
Task 4: Development Roadmaps

July 2020
Prepared by:



PROJECT INTRODUCTION

INTRODUCTION

The availability and supply of employment lands are critical to the health of the local and regional economy. Large employment land sites represent unique opportunities to attract or expand important base economy businesses. Many industrial developers and end users operate across regional or global markets and look to make investments in regions with a robust supply of development-ready sites. However, many sites in the region require significant on- and off-site improvements that add cost and time to the development process, and in many instances, render a project infeasible.

Task 4 Development Roadmaps report tests several tools identified in the previous stages of this work on three sites to provide lessons and guidance to local staff and policymakers on which types of tools offer meaningful near term opportunities to help position employment sites for development readiness.

Specifically, the report has three primary objectives:

1. quantify site readiness challenges and model the baseline financial performance of site designs and programming for three opportunity sites in three different jurisdictions in the region;
2. model the financial impact of several types of tools identified in past stages of this project to quantify and compare their impact on financial feasibility; and
3. provide a foundation for each city to consider equity in the context of employment land readiness.

An original list of 14 potential sites were contemplated for this phase of the project (see Appendix E). Through a ranking process of site readiness challenges and discussion with the Project Advisory Team, three sites were chosen for more detailed analysis:

- a 54-acre site in Forest Grove called the Woodford West Site,
- a 38-acre site in Happy Valley called the Rock Creek Site, and
- a 76-acre in Wilsonville called the Coffee Creek Site.

METHODOLOGY

This project builds upon the 2012 Regional Industrial Site Readiness Project, 2015 Washington County Industrial Site Assessment Project, and the 2014 and 2017 Regional Lands Site Readiness Reports. Previous studies stopped short of a full development feasibility analysis. The studies reported only the costs associated with investments to prepare land for development (i.e., land readiness investments or horizontal improvements) but did not take the next step to analyze the development performance itself. Many of the tools tested here impact the development performance directly, so this analysis required a more comprehensive development feasibility analysis. Specifically, this analysis models the financial performance of all vertical construction and the impact of various tools on this financial performance.

The previous site plans were not altered, however, all costs were updated to 2020 dollars to reflect changed costs and current rents. In order to estimate current achievable rents for each use type contemplated on the three sites, CoStar was used to determine appropriate raw land prices, finished lot prices, and achievable rents by use type. The development program, assumed costs and rents were inputted into a pro forma model to prepare a baseline financial assessment for each site. Seven tools were then tested and compared to this baseline financial performance. A full methodology can be found in Appendix C and D.

MEASURING IMPACT - RATE OF RETURN

What is Leveraged Internal Rate of Return?

Critical to understanding the findings of this analysis is understanding the return metric that is used to compare the relative impact of all tools: leveraged Internal Rate of Return (IRR).

In real estate, there are many measures of financial return. Some are simple like Cash-on-Cash Return and some are more complicated. Leveraged IRR is one of the most complicated. But importantly for this analysis, it takes debt and debt service payments into consideration, while some other return metrics do not. Several of the tools tested have an impact on assumptions related to debt (i.e.- SDC financing and land leases).

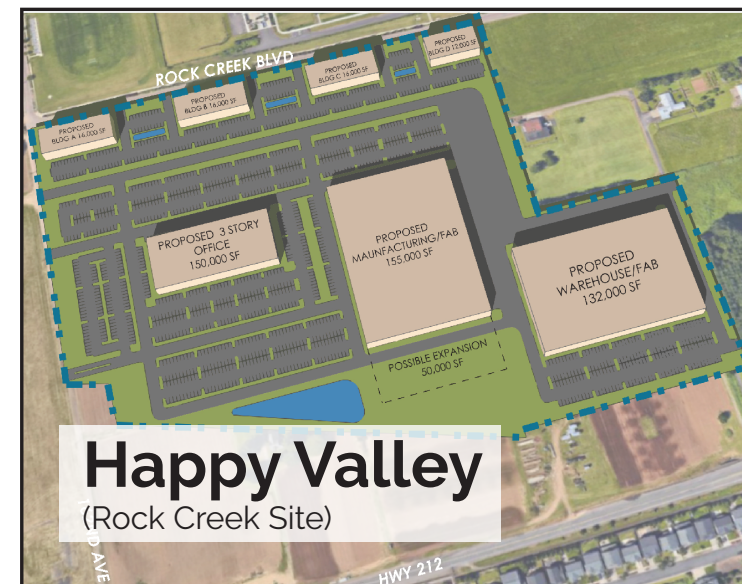
Return Target of 10-15%

A return target of 10-15% leveraged Internal Rate of Return (IRR) was chosen as a benchmark of financial performance. Every developer has a different target and required return rate depending on their sources of capital, tax situation and the length of time they intend to own the property.

Are We Moving the Needle?

While the numbers in this report are often rounded to the nearest 1/10th of one percent and indicate a high level of precision, it is important focus on the trends and order of magnitude impacts in the comparative analysis. Markets change quickly and underlying factors such as construction costs and e-commerce, for instance, will invariably render the assumptions in this analysis stale not that long after it is published. These analyses are always a snapshot in time and should be understood within the market context in which they are produced. That said, the relative impact of many of these tools and the power of combining or layering tools together offer lessons that will be relevant long into the future.

SITE ATTRIBUTES



Site Program:	Single-user advanced manufacturing	Single-user high tech campus	Business park with manufacturing
Lot Area:	54 acres	38 acres	76 acres
Industrial Rents:	\$14 / sq ft	\$15 / sq ft	\$12.50 / sq
Raw Land Cost:	\$14 million (\$6 / sq ft)	\$6.5 million (\$6 / sq ft)	\$20 million (\$6 / sq ft)
Site Readiness Costs:	\$26.8 million (\$11 / sq ft)	\$27 million (\$16 / sq ft)	\$42 million (\$12.5 / sq ft)
Development-Ready Land Costs:	\$40.8 million (\$17 / sq ft)	\$33.5 million (\$22 / sq ft)	\$62 million (\$18.5 / sq ft)
All-in Development Costs:	\$171 million (\$219 / sq ft)	\$126 million (\$253 / sq ft)	\$246 million (\$244 / sq ft)
Leveraged IRR:	-2.3%	4.0%	-8.0%

SITE & MARKET OBSERVATIONS

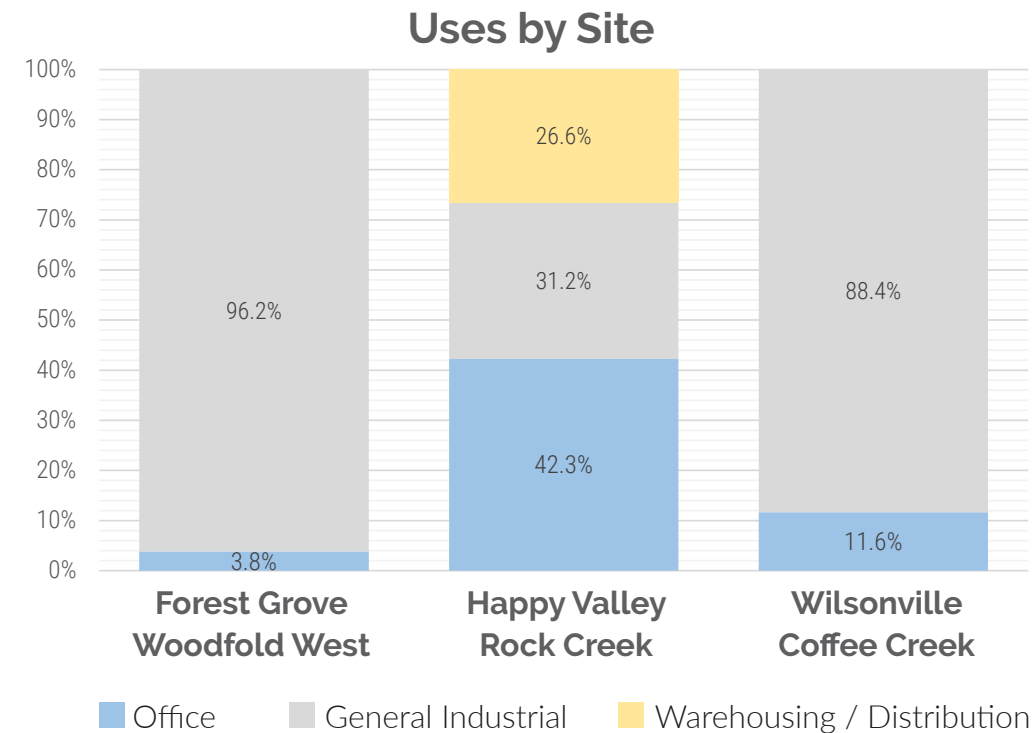
NOT ALL SITES ARE CREATED EQUAL

- The submarket where each site is located influences land acquisition costs and achievable rents and there is significant variation across the region.
- The condition of the sites and surrounding infrastructure varies widely resulting in a wide range of site readiness costs from \$11 to \$16 per foot - which is 2-3 times the cost of the land itself. These costs are mostly related to the need to install or upsize off-site public infrastructure. Exact costs may only become known late in the development process because they are often finalized during a development application process, which can be long after land is purchased and other pre-development money is invested.
- The building and tenant types of each site significantly influences the cost of building construction. Generally, high tech manufacturing (i.e., manufacturers with “clean rooms”) have the highest construction prices, followed by office, general manufacturing, and finally warehousing.
- The Coffee Creek site has the largest site area (76 acres), followed by Woodfold West (54 acres), and Rock Creek (38 acres).

SMALL CHANGES MAKE A BIG DIFFERENCE

- Relatively small changes in rents can have significant change the overall return, especially for larger projects with significant square footage.
- Zoning can limit the effective buildable area and gross leasable square footage on sites by requiring large setbacks, landscaping, and parking or circulation areas. Not all uses can easily use land efficiently, but those that could benefit from higher density allowances are left to pay for more land than they would otherwise need and land costs are significant in today's market.
- Some use types are stronger performers in today's market. For example, warehousing and distribution is less expensive to build that other uses but commands a relatively high rent resulting in a higher return rate (i.e., Amazon).

