McLoughlin Corridor
Historic Studies
Economic Development Commission Presentation
July 24, 2019
Agenda

1. McLoughlin Corridor Historic Studies
   I. Introduction and Methodology
   II. Historical Studies Reviewed
   III. Land Use and Transportation Study Objective Comparison
   IV. Lead Agency and Community Acceptance Comparison
   V. Potential Next Steps
   VI. Questions

2. Multi-Jurisdictional Permit Fee/SDC Comparison
   I. Purpose
   II. Methodology
   III. Product
   IV. Findings
   V. Questions
In the future, our community fabric of thriving neighborhoods, shops, restaurants and services is green and sustainable; healthy and safe; woven together by walkable tree-lined streets, trails, natural area and open spaces; and strengthened by our diversified local economy, great educational opportunities and engaged citizens.

- Mission statement of the McLoughlin Area Plan, 2010
Introduction

• Corridor revitalization will encompass all areas within a ½ mile area around the Park Ave Light Rail Station.

• Phase II of the Park Avenue Community Project will develop design standards for the commercial and multi-family zones within one-half mile of Park Avenue/McLoughlin Boulevard intersection
  • Plan will support the community’s long-term vision for the Park Avenue Station area
Methodology

- County provided several studies, associated with land use and transportation, conducted within the McLoughlin Corridor over past 30 years.
- Studies were reviewed and analyzed for potential gaps in development, employment, land use, and transportation information that would influence the long-range planning of the McLoughlin Corridor.
Historical Studies Reviewed

- Oak Grove Transportation Growth Management Plan Draft
- McLoughlin Corridor Land Use & Transportation Study
- Park Avenue Community Project - Phase 1
- Trolley Trail Master Plan
- Tourism Development Task Force
- Portland- Milwaukie Light Rail Project: Locally Preferred Alternative Report
- Park Avenue Station Area Planning Project/Neighborhood Plan

Portland Population:
- 1990: 486,083
- 1995: 529,922
- 2000: 583,776
- 2005: 583,776 (repeated)
- 2010: 583,776 (repeated)
- 2015: 583,776 (repeated)
- 2020: 667,342
Purpose:
Provide direction for new growth and development for Oak Grove over the next 50 years with a mixture of services, employment and housing in a single, concentrated, walkable area.

Project Partners:
• Foothill Planning Associates
• Oak Lodge Community Council
• Clackamas County Urban Green
• Portland State University
• Oak Lodge Sanitary District
• Oregon Department of Transportation
• Metro
• North Clackamas County Parks & Recreation District
• TriMet

Community Outcome:
The plan did not receive community consensus and was not approved.
Purpose:
Provide community preferred design alternatives for the McLoughlin Corridor, including recommended cross-sections and other street design and transportation improvements, and recommendations related to zoning and land use.

Project Partners:
• ODOT
• W&H Pacific, Inc.
• DKS Associates
• Hobson Johnson
• Pacific Rim Resources

Community Outcome:
Key recommendations from the plan were adopted, including implementing transit-oriented development standards while retaining existing zoning.
Trolley Trail Master Plan
Clackamas County North Clackamas Parks and Recreation, 2002-04

**Purpose:**
Analyze and recommend a trail alignment, environmentally-sensitive trail design features, amenities, and safety and security measures for the six-mile trail corridor to guide the future development and safe use and operation of the Trolley Trail as a nonmotorized recreational and commuter trail.

**Project Partners:**
Unknown at this time

**Community Outcome:**
Construction of the six-mile Trolley Trail from Gladstone to Milwaukie on the east side of the Willamette River was completed in 2012.

Trolley Trail Map 2013
North Clackamas Parks & Recreation District
Portland-Milwaukie Light Rail Project:
Locally Preferred Alternative Report

TriMet, 2007-08

Purpose:
Analyze proposed station areas along the Southeast Portland, Milwaukie, and North Clackamas County portions of the proposed Portland-Milwaukie light rail alignment.

