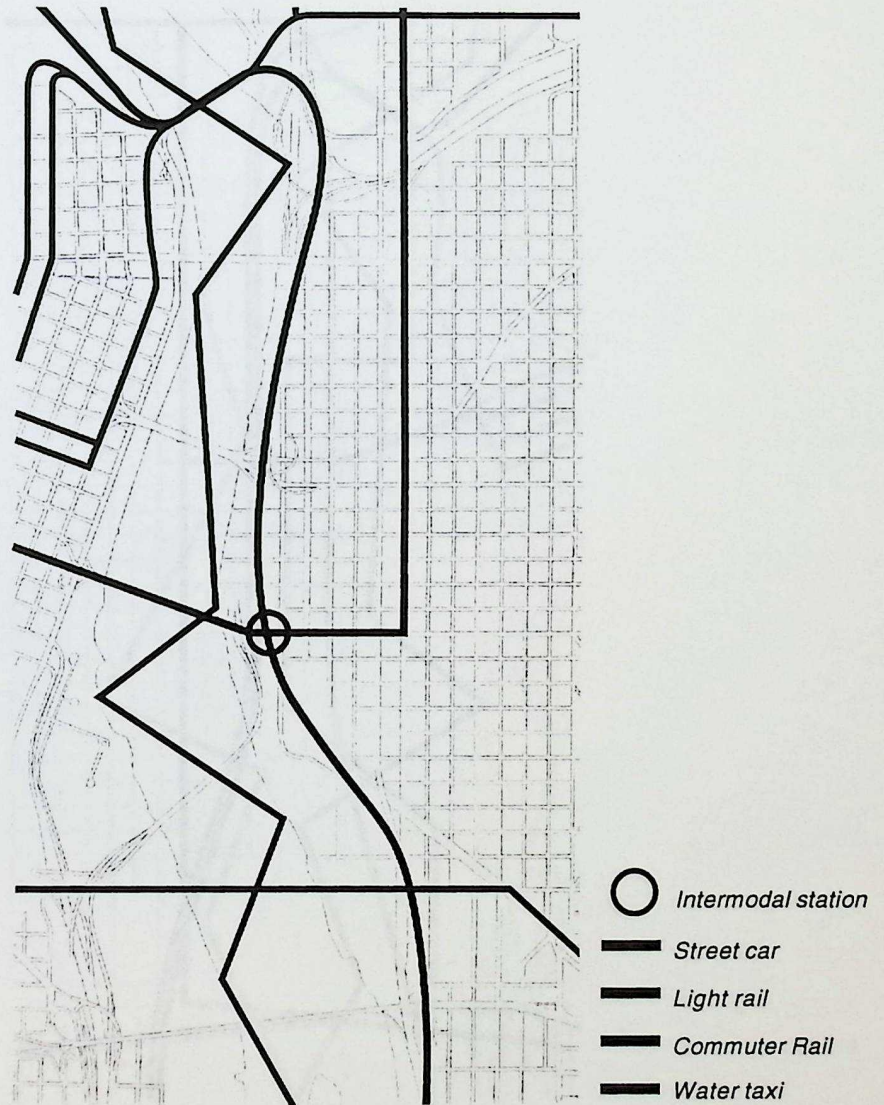


### Framework A

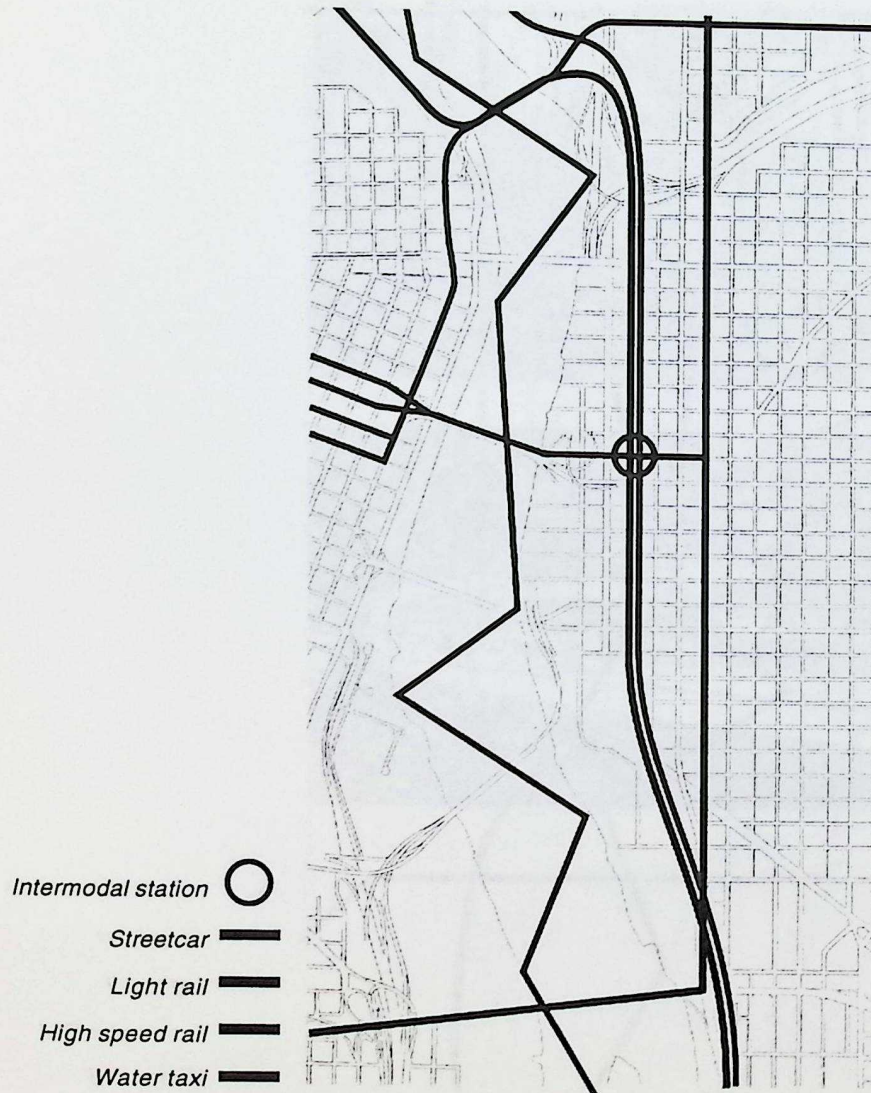
*This framework realigns the railway mainline along the waterfront, eliminating grade crossings from Central Eastside. The realigned tracks can be used for a new commuter rail service, with a main stop at an intermodal transit center at the foot of Hawthorne Bridge. The station brings together commuter rail, streetcar, buses, and water taxi.*

*Traveling on the renovated Hawthorne Bridge and Grand Avenue, streetcars connect Central Eastside to Lloyd District to the north and Downtown, PSU and OHSU to West. Along Grand Avenue, the streetcar alignment also enhances the retail and commercial activity in the Historic District.*

*Water taxi stops are proposed at the foot of Hawthorne Bridge and OMSI, providing an alternative mode of travel to destinations on the Willamette shoreline.*







### Framework B

Based on the proposal for a high-speed railway connection between Vancouver, BC and Eugene, OR, this framework proposes an intermodal station at the foot of Morrison Bridge. The new station would serve as an alternative to the existing Union Station, providing a more immediate connection to downtown Portland.

Converging at the intermodal center are a metropolitan light rail system that runs parallel to the railway mainline, a local streetcar system, and buses. The streetcar travels along a central-Portland circuit, linking such destinations as Central Eastside Historic District, OMSI, PSU, Downtown, River District, and Lloyd District.

The water taxi serves as an alternative means of connection between destinations along the Willamette River.

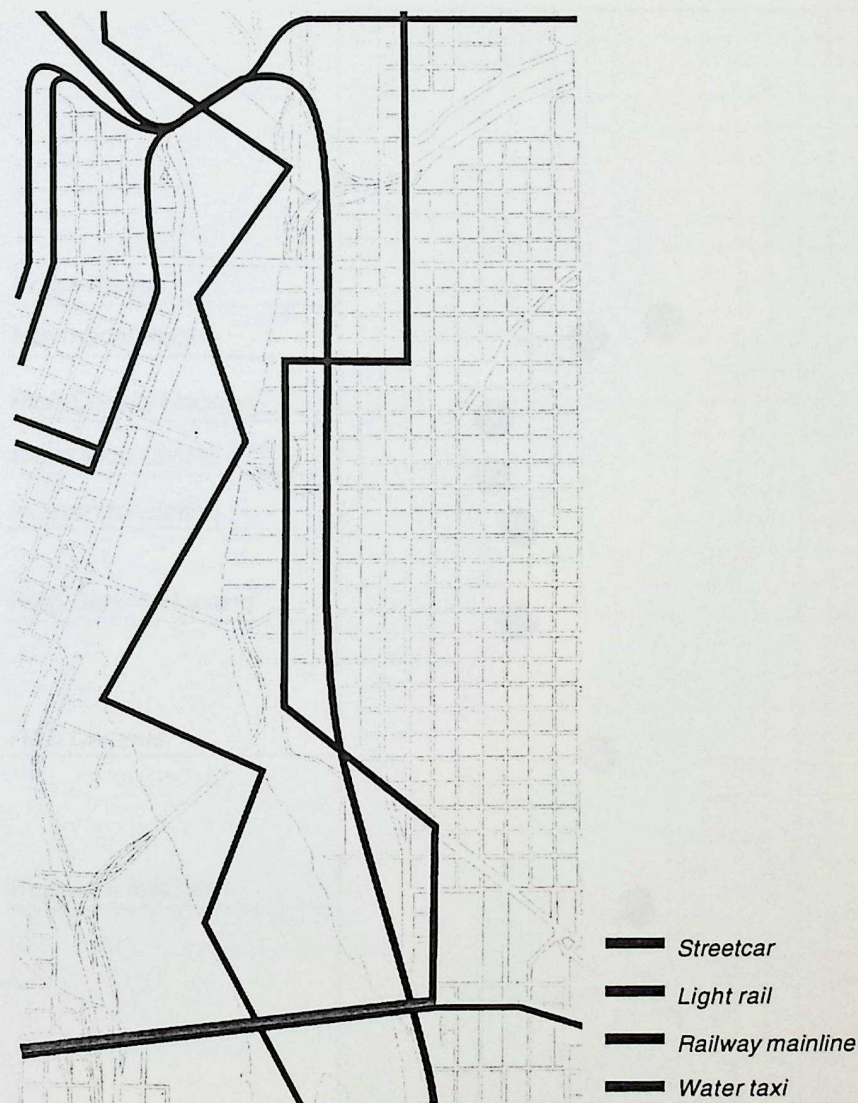


### Framework C

*This framework strenghtens transportation links between Central Eastside and its adjacent districts with light rail and streetcars. The light rail alignment is based on existing proposals, crossing to the west side on Steel Bridge, through downtown, and coming back to the east side on the lower deck of the proposed Ross Island double span.*