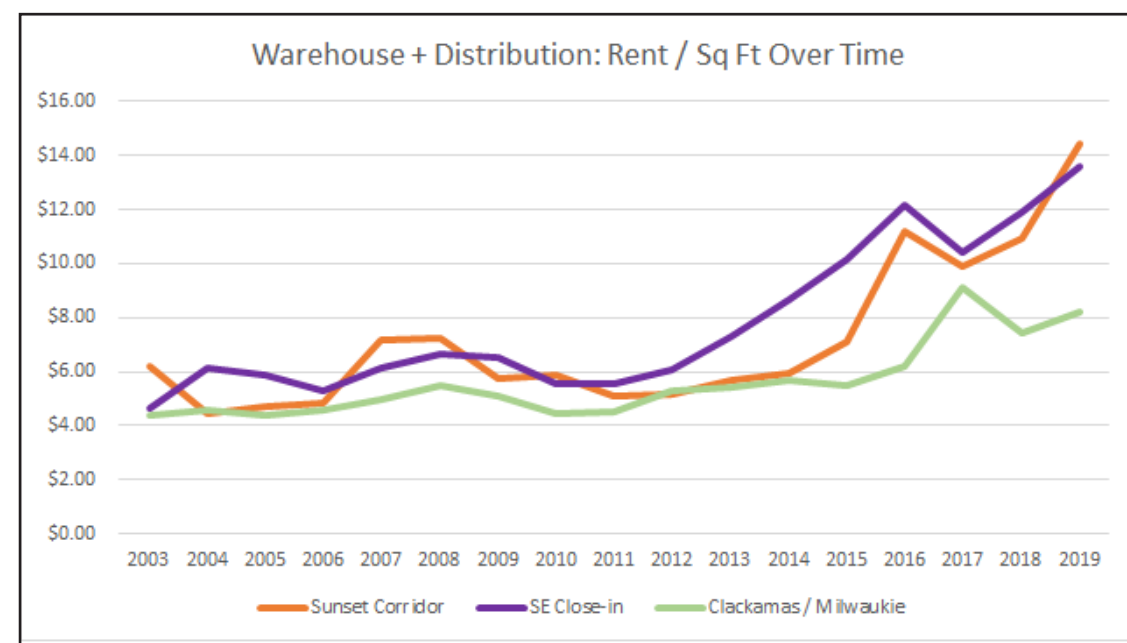
USE MIXES VARY AMONG THREE SITES



Observations

- The Rock Creek site has a significantly more office uses. Office is a stronger performer than general industrial in the area.
- Rock Creek is the only site with warehousing, and warehousing is a strong performer in today's market.
- Forest Grove and Coffee Creek are primarily industrial with a small amount of office, and general industrial is not performing as strong in today's market.

STRENGTH OF USES VARIES ACROSS REGION



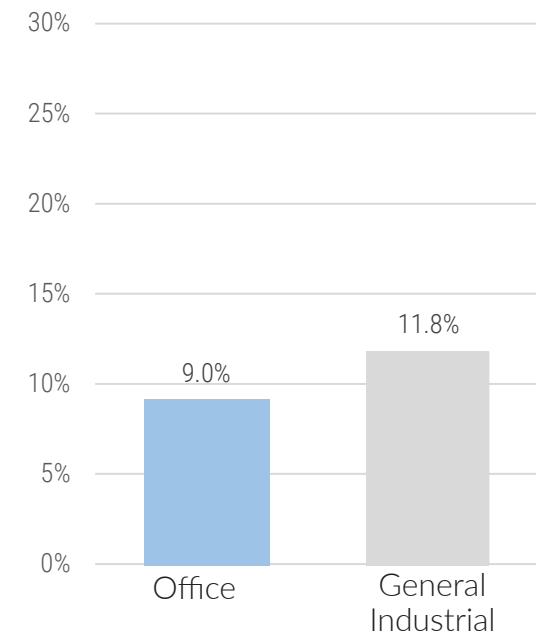
Observations

- Across three submarkets in the Portland region, this graph shows the stark difference in average rent per square foot for warehousing and distribution uses.
- The graph also shows the rapid increase in average rents for warehousing and distribution during this real estate cycle.

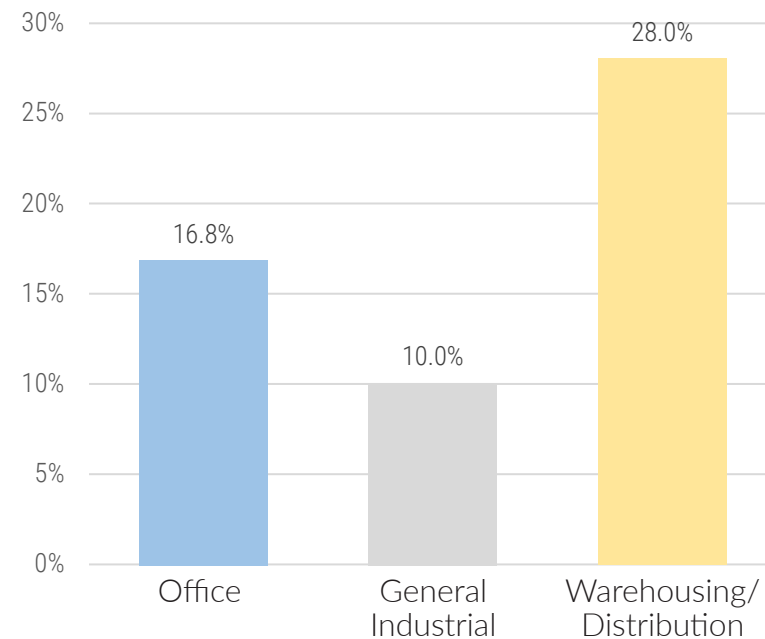
SITE & MARKET OBSERVATIONS

REVENUE TO COST RATIOS

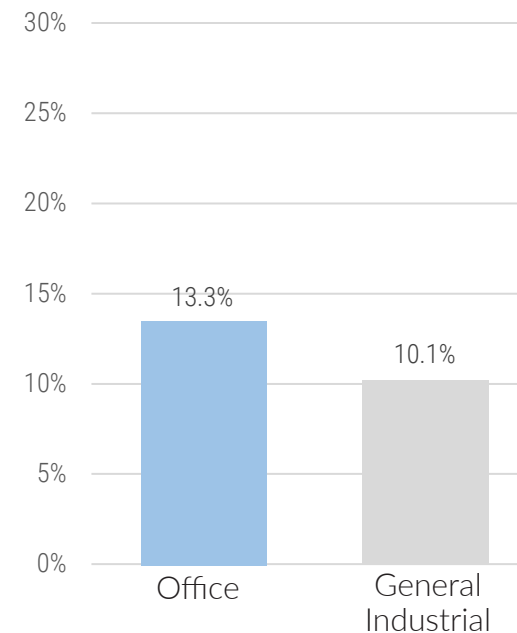
Forest Grove - Woodfold West



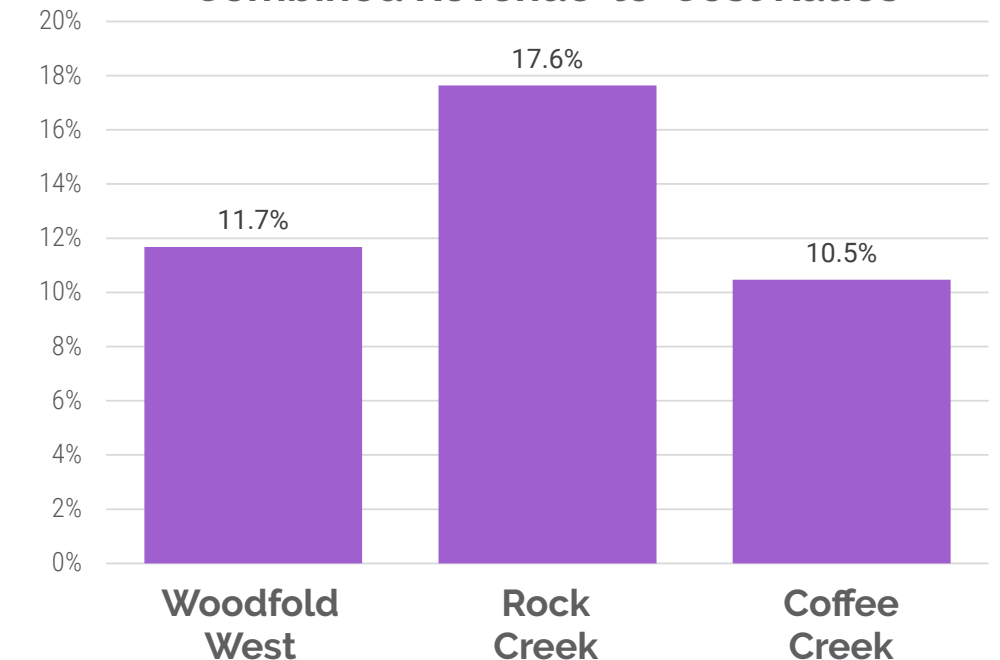
Happy Valley - Rock Creek



Wilsonville - Coffee Creek



Weighted Average:
Combined Revenue-to-Cost Ratios



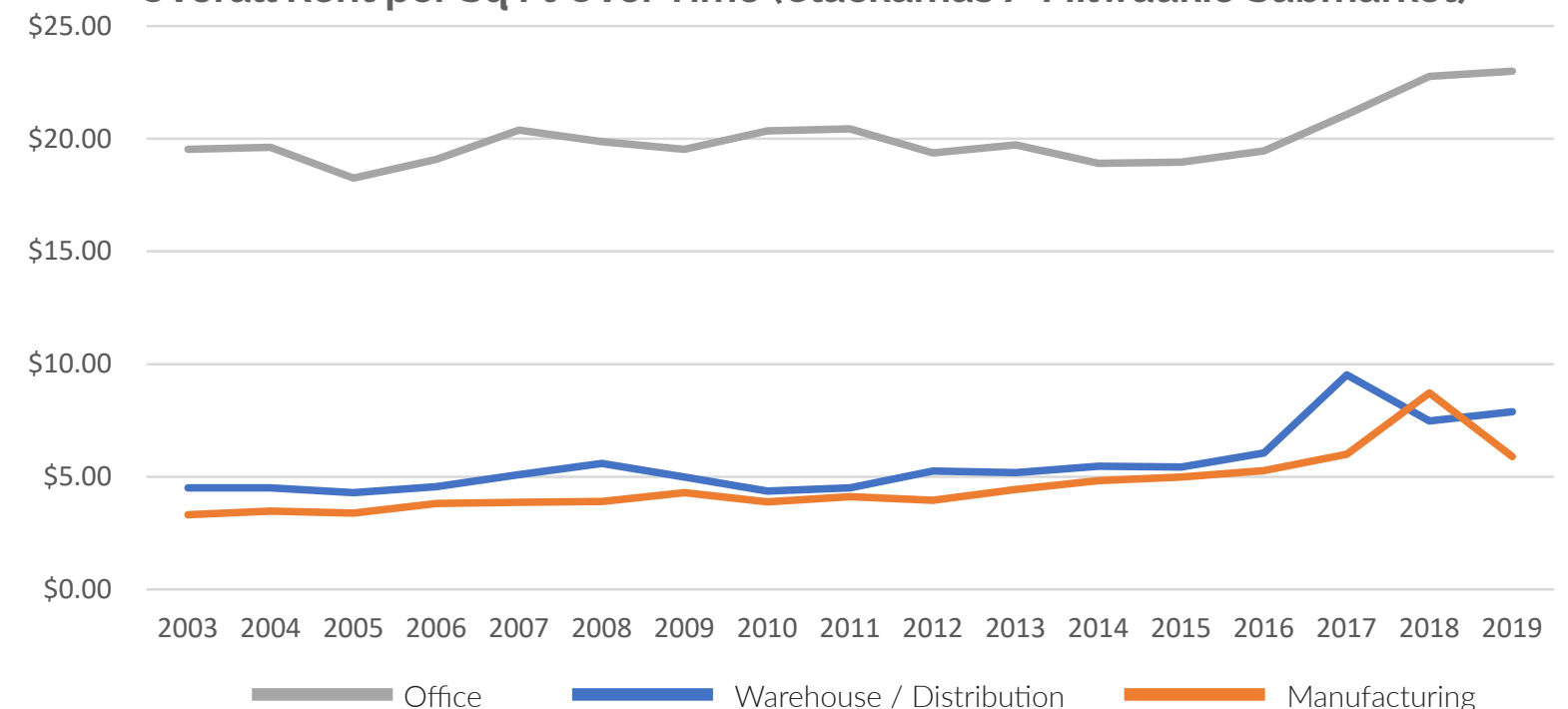
REVENUE TO COST RATIO

A simple but illustrative way to understand the variation in potential return rates for uses in today's market - both between submarkets and across use types - is to divide the annual achievable rents for each specific use type by the hard cost of construction for each. This helps us understand why, in this analysis, the Rock Creek site's assumed uses and submarket strength help it achieve a higher baseline financial return than the other two.

