



Halsey Street Conceptual Design Project

Final Report

April, 2005

Prepared by:
Cogan Owens Cogan, LLC
SERA Architects, Inc.
Falconi Consulting

TABLE OF CONTENTS

Background and Objectives	1
Study Area Overview	2
Physical Features and Conditions	2
Existing and Future Land Uses.....	3
Transportation Facilities and Conditions.....	6
Planning Process	9
Proposed Concept Plan Elements	10
Community-Specific Standards and Facilities.....	14
<i>Fairview</i>	14
<i>Wood Village</i>	17
<i>Troutdale</i>	20
Implementation and Cost.....	23
Appendix A. Public Workshop Summaries	A1
 Figures	
Figure 1. Existing Land Uses	4
Figure 2. Comprehensive Plan Designations	5
Figure 3. Minor Arterial Standards, Multnomah County.....	7
Figure 4. Transportation Conditions and Facilities	8
Figure 5. Commercial Streetscape	12
Figure 6. Residential Streetscape	12
Figure 7. Lighting Standards	13

Figure 8. Fairview Street Design Cross-Section 1	15
Figure 9. Fairview Street Design Cross-Section 2.....	15
Figure 10. Concept Plan Map – Fairview	16
Figure 11. Wood Village Street Design Cross-Section 1	18
Figure 12. Wood Village Street Design Cross-Section 2.....	18
Figure 13. Concept Plan Map – Wood Village.....	19
Figure 14. Troutdale Street Design Cross-Section 1	21
Figure 15. Troutdale Street Design Cross-Section 2.....	21
Figure 16. Concept Plan Map – Troutdale.....	22

Tables

Table 1. Summary of Cost Estimates by Jurisdiction	24
Table 2. Jurisdiction/Project Characteristics.....	25
Table 3. Cost Elements by Jurisdiction	25
Table 4. Sidewalk Characteristics	25

BACKGROUND AND OBJECTIVES

This report describes the proposed conceptual design for the portion of Halsey Street that goes through the communities of Fairview, Troutdale and Wood Village between 223rd Avenue and the Historic Columbia River Highway (HCRH). The plan has been prepared for Multnomah County, with assistance from the consulting team of Cogan Owens Cogan, Falconi Consulting and SERA Architects, and a technical advisory committee (TAC) that includes representatives of the county, the three cities, TriMet, Metro and the Oregon Department of Transportation (ODOT). Residents and property owners participated in the planning process and provided guidance during two public workshops conducted in January and March, 2005.

The planning process grew out of earlier planning efforts associated with the Fairview Village project. Prior to planning for that project, this section of Halsey Street had been classified as a major arterial street, designed for five lanes of traffic. During that project, the City of Fairview and other jurisdictions requested reclassification of the street to a three-lane minor arterial street. The cities and County also recommended a design that would enable increased use by pedestrians, bicycles and transit users, while preserving adequate traffic capacity along the street. Traffic modeling undertaken at that time indicated that Halsey Street would operate at acceptable level of service as a minor arterial, presuming that capacity would not be compromised on parallel facilities. No additional modeling was conducted for this project.

In addition to the overall goal of developing a multi-modal plan for Halsey Street, other objectives of the planning process included the following:

- ✓ Involve the public in designing the streetscape for Halsey Street in Troutdale, Fairview and Wood Village.
- ✓ Create a corridor that links the older portions of Wood Village, Fairview and Troutdale with newer portions, while visually supporting the character of each.
- ✓ Create sense of identity and entryway to each community.
- ✓ Explore the potential to incorporate green-street designs in the streetscape.
- ✓ Minimize the need for acquisition of additional needed public right-of-way.

This Conceptual Design described in this report is expected to be implemented over time as development occurs, land uses change and/or funding becomes available. Overall, the plan may take a number of years to complete. Some sections may be implemented more quickly than others, depending on how quickly specific areas develop or change in use.

STUDY AREA OVERVIEW

Physical Features and Conditions

As noted previously, the project area includes portions of the cities of Fairview, Wood Village and Troutdale. Most of the land directly adjacent to Halsey Street is relatively flat. In the eastern half of the study area, land slopes uphill to the south and downhill to the north to some degree, particularly just east of 244th Avenue. Farther from the street, the land slopes more significantly uphill to the south. Large trees are scattered along the corridor, with concentrations/groves east of the apartment complex north of Halsey Street, east of 238th Avenue, and east and west of 244th Avenue.

Three streams cross Halsey Street -- one just east of 244th Avenue, one near 223rd Avenue, and one just east of 227th Avenue. All three streams flow through culverts where they cross roadways. Data from Metro and National Wetlands Inventory (NWI) maps indicate several relatively large wetlands within the study area; each is within approximately 400 feet of Halsey Street. Additional information provided by the County and Cities of Fairview, Troutdale and Wood Village indicate the presence of other wetlands, some of which are within 100 – 200 feet of the roadway. The City of Wood Village Comprehensive Plan indicates that areas in the eastern part of the city near Halsey Street (between 238th and 244th Avenues) have poor drainage and a history of flooding.

There are some historic resources in the study area, most notably the Edgefield Property and the County Farm. They are included in the National Register of Historic Places. There is also a historic tree on the east side of 238th Avenue in front of a care facility. The original or old Wood Village also is of historical significance as it was a company town for Reynolds Aluminum. This includes City Hall and the commercial complex at the southeast quadrant of the intersection of 238th Avenue and Halsey Street.

Public community facilities located along Halsey Street within or just outside the study area include the following:

- ✓ Marilyn's Park (northeast of 223rd Avenue /Halsey Street)
- ✓ Donald L. Robertson City Park (southwest of 244th Avenue/Halsey Street)
- ✓ Wood Village City Hall (northwest of 238th Avenue/Halsey Street)
- ✓ County Farm property, north of Halsey Street, east of 244th Avenue



- ✓ Property surrounding Edgefield Manor south of Halsey Street that also includes a county jail (vacant)
- ✓ Arata School (near Donald L. Robertson Park and just south of the study area), which includes the Edgefield Children's Center

Existing and Future Land Uses


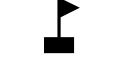


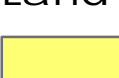



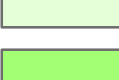





There is a mix of residential, commercial, industrial, community, and resource land uses within the study area. The western portion of the study area (223rd to 244th Avenues) is more intensely developed with an approximately even mix of residential and non-residential uses. These uses include commercial and industrial uses just east of 223rd and primarily residential uses south of Halsey between approximately 229th and 244th Avenues. North of Halsey between 229th and 244th Avenues, there is a mix of residential, commercial, and community uses that include the Mt. Hood Community College/Head Start (apartment complex) facility, Wood Village City Hall, and several large commercial and industrial businesses.

The eastern portion of the study area is less developed, particularly north of Halsey Street and within ½ mile east of 244th Avenue. The Edgefield Manor restaurant/brewpub/bed-and-breakfast complex is south of Halsey Street about 700 feet east of the 244th Avenue. The area at the eastern end of the corridor is comprised of residences, open space, and commercial and industrial use (at the far eastern end). The density of residential uses varies significantly from relatively dense multi-family units to single houses on large lots.

Policies and plans for future development continue to envision a mix of land uses along Halsey Street that is fairly similar to the existing mix of uses, with the following exceptions:

- ✓ Fairview's Community Vision plan anticipates development/extension of a mixed-use town center area between 223rd Avenue and approximately 229th Avenue. Much of this area north of Halsey Street is currently undeveloped.
- ✓ The area east of 244th Avenue and north of Halsey (currently undeveloped) is zoned and expected to be used for light industrial or commercial development.
- ✓ The area both east and west of Edgefield Manor is zoned for future commercial development.
- ✓ Additional, denser residential and mixed-use development is anticipated at the eastern end of the corridor.

Figure 1
Halsey Street
Conceptual
Design Plan
Land Use

-  City Hall
-  School
-  Railroad
-  Waterway
-  Taxlot
- Land Use**
-  Single-Family Residential
-  Multi-Family Residential
-  Commercial
-  Industrial
-  Vacant / Unimproved
-  Tract
-  Farm
-  242nd Connector ROW
-  Green Space