Project Partners:
- ODOT
- Portland-Milwaukie Citizen Advisory Committee
- City of Oregon City Commission
- TriMet Board of Directors
- Multnomah County Board of Commissioners
- Joint Policy Advisory Committee on Transportation (JPACT)
- Milwaukie City Council
- City of Portland Council
- Clackamas County Board of Commissioners
- Metro Council

Community Outcome:
The proposal was adopted by Metro Council July 2008. The Portland-Milwaukie light rail line, (MAX Orange Line), opened in September 2015, with its southern terminus at the corner of Park Avenue and McLoughlin Boulevard. The SE Park Ave Park-and-ride is across the street, with a parking garage for approximately 400 cars and 100 bicycles.
Tourism Development Task Force

Clackamas County Tourism Department 2008-09

Purpose:
Studied issues related to tourism and make recommendations to the Board of County Commissioners to ensure continued tourism development.

Community Outcome:
No follow up/action since report was completed.

Project Partners:
• Clackamas County Tourism Development Council
• Clackamas County Tourism & Cultural Affairs
• Travel Oregon
• Clackamas County Arts Alliance
• Regional Arts and Cultural Council

Tourism Development FY 19-20 Proposed Budget

Resources

Requirements
Purpose:
Adopt a Park Avenue Station Area Plan and supporting zoning ordinances to provide for diverse and thriving housing, commercial and economic opportunities in the area within one-half mile around the new light-rail station planned for the intersection of Park Avenue and McLoughlin Boulevard in unincorporated Oak Grove.

Project Partners:
- Oregon Department of Transportation
- David Evans and Associates
- Laurence Qamar Architecture and Town Planning
- Leland Consulting Group
- Zenn Associates
- Oregon Department of Transportation

Community Outcome:
Proposed high density housing with a minimum of 20 units/acre. The project lacked a robust public involvement component and the plan was ultimately not adopted by the Board of County Commissioners in 2012 largely due to opposition voiced by some community members.
Purpose:
The study identifies community-based organizations and stakeholder groups, assesses overall community awareness, opinions, and support for the McLoughlin Area Plan vision to better understand the demographics and cultural/economic diversity of the area.

Project Partners:
- McLoughlin Area Plan Implementation Team (MAP-IT)
- Park Ave Community Advisory Committee
- Metro

Community Outcome:
Phase I of the Park Avenue Community Project has moved on to Phase II of their efforts. The County and MAP-IT will work with their committees as well as planning consultants to engage with the community and present options for code refinements and develop anti-displacement strategies.
<table>
<thead>
<tr>
<th>Study</th>
<th>Zoning/Land Use</th>
<th>Transportation Plan</th>
<th>Urban and Outdoor Recreation Enhancement</th>
<th>Business/Employment</th>
</tr>
</thead>
</table>
| **Oak Grove Transportation Growth Management Plan Draft 1994-95**
*Clackamas County Department of Transportation & Development* | - Increase identity through neighborhood signs
- Revise local residential street standards
- Create more compatible zoning in Oak Grove. | - Street connectivity
- Side street enhancement | - Pedestrian Corridor enhancement
- Develop a trail on Portland Traction Company Trolley Line | - Business development coordination |
| **McLoughlin Corridor Land Use and Transportation Study 1998-99**
*Clackamas County* | - Retain existing zoning and implementation of Transit Oriented Development Standards
- Enforce sign ordinance and encourage connections between | - Street Design (Cross Sections)
- Access Management
- Street Classification
- TriMet Bus Improvements and circulation | - Pedestrian and Bicycle Facilities and circulation
- Develop continuous bike lanes, sidewalks, lighting, landscape buffers and elimination of on-street parking directly on McLoughlin Blvd | - Evaluate the suitability of an Urban Business Area overlay as a means of addressing access management |
| **Trolley Trail Master Plan 2002-04**
*Clackamas County North Clackamas Parks & Recreation District* | - Develop intersection improvements and safety/security features
- Connection of community facilities | - Develop five potential trailheads and 25 pedestrian access points from neighborhood roads
- Landscaping enhancement | | |
| **Portland-Milwaukie Light Rail Project: Locally Preferred Alternative Report 2007-08**
*TriMet* | - Updated industrial and commercial zoning standards for connectivity | - Portland- Milwaukie Light Rail Alternative Evaluation
Local Transit improvements include
- Connecting to the southern end alignment, Park Ave terminus
- Include rail station stops
- Park and ride
- Bus improvements
- Consider Maintenance Facility and future streetcar improvements | - Pedestrian and park and ride enhancement | - Rehabilitation of business and business incentive around the updated light rail. |
| **Tourism Development Task Force 2008-09**
*Clackamas County Tourism Department* | - Marketing and asset development strategies | - Enhanced street connections between McLoughlin Boulevard and the Willamette River with public access areas/sites on the riverfront | - Focused on outdoor recreation aspect of Clackamas County
- Acquisition of riverfront for public access and use | - Optimizing economic impacts of the tourism industry
- Potential tour opportunity within the corridor |
| **Park Avenue Station Area Planning Project/Neighborhood Plan 2010-12**
*Clackamas County Planning & Zoning* | - Develop code standards that promote compact development and a mix of uses in the station area
- Connective Urban Housing Alternative around SE Park Avenue | - Transit-oriented development
- Revitalization of side streets | - Slight inclusion of parks or community gardens into a comprehensive development plan
- Landscaping provided in the redevelopment | - Attractive public and private investment
- Connective Mixed-use development concept alternative |
| **Park Avenue Community Project – Phase 1 2018-19**
*Clackamas County Planning & Zoning* | - Update Land use development and design standards for commercial area
- Protect, preserve, and increase workforce and surrounding residential areas | - Transit supportive development
- Focus on side street development | - Pedestrian connectivity
- Enhance natural areas and open space
- Community events | - Support development within commercial areas and the McLoughlin Corridor |
## Lead Agency and Outcomes/Community Response Comparison