Market Caveats

- Like any analysis that relies on current market data, many underlying assumptions are a "snapshot in time," and today's market forces favor warehousing and distribution uses in these large site, suburban submarket locations.
- Office tends to be either ancillary to another use or highly location dependent with the lion's share of recent new construction concentrated in the central city. But today's office rents in the Clackamas submarket are significantly higher than their historical average which benefits Coffee Creek in our analysis, for instance (see graph to right).
- Submarket average rents have been used and no special assumptions about above average or specialized end users were made because those users are not the norm. For instance, assuming an Intel microchip manufacturing facility at any of these locations could have dramatically changed the financial picture, but it would not be as instructive an analysis.

Overall Rent per Sq Ft Over Time (Clackamas / Milwaukie Submarket)



UNDERSTANDING THE BASIC MECHANICS OF SITE READINESS TOOLS

EFFECTIVENESS OF TOOLS

Private Financing

Private financing is one of the most common, and yet most costly and least efficient, ways to fund public infrastructure. Private debt has a higher interest rate than public debt, so the total cost of the public infrastructure can be much higher. Cost burdening the first investor with the full cost of an area's infrastructure also penalizes "pioneer" investors and slows overall investment because the risk to the private sector is often too great. In addition, relatively few developers have balance sheets to support significant upfront costs with repayment over time.

Tools

- Reimbursement districts or agreements
- Off-site improvement costs

Public Financing

Public debt has a lower interest rate than private debt. In the right circumstances, it can help reduce overall project cost. This can be accomplished by either spreading the cost burden over a larger area or population in the case of Local Improvement Districts (LID), Major Street Transportation Improvement (MSTIP) Programs, or Urban Renewal (URA). By offsetting the need for more expensive private debt in a specific project such as through a land lease, a gap loan from an URA or a properly structured System Development Charges (SDC) loan.

An important principle to understand is debt leverage: the ability to raise return on a project by using debt. This bedrock real estate strategy only works if revenues exceed debt payments. Adding more debt as a tool may not benefit a project that has a negative return but can be an effective tool when layered with others or for projects that are close to feasible.

Tools

- Land leases
- SDC financing
- URA
- Land Banks
- MSTIP
- LID

Free Money Over Time

Several tools pay out over time and serve to reduce the operating costs of a project, thus raising the net operating income. The most common example is property tax abatements, but these operating cost offsets can come in many forms and from many sources. The key is that the money is free (i.e., not additional debt), is meaningful in size, like a full tax abatement, and occurs over a meaningful period like 20 years.

Tools

- URA Site Readiness Cost Reimbursement
- URA Tax Abatements for Vertical Improvements

Free Money Upfront

Free money upfront is the most effective type of tool but also least readily available with cash-constrained public sector budgets. The economic principle of time value of money helps explain why even a smaller number of upfront dollars are worth more than money structured over time: a dollar today is worth more than some larger amount in the future. Every investor has a different measuring stick (i.e., discount rate) based on their unique circumstances, but this principle and the use of discount rates that strongly favor funds now versus later is a universal truth in real estate.

Tools

- Land cost write-down (URA or Land Bank Authority)
- SDC exemption or waiver
- Reduced or no off-site infrastructure costs

Less
Effective



More
Effective

TOOLS TESTING OVERVIEW

BIG TOOLS NEEDED FOR BIG RESULTS

The tools that could have the most significant impact on the financial feasibility of these sites would require state action and new sources of revenue. For instance, a significantly expanded State Infrastructure Bank that could provide local governments with access to low cost financing for major capital projects would solve many of the underlying financial weaknesses of these sites. In all three cases, the cost of public infrastructure to serve these sites (the bulk of all site readiness costs) exceeds their raw land price and renders the project infeasible. Without question, the cost of public infrastructure is the single most significant cost barrier facing employment lands in the region and access to capital is the single largest local government barrier to their being able to help solve this issue. This longstanding issue will require coordinated state and regional action to overcome.

Tools that could have an out-sized or novel impact on land readiness in the region that were discussed in previous tasks are listed below. All of these would require state action and funding.

- Additional infrastructure financing tools and districts with broad-based revenue potential and flexible, opportunistic authority
- Enhanced and expanded powers for Urban Renewal Authorities, such as geographic flexibility, additional assessment and condemnation
- Expanded surcharge-based funds directed at employment land readiness challenges
- Privately administered taxing or urban renewal district, similar to the Colorado Metropolitan District tool
- Building Code changes or exemptions to enable more feasible adaptive reuse and added incentives (outlined in Task 1)
- Land Value Tax overhaul of property tax structure to incentivize efficient land use and redevelopment
- Right-of-first-refusal allowance for local governments or redevelopment entities on foreclosed properties

A FOCUS ON READILY AVAILABLE TOOLS

In Tasks 1, 2 and 3 of this project, there were dozens of tools and potential changes to existing tools identified and detailed. Many required state or other action in order to be used by local jurisdictions. For Task 4 Roadmaps, the focus was on testing the impact of readily available tools so local practitioners could assess the impact of near term actions and prioritize next steps.

DEFINING TOOLS FOR TESTING

Reviewing the particular site readiness challenges of each site, which center on infrastructure costs and land assembly, a short list of tools was identified that have both near-term implementation potential for local governments but also the opportunity to solve the unique issues of these sites. Information on the tools that were applied in the roadmaps can be found in Appendix B.

1. Increase Industrial Entitlements

Land is a major cost center for each site and land prices have escalated across the region since the recession. Utilizing the land area to yield the maximum feasible amount of gross leasable area makes financial sense. Zoning constraints such as large setback, high landscaping or parking requirements can reduce the available buildable area of a lot. While many of these uses are single story and do not depend on high density to be successful, in other markets such as Seattle, there are increasing examples of more dense and multi-story industrial uses. The reality of scarce land and escalating costs will eventually result in similarly dense industrial in the Portland market.

2. Single Site Urban Renewal Areas (URA)

URAs are one of the most powerful tools currently available for economic development practitioners in Oregon. Single Site URAs are allowable but have not been applied widely. Unlike a traditional URA boundary which covers a large, diverse area with many parcels and use types, a Single Site URA is wholly dependent on one or a handful of sites, which are most likely vacant and, in an employment land context, unlikely to be developed at a very high value density. Urban Renewal and the financing mechanism, Tax Increment Financing (TIF), relies on taxes from new development for revenue. Until major investments are made, revenues are very limited. Absent some form of upfront capital investment in the TIF district, either from a state source or local general funds, there are few financial options available to the URA. The URA can, in theory, assume speculative debt (revenue bonds) to invest in public infrastructure prior to private investment and hope that spurs private investment quickly enough to begin making debt payments; however, this is highly risky in a single site URA context. Two other, less risky options were explored in this analysis:

URA Option 1: Site Readiness Cost Reimbursement

A fairly conservative use of URA is to simply refund a private developer a portion of their tax increment as repayment for on- and/or off-site investments made by that private developer. This is a form of private financing and TIF is a vehicle to recycle new tax dollars on-site in the form of a tax abatement. This method is fairly modest in scale and impact.

URA Option 2: Vertical Improvement Property Tax Abatement

A more robust and impactful incentive is to structure a 10-year property tax abatement on all vertical improvements. Vertical improvement costs on these sites are significantly larger than site readiness costs, so the level of tax abatement is larger than Option 1. For this analysis, no cap on tax abatement amounts was assumed.

3. System Development Charges (SDC) Financing

SDC financing is a widely available tool but it is seldom used because most if not all of the local terms of the financing make it impossible to be used by conventional developers. SDC financing is nearly universally required to be a first position loan, which would make securing conventional debt impossible. In addition, the payback periods (amortization period) are too short and interest rates are too high to make the tool appealing. For this analysis, a second position loan with favorable lending term (1% over 10 years) has been modeled.

4. Reimbursement Districts

Reimbursement Districts are a commonly used tool across the state because, most often, they do not technically use public funds for the construction of public infrastructure. Normally, a private developer discovers they must make a significant off-site infrastructure upgrade in order to develop their property and the city then creates a pro rata payback requirement for any property that seeks to develop within 10 or so years after. Task 1 detailed how a public reimbursement district could work where public dollars are used to repay private costs for infrastructure. For this analysis, this public reimbursement district model was tested.

5. Land Bank Authority (LBA)

Land Bank Authorities are effective land assembly entities since they are tax exempt and can buy and hold land with low carrying costs over a long period of time. For this analysis, it was assumed that an LBA was able to assemble the land in question and either lease or write down the entire cost of the land.

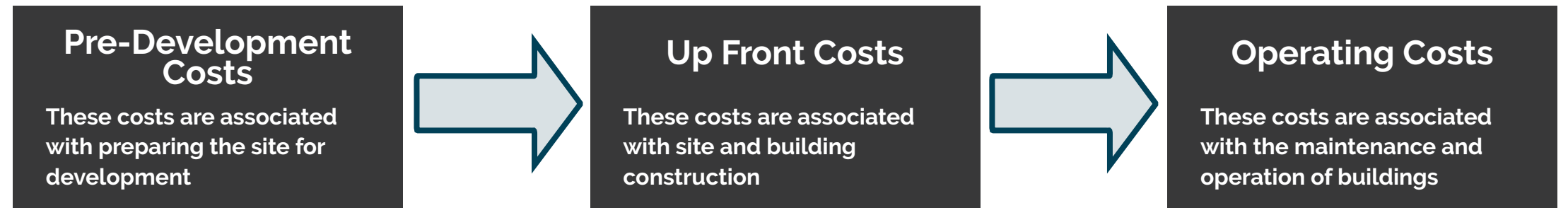
7. Major Streets Transportation Improvement Program (MSTIP)

MSTIP is a public financing tool for transportation infrastructure and requires voter approval to fund specific transportation projects. Only Washington County currently has such a program. The tool carries political risk and there is no guarantee that the specific transportation improvements needed by any of these three sites would be on the list. For this analysis, it was assumed that the MSTIP program paid for the off-site transportation-related costs for each project on the list.