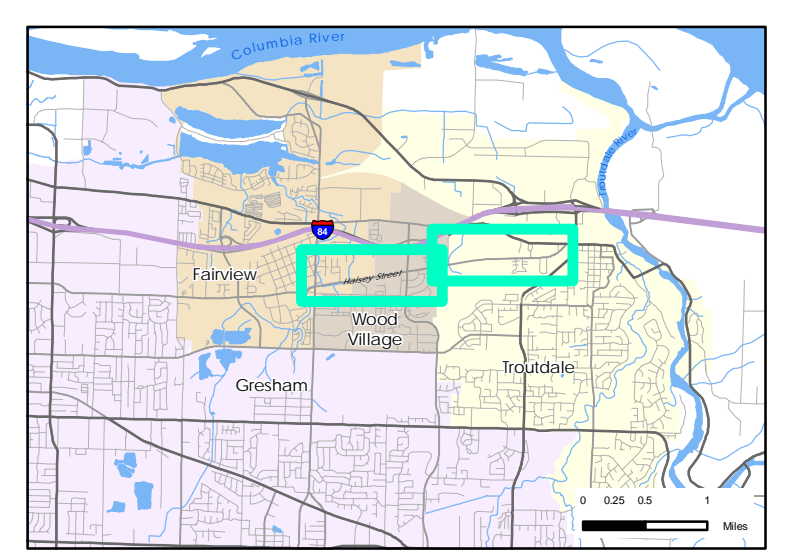
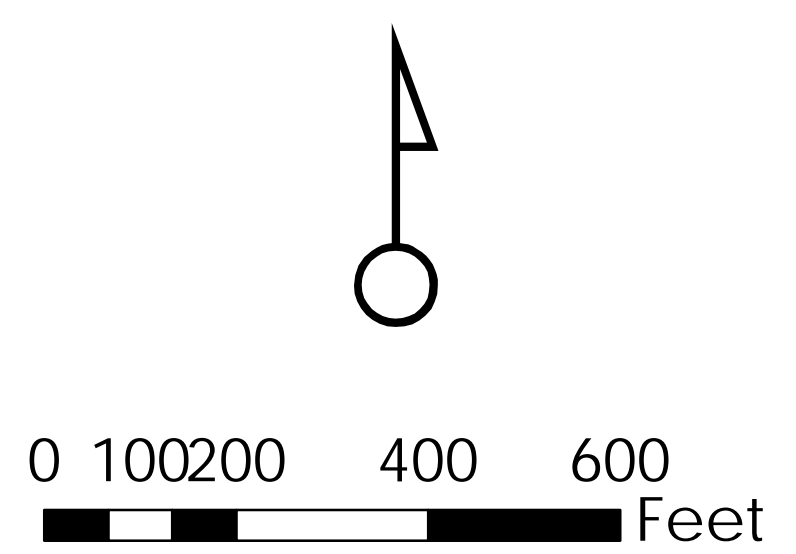
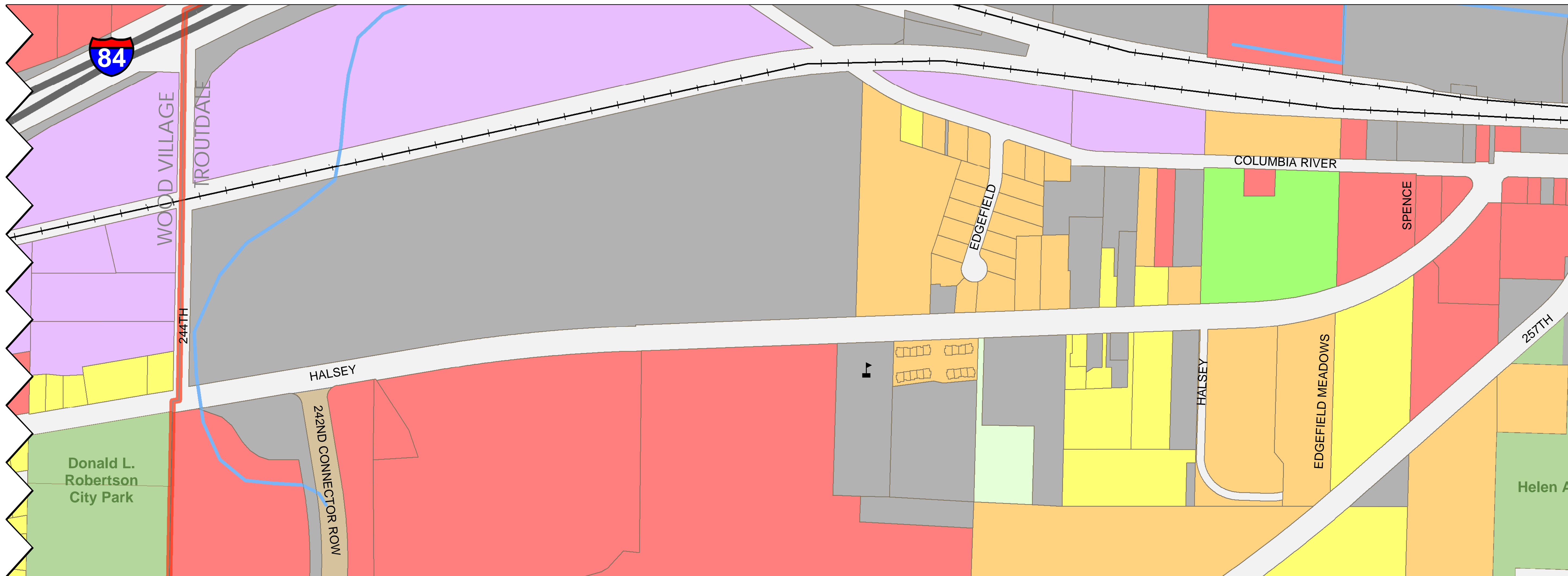
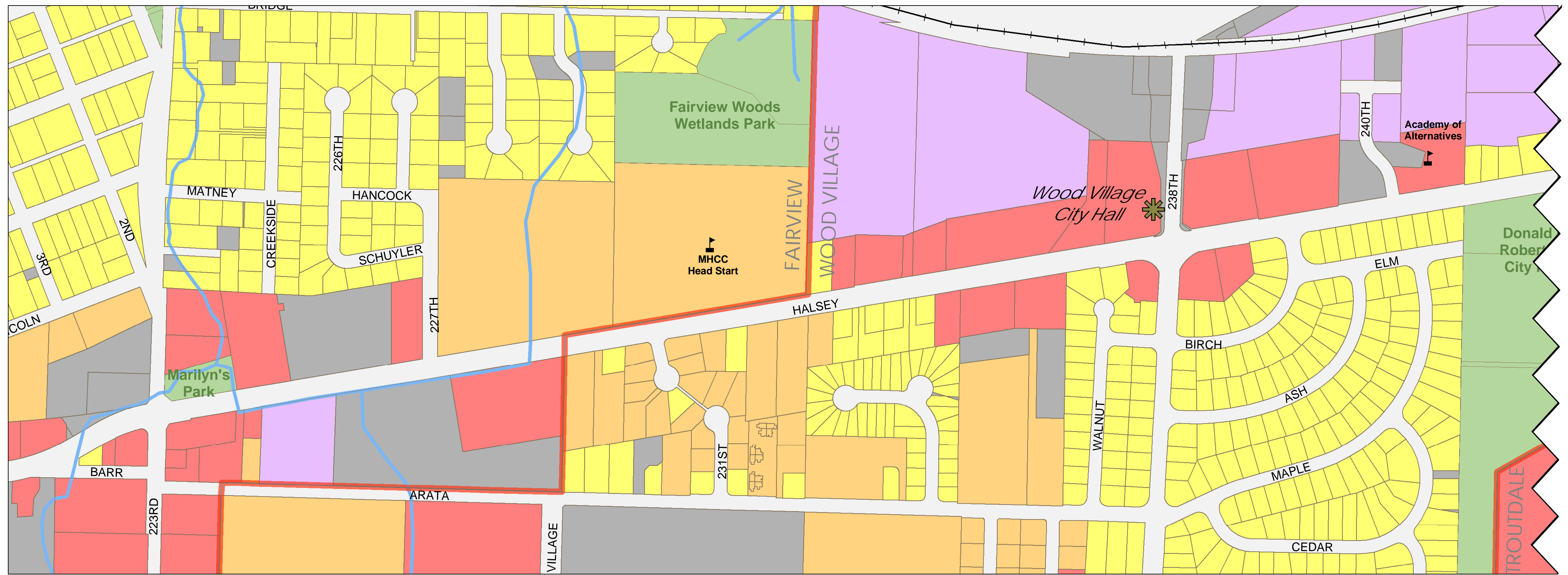











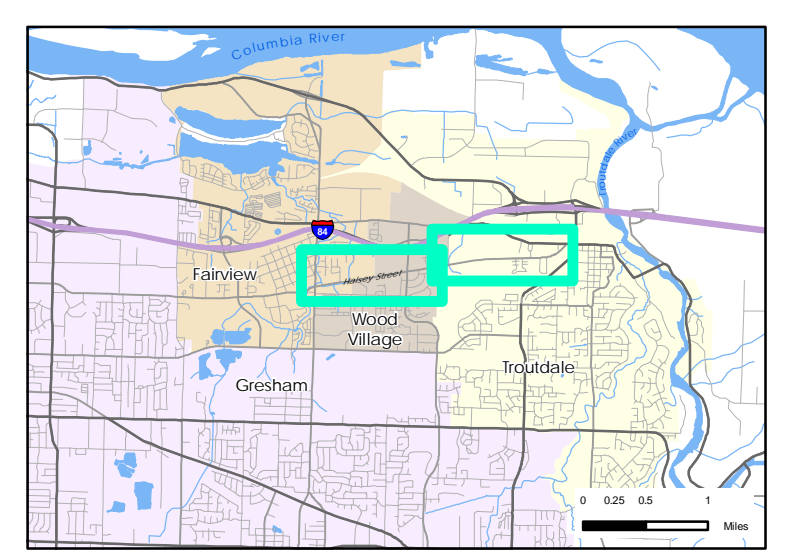
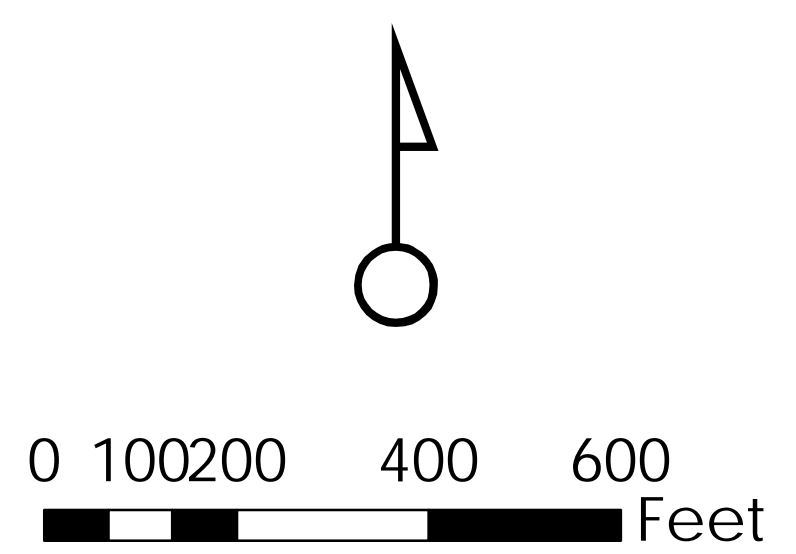
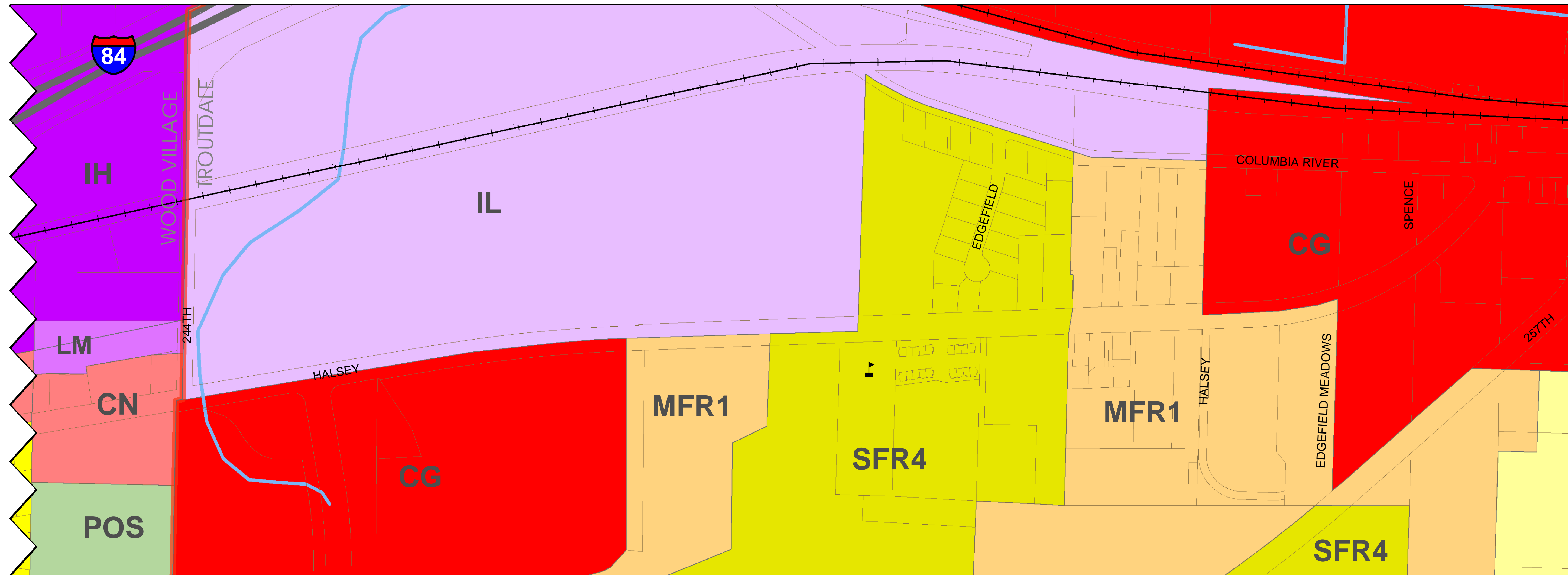
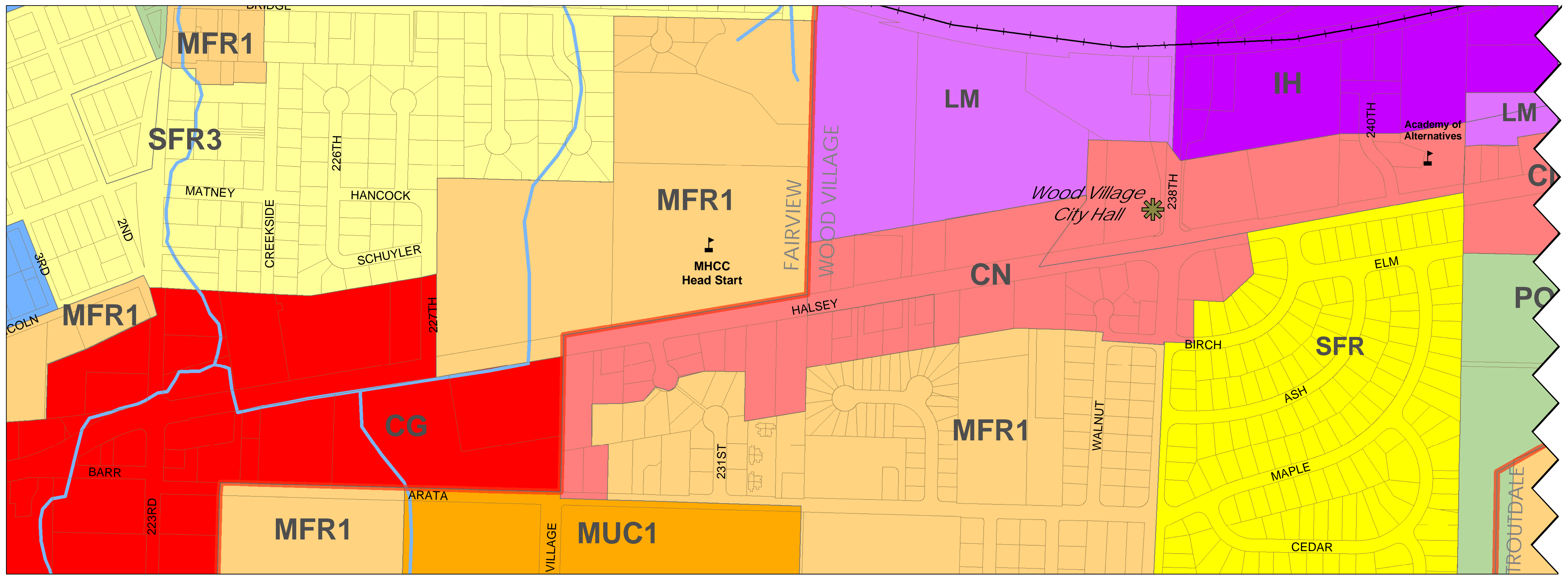