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Lead Agency</th>
<th>Other Project Partners</th>
<th>Date of Study</th>
<th>Outcomes and Community Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oak Grove Transportation Growth Management Plan</td>
<td>Clackamas County Department of Transportation &amp; Development</td>
<td>Foothill Planning Associates</td>
<td>1994-95</td>
<td>The plan did not receive community consensus and was not approved</td>
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<tr>
<td>Draft</td>
<td></td>
<td>Oak Lodge Community Council</td>
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<td>Clackamas County</td>
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<td>Oregon Department of Transportation</td>
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<td>Metro</td>
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<td>North Clackamas</td>
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<td>County Parks &amp; Recreation District</td>
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<td>TriMet</td>
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<tr>
<td>McLoughlin Corridor Land Use and Transportation</td>
<td>Clackamas County</td>
<td>ODOT</td>
<td>1998-99</td>
<td>Final design alternatives plan for the McLoughlin Corridor approved by the County</td>
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<td>Study</td>
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<td>W&amp;H Pacific, Inc.</td>
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<td>DKS Associates</td>
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<td>Pacific Rim Resources</td>
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<tr>
<td>Trolley Trail Master Plan</td>
<td>Clackamas County North Clackamas Parks &amp; Recreation District</td>
<td>Unknown</td>
<td>2002-04</td>
<td>Construction of the six-mile Trolley Trail from Gladstone to Milwaukie on the east side of the Willamette River was completed in 2012</td>
</tr>
<tr>
<td>Park Avenue Station Area Planning Project/</td>
<td>Clackamas County Planning &amp; Zoning Division</td>
<td>Clackamas County Tourism Development Council</td>
<td>2007-08</td>
<td>The Portland-Milwaukie light rail line, known as the MAX Orange Line, opened in September 2015, with its southern terminus at the corner of Park Avenue and McLoughlin Boulevard in unincorporated Clackamas County. There is a park-and-ride across the street from the station, with a parking garage that holds approximately 400 cars and 100 bicycles.</td>
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<tr>
<td>Neighborhood Plan</td>
<td></td>
<td>Clackamas County Tourism &amp; Cultural Affairs</td>
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<td>Travel Oregon</td>
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<td>Clackamas County Arts Alliance</td>
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<td>Regional Arts and Cultural Council</td>
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<tr>
<td>Tourism Development Task Force</td>
<td>Clackamas County Tourism Department</td>
<td></td>
<td>2008-09</td>
<td>Not implemented into the County plan</td>
</tr>
<tr>
<td>Park Avenue Community Project – Phase 1</td>
<td>Clackamas County Planning and Zoning Division</td>
<td>McLoughlin Area Plan Implementation Team</td>
<td>2010-12</td>
<td>The recommendations were submitted to the Clackamas County Planning Commission in late 2011 and the Board of Commissioners in early 2012. There was community opposition and the plan was not adopted</td>
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<td>Park Ave Community Advisory Committee</td>
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<td>Metro</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>McLoughlin Area Plan (MAP) Implementation Team and County received</td>
<td>2017-19</td>
<td>McLoughlin Area Plan (MAP) Implementation Team and County received Metro 2040 grant. Recommendations for extensive public engagement strategies to implement in Phase II. Community expressed the need for pedestrian and open space enhancement</td>
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</table>
POTENTIAL NEXT STEPS