TOOLS TESTING OVERVIEW

TIMING OF TOOLS WITHIN DEVELOPMENT TIMELINE

TOOLS:



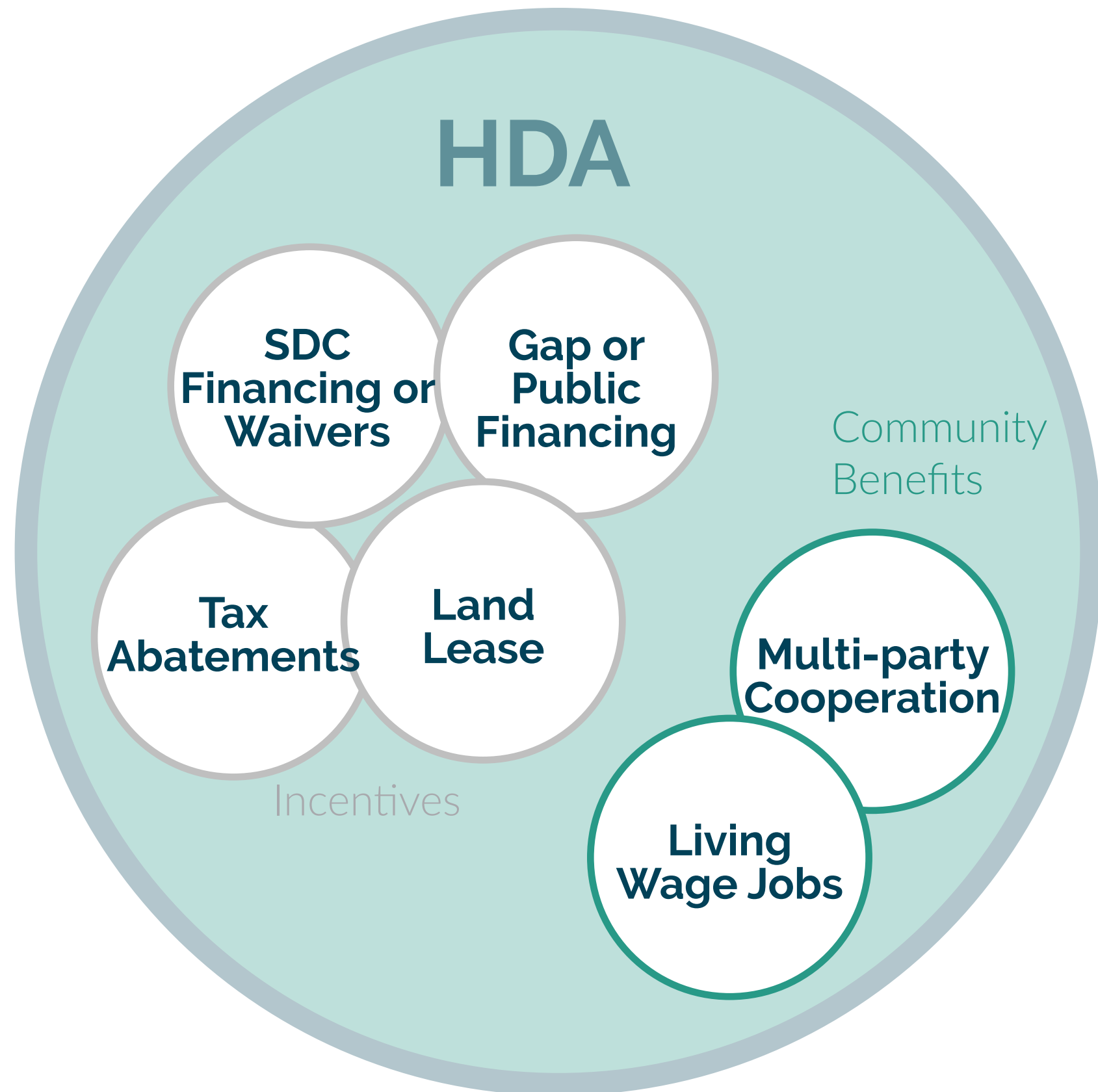
Increase Industrial Entitlements		X	
URA Site Readiness Cost Reimbursement	X		
System Development Charges Financing		X	
Reimbursement Districts			X
Land Bank	X	X	
URA Tax Abatements for Vertical Improvements			X
Major Streets Transportation Improvement Program (MSTIP)	X	X	

HORIZONTAL DEVELOPMENT AGREEMENT (HDA)

A Horizontal Development Agreement (HDA) is a tool to organize, combine and condition other tools. In and of itself, it has no inherent incentive. A HDA is a contract - and the effectiveness of the contract is dependent upon what is included in the contract: the tools, the timing, the community benefit requirements.

A HDA can be a way to negotiate a multi-party coordinated development process, and define specific tools or incentives that parties to the agreement can utilize under specific conditions, such as in exchange for community benefits or specific uses or end users.

The diagram to the right is intended to provide a visual example of how a HDA could combine several incentives in exchange for certain conditions.



TOOL IMPACT MATRIX - INDIVIDUAL TOOL IMPACT SUMMARY

TOOL DESCRIPTION

Base Scenario: the development scenario as proposed with no additional tools tested

Increase Industrial Density: assume a 20% increase in gross building area through modest reductions in landscaping and parking to accommodate for greater building area

URA Site Readiness Cost Reimbursement: funding from an Urban Renewal Agency used to help reimburse costs associated with site readiness preparation; structured as property tax abatements

SDC Financing: a public loan to cover system development costs associated with the project

Reimbursement District: public reimbursement in off-site infrastructure costs over 10 years

Industrial Land Bank (Land Waiver): a complete land cost waiver

Industrial Land Bank (Land Lease): a land lease with more favorable terms compared to a private loan to offset land acquisition costs

URA Tax Abatements for Vertical Improvements: Cities working with counties have the ability to establish a 10 year property tax abatements through an URA for vertical improvements

Major Streets Transportation Improvement Program (MSTIP): county funding to cover off-site transportation costs

Tool Combination: modeling the cumulative impacts of SDC Financing, URA Tax Abatements for Vertical Improvements, MSTIP, and Increased Industrial Density

Individual testing of tools is found in Appendix B

Tool Comparison	Woodfold West	Rock Creek	Coffee Creek
	Leveraged IRR	Leveraged IRR	Leveraged IRR
Base Scenario	-2.3%	4.0%	-8.0%
Increased Industrial Density	-1.0%	5.6%	-5.8%
URA Site Readiness Cost Reimbursement	5.6%	10.0%	2.1%
SDC Financing	5.5%	9.8%	1.5%
Reimbursement Districts	3.3%	9.0%	0.3%
Industrial Land Bank (Land Waiver)	8.3%	9.7%	3.1%
Industrial Land Bank (Land Lease)	3.9%	9.3%	-1.1%
URA Tax Abatements for Vertical Improvements	6.4%	8.9%	2.2%
MSTIP	-0.1%	5.7%	-5.5%
Tool Combination	16.7%	16.6%	12.3%

TOOL COMBINATION + PUBLIC INVESTMENT IMPACT

Woodfold West

Baseline IRR

-2.3%

Tool Combination

- Increased Industrial Density
- SDC Financing
- URA Tax Abatements for Vertical Improvements
- MSTIP

Ending IRR

16.7%
(10-15% TARGET MET)

Public Investment

- Property Tax Abatement (10 years)
- Off-site transportation costs

\$20,080,552

Economic Impact

- Direct and indirect labor income generated

\$186,869,540
(\$1 Public Investment)
= \$9.3 Economic Impact

Years to Recover Public Investments via Property Taxes

19.3 Years

Rock Creek

4.0%

- Increased Industrial Density
- SDC Financing
- URA Tax Abatements for Vertical Improvements
- MSTIP

16.6%
(10-15% TARGET MET)

\$14,286,685

\$489,624,292

(\$1 Public Investment)
= \$34.3 Economic Impact

22.4 Years

Coffee Creek

-8.0%

- Increased Industrial Density
- SDC Financing
- URA Tax Abatements for Vertical Improvements
- MSTIP

12.3%
(10-15% TARGET MET)

\$28,057,929

\$469,296,456

(\$1 Public Investment)
= \$16.7 Economic Impact

19.9 Years

INTRODUCTION

Equity assessments have been incorporated into the roadmaps to assist cities in exploring how equity can be considered in employment land development. These assessments include: demographic data, equity and economic data, community assets and needs, key equity considerations and potential equity actions.

DEMOGRAPHIC SNAPSHOT

For each site roadmap, a demographic summary was prepared using 2013-2017 5-year American Community Survey (ACS) data for the nearest census tract and compared to the larger city profile in order to understand how the area where the sites are located differs from the City as a whole. These differences are important when thinking about how to incorporate equity into policy choices around employment lands.

COMMUNITY ASSETS AND NEEDS, KEY EQUITY CONSIDERATIONS AND POTENTIAL EQUITY ACTIONS

With the support of city staff from each site's jurisdiction, an assessment of existing community assets and needs was documented. These assets provide a framework of site considerations and current city equity initiatives that promote affordable housing, diversity and inclusion, and economic development. Local organizations are outlined that could have a role supporting equity in the future development of the site.

Drawing from demographic and economic data and community assets, each site is contextualized in terms of their key equity considerations. Finally, potential equity actions are identified for each city that can be used as possible next steps.

EQUITY AND ECONOMIC SNAPSHOT

The Equity and Economic Snapshot that is included as part of the site roadmaps has drawn from Metro's Economic Value Atlas (EVA) and Southwest Corridor Equitable Development Strategy (SWEDS). The assessment conducted as a component of this project focused on a subset of the equity and economic measures included in these assessment tools that relate more directly to comparisons between industrial or commercial site developments. The consultant worked with staff from the Port of Portland, Metro, Greater Portland Inc and the selected cities to identify key indicators for community change, transportation accessibility, access to opportunity, and affordable housing. The assessment informs the consultant's key takeaways on conditions, equity considerations, and potential equity actions specific to each site.

The Economic Value Atlas (EVA) is a decision-support tool that enables policymakers to compare economic conditions among communities in the Portland-Vancouver region. It provides a data picture to support alignment between planning, infrastructure, and economic development and help build agreement on investments to strengthen the regional economy. Displayed variables were selected to represent a set of economic values identified by a task force and technical work group made up of planners, economists, economic and workforce development professionals, and other stakeholders working to ensure all current and future residents benefit from the region's sustained economic competitiveness and prosperity. Both the methodology and the indicators selected were established with significant contributions by Metropolitan Policy Program at The Brookings Institution.

The SW Corridor Equitable Development Strategy (SWEDS) engaged community as active partners in developing and implementing a strategy to achieve more equitable outcomes as a new 12-mile MAX light rail line is built along with new roadway, bicycle, and pedestrian projects to help people get to transit. An index tool was established in connection to this project that enables policymakers to compare social equity conditions among communities in the Metro region. The measures are based on principles and goals identified by a committee of social justice and affordable housing advocacy organizations, local community and neighborhood groups, and organizations working on business and workforce stabilization. The indicators were identified with support from a consultant team led by ECONorthwest that includes Enterprise Community Partners, MZ Strategies, UC Berkeley's Urban Displacement Project, and Urban Design 4 Health.

DEVELOPMENT TIMELINE AND EQUITY STRATEGIES

EQUITY IN THE CONTEXT OF EMPLOYMENT / INDUSTRIAL LANDS

Most of the sites looked at as part of this study are more diverse, lower income, and harder to access compared to the regional average. The following pages outline some tools, strategies, and ways to think about equity in the context of employment and industrial lands.

While employment land discussions traditionally focus on job creation and wages, opportunities to strengthen equitable outcomes are also possible, such as providing accessible transportation, hosting diverse uses and users, and creating local wealth for marginalized communities. Because employment and industrial lands typically represent larger sites, introducing processes that incorporate equity can have tremendous impacts even within a single project.

Looking at the holistic timeline of development, opportunities to incorporate equitable development outcomes can be inserted in the planning, development, and / or operations phases of development. Thinking about equity early on in a project can yield outsized impacts later, as community input can help set the tone for development expectations and public benefit agreements.

Equitable development strategies can be project specific or part of larger city-wide initiatives. In general, jurisdictions have an opportunity to leverage existing policies, plans, and organizations that conduct equitable development work. Where these resources do not exist, incremental steps can be taken to establish maximum public benefit.