Figure 2
Halsey Street
Conceptual
Design Plan
 Comprehensive
 Plan
 Designations

-  City Hall
-  School
-  Railroad
-  Waterway
-  Taxlot
- Comprehensive Plan Classification
-  Single-Family Residential (20,000sf lots and greater)
-  Single-Family Residential (8,500-12,000sf lots)
-  Single-Family Residential (7,500sf lots)
-  Single-Family Residential (6,500-8,500sf lots)
-  Multi-Family Residential (2-25 du/ac)
-  Mixed-Use
-  General Commercial
-  Neighborhood Commercial
-  Light Industrial
-  Light Manufacturing
-  Heavy Industrial
-  Public Facilities
-  Parks and Open Space



Transportation Facilities and Conditions

Halsey Street is classified as a minor arterial by the County and Cities of Fairview and Wood Village. The City of Troutdale defers to county standards for the road. Minor arterials are defined in the County's Functional Classification System as streets that "typically carry less traffic volume than principal and major arterial streets, but have a high degree of connectivity between communities. Minor arterial streets provide major links in the regional road and bikeway networks; provide for freight mobility and transit corridors; and may serve as significant links in the local pedestrian system, especially where they are designed as community boulevards."

For minor arterials, county standards call for two to four travel lanes (two preferred), bicycle lanes, sidewalks, planting strips (optional but preferred) and a median/center turn lane. The county standards provide for a range of dimensions for the width of each element of the street and are illustrated in Figure 3.

Halsey Street is classified as a bicycle, pedestrian and transit route throughout the study area. Street classification standards call for bicycle lanes and sidewalks along the roadway throughout the study area. Within the study area, bicycle lanes currently exist along virtually the entire length of Halsey Street on both sides of the road. Between 223rd and 238th Avenues, there are sidewalks on both sides of the street. East of 238th Avenue, there are several short, discontinuous sections of sidewalk.

The TSPs and other plans of the county and cities within the study area call for a variety of improvements related to Halsey Street, including the following:

- ✓ Widen Halsey Street to a minor arterial street in all three jurisdictions
- ✓ Complete a continuous system of bicycle lanes and sidewalks on both sides of the street
- ✓ Implement traffic calming, improved crossings, signage and other pedestrian improvements within the city of Fairview (Fairview Community Vision), including enhanced intersection/crossing improvement at the intersection of 223rd Avenue/Halsey Street
- ✓ Create directional signage for businesses in Fairview
- ✓ Redesign the intersection of Halsey Street/HCRH

In addition, the City of Wood Village has recommended consideration of additional pedestrian crosswalks, speed display signs and traffic-calming facilities to reduce traffic speeds and improve pedestrian displays. TriMet also has discussed enhancing or increasing the visibility of transit stops in the area.

Figure 3. Minor Arterial Standards, Multnomah County

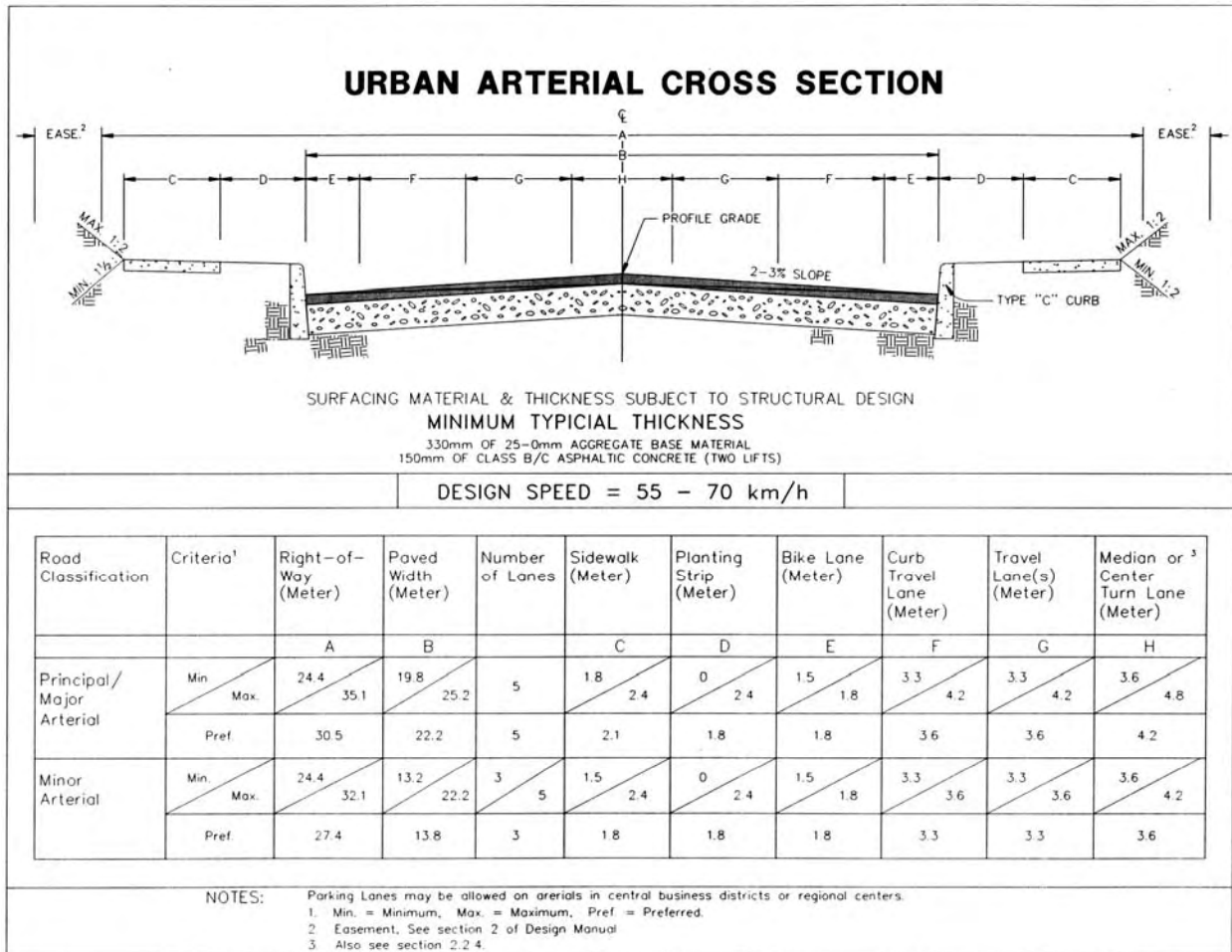
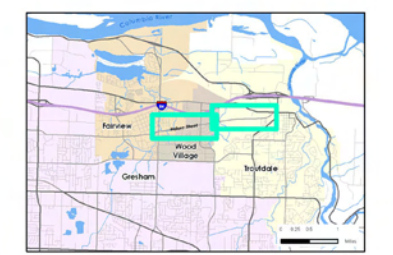
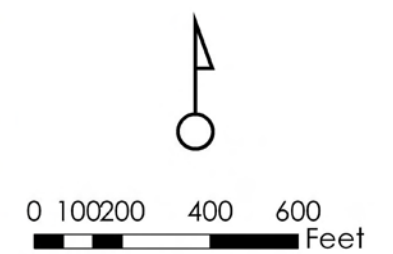
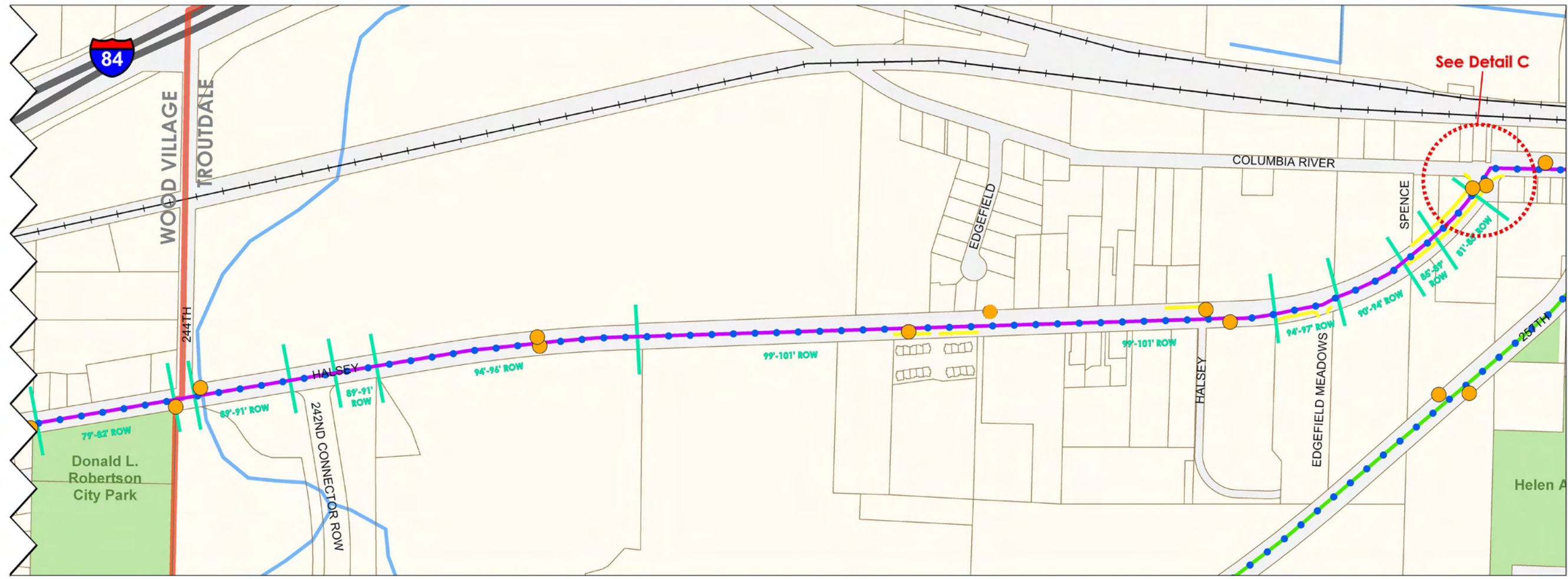