*Complementing light rail on a more local level is the streetcar. The proposed alignment connects such key points as OHSU, downtown Portland, Lloyd District, and the Central Eastside Historic District, the proposed recreational district along the east side waterfront, and OMSI.*

*The water taxi serves as an alternative means of connection between destinations along the Willamette River.*





# Projects

In exploring the development potential of Central Eastside, the studio further developed individual projects based on the respective framework plans. These are catalytic projects with the potential to stimulate and guide redevelopment of Central Eastside consistent with one or more of the framework plans. All have potential to attract federal and local, public and private investment. All address City and Metro 2040 goals.

The projects are all located on the waterfront, and reflect the various treatments of the highway. Ranging from intermodal transportation center and R&D campus to high-density housing and recreation facilities, these projects underscore the substantial potential of the Central Eastside waterfront.

Urban Plazas

Intermodal Station

High-Density Housing

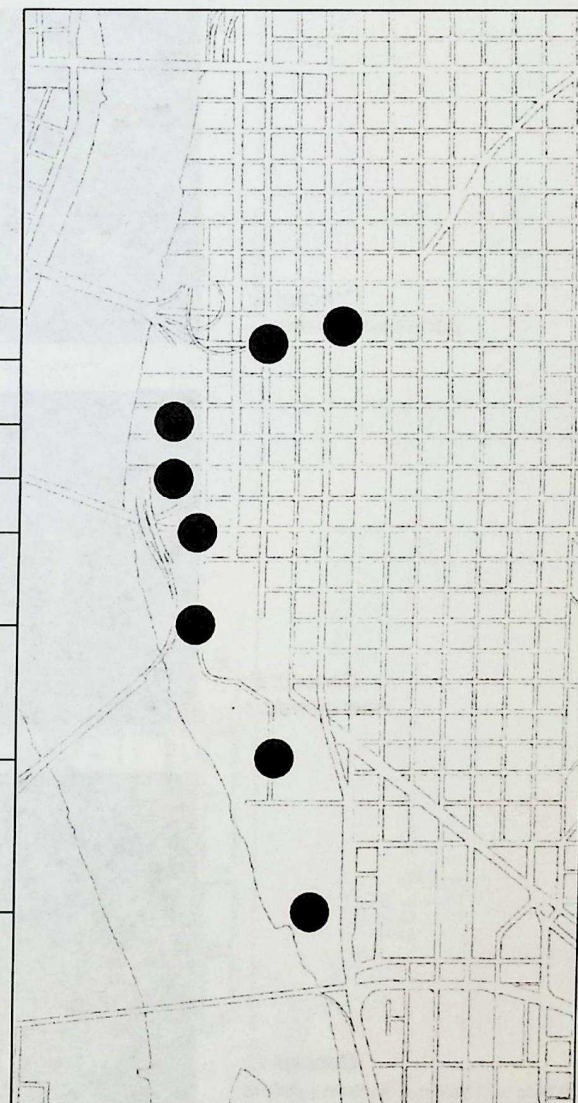
Recreation Center

Intermodal Station

High-Density Housing

R&D Campus

Research Institute

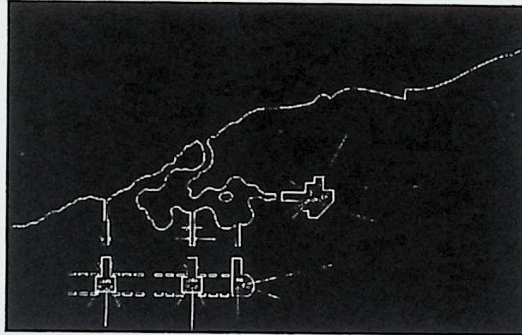




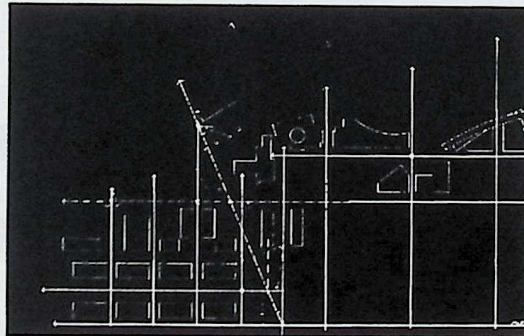
## Intermodal Station, R&D Campus/Wetland

44 |

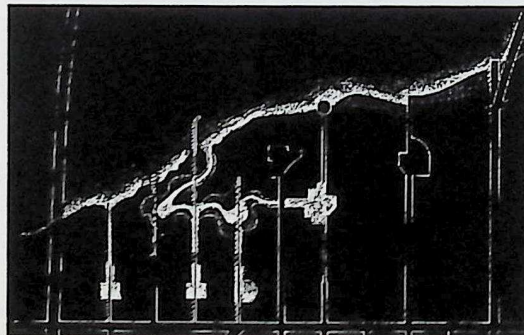
*Concept A:  
ponds and channels*



*Concept B:  
view corridors*



*Concept C:  
piers*



*Seng Kuan, MUP, Maxwell W. Pau, MAUD, and  
Pei-ying Wang, MLA  
(Framework A)*

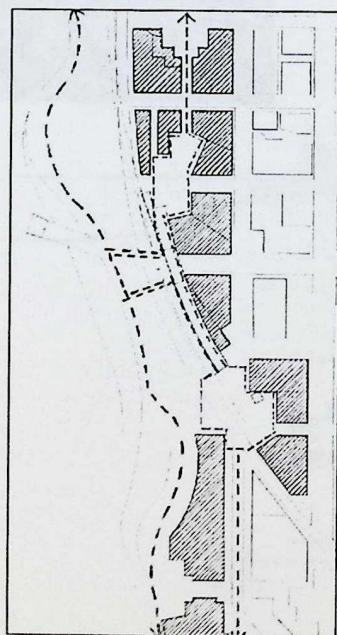
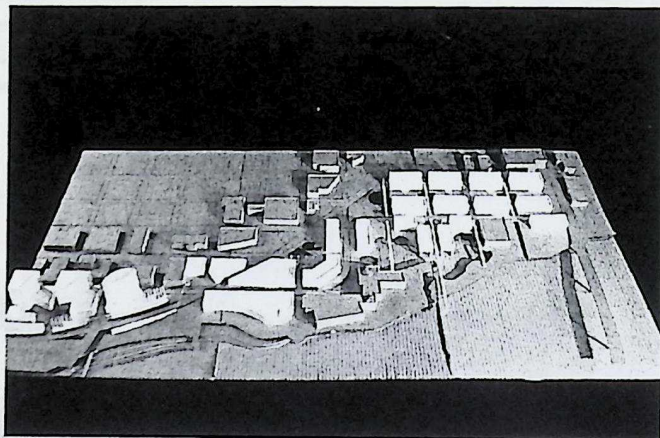
The removal of Marquam Bridge positions the foot of Hawthorne Bridge as the anchor of Central Eastside. The scheme is based on the realignment of the railroad along the waterfront and proposes a commuter rail station to be located here. To north of Hawthorne station is a high-density residential community of a thousand units. To its south is an urban R&D campus centered at OMSI and PCC.

As the quintessential urban building, the railroad station's program includes a hotel, public market, and other entertainment and service facilities. These operations complement the new needs of the district and serve a regional market brought by the commuter station.

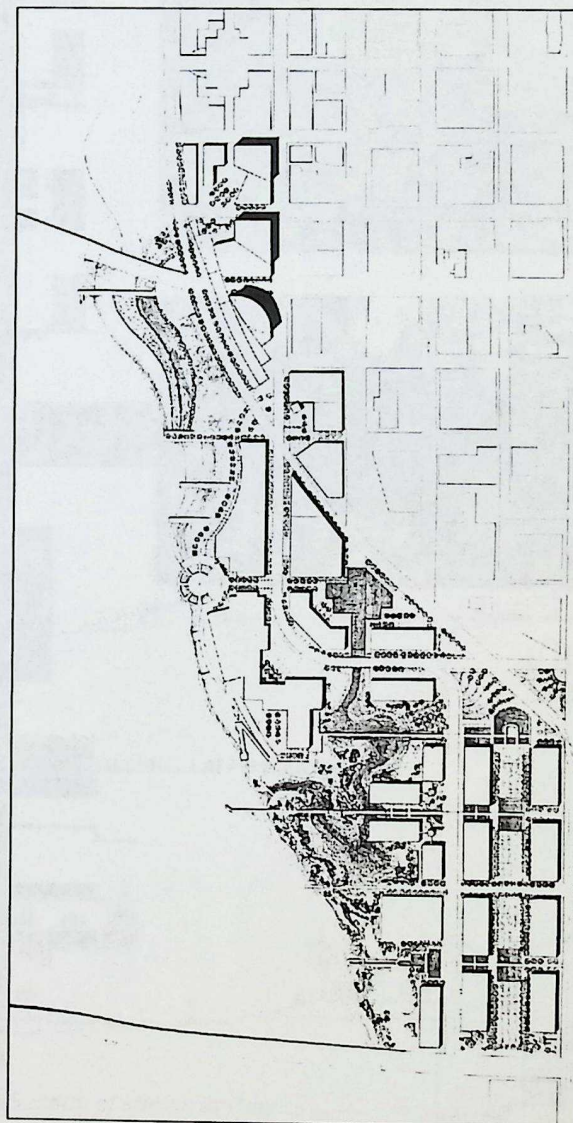
The urban R&D campus seeks to attract emerging industries, large and small, with its urban presence and proximity to OHSU, PSU, and Reed College. Part of the program is the provision of deep floor plates, flexible space, and advanced wiring necessary for these operations.