Timeline of a development project:



Project Development Stage

Potential Equity Strategies

① PROCESS

An equitable process involves public engagement strategies that are either tied to the specific project or as part of a larger city-wide initiative. These strategies aim to build a community consensus around project goals.

Strategies

- Community engagement plans
- Community benefit agreements
- Equitable Impact Assessments

② CRITERIA

Equity criteria should always be informed by an engagement process. Metrics of equitable development are unique to a specific project and develop around community needs and desired outcomes revealed through the process.

Strategies

- Equitable Impact Assessments
- Performance-based business expansion incentives (upon meeting conditions defined by community, businesses are allowed to expand)

③ CONTRACTING + CONSTRUCTION

Through equitable contracting and procurement policies, cities can ensure that underrepresented entrepreneurs have access to business development opportunities.

Strategies

- Minority, Women and Emerging Small Business standards for contractors
- Choosing developers with strong community interests/values

④ USE + USERS

Operations of a development project should aim to serve a variety of users and prioritize public uses. Project priorities and requirements should be refined throughout the process to ensure operations best address community specific needs.

Strategies

- Commercial affordability to allow for a range of tenants
- Public amenities
- Recruitment and employment practices
- Quality wage jobs and benefits

DEVELOPMENT TIMELINE AND EQUITY STRATEGIES

EQUITABLE IMPACT STRATEGIES

Equitable impact assessments range in size and scale but mostly center around the principle of creating community informed criteria that evaluate development outcomes. These criteria aim to assess employment creation, use and users, and broad public benefits.

Assessments identify and evaluate equity impacts to create opportunities that benefit all community members, especially those who have been historically and are currently under-served and under-represented. Refer to case studies for examples of how local jurisdictions, non-profits and community based organizations used the tool to advance social equity outcomes.

IMPLEMENTATION STEPS

1. IDENTIFY THE PROBLEM

Collect and analyze reliable data and pursue continuous community conversations about needs and concerns to understand social and racial disparities.

2. DEFINE THE GOALS

Determine shared definitions of equity and inequity to identify a common agenda and shared goals.

3. ESTABLISH OUTCOMES & METRICS

Build consensus over a set of desired outcomes and criteria to measure those outcomes.

4. TRACK PROGRESS

Assessments should continuously evaluate development plans as they progress and evolve.

5. ADD ACCOUNTABILITY

Requiring an assessment as a development prerequisite for accessing government funding or as part of a public benefit agreement can ensure enforcement and lead to impactful outcomes.

Important considerations

- An assessment should always be developed in conjunction with an extensive stakeholder engagement process and the development of a larger equity framework.
- Managing implementation steps requires a neutral facilitator and staff to help coordinate groups.
- Effective engagement and consensus-building requires substantial time and resources.
- Assessment results can show how goals meet equitable outcomes, but should be supplemented with qualitative data and additional engagement.



CASE STUDIES

Equity Impact Review Toolkit

Identifies, evaluates and communicates potential equity impacts of county policies and programs to inform policies, budgets and decision-making.

King County, Washington
Led by county

MECHANICS

The process to create the tool emphasizes deliberate involvement of stakeholders and affected parties and consideration of their roles in decision-making.

CASE STUDY OUTCOMES

Using the assessment, the County spearheaded a Land Conservation Initiative that established the Open Space Equity Cabinet dedicated to shape policies and guide investments in parks, open space, trails and farmers markets and established short, medium and long-term goals to address open space inequities.

Equitable Development Scorecard

Measures if and how economic development promotes equitable development, environmental justice and affordability.

Twin Cities, Minnesota
Led by non-profit

MECHANICS

A scorecard divides scoring metrics developed by community-based organizations into several categories: community engagement, land use, economic development, housing and transportation. Community partners are asked to fill out the scorecards at any point of the development project.

CASE STUDY OUTCOMES

A scorecard was created and added to the development review process requiring developers proposing new development to answer scorecard questions. The neighborhood association scores the scorecard and works with the developer to ensure the development plan fits with their values and priorities.

SCORE Give each score on a scale of 1 (low) to 5 (high)	
___ / 5	Developers give local community preference when hiring consultants, contractors, and developers.
___ / 5	Public funding decisions reward applicants who ensure that workers have living wage* jobs with benefits and the right to organize for labor agreements without fear of retaliation.

Example of questions
for economic development
category

APPENDIX A: INDIVIDUAL ROADMAPS

WOODFOLD WEST SITE (FOREST GROVE) - BASE DEVELOPMENT SCENARIO

Development Concept



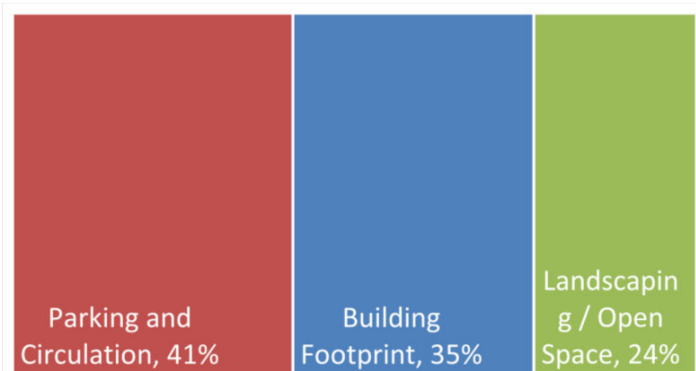
Six building Advanced/High tech manufacturing campus. Buildings 1, 2 and 4, 5, and 6 are manufacturing facilities and Building 3 is a 30,000 sf office building.

Buildings	Size (sq ft)	Use	Site Use	Size (sq ft)	%
Building 1	315,000	General Manufacturing/Flex	Building Footprint	781,800	35%
Building 2	114,000	General Manufacturing/Flex	Parking and Circulation	908,328	41%
Building 3	30,000	Office	Landscaping / Open Space	527,076	24%
Building 4	200,000	General Manufacturing/Flex			
Building 5	55,600	General Manufacturing/Flex			
Building 6	67,200	General Manufacturing/Flex			

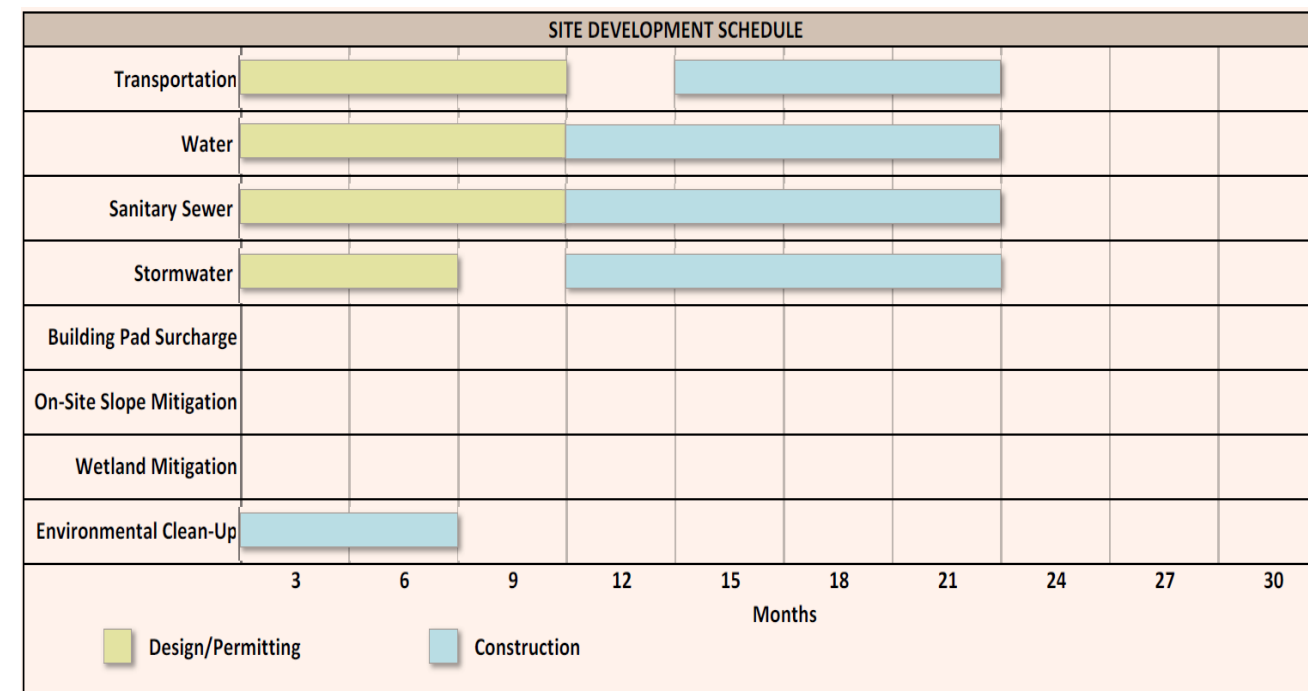
Total **781,800**

Rent Assumptions

Office: \$19 / Sq Ft
Industrial: \$14 / Sq Ft



Development Timeline



Total Development Timeline: 21 months

Site Readiness Challenges

On-site Issues

Brownfield Cleanup
Wetland Fill
Floodplain Fill
Slope Mitigation

Off-site Issues

Water
Sewer
Storm
Transportation

Land Use Issues

Aggregation
Annexation

Development Programs Details

DEVELOPMENT PROGRAM

	Size (ac)	Size (sq ft)
Lot Area	53.7	2,339,172
Net Development Area	50.9	2,217,204
Office	0.6	25,500
General Industrial	14.7	639,030

WOODFOLD WEST SITE (FOREST GROVE) - BASE DEVELOPMENT SCENARIO (COSTS)

Development Costs

PRE-DEVELOPMENT COSTS

	2020 Dollars	\$ / sq ft
Land Acquisition	\$14,035,032	\$6.00
Land Carry	\$762,134	-
Other Fees	\$280,701	-

SITE READINESS COSTS

Site readiness costs represent all the costs prior to vertical construction of buildings

	2020 Dollars	\$ / sq ft
Off-Site	Sanitary Sewer	\$626,000
	Water	\$503,000
	Storm Water	\$1,052,500
	Transportation	\$3,985,000
On-Site	Wetland Mitigation	-
	Slope Mitigation	-
	Building Pad Surcharge	-
	Floodplain	-
	Environmental Cleanup	\$55,000
Total On-site and Off-site Costs		\$6,221,500
Time Costs		\$762,134
Soft Costs (includes SDCs)		\$1,244,300
Threshold Return		\$3,495,870