Figure 4
Halsey Street
Conceptual
Design Plan

**Transportation
& Circulation**

- City Hall
 - School
 - Railroad
 - Waterway
 - Existing Sidewalk
 - Green Space
 - Taxlot
 - Bike Lane
 - Bus Stops
- Bus Lines**
- 180
 - 077
 - 081
 - 112



PLANNING PROCESS

In developing a conceptual design for Halsey Street, the consulting team worked with county staff and members of the TAC to conduct the following activities:

- ✓ Obtained, mapped and summarized data on existing conditions in the project area, including:
 - Parcel boundaries and ownership
 - Comprehensive plan, zoning and design overlay designations
 - Existing land use
 - Topography
 - Environmental features, including existing mapped wetlands or riparian areas
 - Historic features, including historic districts, structures or trees identified in county or city inventories
 - Existing right-of-way
 - Travel lane width
 - Intersection configurations including crosswalks
 - Location and width of bike lane and sidewalks
 - Existing transit facilities
 - Driveways and other property
- ✓ Described transportation and land use planning issues associated with different potential design elements of the street, including use and design of sidewalks, bicycle lanes, medians, center turn-lanes, transit facilities, landscaping, gateway features and other elements.
- ✓ Identified examples of street designs used in similar areas elsewhere in the Portland metropolitan region and other communities in Oregon.
- ✓ Prepared graphics illustrating design elements, typical design examples and related issues.
- ✓ Conducted a public workshop on January 12, 2005 in Fairview to discuss possible plans for the future design of Halsey Street. Identified preferences and priorities for specific design elements in the corridor overall and in each individual community.

- ✓ Prepared a draft Concept Plan based on the results of the public workshop and guidance from the TAC.
- ✓ Presented the draft Concept Plan at a second public workshop on March 10, 2005 in Fairview. Participants provided comments and suggested revisions to the Plan.
- ✓ Reviewed results of the workshop and proposed changes to the draft Concept Plan with members of the TAC; revised the Concept Plan accordingly.
- ✓ Prepared this Final Report.

PROPOSED CONCEPT PLAN ELEMENTS

Development of the Concept Plan was driven primarily by the overall project objectives and results of public workshops. In reviewing and recommending possible design elements, public workshop participants recommended the following:

- ✓ Consistency throughout the corridor is important for the look and feel of the street design, but preserving the unique qualities of each community needs to be a consideration. Changes in design among communities can be subtle, rather than pronounced. For example, different lighting standards may be used to differentiate among the communities.
- ✓ On-street parking should be provided where beneficial, such as in commercial areas, but is not necessarily desirable or needed in other areas because of perceived impacts to pedestrian safety, neighborhoods and driver visibility.
- ✓ In general, an open center turn-lane is preferred to allow for traffic access and making turns onto both sides of the street, particularly for emergency vehicles. Pedestrian islands are recommended in specific locations such as mid-block crossings near locations with significant pedestrian movement.
- ✓ Landscaping is desired but in a manner that will not increase maintenance work or costs. Tree wells and planters are preferred. Most participants did not favor continuous planting strips. However, members of the consulting team and TAC note the following drawbacks with wide sidewalks that do not include planting strips:
 - Higher construction costs
 - More impervious surface



- A more urban look and feel that would be inconsistent with the existing and proposed character of the study area in predominantly residential sections.

For these reasons, a landscaping buffer strip in areas planned for future residential and industrial use is recommended to accomplish other goals of the project such as improved aesthetics, more effective stormwater management, lower construction costs, and consistency with neighborhood character.



- ✓ A pedestrian-friendly environment is desired, and can be addressed with amenities such as lighting, landscaping and sidewalks that are at least six feet wide. Wider sidewalks are recommended in commercial areas and/or to accommodate street trees in tree wells.
- ✓ Workshop participants would like more room for buses (both school and public) to pull out of traffic to make stops. However, TriMet makes limited use of bus pullouts. Their general practice is to use “inflow loading” where the bus picks up passengers while stopped in the right-of-way. This improves transit speed and reduces conflicts between cars and buses as buses pull into the travel lane.

In response to these recommendations, the Concept Plan includes the following elements (see Figures 10, 13 and 16):

- ✓ Bicycle lanes are provided throughout the length of the corridor, consistent with City and county standards and public comments.



- ✓ Sidewalks are located along the full length of the corridor. Sidewalks will be nine feet wide, including a landscaping/furnishing zone in areas zoned for commercial use and a landscaping strip in areas zoned for residential or industrial use (see Figures 5 and 6).
- ✓ On-street parking will be provided in areas zoned for commercial use. On-street parking will be provided only on the side of the street adjacent to land zoned for such use.
- ✓ Two travel lanes (one in each direction) will be provided, with a width of 10 – 12 feet (per county standards).

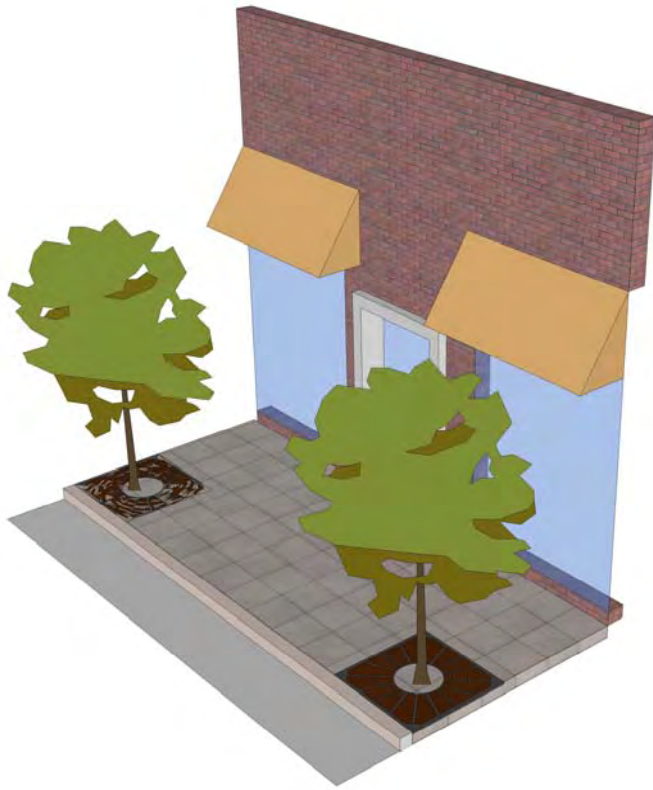


Figure 5. Commercial Streetscape

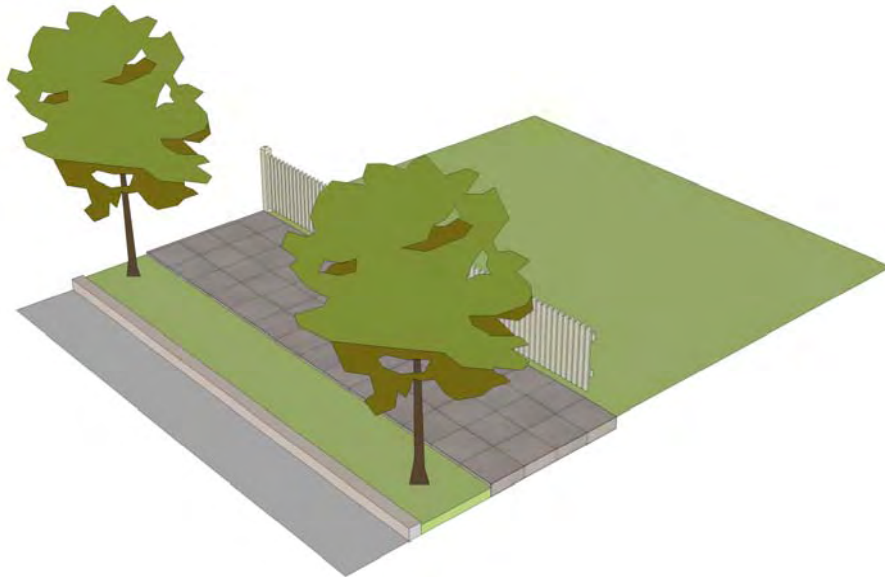


Figure 6. Residential Streetscape

- ✓ A continuous center turn-lane will be provided along most of the corridor. The center lane will include raised pedestrian islands located at strategic points in the corridor near significant pedestrian generators.

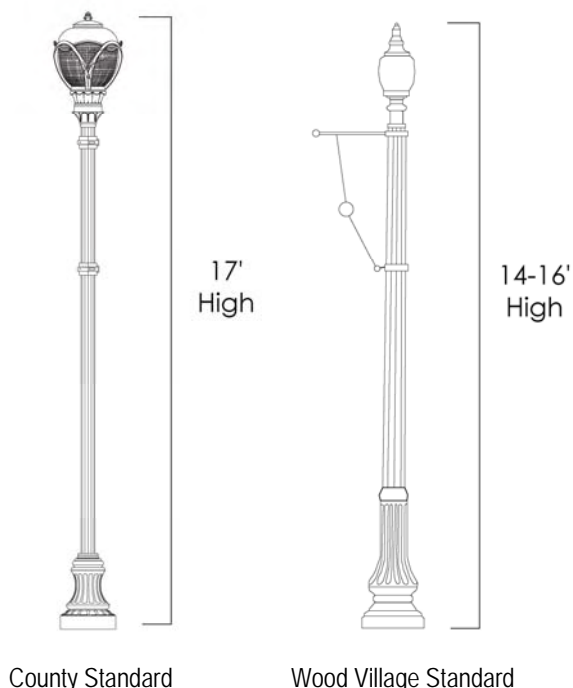
Three locations are identified:

- Just west of the entrance to the Fairview Oaks development
- Adjacent to Donald L. Robertson City Park
- Adjacent to Edgefield Manor



Two future possible locations also have been identified, assuming an increase in development density and pedestrian traffic. These locations could vary, depending on future conditions and identified community needs. They include:

- Between the Fairview/Wood Village city limits and 238th Avenue
- Approximately halfway between Edgefield Manor and the Historic Columbia River Highway



- ✓ Ornamental street lights will be added per city and county standards. Lighting standards for Multnomah County will be used in Fairview and Troutdale. City of Wood Village lighting standards will be used in that community (see Figure 7).
- ✓ Transit stops will continue to be located throughout the corridor. Additional bus shelters will be constructed based on community needs, ridership and passenger pickup levels. Existing bus pullouts will be retained and an additional pullout may be located near 244th Avenue.

Figure 7. Lighting Standards

Community-Specific Standards and Facilities

As noted above, design standards for Halsey Street are expected to vary, depending on the type of planned land use adjacent to each side of the road. Because land uses vary throughout the corridor, the design varies within each city. Cross-sections have been prepared for specific locations within the project area to illustrate typical design cross-sections. The design is described for each jurisdiction below and on the accompanying figures.