In creating a meaningful and sensitive waterfront experience, an urban wetland to treat storm water runoff from the District is proposed for the campus. The wetland system consists of a number of detention ponds, a wetland area approximating the historic shoreline, and pedestrian paths resembling piers.



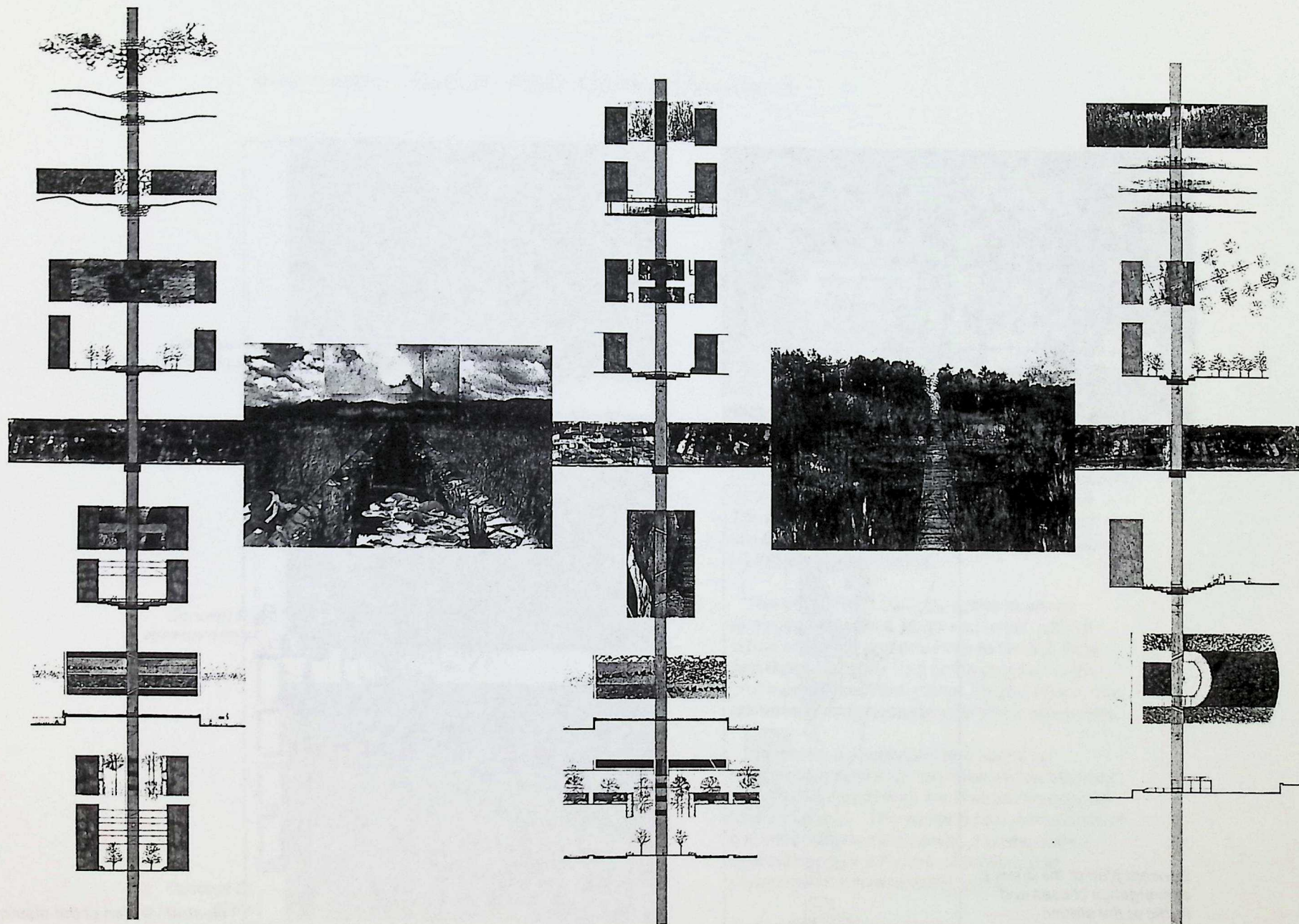


*Concept plan of the district:  
convergence of uses and  
traffic at the station*

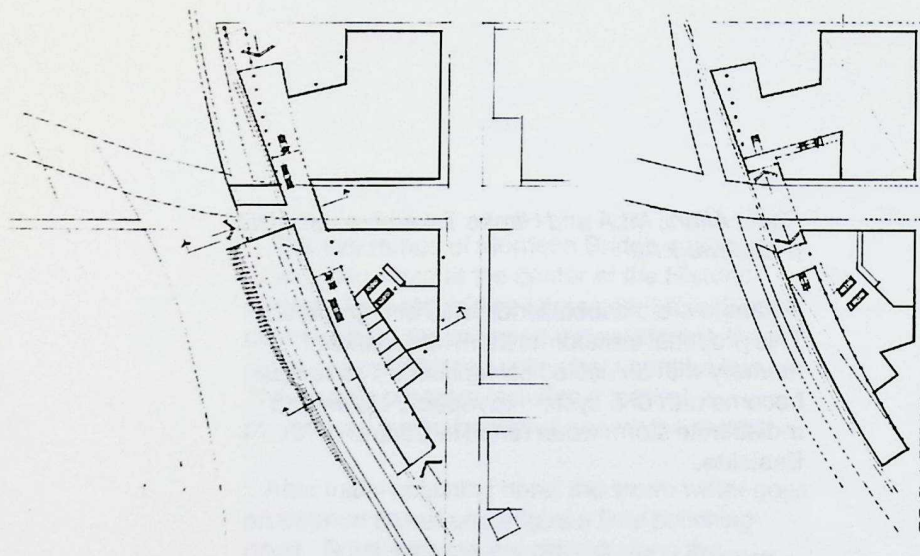


*Illustrative plan of the district*



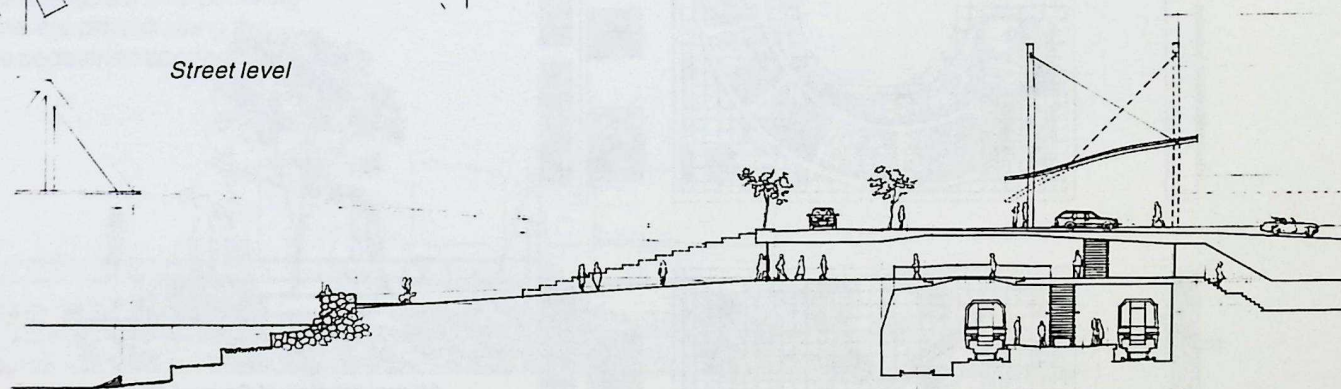
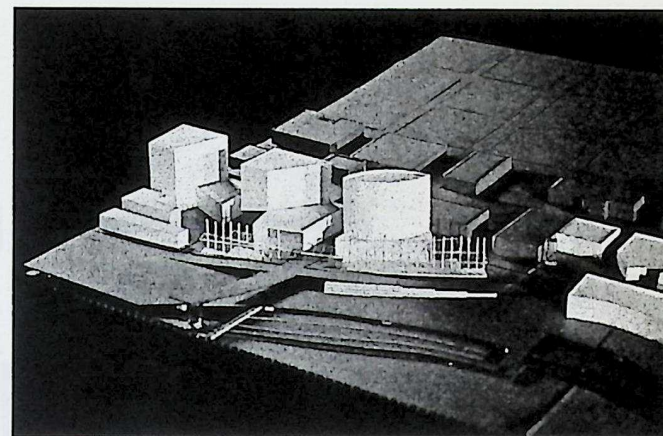