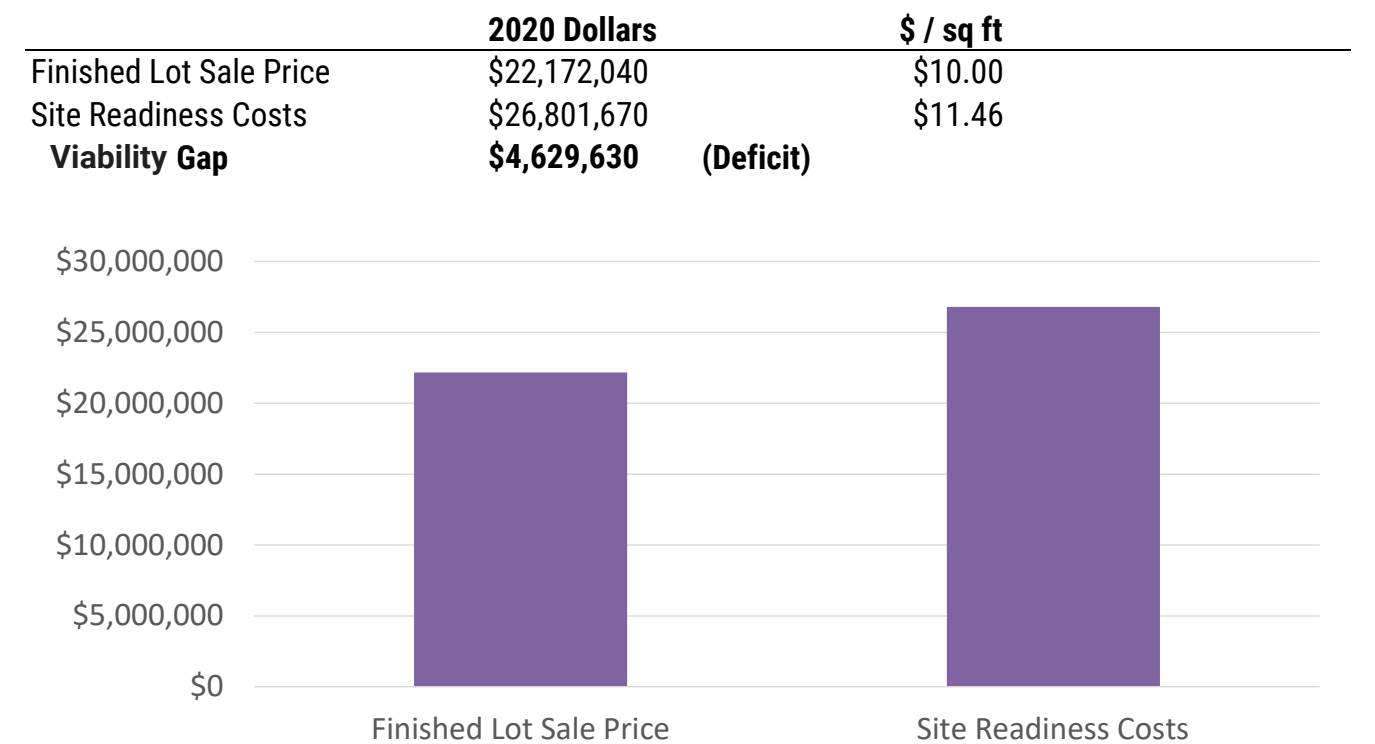
Total Site Readiness Costs: \$26,801,670 \$11.46

VERTICAL CONSTRUCTION COSTS

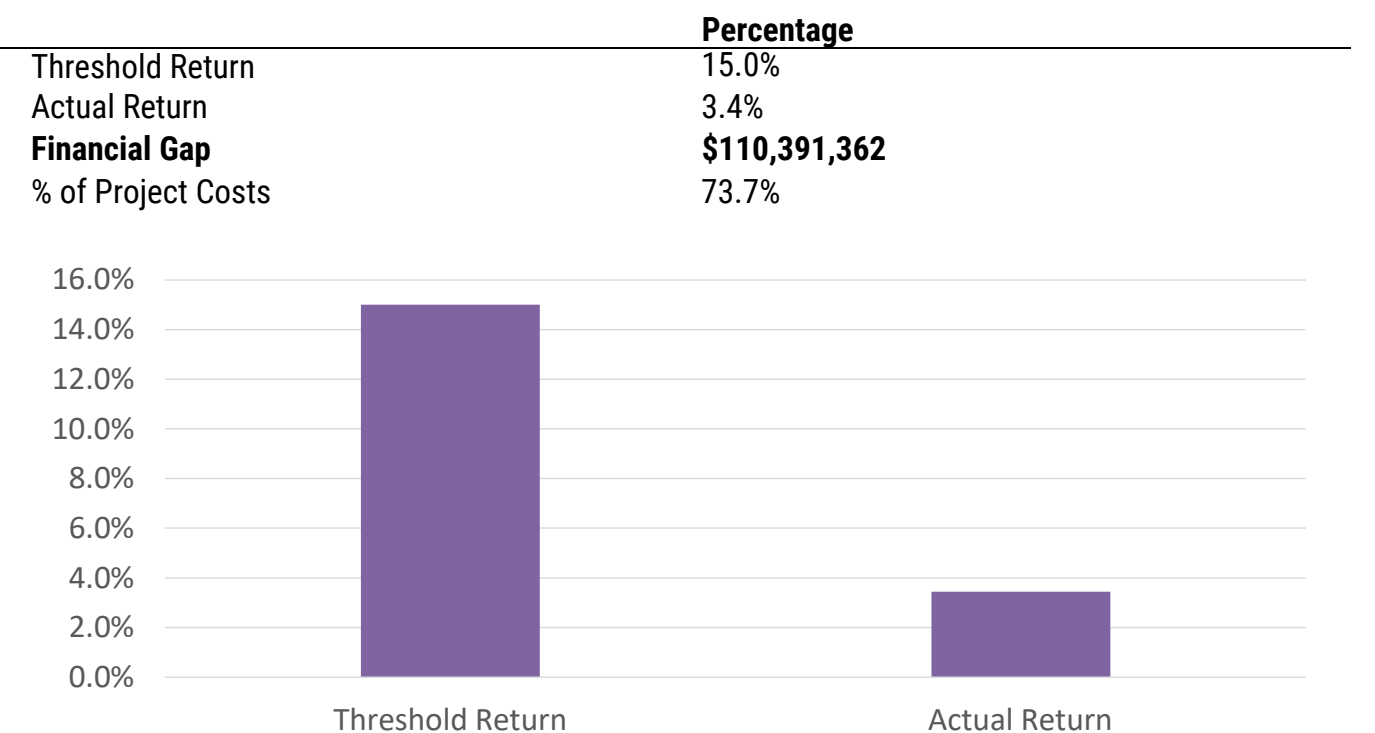
Vertical construction costs represent costs associated with the construction of bulidings

	2020 Dollars	\$ / sq ft
Parking and Pavement Construction	\$7,518,000	\$3.21
Office Construction Costs	\$6,300,000	\$210.00
Industrial Construction Costs	\$89,320,000	\$118.81
Soft Costs (includes SDCs)	\$18,875,140	\$24.14
Total All-In Costs:	\$171,137,032	\$218.90

Land Readiness Viability Gap / Surplus



Vertical Construction Viability Gap / Surplus



WOODFOLD WEST SITE (FOREST GROVE) - BASE DEVELOPMENT SCENARIO (ECONOMIC IMPACTS)

Annual Employment Impact

JOB AND INCOME CREATION

Estimated job and income creation at full buildout

	Jobs	Jobs / Acre	Labor Income	Output
Direct:				
Office	81	1.5	\$7,569,193	\$27,856,598
General Industrial	1,190	22.2	\$110,648,984	\$407,217,036
Indirect / Induced:				
Office	47	1.5	\$4,395,563	\$11,298,453
General Industrial	691	22.2	\$64,255,800	\$165,164,557
Total	2,010			

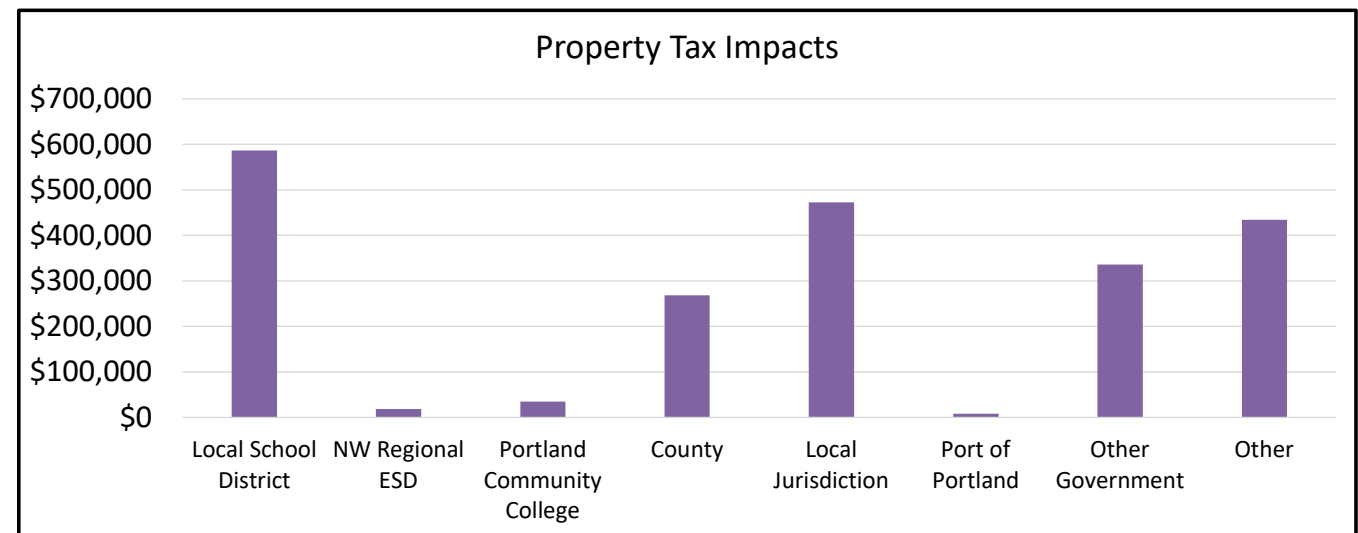
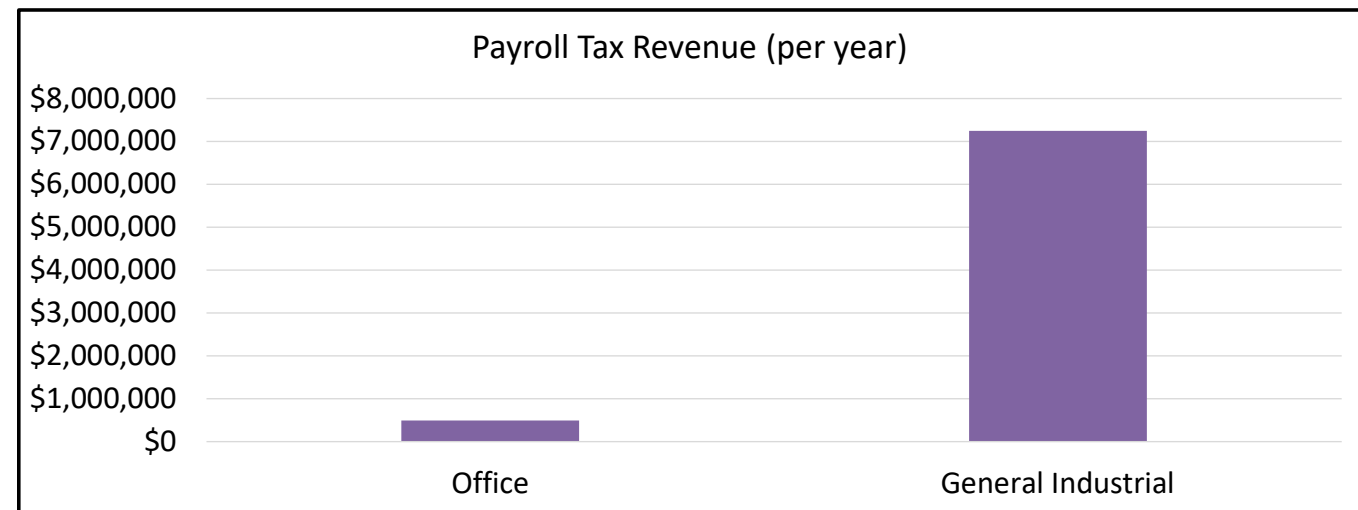
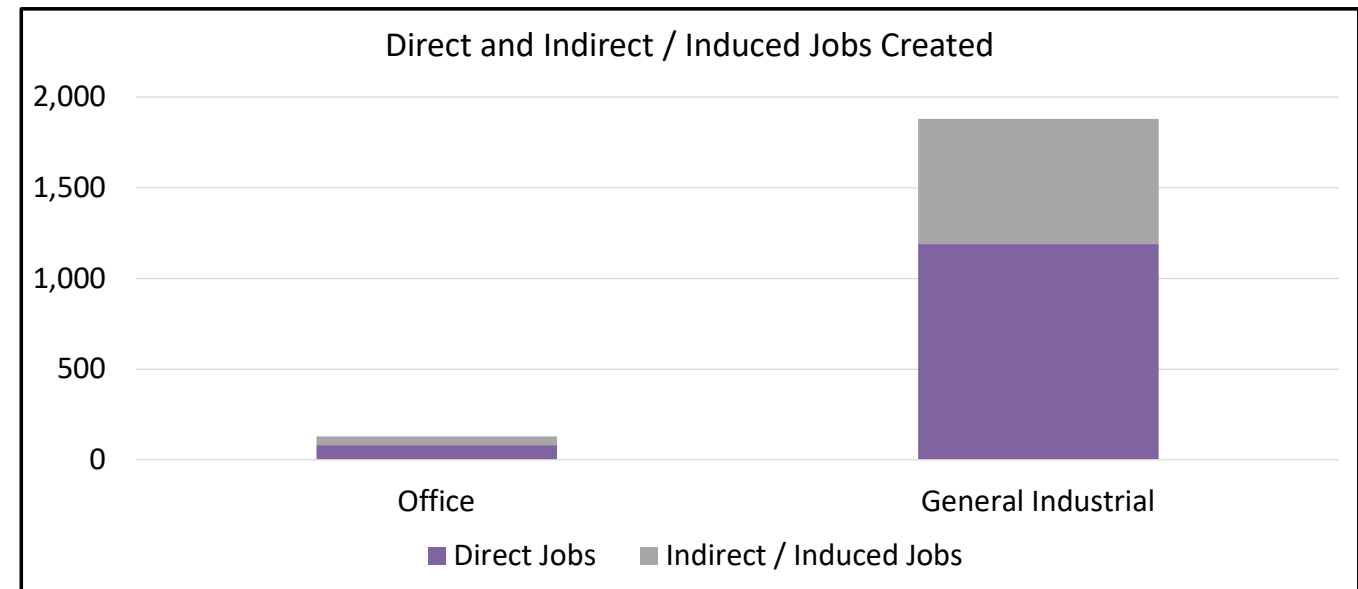
ANNUAL PAYROLL TAX REVENUE