Fairview

Throughout Fairview, the road will include the following:

- ✓ Two 12-foot travel lanes
- ✓ One 12-foot center turn lane, with pedestrian crossing islands located just west of the entrance to the Fairview Oaks development
- ✓ Two six-foot bike lanes
- ✓ Ornamental street lights per county standards (see Figure 7 on page 13)

Additional features include:

- ✓ On the north side of the road between 223rd Avenue and 227th Avenue, a combined nine-foot sidewalk and furnishing area and an 8-foot-wide parking lane (see Figure 8)
- ✓ On the north side of the road between 227th Avenue and Wood Village city limits, a combined nine-foot sidewalk and furnishing area and no on-street parking (see Figure 9)
- ✓ On the south side of the road between 223rd Avenue and the future Wood Village Boulevard, a combined nine-foot sidewalk and furnishing area and an 8-foot-wide parking lane (see Figures 8 and 9)

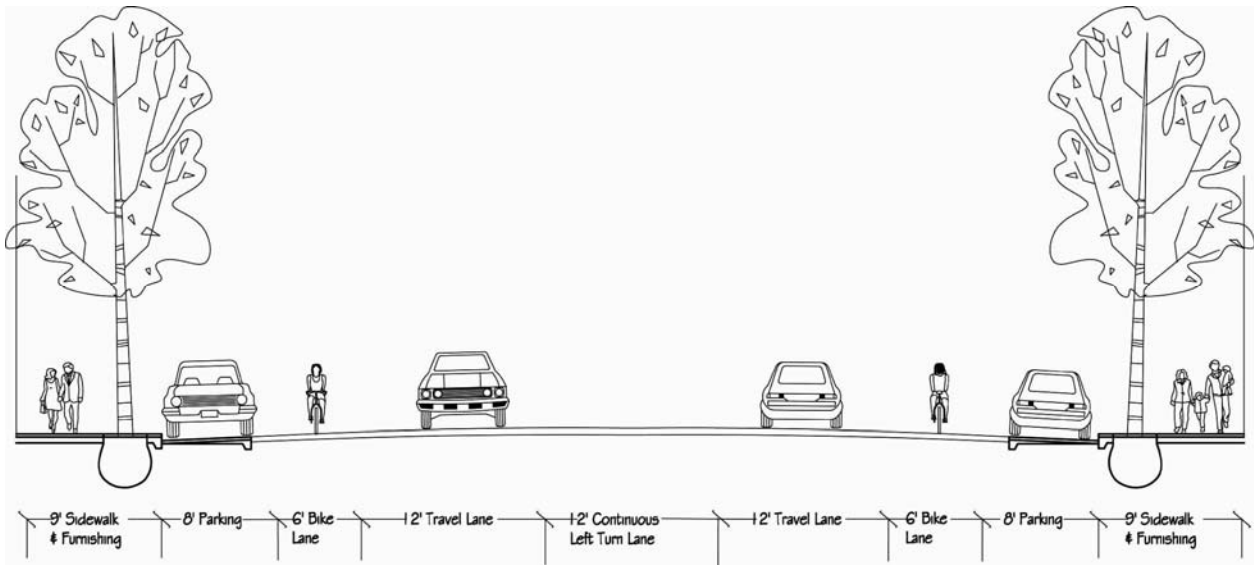


Figure 8. Fairview Street Design Cross-Section 1

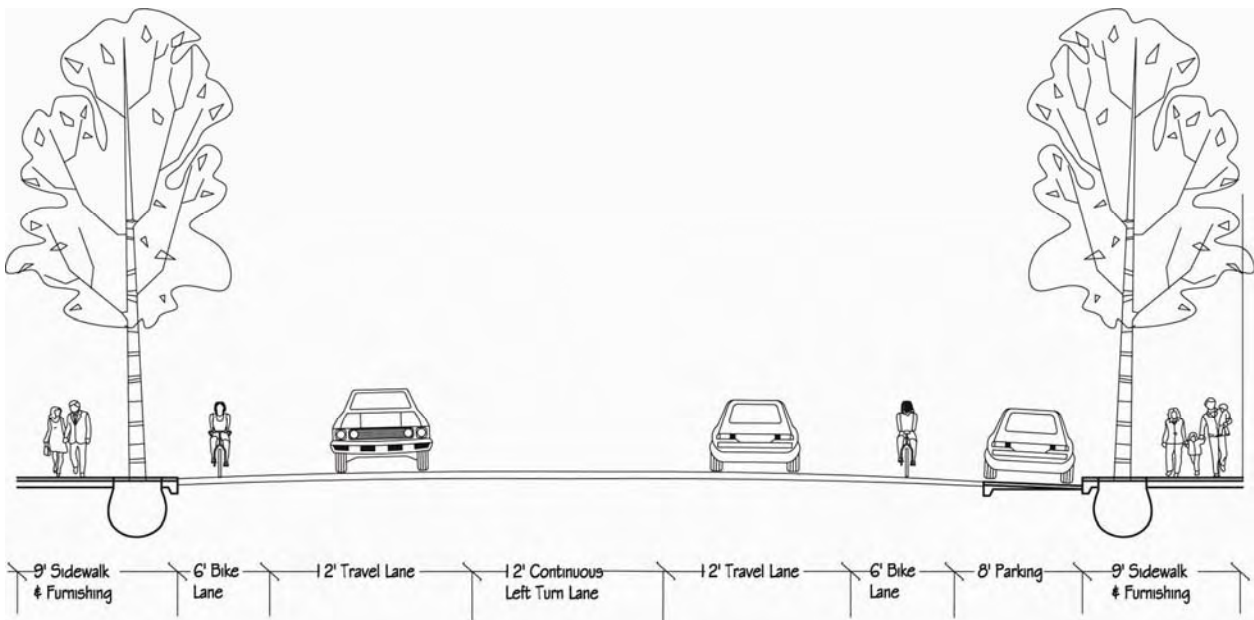
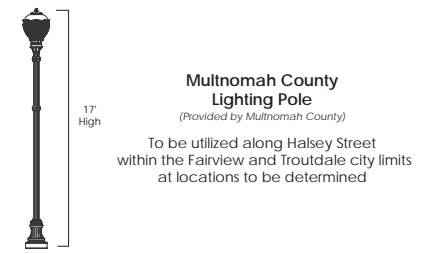
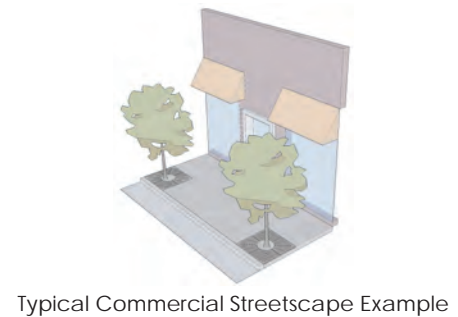
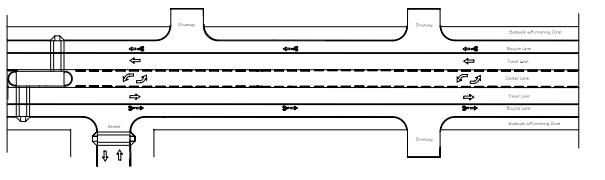
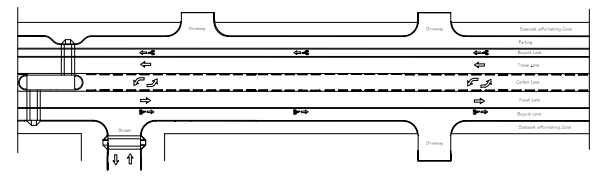
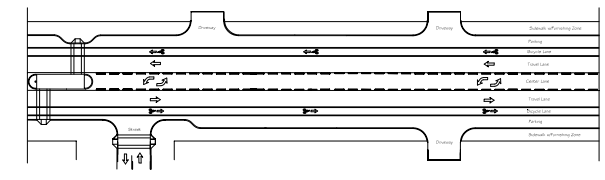
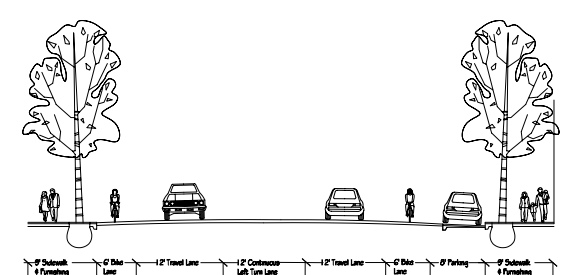
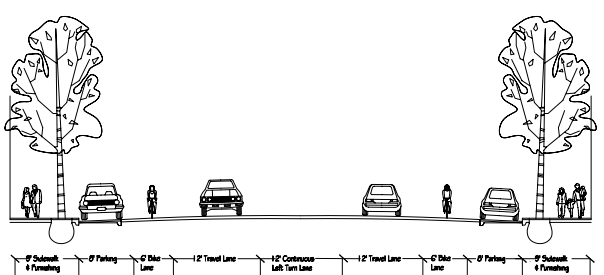


Figure 9. Fairview Street Design Cross-Section 2

Figure 10. Halsey Street Conceptual Design Plan: Fairview Village



- Existing Education Facility
- Existing Bus Stop
Proposed bus shelters at strategic locations throughout the study area; bus pull-outs at locations specified
- Proposed Street Tree
Actual tree locations and spacing to be determined
- Existing Taxlot



Fairview Street Section #1

Fairview Street Section #2

Typical Commercial Street Plan Example

Typical Commercial / Residential Street Plan Example

Typical Residential Street Plan Example

Wood Village

Throughout Wood Village, the road will include the following:

- ✓ Two 12-foot travel lanes
- ✓ One 12-foot center turn-lane, with pedestrian crossing islands in the following locations:
 - Just west of the entrance to the Fairview Oaks development
 - Between the Fairview/Wood Village city limits and 238th Avenue (second phase)
 - Adjacent to Donald L. Robertson City Park
- ✓ Two six-foot bike lanes
- ✓ Ornamental street lights per City of Wood Village standards (see Figure 7 on page 13)

Additional features include:

- ✓ On the north side of the road between the Fairview/Wood Village city limits and 244th Avenue, a combined nine-foot sidewalk and furnishing area and an 8-foot-wide parking lane (see Figures 11 and 12)
- ✓ On the south side of the road between the Fairview/Wood Village city limits and approximately 235th Avenue, and between Birch Street and the Fairview/Troutdale city limits, a combined nine-foot sidewalk and landscaping area and no on-street parking (see Figure 11)
- ✓ On the south side of the road between approximately 235th Avenue and Birch Street, a combined nine-foot sidewalk and furnishing area and an 8-foot-wide parking lane (see Figure 12)