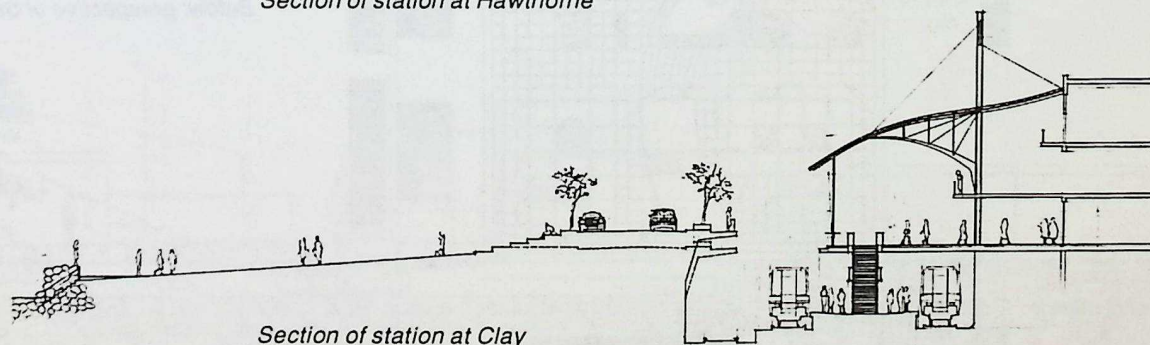
*Concourse level*

*Street level*



*Section of station at Hawthorne*

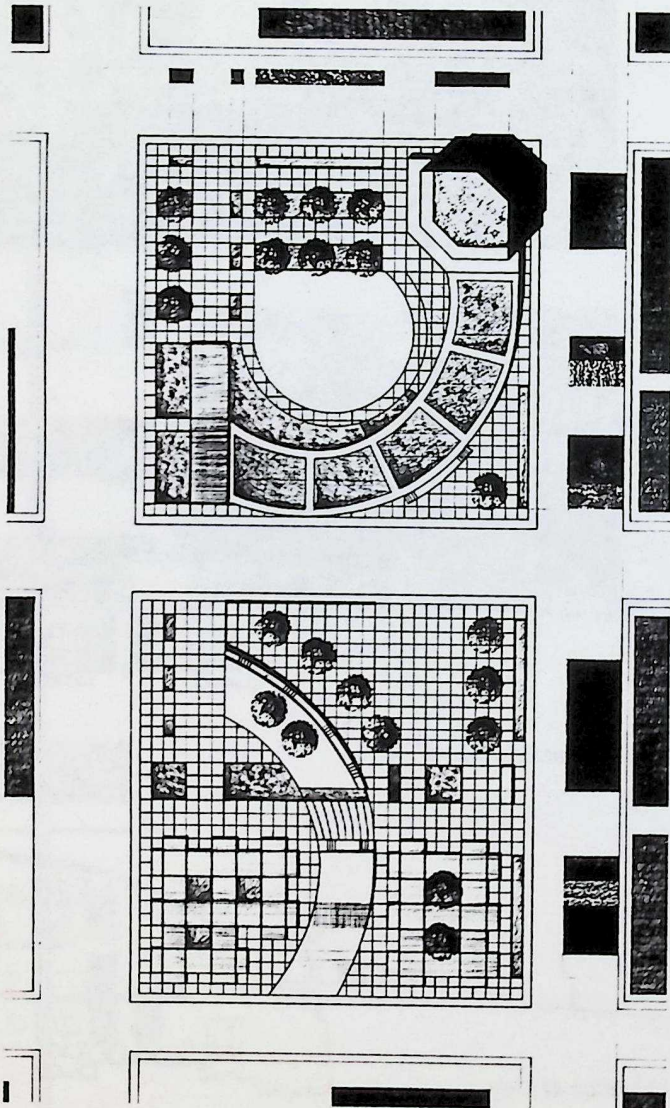
*Left page: conceptual sections through campus wetland*



*Section of station at Clay*



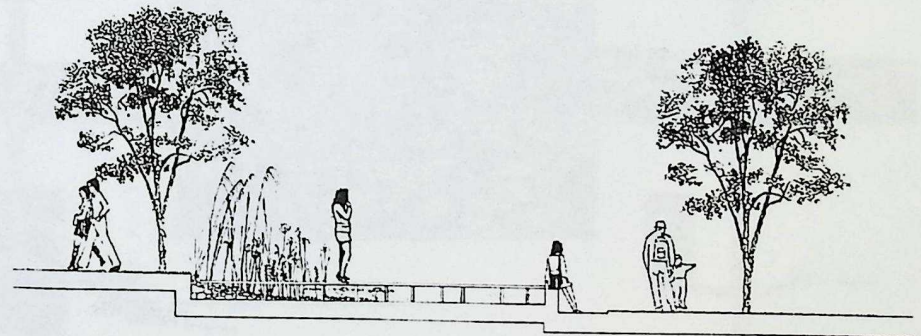
## Urban Plaza/Monument



Plan of Belmont  
Ramp Plaza

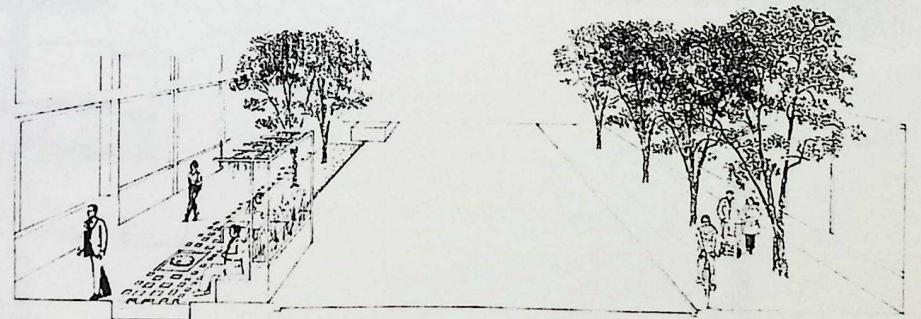
*Paola Alfani, MLA and Hiroko Takamura, MLAUD  
(Framework A)*

Ramps are the local landmarks of highways. This proposal transforms them into marks of memory with an ecological function. The ramps become part of a system to reduce, clean, and redistribute storm water runoff in Central Eastside.



*Above: section of Salmon Street*

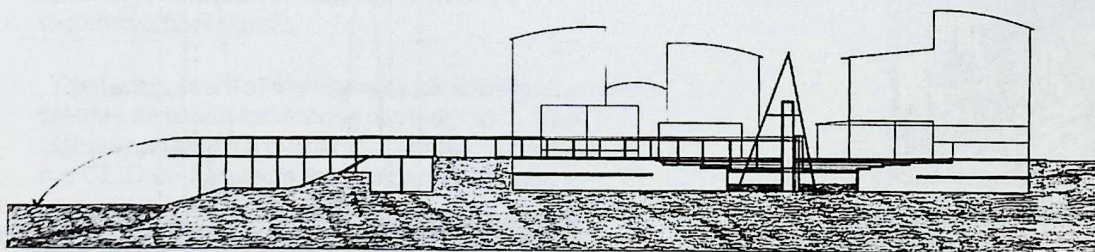
*Below: perspective of Salmon Street*



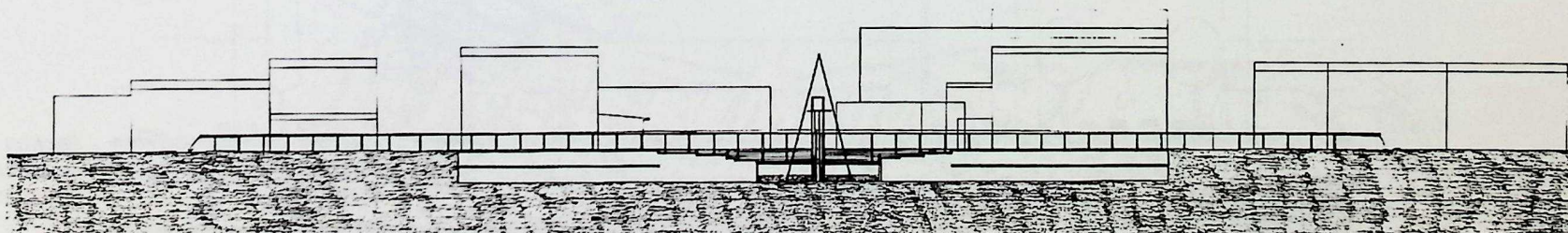


The two ramps of Morrison Bridge anchor a new public plaza at the center of the Historic District. Located midway between the residential community to the east and the waterfront, the plaza also establishes a link between the two. The plaza's program includes a market, a playground, and a brewery beneath the ramps.

After initial polishing here, the storm water goes on Salmon Street and enters a final polishing pond. Small piazzas are placed along the channel to enhance pedestrian connectivity.



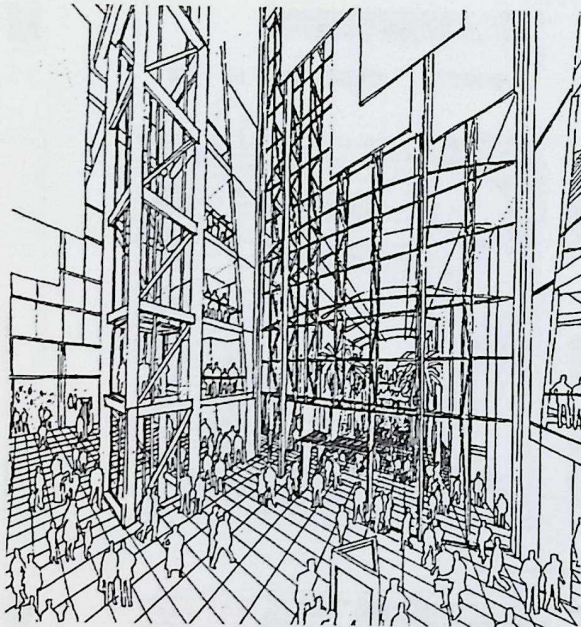
*Left: section of public plaza  
at Salmon Street*