Estimated annual payroll tax revenues based on direct jobs

Employment Type	Payroll Tax Revenue (per year)
Office	\$495,593
General Industrial	\$7,244,742
Total	\$7,740,335

Property Tax Impacts

Project Value	Annual Property Tax Revenue
\$142,217,964	\$2,157,195



WOODFOLD WEST SITE (FOREST GROVE) - TOOL IMPACT

TOOL DESCRIPTION

Base Scenario: the development scenario as proposed with no additional tools tested

Increase Industrial Density: assume a 20% increase in gross building area through modest reductions in landscaping and parking to accommodate for greater building area

URA Site Readiness Cost Reimbursement: reimburse costs associated with site readiness preparation; structured as property tax abatements scaled to site readiness cost figure reimbursed over ten years

SDC Financing: a public loan to cover system development costs associated with the project

Reimbursement District: public reimbursement in off-site infrastructure costs over 10 years

Industrial Land Bank (Land Waiver): a complete land cost waiver

Industrial Land Bank (Land Lease): a land lease with more favorable terms compared to a private loan to offset land acquisition costs

URA Tax Abatement for Vertical Improvements: a 10-year tax abatement for the vertical improvements (building investments) associated with the project

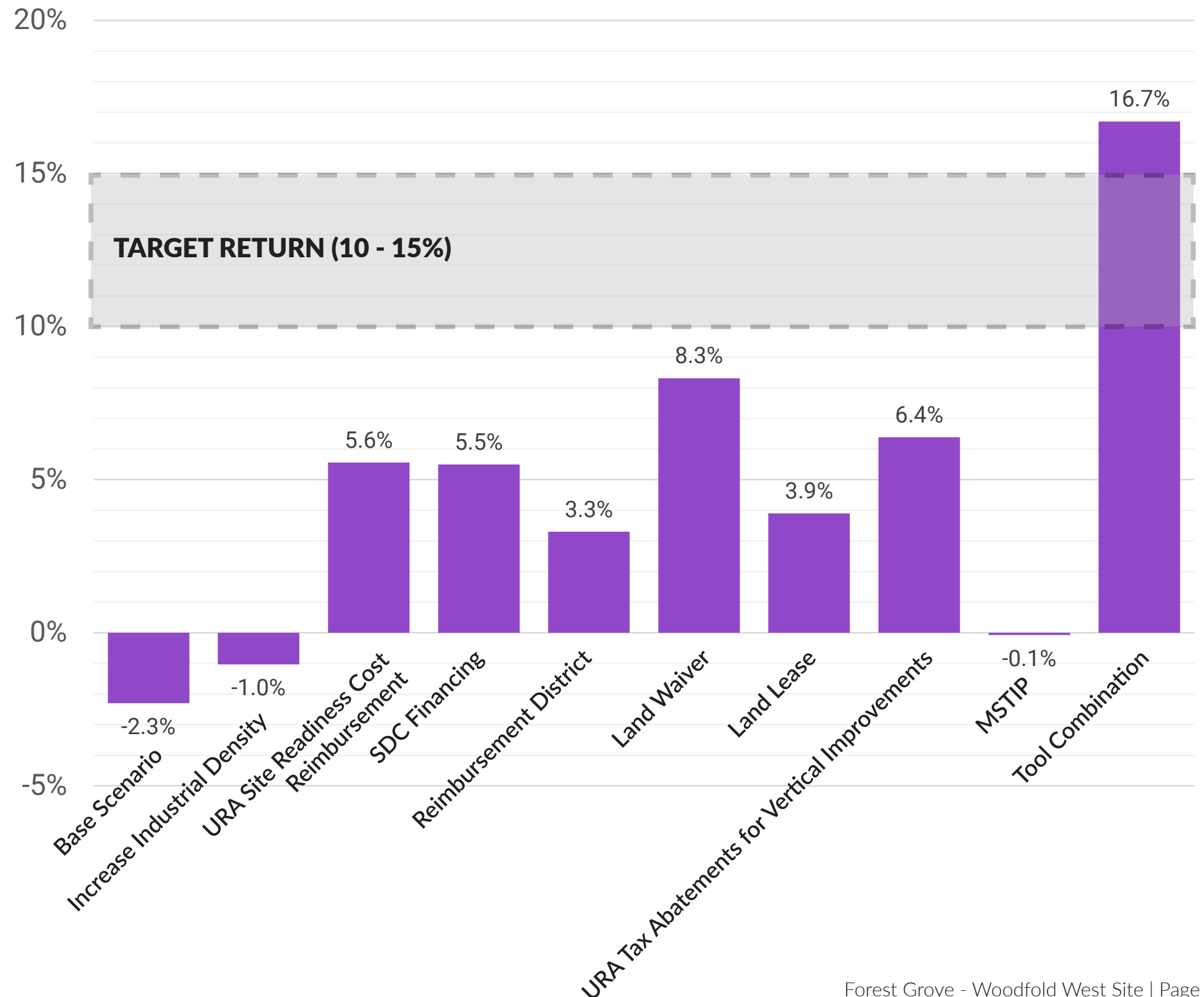
Major Streets Transportation Improvement Program (MSTIP): county funding to cover off-site transportation costs

Tool Combination: modeling the cumulative impacts of SDC Financing, URA Tax Abatements for Vertical Improvements, MSTIP, and Increased Industrial Density

A **Horizontal Development Agreement (HDA)** could be used to package or combine several tools in exchange for specific community benefits (see page 8).

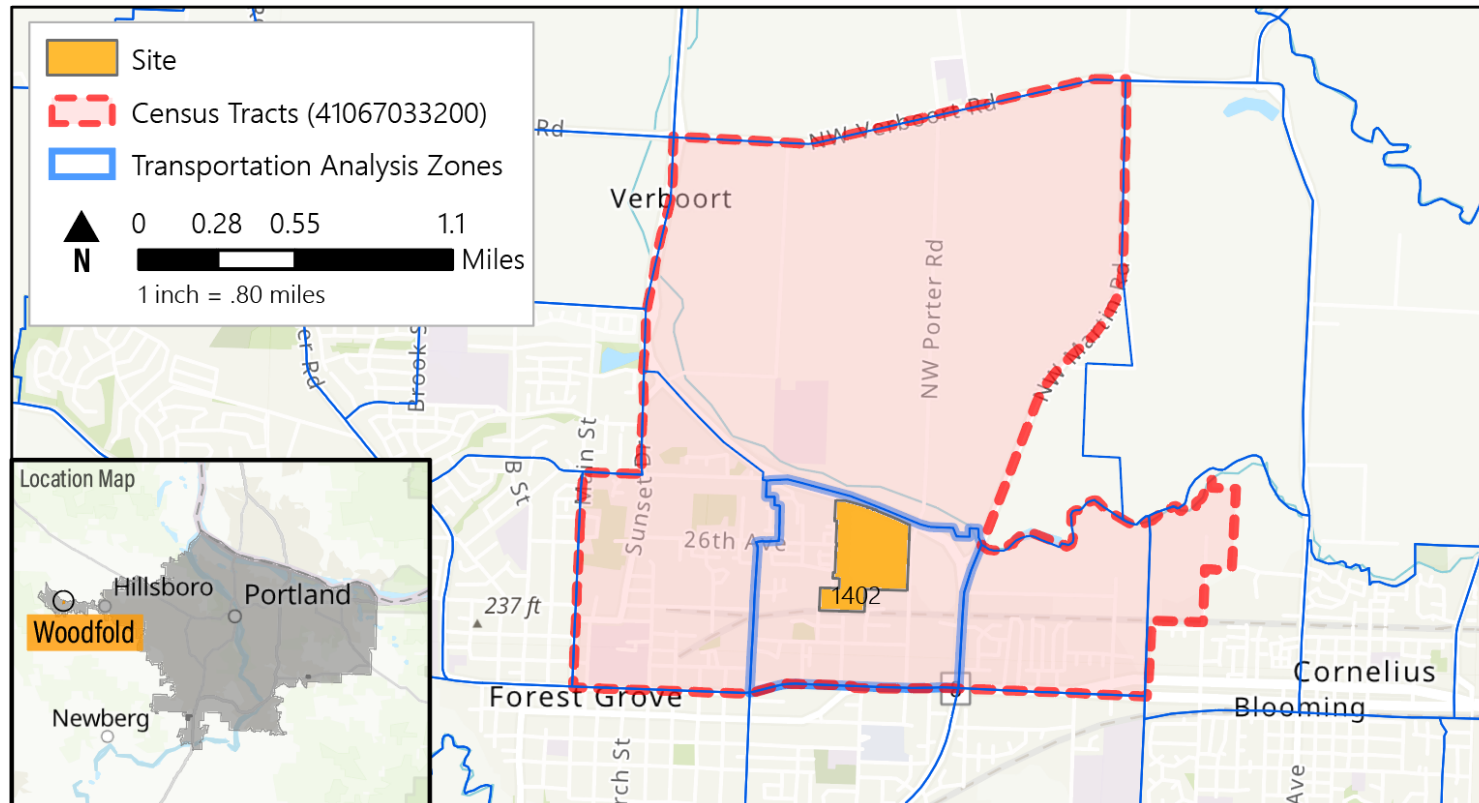
Individual testing of tools is found in Task 4 Appendix B

Forest Grove - Leveraged IRR



WOODFOLD WEST SITE (FOREST GROVE) - DEMOGRAPHIC SNAPSHOT

Site & Surrounding Area Map



Metro coordinates its regional forecasts with local governments to distribute, or allocate, the regional forecasts to smaller geographic areas known as TAZ, or Transportation Analysis Zones. TAZs are generally smaller than Census tracts and more closely align with site boundaries.