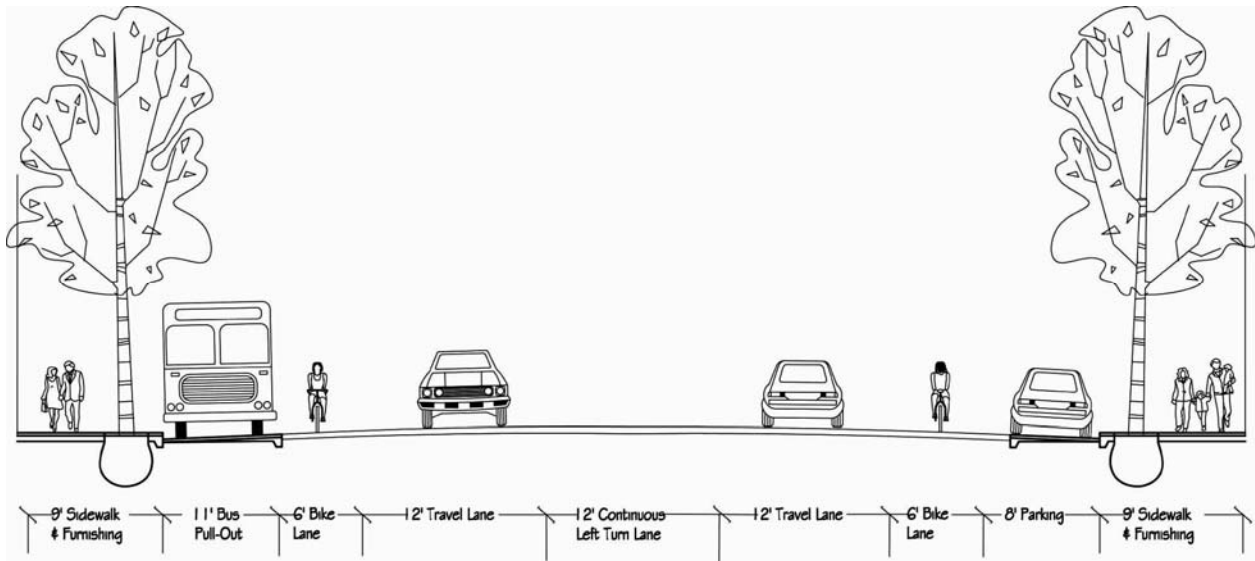


Figure 11. Wood Village Street Design Cross-Section 1

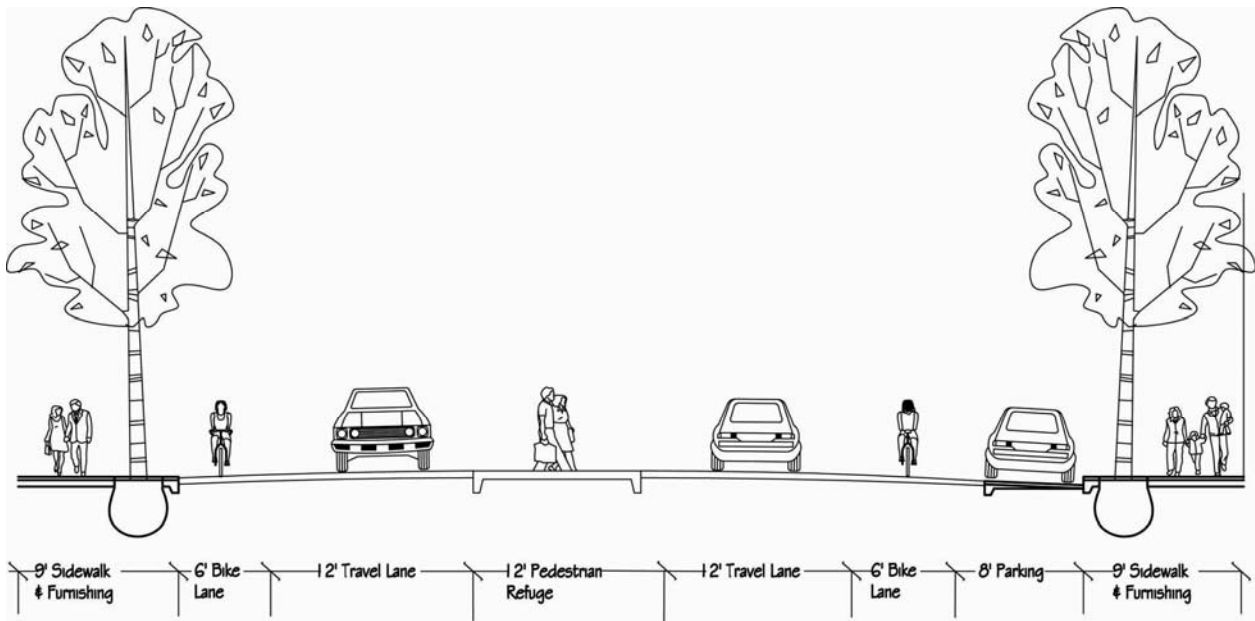
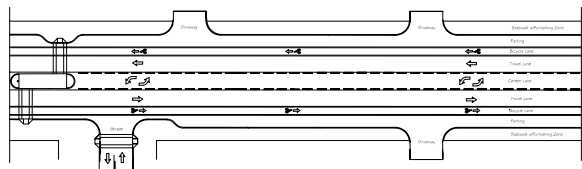
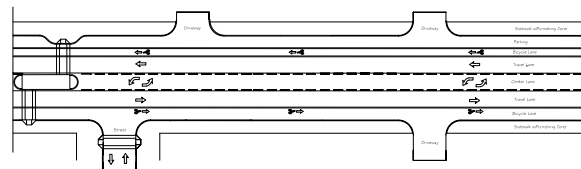


Figure 12. Wood Village Street Design Cross-Section 2

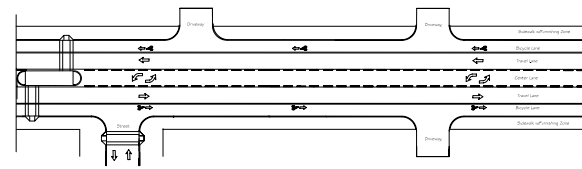
Figure 13. Halsey Street Conceptual Design Plan: Wood Village



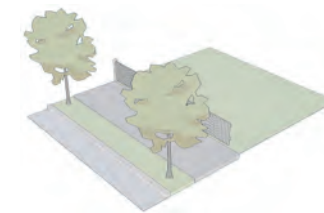
Typical Commercial Street Plan Example



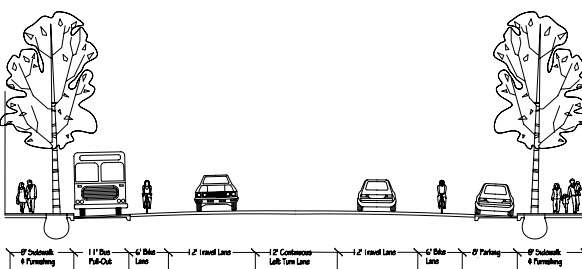
Typical Commercial / Residential Street Plan Example



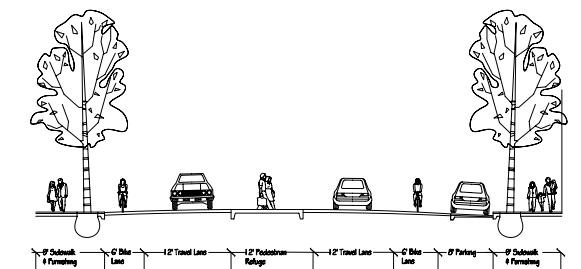
Typical Residential Street Plan Example



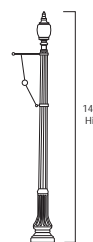
Typical Residential Streetscape Example



Wood Village Street Section #1



Wood Village Street Section #2



Wood Village Lighting Pole
(Provided by City of Wood Village)
To be utilized along Halsey Street within the Wood Village city limits at locations to be determined



Typical Commercial Streetscape Example

- Existing Education Facility
- Existing Bus Stop
Proposed bus shelters at strategic locations throughout the study area; bus pull-outs at locations specified
- Proposed Street Tree
Actual tree locations and spacing to be determined
- Existing Taxlot

Troutdale

Throughout Troutdale, the road will include the following:

- ✓ Two 12-foot travel lanes
- ✓ One 12-foot center turn-lane, with pedestrian crossing islands located at Edgefield Manor and approximately halfway between Edgefield Manor and the Historic Columbia River Highway
- ✓ Two six-foot bike lanes
- ✓ Ornamental street lights per Multnomah County standards (see Figure 7 on page 13)

Additional features include:

- ✓ On the north side of the road between the Wood Village/Troutdale city limits and Edgefield Meadows, a combined nine-foot sidewalk and landscaping strip and no on-street parking (see Figure 14)
- ✓ On the north side of the road between Edgefield Meadows and the Historic Columbia River Highway, a combined nine-foot sidewalk and furnishing area and an 8-foot-wide parking lane (see Figures 8 and 16)
- ✓ On the south side of the road between the Wood Village/Troutdale city limits and Edgefield Meadows, a combined nine-foot sidewalk and landscaping area and no on-street parking (see Figure 14)
- ✓ On the south side of the road between Edgefield Meadows and the Historic Columbia River Highway, a combined nine-foot sidewalk and furnishing area and no on-street parking (see Figure 8 and 16)