*Below: section of public  
plaza cut north-south*



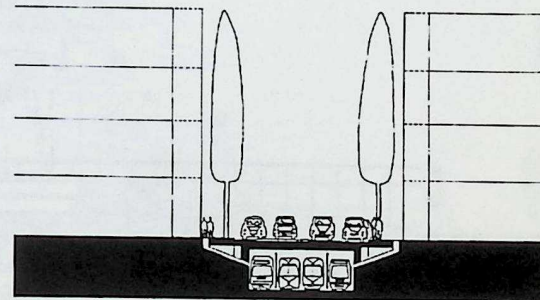
## Intermodal Station



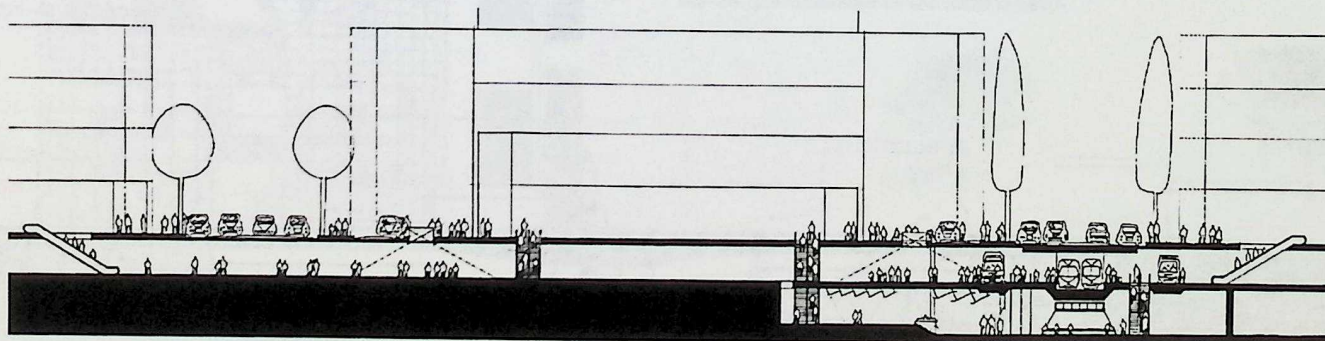
*Perspective view of Morrison Railway Station's atrium*

*Bernard Chan, MAUD  
(Framework B)*

Strong infrastructure investment may develop Central Eastside's potential to sustain an urban core. This scheme proposes an intermodal transit node and commercial center at the foot of Hawthorne Bridge. High speed rail and LRT run below grade at 2<sup>nd</sup> Avenue. Between Morrison and Yamhill Streets is a large public plaza that connects the station with the waterfront.



*Section across 2<sup>nd</sup>  
between Ash and  
Division*



*Section across 1<sup>st</sup>  
and 2<sup>nd</sup> Avenues at  
Morrison Railway  
Station*

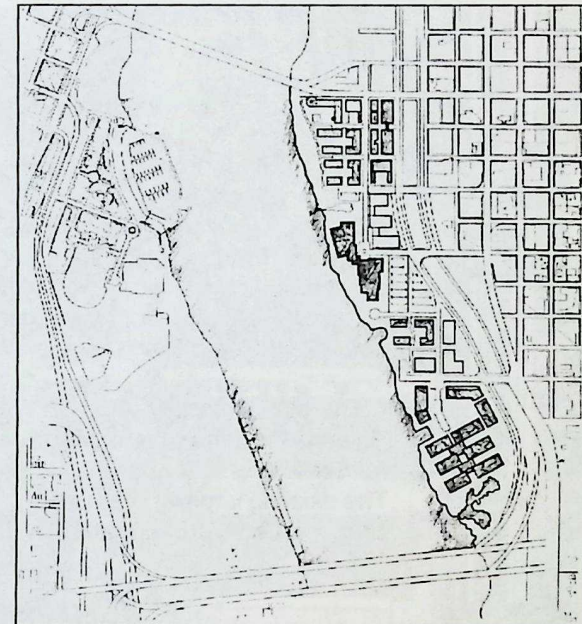


## Housing, Research Institute

Yan Gao, MUP  
(Framework C)

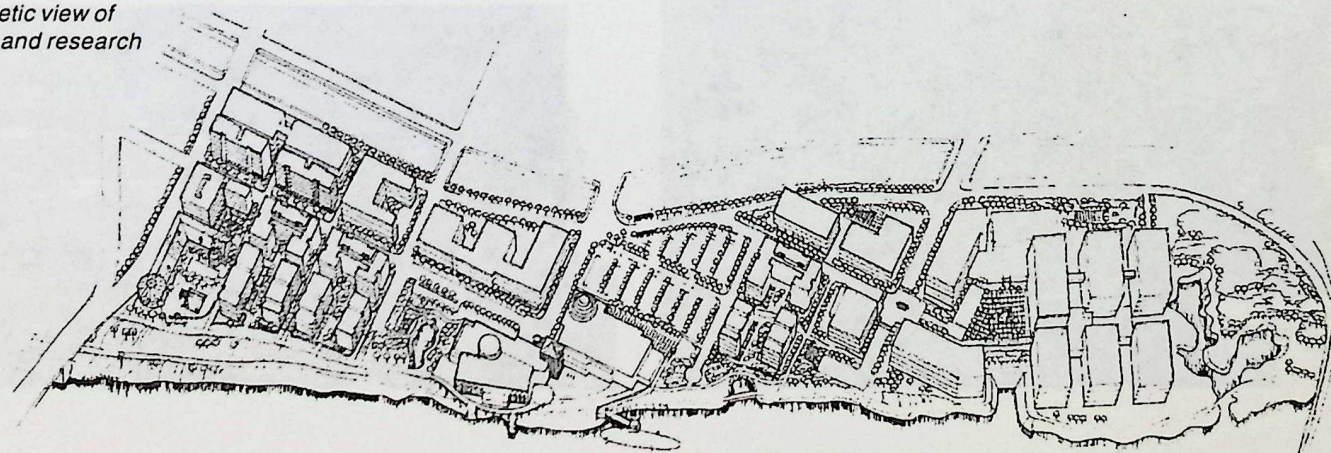
The large tract of land between Hawthorne and Ross Island Bridges is presently underused. With the removal of Marquam Bridge, this district provides ideal opportunities for residential and institutional development. This scheme provides almost a thousand units of housing in the area around OMSI. The typology is high-density medium-rise blocks, each enclosing a small plaza that extends to the waterfront. The shoreline consists of a linear park punctuated by these plazas. At the end of the district is an area for a large research institute and a more expansive park space.

The realignment of the highway effectively creates an island for intense development. The highway provides a barrier that controls growth in the CEID and protects the residential district.



District plan: housing (red), research (blue),  
commercial (yellow)

Axonomic view of  
housing and research  
district



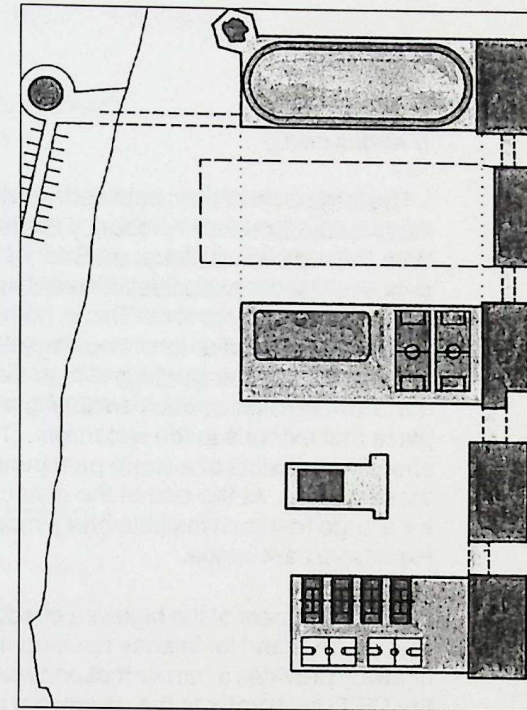


## Recreation Center

*Howard Kozloff, MUP  
(Framework C)*

Large civic attractions, such as the Rose Garden and OMSI, have done much to enliven the east bank waterfront. This proposal seeks to intensify east-bank waterfront activity by building a large athletic facility between Morrison and Burnside Bridges. Inspired by New York's Chelsea Piers, the facility will include pay-as-you-go facilities ranging from swimming pool and tennis courts to driving range and climbing walls.

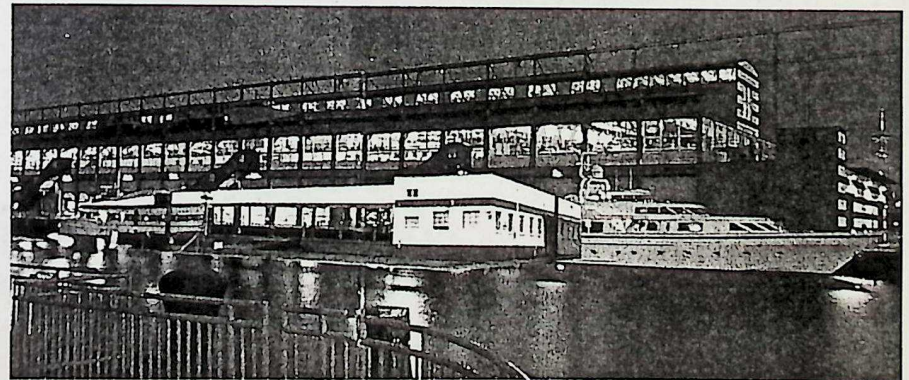
The athletic facility will establish the Willamette River as Portland's recreational center, and bring further excitement and jobs to central Portland. The existing large warehouse facilities in Central Eastside can be readily adapted for the new use.