In order to address the needs of the McLoughlin Corridor and community members, future studies should be considered to develop a comprehensive and cohesive design and to increase understanding of the redevelopment potential of the corridor.
Economic Development

- Study undeveloped parcels near light-rail station
- Market study to determine viable redevelopment uses
- Feasibility study to identify catalyst redevelopment opportunities
- Feasibility study to include analysis of high/medium/low density scenarios
- Site specific urban renewal plan
- Explore other areas for affordable/workforce housing and how it can be provided
- Explore how to develop employment uses
- Review past commercial development patterns
- Study retail and commercial shifts
- Investigate current tourism to supplement existing data and future economic benefit
- Identify specific code language that restricts cohesive development
Public Involvement

• In addition to the Park Avenue Phase II Visioning project, consider expanding the project in subsequent phase to also include visioning of the rest of the corridor (Oak Grove, Jennings Lodge, and Gladstone).
Natural Areas and Transportation Improvements

- Study specific locations within the McLoughlin Corridor to implement pedestrian and street connectivity directly to the SE Park Ave Light Rail Station.
- Investigate where natural areas can be enhanced and integrated with development.
- Identify a Station Area Boundary and development standards to reinforce the area identity and increase eligibility for infrastructure funding.

*Streetscape Concept*
Questions?
Multi-Jurisdictional Permit Fee/SDC Comparison

Clackamas County and Portland Metro Region
Purpose

• Capture development costs throughout region
  — Permit fees
  — SDCs

• Focus in Clackamas County and Portland metro area

• Provide comparison
  — Total cost
  — Cost per SF

• Identify competitiveness of fee structures
Methodology

• References three prototypical development types:

  ![4-Story Office](80,000 SF)
  ![Manufacturing](80,000 SF)
  ![Warehouse](200,000 SF)

• Includes tenant improvement build-out

• Assumptions based on typical user/building needs

• Application of jurisdictional permitting fees, SDCs, land use review, and “other” non-typical fees as applicable.
## Product

Clackamas County Multi-Jurisdiction Permit Fee and SDC Comparison

This comparison of permit and SDC estimates for prototypical office, warehouse, and manufacturing buildings (including tenant improvement built-out) for jurisdictions in Clackamas County and the Portland metro region was conducted for Clackamas County's Business & Economic Development Team.