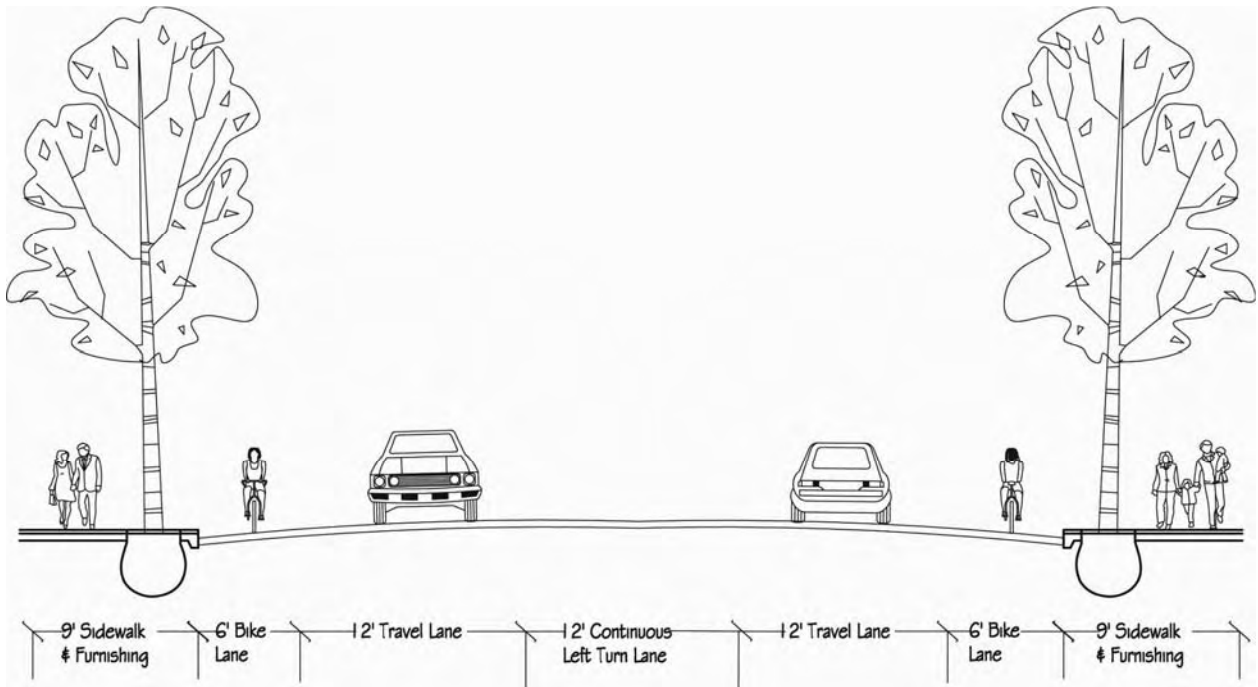


Figure 14. Troutdale Street Design Cross-Section 1

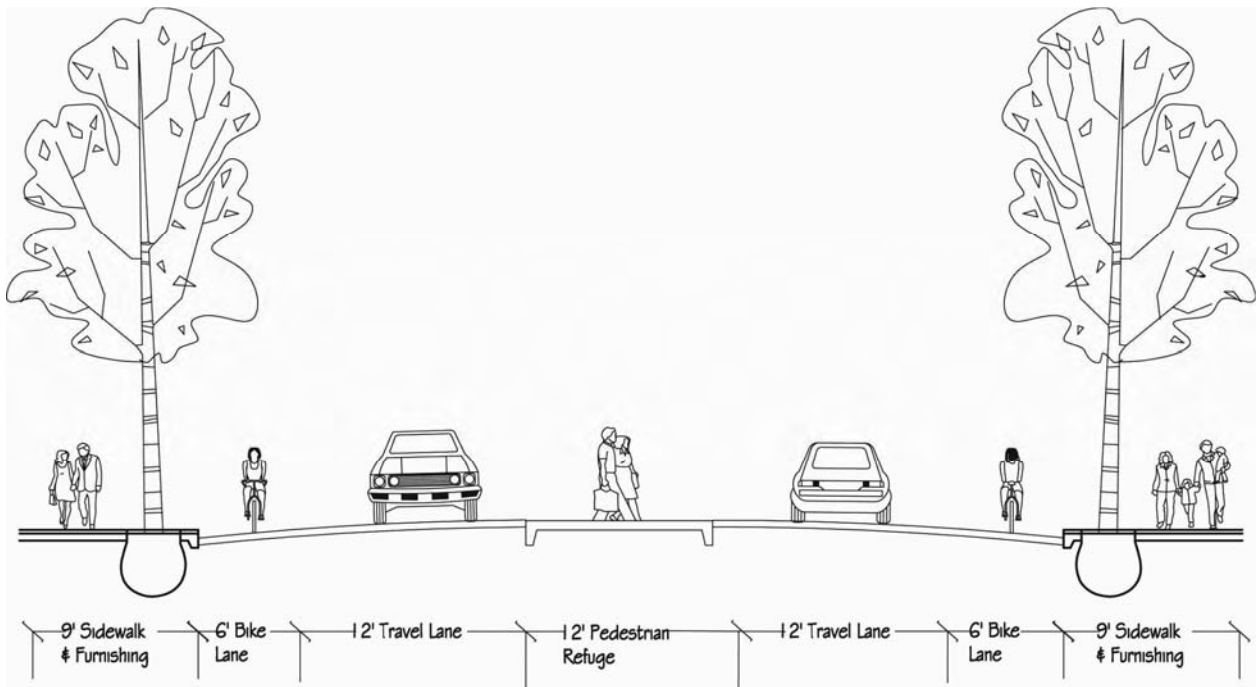
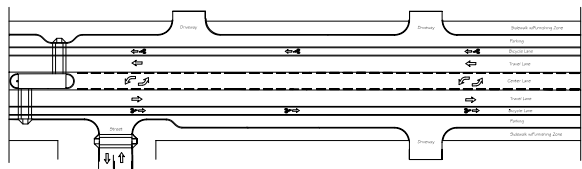
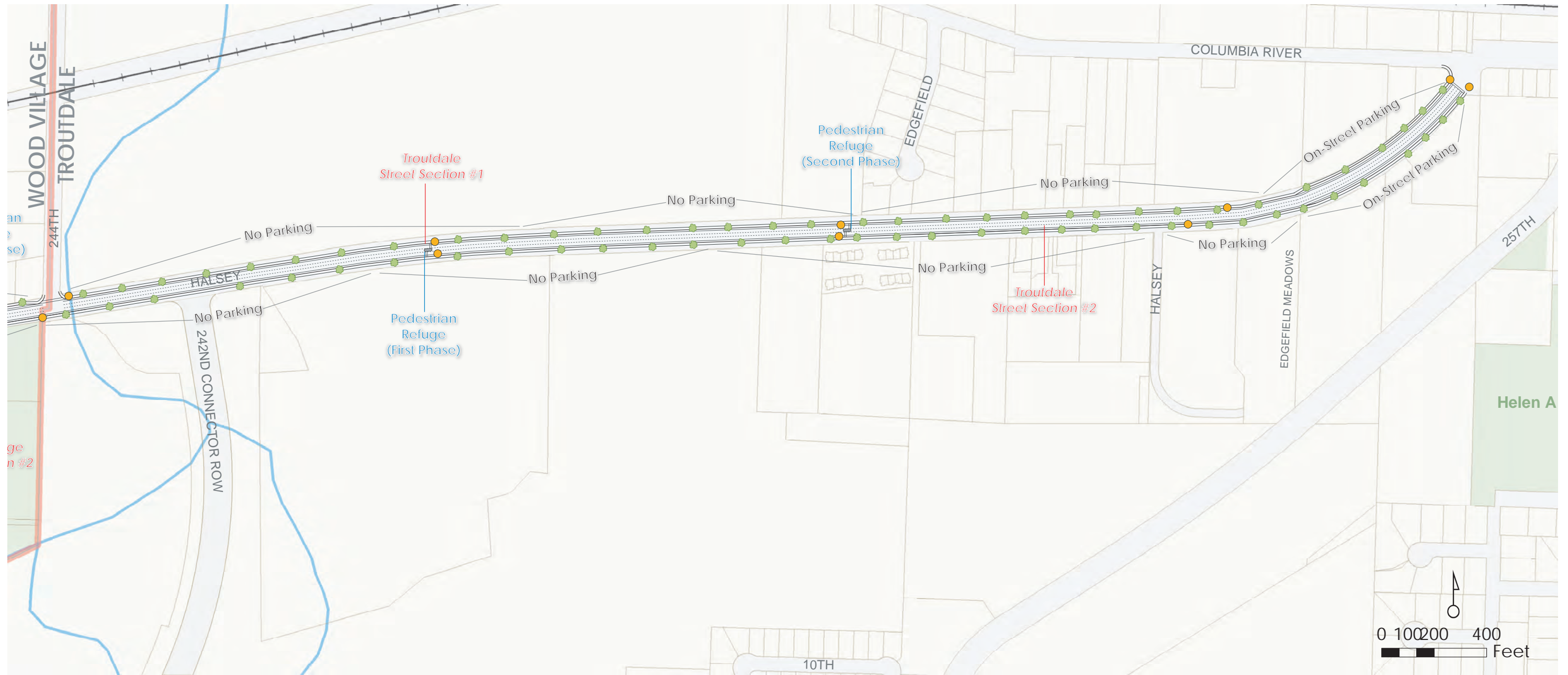
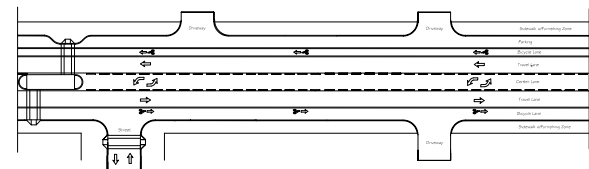


Figure 15. Troutdale Street Design Cross-Section 2

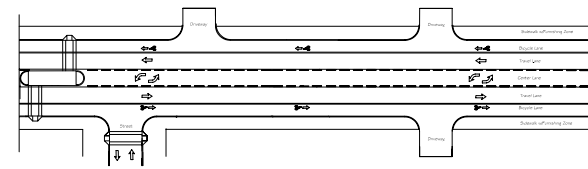
Figure 16. Halsey Street Conceptual Design Plan: Troutdale



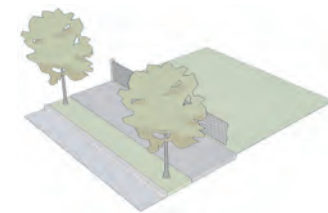
Typical Commercial Street Plan Example



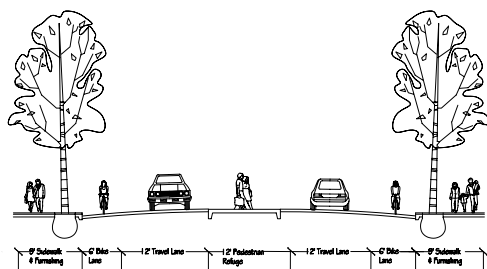
Typical Commercial / Residential Street Plan Example



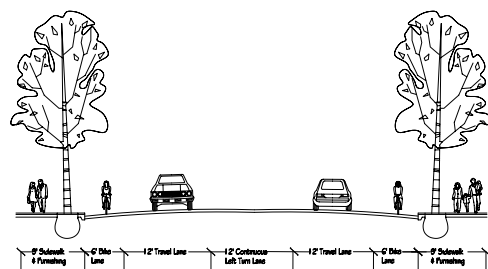
Typical Residential Street Plan Example



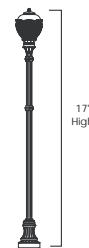
Typical Residential Streetscape Example



Troutdale Street Section #1



Troutdale Street Section #2







17' High

Multnomah County Lighting Pole
(Provided by Multnomah County)
To be utilized along Halsey Street within the Fairview and Troutdale city limits at locations to be determined



Typical Commercial Streetscape Example

-  Existing Education Facility
-  Existing Bus Stop
Proposed bus shelters at strategic locations throughout the study area; bus pull-outs at locations specified
-  Proposed Street Tree
Actual tree locations and spacing to be determined
-  Existing Taxlot

Implementation and Cost

The improvements described in this report and accompanying Concept Plan will be implemented over time as funding becomes available. Funding may come from a variety of sources, including Regional Transportation Plan project funds, state or federal grants, contributions from developers or property owners made as properties are redeveloped, and city and county transportation budgets.

Improvements are likely to be made as changes in land use occur, as properties redevelop and as sufficient funds are available to construct improvements in meaningful-sized areas of the corridor. A number of factors will need to be considered as improvements are made, including:

- ✓ **Consistency with existing land use.** Designs in this plan are oriented to planned future land uses, which in some areas differ from existing use. During public workshops, a number of participants commented that some features proposed for commercial areas (e.g., on-street parking) are not appropriate for existing residential areas. It is expected that on-street parking would not be added until areas are converted to commercial use.
- ✓ **Maintenance issues.** Participants in public meetings voiced concerns about the cost and ability to maintain landscaping and other amenities identified in the street design. In preparing detailed designs for the street, low-maintenance landscaping techniques should be considered and adjacent property owners should be consulted or have the ability to modify landscaping if they desire.
- ✓ **Transit facilities.** The Concept Plan identifies existing bus stops and shelters. Additional shelters are expected to be constructed over time, with locations based on ridership and passenger pickup data. The proposed street design includes adequate space for bus shelters.

Planning level cost estimates have been prepared for the proposed improvements to Halsey Street. It is assumed that the existing roadway base and surface are adequate to accommodate future needs. Cost estimates have been prepared for sidewalk, landscaping, lighting, and pedestrian island improvements, as well as needed striping. Costs are summarized in Tables 1 - 4. It is expected that these cost estimates will be refined as part of future detailed planning and engineering studies for specific individual projects within the study area. Cost estimate assumptions include:

- ✓ No roadway work (widening, etc.) was included
- ✓ Spacing for the lighting poles was provided by county staff
- ✓ Cost estimates for trees are \$200/each; this is slightly higher than estimates used by Friends of Trees and the City of Portland (to be conservative)
- ✓ Unit prices are based on ODOT Region 1 typical bidding pricing