*Above: schematic plan of athletic center*

*Right: collage of  
golf driving range*

*Far right: collage of  
boating and aquatic  
sports center*



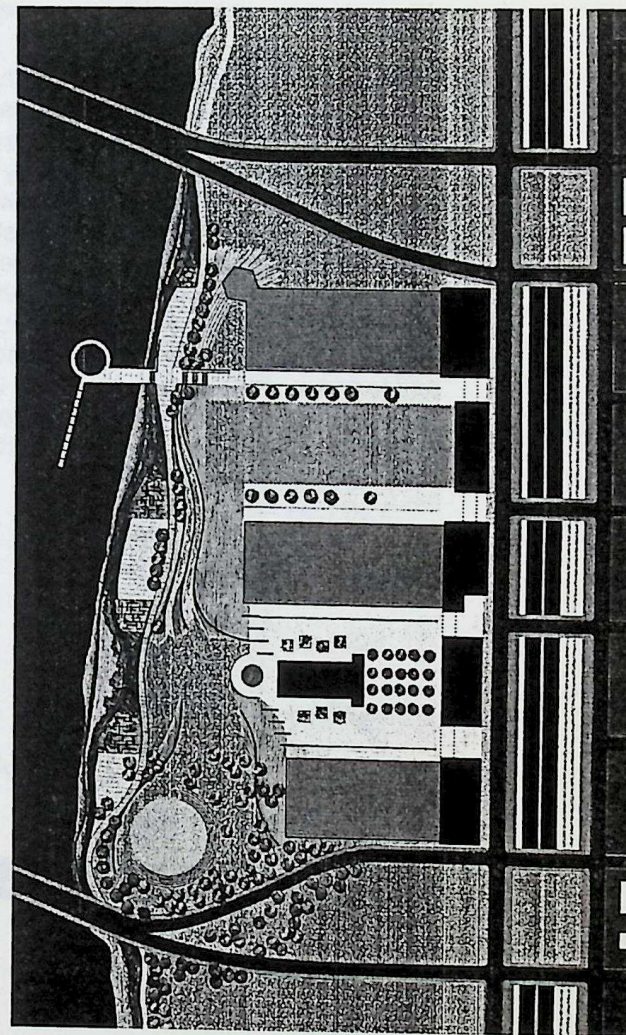
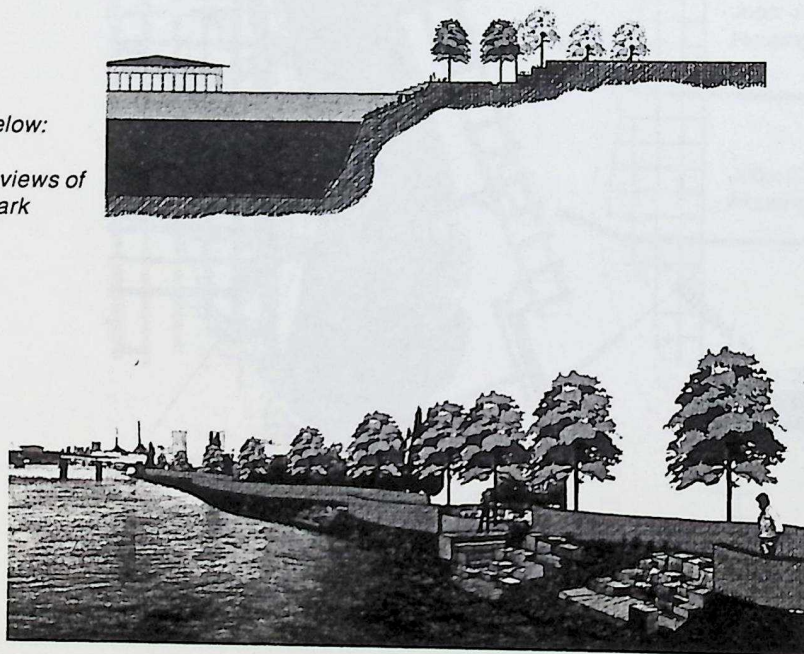


## Waterfront Park

Surina Singh, MLA  
(Framework C)

The development of a waterfront recreation area between Burnside and Morrison Bridges calls for an eventful waterfront experience. With a series of piers and steps, this scheme brings the public closer to the water, enabling a series of water-based activities. The linear park is also designed to complement the adjacent indoor athletic center. The goals of the park are to engage the waterfront with activities and to define an active urban open space.

Right and below:  
section and  
perspective views of  
waterfront park



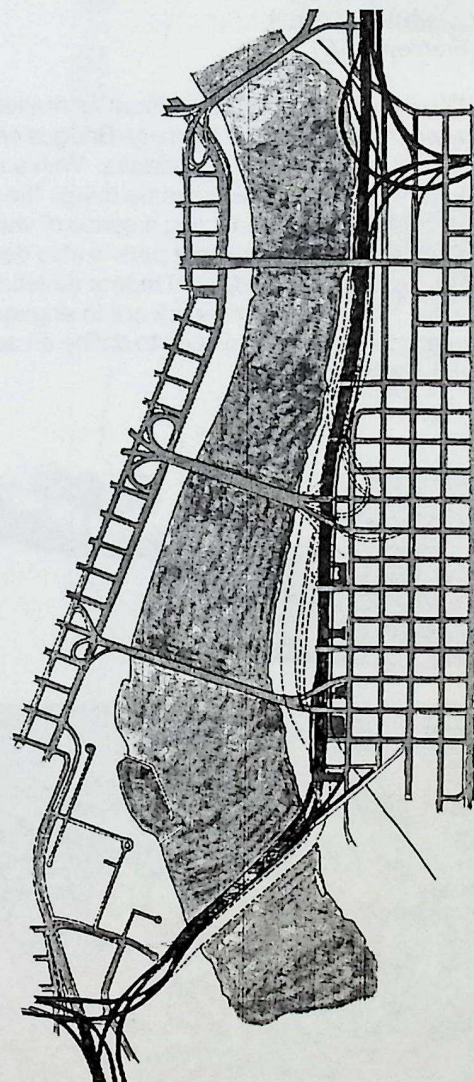
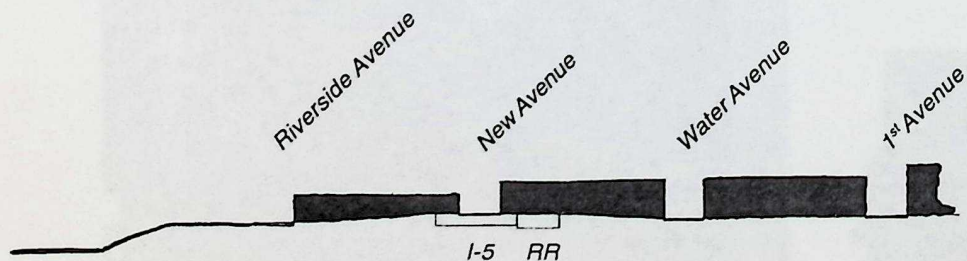
Plan of waterfront park between Morrison and Hawthorne  
Bridges



## A Highway Alternative

*Kimberly Jones, MUP*

This alternative strategy to modify the highway eliminates ramp connections at Morrison Bridge and submerges the right of way along a straightened alignment. This strategy maintains substantial through movement on I-5 while providing on/off access to Central Eastside in both directions of the highway. The new highway alignment reclaims some land along the waterfront between Morrison and Hawthorne Bridges. The submerged highway also allows bridge connections to the waterfront. In the long term, the highway seam may be further mitigated by air-rights development over the highway.

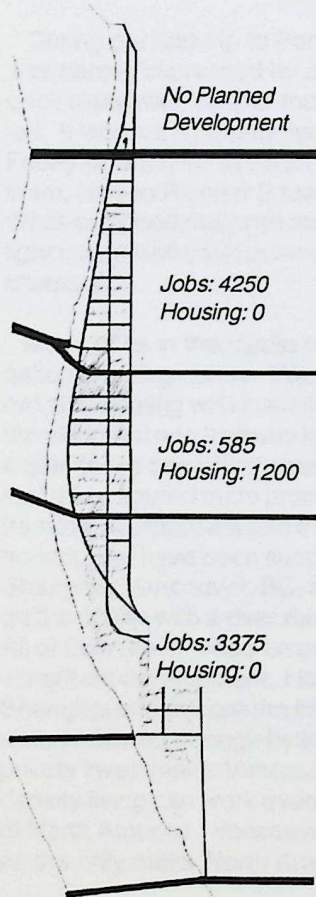




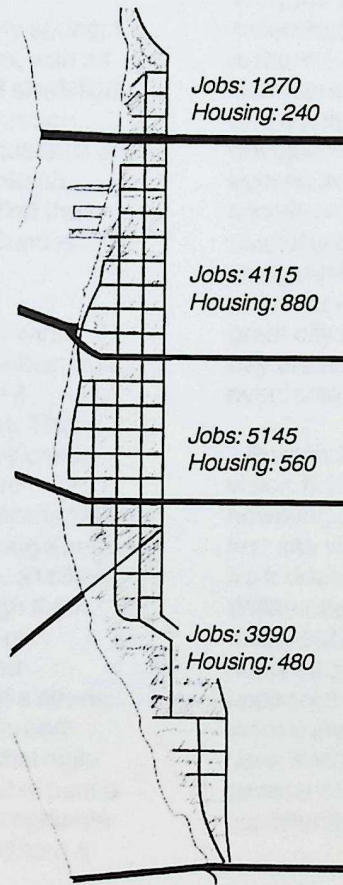
# Land Use Analysis

Michael Brennan, MUP

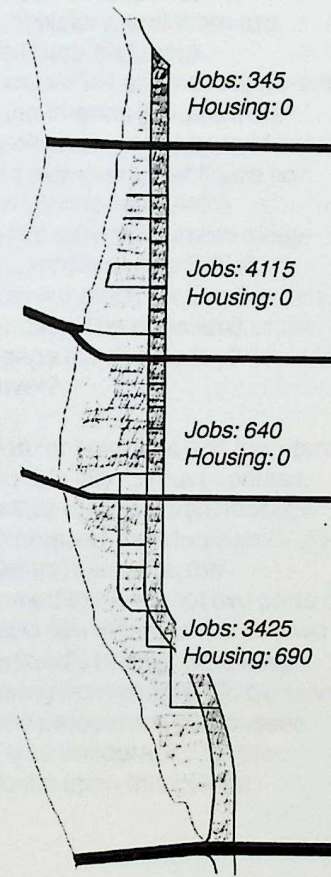
Framework A



Framework B



Framework C





When I and most of my classmates signed up for this studio, few of us had been to Portland, but we had heard of a few things about this city. We had heard of the bold steps the city had taken, and knew that we would be working in one of America's most beautiful urban settings.

During our first trip to Portland in early spring, I was deeply impressed by its downtown, with its brick sidewalks, copper fountains, and sleek light rail. It was not a nine-to-five Monday through Friday downtown. We saw people, thousands of them, around Pioneer Square on a weekend. What surprised me even more was to find the light rail so well used even on a rainy Sunday afternoon.

Many of us in the studio come from diverse national backgrounds. We grew up in cities that are also dealing with issues of waterfront development and highway improvement. These experiences became the precedents we used, and a few figured quite prominently in our framework proposals and individual projects. My hometowns have been successively Hong Kong, Shanghai, Vancouver, BC, and Boston, all cities on the ocean with a river running through them. All of them have made an example out of waterfront development. Hong Kong and Shanghai underscore the importance of a strong vision followed through by intense public and private investment. Vancouver proves that high-density living can work even in the great expanse of North America. Vancouver is also remarkable as the only major North America city without a

central-city highway. Skirting the city, the highways are linked to the city by a grid of surface streets.