| Jurisdiction               | Happy Valley | Lake Oswego | Milwaukie | Oregon City | Sherwood | West Linn | Wildwood | Milwaukie County | Clackamas County | Washington County | Multnomah County | Clackamas County | Washington County | Multnomah County |
|----------------------------|--------------|-------------|-----------|-------------|-----------|-----------|-----------|-----------------|------------------|-----------------|-----------------|----------------|----------------|----------------|----------------|
| **Costs**                  | **2019**     | **2019**    | **2019**  | **2019**    | **2019**  | **2019**  | **2019**  | **2019**        | **2019**         | **2019**        | **2019**        | **2019**       | **2019**       | **2019**        | **2019**        |
| **Allowances**             | **units**    | **units**   | **units** | **units**   | **units** | **units** | **units** | **units**       | **units**        | **units**       | **units**       | **units**      | **units**      | **units**       | **units**       |
| **Building Fees**          | **$2,000**   | **$2,000**  | **$2,000** | **$2,000**  | **$2,000** | **$2,000** | **$2,000** | **$2,000**      | **$2,000**       | **$2,000**       | **$2,000**       | **$2,000**    | **$2,000**    | **$2,000**     | **$2,000**     |
| **Total Site Work**        | **$2,000**   | **$2,000**  | **$2,000** | **$2,000**  | **$2,000** | **$2,000** | **$2,000** | **$2,000**      | **$2,000**       | **$2,000**       | **$2,000**       | **$2,000**    | **$2,000**    | **$2,000**     | **$2,000**     |
| **Total Water Service**    | **$2,000**   | **$2,000**  | **$2,000** | **$2,000**  | **$2,000** | **$2,000** | **$2,000** | **$2,000**      | **$2,000**       | **$2,000**       | **$2,000**       | **$2,000**    | **$2,000**    | **$2,000**     | **$2,000**     |
| **Total Electric Service** | **$2,000**   | **$2,000**  | **$2,000** | **$2,000**  | **$2,000** | **$2,000** | **$2,000** | **$2,000**      | **$2,000**       | **$2,000**       | **$2,000**       | **$2,000**    | **$2,000**    | **$2,000**     | **$2,000**     |
| **Total Gas Service**      | **$2,000**   | **$2,000**  | **$2,000** | **$2,000**  | **$2,000** | **$2,000** | **$2,000** | **$2,000**      | **$2,000**       | **$2,000**       | **$2,000**       | **$2,000**    | **$2,000**    | **$2,000**     | **$2,000**     |

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These estimates are based on the above assumptions, current jurisdictional fees, and Clackamas County's consultant's experience preparing project-specific estimates for their clients. Actual fees may vary at the time of permit application or issuance. These estimates are not meant to replace due diligence. Footnotes and details on assumptions used to generate these fees are available on request (contact Jon Logeman at jlogeman@clackamas.us).
Clackamas County Multi-Jurisdiction Permit Fee and SDC Comparison

Notes

A. The building and site size used in this comparison reflect a typical full-build-out, 4-story office building with partial structured parking.

B. The site size has been assumed at just under 1 acre, or 40,000 SF, in an urban location with no on-site landscape areas. This area is used by many jurisdictions to determine stormwater SDCs.

C. Many jurisdictions calculate grading and erosion control permit or review fees based on the amount of cut/fill processed, measured in cubic yards (CY). PCI CY are assumed for this site and typical prototype building.

D. This construction cost estimate is based on the International Code Council (ICC) Building Data Value Table (February 2019) and assumes Type IIB construction and B accuracy ($1757/1000 SF). Jurisdictions use the higher of either the EOC or independent construction valuation for the purposes of calculating fees.

E. Equivalent Dwelling Units (EDUs) are typically determined based on number of plumbing fixtures and are used by many jurisdictions to calculate sewer and stormwater System Development Charges (SDCs). Clackamas County Water and Environmental Services determines SDUs using a complex formula by site or building area. This estimate assumes a minimum number of plumbing fixtures (per the 2014 Oregon Structural Specialty Code) for the building. Oregon City calculates EDUs based on a prescribed floor area of the proposed use. In all jurisdictions, SDCs are charged until a service is installed; therefore, this fee is not typically charged to the owner or tenant on shell buildings but is shown here for comparison purposes.

Clackamas County uses Equivalent Residential Units (ERUs), which are also based on either building floor area or impervious site area, with additional EDUs estimated at time of tenant improvement application based on the actual number of employees. For consistency, this estimate assumes the number of employees based on land use per Metro’s 1999 Employment Density Study. Instead of ERUs, Vancouver uses Meter Equivalent Size (MES). In Portland, the MES for a 1.5 meter is 5. If additional features are added with a tenant improvement, additional EDUs, BLDUs, or MES will be assessed and additional SDUs will be charged at that time.