- ✓ All estimates are rounded to the nearest \$500, except those under \$200

Table 1. Summary of Cost Estimates by Jurisdiction

<i>City and Item</i>	<i>Units</i>	<i>Cost</i>	<i>Total Cost</i>
Fairview			
Striping	Linear foot	\$0.07	\$500
9' sidewalks	Square foot	\$3.02	\$70,000
6' sidewalks	Square foot	\$3.02	\$9,000
Trees	Tree	\$200.00	\$4,500
Curb and gutter	Linear foot	\$8.95	\$27,000
ADA ramp	Ramp	\$759.62	\$3,000
Pedestrian Crossing signs	Sign	\$18.58	\$0
Street Lights	Sign	\$4,500.00	\$153,000
Sod	Square yard	\$5.20	\$1,000
Concrete Islands	Square foot	\$6.59	\$0.00
Tree Grates	Tree grate	\$85.20	\$2,000
Fairview Total			\$270,000
Wood Village			
Widen pavement to 3 lanes	Linear foot		
Striping	Linear foot	\$0.07	\$1,500
9' sidewalks	Square foot	\$3.02	\$92,500
6' sidewalks	Square foot	\$3.02	\$66,000
Trees	Tree	\$200.00	\$11,000
Curb and gutter	Linear foot	\$8.95	\$67,000
ADA ramp	Ramp	\$759.62	\$8,500
Pedestrian Crossing signs	Sign	\$18.58	\$111
Street Lights	Light	\$4,500.00	\$373,500
Sod	Square yard	\$5.20	\$6,500
Concrete Islands	Square foot	\$6.59	\$9,500
Tree Grates	Tree grate	\$85.20	\$5,000
Speed Signs	Sq ft-sign	\$19.72	\$75
No parking Signs	Sq ft-sign	\$14.70	\$50
Street Base	Ton	\$13.60	\$38,000
Asphalt	Ton	\$16.57	\$21,000
Wood Village Total			\$700,236
Troutdale			
Widen pavement to 3 lanes	Linear foot		
Striping	Linear foot	\$0.07	\$2,000
9' sidewalks	Square foot	\$3.02	\$42,500
6' sidewalks	Square foot	\$3.02	\$160,000
Trees	Tree	\$200.00	\$14,000
Curb and gutter	Linear foot	\$8.95	\$91,000
ADA ramp	Ramp	\$759.62	\$4,000
Pedestrian Crossing signs	Sign	\$18.58	\$75
Street Lights	Sign	\$4,500.00	\$508,500
Sod	Square yard	\$5.20	\$15,500
Concrete Islands	Square foot	\$6.59	\$6,500
Tree Grates	Tree grate	\$85.20	\$6,000

<i>City and Item</i>	<i>Units</i>	<i>Cost</i>	<i>Total Cost</i>
Speed Signs	Sq ft-sign	\$19.72	\$75
No parking Signs	Sq ft-sign	\$14.70	\$150
Street Base	Ton	\$13.60	\$106,500
Asphalt	Ton	\$16.57	\$59,000
Troutdale Total			\$1,015,800
Project Total			\$1,986,036

Table 2. Jurisdiction/Project Characteristics

Project Site	Total Length (ft)	Without Intersections
Fairview	1,567	1,510
Wood Village	4,067	3,740
Troutdale	5,200	5,083

Table 3. Cost Elements by Jurisdiction

Item	Fairview	Wood Village	Troutdale
ADA ramps	4	11	5
Trees	23	56	69
Refuges	0	3	2
P-signs	0	6	4
Lights	34	83	113
Sod (sq.yrd)	167	1,211	2,944
NP signs		3	10
Speed Signs		4	4
Widening (sq ft)		38,400	107,160

Table 4. Sidewalk Characteristics

Community/Design	Total Length (ft)	Square Footage	Square Footage Planting
<i>9' Sidewalks & Tree Wells</i>			
Fairview	2,566.7	23,103	
Wood Village	3,400	30,600	
Troutdale	1,566.7	14,103	
<i>6' Sidewalks & 3' Planting Strips</i>			
Fairview	500	3,000	1,500
Wood Village	3,633	21,798	10,899
Troutdale	8,833	52,998	26,499

APPENDIX A. PUBLIC WORKSHOP SUMMARIES

The Halsey Street Concept Plan was influenced significantly by the results of two public workshops held with property owners and citizens in the study area. Results of those workshops are briefly summarized on pages 10 and 11 of this report and described in detail in the following pages.

PUBLIC WORKSHOP #1
JANUARY 12, 2005
6 – 8:30 PM
FAIRVIEW COMMUNITY CENTER
300 HARRISON STREET

SUMMARY

Multnomah County, with the consulting team of Cogan Owens Cogan, Falconi Consulting and SERA Architects, conducted a public workshop on January 12 in Fairview to discuss possible plans for the future design of the portion of Halsey Street that goes through the communities of Fairview, Troutdale and Wood Village between 223rd Avenue and the Historic Columbia River Highway. Nearly 25 residents attended and the three communities were fairly evenly represented.

County and consultant team representatives provided an overview of the project, including its history, goals and expected outcomes. They then worked with participants in small groups to identify desired street design elements and priorities for the entire study area, as well as for specific communities. Groups were organized by community for Fairview, Troutdale or Wood Village. The suggestions that participants most agreed upon are listed below.

Entire Corridor

Participants generally agreed on the following:

- Consistency throughout the corridor is important for the look and feel of the street design, but preserving the unique qualities of each community needs to be a consideration. Changes in design among communities can be subtle, rather than pronounced.
- On-street parking is fine where beneficial, such as in commercial areas, but is not necessarily desirable or needed in other areas because of perceived impacts to pedestrian safety, neighborhoods and driver visibility.
- Slightly more participants favored an open middle turn lane to allow for traffic access to both sides of the street, particularly emergency vehicles, to make turns. Those that prefer a median do so for safety reasons and recommend pedestrian islands in specific locations such as mid-block crossings near locations with significant pedestrian movement.

- Landscaping is desired but in a manner that will not increase maintenance work or costs. Tree wells and planters were suggested. Most participants did not favor continuous planting strips.
- A pedestrian-friendly environment is desired, and can be addressed with amenities such as lighting, landscaping and sidewalks that are at least six feet wide. Wider sidewalks are recommended in commercial areas and/or to accommodate street trees in tree wells.
- Participants would like more room for buses (both school and public) to pull out of traffic to make stops.

Responses to recommendations:

- *While some participants expressed concerns about safety associated with on-street parking pedestrian, on-street parking can improve safety for people walking by buffering them from traffic.*
- *Sidewalks may need to be wider throughout the corridor to accommodate tree wells if no continuous planting strips are desired.*
- *Typically, the County enters into an agreement with the appropriate city for maintaining a given section of a street like Halsey. The city then has the responsibility for maintaining it or compensating the county for doing so. Requirements for property owner maintenance will be clarified with individual cities.*
- *While participants noted concerns about the cost of maintaining landscaping strips, along Halsey and recommended a wide sidewalk that incorporates trees in tree wells, there are several drawbacks to this approach, including:*
 - *Higher construction costs*
 - *More impervious surface*
 - *A more urban look and feel that would be inconsistent with the existing and possibly proposed character of the study area in predominantly residential sections.*

For these reasons, we propose a landscaping buffer strip in residential areas to accomplish other goals of the project such as improved aesthetics, more effective stormwater management, lower construction costs, and consistency with neighborhood character. We can work with the county and city to identify plantings that would have lower maintenance costs.

Fairview

- For the intersection of Halsey and 223rd, participants recommend the following:
 - Wider sidewalks
 - Reduce landscaping near intersection (about 100')
 - Turn lanes to maintain capacity, with a right-hand turn from 223rd, south to Halsey, west
 - A safer bus stop
- Landscaping features -- planter boxes and seasonal decorations.

- Pedestrian crosswalks are needed. If pedestrian islands are used, incorporate some landscaping for safety, but high visibility reflectors, contrasting pavements.
- Maintain the option to add additional lanes without moving sidewalks.

Responses to recommendations:

- *Maintaining the option to add more lanes is not necessarily consistent with the overall objective of creating a three-lane road.*
- *A separate traffic analysis at the intersection of 223rd is recommended to determine the need for turn lanes recommended above.*

Troutdale

- Build more sidewalks now in anticipation of future growth.
- Create marked crosswalks or lighted intersections to accommodate areas that are already pedestrian and bicycle-friendly, such as Edgefield. Tree wells are the preferred method of landscaping.
- Use natural landscaping to reflect the natural environment.
- Make sure the design incorporates the new scenic byway designation of Halsey between Troutdale and 238th.
- Consider on-street parking only if the benefits will outweigh the costs. For example, it may be beneficial in commercial areas but not in other areas, particularly where topography is a challenge.
- More participants in this group favored a turn lane over a median in the middle lane of Halsey to provide access, especially in anticipation of more development.

Responses to recommendations:

- Pedestrian islands also are recommended at selected locations. This would improve pedestrian safety and complement the City's Main Street design.

Wood Village

- Reduce congestion at the intersection of Halsey and 223rd.
- Include bicycle lanes.
- Beautification and continuity are important.
- Exercise common sense in designing improvements.
- Consider on-street parking where necessary for retail but not in areas with only residential.
- Most favor a turning lane for the following reasons:
 - To provide access to trucks at 244th
 - To provide a breakdown lane for trucks

- Some other participants favor a median or pedestrian islands for the following reasons:
 - To address access management conflicts
 - To possibly increase property value
 - To improve pedestrian safety and mobility
- Consider roundabouts, particularly at 244th and the extension of Wood Village Boulevard. (*recommended by one group member*)

Responses to recommendations:

- *Installation of a roundabout at 244th is not recommended by the consulting team due to concerns about potential impacts on traffic capacity, right-of-way and truck movement. However, a roundabout or some other gateway feature at one or more other key intersections in Wood Village could help establish a community identity for Wood Village. More traffic analysis (through a separate project) would be needed to determine the feasibility of this.*
- *Many participants' comments seemed to be oriented more towards existing conditions, rather than future plans, including denser and more commercial development in certain portions of Wood Village.*

PUBLIC WORKSHOP #2
MARCH 10, 2005
6 – 8:30 PM
FAIRVIEW COMMUNITY CENTER
300 HARRISON STREET

SUMMARY

Multnomah County, with the consulting team of Cogan Owens Cogan, Falconi Consulting and SERA Architects, conducted the second of two public workshops on March 10 in Fairview to discuss the future design of the portion of Halsey Street that goes through the communities of Fairview, Troutdale and Wood Village between 223rd Avenue and the Historic Columbia River Highway. The purpose of this workshop was to present a possible design that incorporated public comments received at the first workshop on January 12. Sixteen residents attended and all three communities were represented.

County and consultant team representatives provided an overview of the project, including its history, goals and expected outcomes. They then presented a possible design for Halsey Street and explained how public comments were incorporated into that design. The following design aspects were included based on the public comments from the first workshop:

- No median, but a continuous and open left turn lane.
- Continuity in design throughout the corridor.
- On street parking in commercial areas.
- Pedestrian islands in specific locations, such as mid-block crossings near locations with significant pedestrian movement.
- Street trees.
- Wide sidewalks, lighting and landscaping.

Time for questions and further comments was provided following the presentation. Participant comments are listed below.

- Some participants were concerned that allowing on street parking on Halsey Street in the residential area between 222nd and 224th would attract crime. The county and consultant team explained that the area, which is currently residential, is zoned for future commercial use and that it is unlikely that parking would be allowed until commercial uses were in place.
- Participants restated some concerns about the cost and maintenance of landscaping strips. These sentiments were consistent with comments provided at the first public

workshop. However, the consulting team recommended the planting strip in residential areas to give them a more residential feel, improve appearances, reduce construction costs and assist with filtering and managing stormwater. Planting strips would not be used in commercial areas. There was agreement that if property owners have to maintain vegetation in the planting strip, then they should be able to choose and/or change what type of vegetation is planted. Ideas for plantings included shrubs instead of trees to improve visibility and plants that don't need much water to save maintenance costs for property owners.

- Most participants who commented were supported the idea of incorporating a slightly meandering sidewalk. This idea received the strongest support in the portion of Halsey fronting Edgefield.
- Two features on the Draft Concept Plan map need to be relocated, including one bus stop and the Academy of the Alternatives, which recently moved.

Responses to comments:

- *Concerns about locating on-street parking in residential areas where residents have concerns can be addressed in implementing language for the Plan.*
- *Responses to concerns about maintenance of landscaping areas are described above.*

After comments from this workshop are incorporated, a final design will be presented to the Fairview, Troutdale and Wood Village City Councils, as well as to the Multnomah Board of County Commissioners for approval and adoption.