The purpose of precedents is certainly not to impose certain methods or values on Portland. They are more often ad hoc responses to serendipitous turns of history, and there are lessons to be gleaned here and there. Sometimes the commonalities are more apparent and timely, such as the interest in waterfront development. Many cities around the world are built on the banks of great rivers that figure so prominently in their histories. It is not a coincidence that Shanghai's masterplan study was prepared by Richard Rogers, a British architect who did a similar study for London, the great city on the Thames. The questions of the day are how to reengage the river today? How to overcome the great river?

Portland's reputation for boldness and long-term vision first drew us to this city. I must confess, however, of feeling a little disappointed after our first site visit. As we crossed the Morrison Bridge from downtown to Central Eastside, the Willamette River seemed to divide not two parts of a city, but two eras and two states of mind. Two hundred acres of Portland's best located land appeared still recovering from history. To be sure, there were healthy and prosperous businesses here, and the studio was encouraged by the general eagerness to act upon this golden opportunity.



The I-5 highway makes a major presence in Central Eastside and exerts tremendous impact. Thinking in the long term, the highway will only become more congested and more obsolete, yet there will not be room to add lanes. While the alternative framework proposals vary in their treatment of the highway, every framework seeks to bring mass transit into the district. Portland itself has proved the immense social profits and the renewed validity of mass transit. Vancouver Washington can be as little as fifteen minutes away, even during rush hour. Commuter rail can bring hundreds of thousands of people downtown without adding lanes and ramps to highways, without new bridges, and without new parking lots downtown. Mass transit, as an integrated network of commuter rail, light rail, streetcar, and buses, offers the most appropriate long-term solution to regional transportation and brings immediate economic benefits to the District. This is not a case against highways. There is little doubt that highways will remain an indispensable element in our economy and landscape for a very long time to come.

Is the highway the Gordian Knot of Central Eastside? Perhaps. Certainly removing it makes many things possible. But what is lost in this sweeping move? Access? Highway capacity? Possibly. But from the models and analyses the studio has done, the losses are more than compensated by the gains. Access and highway are critical problems, and the studio treated them as such.

As is true of a studio, we had license to be a little bold, with a lot of imagination, and a touch of innocent nonchalance. But during the two trips we made to Portland, we talked to and heard from a lot of people, businessmen, officials, and Portlanders at large. I think we made an earnest effort to listen, responded to their concerns and sympathized with their aspirations. The studio simply followed a vision for Central Eastside and Portland and built upon it. I think we learned quite a few things in the process and, perhaps rather immodestly, made a few proposals in which we truly believe.

*Seng Kuan*



The Harvard studio for Central Eastside produced some unexpected results. In the words of Alex Krieger, noted urban designer deeply involved in the redevelopment of several significant urban waterfront districts, the studio's conclusions "seemed too good to be true." Simply, to remove a freeway to improve capacity for through trips and regional access to and from Central Eastside appears contradictory. However, hours of discussion by local business interests, bureau directors, and City of Portland staff, and a critical final review at Harvard suggest that the studio has identified some unusually insightful approaches to the redevelopment of Central Eastside. As an original board member of the Central Eastside Industrial Council and a periodic consultant to the District, I am surprised, and pleased that the studio has discovered some disarming principles and surprisingly simple opportunities. They represent insights that we all have overlooked in more than two decades of struggle to secure the future of Central Eastside.

The conclusions of the studio are very clear. Simply shrink the interstate freeway system while expanding its capacity as it passes through the central city; use the reclaimed land to accommodate new uses complementary to the retention of a strong distribution/wholesale/retail industrial base; develop access across the railroad to new development and an improved waterfront; and provide regional access to and from Central Eastside in every direction. While doing this, the studio suggests that the internal infrastructure could be redesigned to better accommodate large truck access, and to set new

standards for storm water retention and treatment. As Alex Krieger said, the prospect "seemed too good to be true."

Perhaps the most encouraging comments came from US Congressman Earl Blumenaur and Vic Rhodes, Director of Portland's Department of Transportation. Both noted that the approaches proposed by the studio had the potential to attract available funding support from a variety of federal, state, and local sources. Representatives of the Portland Development Commission concurred that the suggested development strategies offered an unusual opportunity to capture complementary public and private investment.

The Harvard studio has concluded that today's constraints in Central Eastside are not insurmountable when compared with the experience of others. And the studio has observed that the promise of Central Eastside is based on the historic foundation of its activities. If the constraints are removed, and the promise fulfilled, the evolution of Central Eastside may make a most critical contribution to the future of Portland's heart, in this next century and beyond. I hope that Central Eastside, and the City of Portland are stimulated by the products of this studio, and that they find in them incentive and insight to focus on a new horizon for the district.

*Greg Baldwin*



# Profiles

60 |

## Gregory S. Baldwin

*A partner at Zimmer, Gunsul, Frasca Partnership of Portland, Greg has 30 years of experience as an architect, urban designer and planner. He was involved in the development plans for a number of neighborhoods and institutional communities in Portland, including Downtown, North Macadam, River District, Lloyd District, and Convention Center Area.*

*Greg holds Bachelor of Arts, Master of Architecture, and Master of Architecture in Urban Design degrees from Harvard University. He is also a fellow of the American Academy in Rome and of the American Institute of Architects. His awards include Progressive Architecture, National AIA, and National APA awards and citations.*

## Alan Mountjoy

*Alan Mountjoy is manager of urban design at Chan Krieger Associates of Cambridge, where he was involved in Fort Washington Way Reconfiguration in Cincinnati, Ohio and a Strategic Master Plan for the Massachusetts Port Authority for redevelopment of its waterfront holdings in South Boston. Before moving to Cambridge, he had ten years of professional experience in Northern California.*

*Alan holds a Bachelor of Arts in Environmental Design from the University of California at Berkeley and a Master of Architecture in Urban Design from Harvard.*

## Paola Alfani

*A native of Lugano, Switzerland, Paola holds a Diploma in Architecture from University of Geneva and Master of Landscape Architecture from Harvard.*

## Michael Brennan

*From Forth Worth, Texas, Michael holds a Bachelor of Arts from Vanderbilt University and Master of Urban Planning from Harvard.*

## Bernard C. K. Chan

*From Singapore, Bernard holds a Bachelor of Architecture from University of Western Australia and Master of Architecture in Urban Design from Harvard.*

## Yan Gao

*From Beijing, China, Yan holds a Bachelor of Architecture from Tsinghua University in China, Master of Architecture from University of Miami, and is candidate for Master of Urban Planning at Harvard.*

## Kimberly Jones

*Kimberly holds a Bachelor of Engineering Science from Duke University, Master of Design Science from Harvard, and is a candidate for Master of Urban Planning. She is from Wilmington, Delaware.*

## Howard J. Kozloff

*Howard has a Bachelor of Arts from University of Pennsylvania, and is candidate for Master of Urban Planning at Harvard. He is from Bethesda, Maryland.*

## Seng Kuan

*From Vancouver, BC and Hong Kong, Seng has a Bachelor of Arts from Harvard College, and is candidate for Master of Urban Planning and Master of Architecture degrees from Harvard.*

## Maxwell W. Pau

*Maxwell holds a Bachelor of Science in Architecture and a Bachelor of Architecture from McGill University, and is candidate for Master of Architecture in Urban Design at Harvard. He is from Vancouver, BC.*

## Surina Singh

*From New Delhi, India, Surina holds a Bachelor of Architecture from the School of Habitat Studies in New Delhi and Master of Landscape Architecture from Harvard.*

## Hiroko Takamura

*Hiroko Takamura holds Bachelor and Master of Engineering degrees from Waseda University in Japan, and Master of Landscape Architecture in Urban Design from Harvard. She is from Tokyo, Japan.*

## Pei-ying Wang

*Pei-ying has a Bachelor of Science from National Taiwan University and Master of Landscape Architecture from Harvard. She is from Taipei, Taiwan.*



I wish to thank the students of the Graduate School of Design and Frank Vigier who petitioned me to lead this studio. Their persistent encouragement was responsible for the program's intent and approach. I am extremely appreciative of Alex Krieger's blunt and constructive advice as to how to direct a successful studio, and of his contributions to its implementation and products. Alan Mountjoy was the glue and counsel, who on a day to day basis maintained continuity, direction and quality. Seng Kuan deserves special recognition for authoring and laying out this fine summary of the work of the studio. These individuals and the Harvard Graduate School of Design have provided a flexible and critical context for an effort that served both students and the city of Portland well.

On the other side of the ledger, the initiative and insight of the business leaders, agencies and politicians of Portland provided the informational and intellectual direction for this studio. Their candid debates, unabashed encouragement and sensitive advice enriched the students. They also funded the studio's expenses.

Thank you.

*Greg Baldwin, FAIA*



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### Chloe Johnson, CED, CPC

Johnson & Associates' Principal and Chief Executive Officer, Chloe Johnson, directs the firm's community economic development and executive recruitment activities.

Chloe's dual Certified Economic Developer and Certified Personnel Consultant professional designations - along with more than 25 years of active leadership in both fields - make her a uniquely qualified resource for a community interested in building a strong economy and hiring the right executive to manage it. Chloe is experienced in managing local chambers of commerce, statewide industrial development programs,

site location projects, and small businesses. She developed the PALM model of economic development (Planning • Assessment • Leadership • Marketing), and in 1986 founded Johnson & Associates to teach that method to communities seeking growth.

In addition to her professional experience, Chloe has received intensive training at the Economic Development

Institute and the U.S. Chamber of Commerce Institute for Organization Management. She has been an instructor for the Economic Development Course at Texas A&M University and the Community Development Institute at the University of Central Arkansas. She remains current on key issues through participation in numerous professional courses and seminars. Chloe has been named to *Who's Who in Finance and Industry* and is listed in the American Biographical Institute's *International Directory of Distinguished Leadership*.