F. The number of employees is used to calculate the Paris SDC in Beaverton, Tualatin Hills Metropolitan Park and Recreation District calculates SDCs based on square feet per employee for specific uses. In Canby, the number of employees is calculated based on square feet per employee for specific uses unless the applicant is able to ascertain the total number of employees anticipated for office; the employee estimate of 550 SF per SF Building area is used in this estimate. Many jurisdictions calculate employees based on Metro’s Employment Density Study and assign one employee per 500 SF of office space (SIC 60-69: Finance, Insurance, and Real Estate). Gresham assumes 333 employees per 1,000 SF of floor area, based on the ‘inner city’ assumptions of the Metro 2014 Urban Growth Report. Hillsboro, calculated based on 0.5 percent of applications. Vancouver charges a base fee plus a fee per square foot of ground floor area. Vancouver also charges a $1,000 per year, $1,000 per year, and 20% of the price of the permit.

Although, Clackamas County has put moratoriums on this program at this time. Therefore, the calculations are approximate.

In addition, the City of Beaverton also changes fixed fees for site plan review transportation concurrency certificate request evaluation, and traffic study review.

J. Transportation SDCs are based on floor area or number of trips. Projects in Washington County and cities in (Beaverton and Hillsboro) pay the Washington County Transportation Development Tax (TDT), Milwaukie calculates Transportation SDCs by multiplying the PM peak trips by a soil-specific factor. Oregon City charges an additional Transportation SDC for bike/pedestrian transportation on commercial and industrial developments, which is included as “other.” Sandy uses Adjusted Average Daily Person Trips (ADAPT) to calculate Transportation SDCs. (Adapted from Sandy’s Public Works Director Mike Miller (7/19), the ADAPT is calculated by multiplying the ADT by 0.03. In Washington State, Clark County and Vancouver calculate Traffic Impact Fees (TIFs) based on ADT or PM peak hour trips and offer a 15% reduction in TIFs based on assumed tax revenue to be generated by the proposed development. Clark County offers four districts with different fees per daily trip. For this report the average fee per daily trip of each district is used in calculating the estimated TIF. Vancouver also has areas of the city that are impacted by a Transit Oriented District; these areas assess an additional per vehicle trip fee, assumed in this estimate.

K. Stormwater SDCs are typically based on impervious area. Clean Water Services (CWS) in Washington County charges additional fees for water quality and water quantity in Beaverton, Hillsboro, and unincorporated urban areas of Washington County, although the proposed development may be outside of Clackamas County. Gresham, the water quality fee is waived. If there is a water quality facility required, CWS also charges an SDC for water quantity, and essentially doubles the fee for the two additional facilities in unincorporated Washington County. In Beaverton, there is also a stormwater conveyance SDC charged per 3,643 SF of new impervious area. In Clackamas County, BLDUs for this user are calculated based on total building square footage at a factor used for all types of buildings. This results in an extremely high fee for large buildings, regardless of fixtures or interior space of use. Clackamas County Water and Environmental Services also administers SDCs for surface water and sanitary sewer in Happy Valley; therefore, for this report the stormwater fees are based on the stormwater fees and water quality fees, assuming one stormwater SDC for the proposed SDC rate. Sandy does not charge a stormwater SDC, par Sandy’s Public Works Director Mike Miller (7/19).

L. Most jurisdictions determine Sanitary Sewer SDC based on EORL determined as discussed in note D. Additional SDCs will be due if additional EDUs are assessed with the tenant improvement building permit. Sandy charges commercial/industrial SDCs based on the average daily volume of wastewater discharge for this period, the State of Oregon Industrial Sources Authority, Industrial Development, and Environmental Quality Index (EQN) is used for the estimation of average daily volume based on use. Clackamas County Water and Environmental Services administers SDCs for surface water and sanitary sewer in Happy Valley and unincorporated Clackamas County; therefore, for this report the sanitary sewer fees of Happy Valley mirror those of Clackamas County. Clark Regional Wastewater Authority (CRWWA) provides sanitary sewer service for unincorporated Clackamas County. For unincorporated Clark County, CRWWA charges sanitary sewer SDCs at different rates for different areas of Clark County, so an average SDC rate is used in this estimate. CRWWA and governing jurisdictions (Clark County) may also charge additional permit and/or installation fees; these are assumed to be minimal and are not included in the fee estimate. In Molda the Sanitary Sewer SDC is calculated based on water meter size. Oregon City’s wastewater collection system transports wastewater to the Tri-City sanitary district treatment plant; therefore, an additional SDC charge for the Tri-City sanitary district is applied and noted as “other.” In addition to the associated water SDC fees. Vancouver charges a water fee, application fee, installation fee, sanitary sewer SDC, and “document fee.” In Wilsonville, this figure includes a Sewer Permit Fee and a Sewer SDC, both charged per EDU.

M. Water SDCs are typically based on water meter size, in Beaverton, fees for meters 15” or larger are site-specific; this report uses an estimate provided by City of Beaverton. In Clackamas County, the Water SDC is collected by the Clackamas River Water District. Water SDCs in Clackamas County, therefore, are not included in the report. In Beaverton, the water SDC is collected by the City of Beaverton and factoring in demand for generalization purposes. In Hillsboro, this figure includes the connection fee, connection fee, and installation fee. In Washington County, water service providers include Tualatin Valley, West Slope Water District, and Raleigh Water District, depending on location. Each water district has a different water SDC rate; therefore, for this report the average water SDC rate has been used.

In addition, in Sandy, there is a water meter fee and cost for connection to the water main. Clackamas River Water charges an installation fee; the figure shown represents a deposit, through a well the deposit will be a site-specific estimate based on the street the meter will be installed from. There is also a meter installation fee in Beaverton and Portland for all users and a meter connection fee in Lake Oswego. Beaverton also charges a flat water meter fee.
Findings

TOTAL COST: 4-STORY OFFICE

- Clackamas County: $755,700, $9.45/ SF
- Canby: $648,849, $8.11/ SF
- Estacada: $388,191, $4.85/ SF
- Gladstone: $845,875, $10.57/ SF
- Happy Valley: $1,646,085, $20.58/ SF
- Lake Oswego: $658,075, $8.23/ SF
- Milwaukie: $546,359, $6.83/ SF
- Molalla: $320,670, $4.01/ SF
- Oregon City: $500,066, $6.25/ SF
- Sandy: $1,555,249, $19.44/ SF
- Wilsonville (Washington County): $1,080,453, $13.31/ SF
- Beaverton: $1,029,259, $12.87/ SF
- Hillsboro: $1,037,560, $12.97/ SF
- Portland: $1,157,324, $14.47/ SF
- Clark County: $992,933, $12.41/ SF
- Vancouver: $280,014, $3.50/ SF

TOTAL COST: WAREHOUSE

- Clackamas County: $1,037,458, $5.19/ SF
- Canby: $734,100, $3.67/ SF
- Estacada: $702,793, $3.51/ SF
- Gladstone: $956,607, $4.78/ SF
- Happy Valley: $1,730,247, $8.65/ SF
- Lake Oswego: $518,265, $2.59/ SF
- Milwaukie: $595,480, $2.98/ SF
- Molalla: $515,853, $2.58/ SF
- Oregon City: $1,157,596, $5.79/ SF
- Sandy: $316,242, $1.58/ SF
- Wilsonville (Washington County): $1,201,137, $6.01/ SF
- Beaverton: $1,391,416, $6.96/ SF
- Hillsboro: $1,228,528, $6.14/ SF
- Portland: $738,829, $3.69/ SF
- Clark County: $405,427, $2.03/ SF
- Vancouver: $246,745, $1.23/ SF

TOTAL COST: MANUFACTURING

- Clackamas County: $481,686, $6.62/ SF
- Canby: $435,432, $5.44/ SF
- Estacada: $342,504, $4.28/ SF
- Gladstone: $628,492, $8.78/ SF
- Happy Valley: $782,608, $9.78/ SF
- Lake Oswego: $536,011, $11.59/ SF
- Milwaukie: $484,615, $6.06/ SF
- Molalla: $404,531, $5.06/ SF
- Oregon City: $262,505, $3.28/ SF
- Sandy: $283,548, $3.54/ SF
- Wilsonville (Washington County): $782,479, $9.78/ SF
- Beaverton: $556,122, $6.95/ SF
- Hillsboro: $598,968, $7.49/ SF
- Portland: $570,739, $7.13/ SF
- Clark County: $750,541, $9.38/ SF
- Vancouver: $420,268, $5.25/ SF

- Total: $1,666,766, $2.08/ SF
Questions?