### Kaye Wilson

Kaye Wilson is Johnson & Associates' Director of Operations and a Principal in the firm. She coordinates community economic development and executive recruitment functions and is primary manager of executive recruitment activities.

With 10 years in managerial and executive recruitment positions, Kaye is an expert in defining the skills and personality traits required for a position and in finding the right person for the job. As a supervisor with the Texas Commission on Law Enforcement, Kaye reviewed qualifications for employment standards and certification levels. As an investigator for the Texas Department of Human Resources, she fine-tuned key investigative skills. Since 1988, Kaye has put her

considerable skills and resources to work at Johnson & Associates, ensuring that all Johnson & Associates' job candidates meet the strictest standards.

Kaye participates regularly in courses on personnel management, equal opportunity employment, and interview techniques. She provides both written guidelines and verbal coaching to clients prior to the interview process. With this level of preparation, Johnson & Associates' clients can participate in prospect interviews with knowledge of their parameters and confidence of their compliance with current hiring regulations.

### Steve Vassallo, CED

Steve Vassallo, CED, is Johnson & Associates' Economic Development Specialist who has helped cities and counties achieve their development goals. Assembling recruiting trips to Holland, Canada, Japan, Mexico, Taiwan and Sweden, he has successfully located business from seven countries. In McKinney, Texas, 27 months of promotion resulted in 23 business locations including companies from Holland, Italy and Taiwan.

Steve established a Sister City relationship with Solleftea, Sweden for Madison, Mississippi, leading to the location of three Swedish companies during 1997-1998. This Sister City program was voted "Best First Year Program" in the United States by Sister Cities International in May, 1998. The Sister City program continues with business conferences and exchange visits between city and economic development officials. More Swedish locations are anticipated.

Steve was instrumental in locating twenty other companies in Madison, Mississippi during his first 24 months and the Madison County Economic Development Foundation's membership was tripled.

A veteran of speculative building promotions, Lockheed Support Systems was located in Madisonville, Kentucky's first spec building, creating 150 new jobs. In Madison, Mississippi, 1,923 acres were sold in 6 months, clearing \$129,000 net profit for the Development Authority.

A results oriented individual, Steve is a specialist in all phases of economic development. In addition to being a Certified Economic Developer, Steve is also certified by the National Development Council as an Economic Development Finance Professional, and is a graduate of the Economic Development Institute in Norman, Oklahoma.



Johnson & Associates principals  
Kaye Wilson, Chloe Johnson, and  
Steve Vassallo.

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# Johnson & Associates

Finding tomorrow's solutions today.





## PLANNING

Economic development requires preparation. We begin with a strategic planning session that gives you a competitive advantage over other communities. We will help you develop plans which include both national and international marketing. Sister city programs are proving quite successful both in the United States and abroad. Acquiring the land for an industrial park and proper development of the park is one of our specialties.



## ASSESSMENT

To prepare for growth, you must look at your community through an outsider's eyes. What are your best and worst features? How do you compare to the neighboring communities? How do your features match up to a relocation prospect's needs?

With Johnson & Associates you will get straight answers and clear direction. Performing a meaningful community assessment is one of J&A's primary strengths.



## LEADERSHIP

Even if you have a staff devoted to economic development, prospects want to hear from the community. If your existing industries like their location, they will be more inclined to assist you in recruiting new industries. Private foundations and public/private partnerships are the way of the future.



## MARKETING

After all the planning and preparation, you are ready for action. Innovative marketing materials, a results-oriented advertising program, identifying prospects and developing leads are just a few of the ways Johnson & Associates can help you in marketing your community's assets.

Because we've recruited numerous foreign firms, we are skilled at organizing international marketing trips.

*Everyone wins when you achieve planned, positive growth.*

Planned economic development brings more jobs, more tax dollars, and more disposable income

into your community. You attract and retain more people in a cooperative environment. Quality of life and residents' attitudes soar.

And all it takes are the resources you have available today, plus Johnson & Associates.

The Johnson & Associates PALM model of community economic development guides you through the steps necessary to become a cohesive community with an appealing location and a clear message for your prospects.

## *Make the Right Choice for Yourself and Your Community*

Johnson & Associates specializes in community executive recruitment - matching community needs with the goals and qualifications of outstanding professionals from across the United States and Europe. Through more than 25 years of involvement in the community development and personnel markets, Johnson & Associates principals have built an impressive network and an extensive database of community executives.

## *Let Us take the "Search" out of Executive Search*

One of the most difficult and sensitive aspects of an executive search is identifying the best-qualified candidates. Top professionals rarely conduct a job search on the open market. If you want them, you must first know who they are.

We know the qualifications and the aspirations of hundreds of outstanding professionals. We know how to reach the right individual while maintaining the strictest confidence. When you use Johnson & Associates, you demonstrate the importance of your executive position, which helps attract top talent.

## *Your Choice of Choice Candidates*

Once you engage Johnson & Associates, your work is basically done. We work with you to define the ideal candidate. Then we identify appropriate prospects through our database and international network, and present you with a summary of prospect qualifications for an initial screening.

Your top candidates receive a thorough background investigation. When you are ready to see the finalists in person, Johnson & Associates coordinates interview schedules and logistics. Before the interviews, we provide candidate summary and evaluation forms, as well as suggested questions to ask the candidates. We also prepare you with interview guidelines including EEOC regulations.

### *Steps to Successful Executive Recruitment*

- Community Needs Assessment
- International Network Recruitment
- Initial Candidate Screening
- Finalist Selection
- In-depth Background Investigation
- Finalist Interviews
- Candidate Selection
- Selection Announcement
- Regular Follow-up

## *Unbiased Negotiation*

Johnson & Associates provides complete services with one important exception: executive compensation negotiation. Our fee is based on the executive salary, so we encourage you to negotiate with your chosen candidate directly. Unlike others in the executive recruitment field, we don't feel we can represent your best interests from both sides of the negotiation table.

Our service doesn't end when the candidate accepts your offer. We follow-up with both parties regularly to ensure continued satisfaction.

## *A Solid Guarantee*

Johnson & Associates will locate an acceptable replacement during the first six months should the community be dissatisfied for whatever reason.

## *Using Our Network is Using Your Head*

When you are searching for the very best community executive, you don't have time for mistakes. Johnson & Associates is always the right choice.

**Community  
Economic  
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**Executive  
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6/1/02

Dear Mayor Katz,

From time to time, even the most outstanding of organizations request an outside evaluation in order to stay on the top of their respective field. For the past 16 years, our firm has been quietly building a reputation of excellence in the field of economic development. We are very creative and are constantly being rehired by our clients. Please 'check us out' and let us know if we can assist you in any way. It would be an honor to work with you and the City of Portland.

Sincerely,

Ottavio Tassello

ATL





Executive Recruitment

Community  
Economic Development  
Management

## **Johnson & Associates**

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# 2001 Accomplishments

## What has J&A done for our clients lately?

<b>TULIA, TEXAS:</b>	Sold 35,000 s.f. facility - had been "vacant" for the previous 11 years. Formed an economic development alliance with Bahia De Caraquez, Ecuador.
<b>SEABROOK, TEXAS:</b>	Formed a private economic development foundation - first of its kind ever in the city. Formed an economic development alliance with Santa Cruz in the Galapagos Islands (Ecuador), marking the "first time" a foreign alliance had been made between the Galapagos Islands and anywhere in the world.
<b>CUERO, TEXAS:</b>	Formed a business alliance with Vimmerby, Sweden. Visited Vimmerby in June to ratify agreement. Established the foundation for a relationship with Miguel Aleman, Mexico.
<b>MADISON, MISSISSIPPI:</b>	J&A retained for 3rd year as progress continues.
<b>MONT BELVIEU, TEXAS:</b>	Completed Strategic Planning Retreat. Proposed 20 recommendations which were all adopted.
<b>SAN ANTONIO AREA, TEXAS:</b>	Conducted a training seminar with 27 communities outlining economic development priorities for 2001-2002.
<b>FEC ELECTRIC, INC.:</b>	J&A retained for 10th year as we continue to work with the communities in their service area.
<b>TEAM TALK:</b>	PEC Electric Cooperative, Inc. (TX); Community Development Institute (TX); Clear Lake Area Economic Development Foundation (TX); City of Marble Falls (TX); National Rural Economic Developers Association (SC); Rockwall Chamber of Commerce (TX); Palmetto Economic Development Corporation (SC).
<b>STRATEGIC PLAN FACILITATION:</b>	Mansfield (TX) Economic Development Corporation; Port Isabel (TX) Economic Development Corporation; City of Schertz (TX); Rockwall (TX) Chamber of Commerce.
<b>SPEAKING ENGAGEMENTS:</b>	Greater Conroe Economic Development Corporation (TX); Kentucky Association of Counties (KY); Tulsa Area Partnership (OK); Louisiana Industrial Development Executives Association (LA); Wheeler Economic Development Corporation (TX); Economic Development Course (TX).
<b>CITY MANAGER SEARCHES:</b>	City Manager executive searches in the Texas cities of Buda; Marble Falls; Silsbee; Vidor
<b>ECONOMIC DEVELOPMENT SEARCHES:</b>	Brownsville Economic Development Council (TX); Clear Lake Area Economic Development Foundation (TX); Fairfield Industrial Development Corporation (TX); Gainesville Economic Development Corporation (TX); Linden Economic Development Corporation (TX); The Economic Development Alliance of Jefferson County (Pine Bluff, AR)

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## Just think what we could do to improve your community!

### "Johnson & Associates...A Results Oriented Company"

"We enjoy others reading about our clients' successes."

--Chloe Johnson, CED, CPC

"We differentiate between action and discussion. We only make recommendations to be implemented, not pondered."

--Kaye Wilson

"We only need to be hired by those communities that are serious. Success is paramount in our thought process."

--Steve Vassalo, CED



## Johnson & Associates

COMMUNITY ECONOMIC DEVELOPMENT MANAGEMENT / EXECUTIVE RECRUITMENT