Key Takeaways

Almost half of the census tract residents are persons of color, an almost 13% higher share than Forest Grove.

A noticeable share difference is seen among Hispanic and Asian communities.

Census tract residents are younger and of lower income than the average Forest Grove resident.

The census tract median income is at 70% of the city's median income.

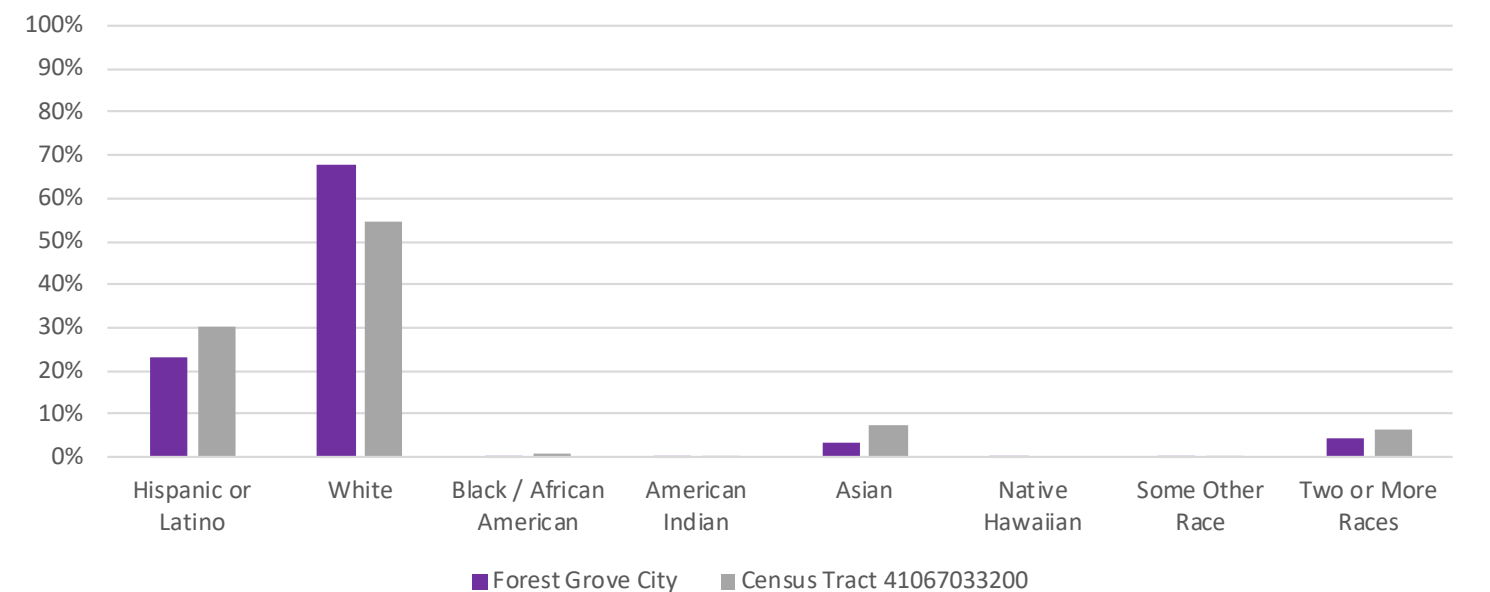
Demographic Indicators

TOTAL POPULATION; AGE; GENDER

* Reflects a 10% margin of error or greater

	Total Population	Median Age	Sex
CITY	23,554	33.1 years	49% male, 51% female
CENSUS TRACT 41067033200	6,978	26 years*	45% male*, 55% female*

RACE AND ETHNICITY



MEDIAN INCOME

* Reflects a 10% margin of error or greater

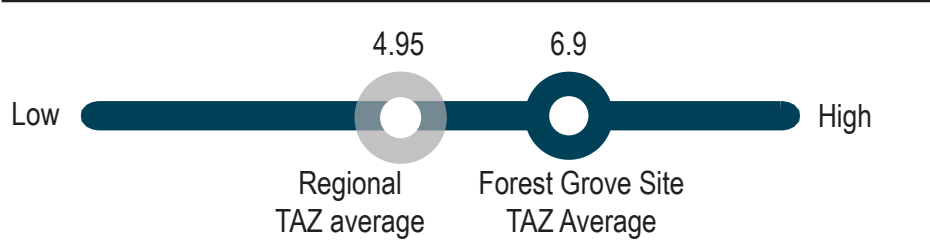
CITY	\$54,500
CENSUS TRACT 41067033200	\$37,983*

PERCENT HIGH SCHOOL GRADUATE OR HIGHER

CITY	84.5%
CENSUS TRACT 41067033200	79.4%

WOODFOLD WEST SITE (FOREST GROVE) - EQUITY AND ECONOMIC SNAPSHOT

Community Change



CHANGE IN MEDIAN HOUSEHOLD INCOME

REGIONAL TAZ AVERAGE	+\$5,700
FOREST GROVE SITE (TAZ AVERAGE)	+\$4,700

CHANGE IN HOME SALES PRICE

REGIONAL TAZ AVERAGE	+\$2,000
FOREST GROVE SITE (TAZ AVERAGE)	+\$34,000

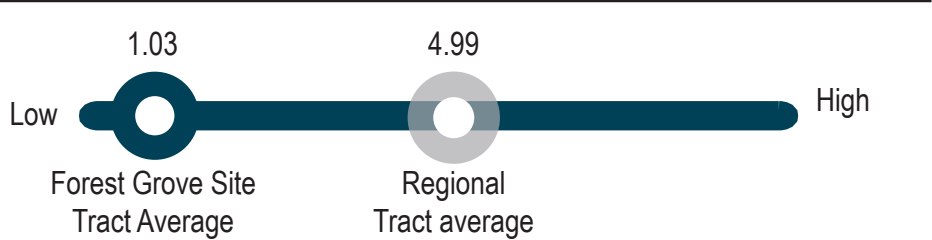
CHANGE IN PERCENT RENTERS

REGIONAL TAZ AVERAGE	1.40%
FOREST GROVE SITE (TAZ AVERAGE)	-4.60%

CHANGE IN PERCENT PERSONS OF COLOR

REGIONAL TAZ AVERAGE	1.70%
FOREST GROVE SITE (TAZ AVERAGE)	-1.80%

Walkability and Transit Access



WALKABILITY

REGIONAL CENSUS TRACT AVERAGE	4.67
FOREST GROVE SITE (CENSUS TRACT AVERAGE)	2.34

TRANSIT TRAVEL TIMES

REGIONAL TAZ AVERAGE	54 minutes
FOREST GROVE SITE (CENSUS TRACT AVERAGE)	76 minutes

Site-Specific Key Takeaways

The site TAZ is experiencing higher than average community change.

The site TAZ experienced a significant increase in average home sale prices (\$32,000 higher) when compared to the regional average increase. Median household incomes did not follow suit and experienced a less than average increase. All the while, the percentage of renters and persons of color living in the site TAZ are decreasing but seem to be increasing on average in the region. This could indicate that market rate housing prices are increasing at a much faster rate than household incomes and pushing out populations that are most vulnerable to increasing housing costs as a result.

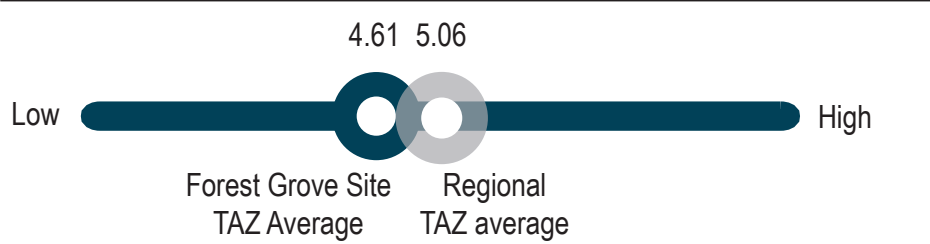
Walkability and transit access scores for the site TAZ are significantly below the regional average.

Compared to the region, walkability and transit travel times for the site TAZ are 22 minutes longer and result in communities more reliant on auto-vehicles to move around.

The Economic Value Atlas and Equitable Development Index Tool are offered as a public service, integrating various government records into a region-wide mapping system. Metro assumes no legal responsibility for the compilation of multi-source government information displayed herein. Users of this information are cautioned to verify all information with Metro staff.

WOODFOLD WEST SITE (FOREST GROVE) - EQUITY AND ECONOMIC SNAPSHOT

Access to Opportunity



PERCENT IN POVERTY

REGIONAL TAZ AVERAGE	13.1%
FOREST GROVE SITE (TAZ AVERAGE)	27.7%

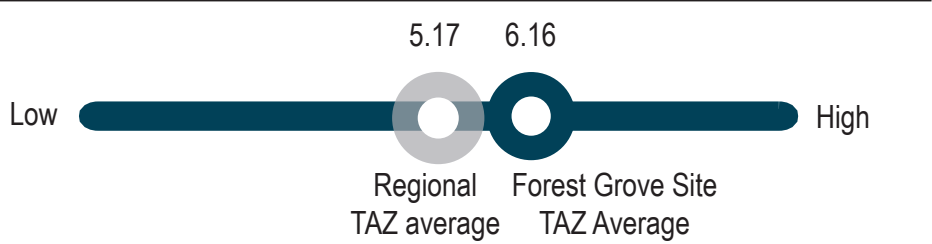
MEDIAN HOUSEHOLD INCOME

REGIONAL TAZ AVERAGE	\$68,084
FOREST GROVE SITE (TAZ AVERAGE)	\$28,552

HIGH SCHOOL GRADUATION %

REGIONAL TAZ AVERAGE	85.0%
FOREST GROVE SITE (TAZ AVERAGE)	81.2%

Affordable Housing



HOME OWNERSHIP %

REGIONAL TAZ AVERAGE	61.7%
FOREST GROVE SITE (TAZ AVERAGE)	34.7%

MEDIAN GROSS RENT PER MONTH

REGIONAL TAZ AVERAGE	\$1,141
FOREST GROVE SITE (TAZ AVERAGE)	\$806

MEDIAN SALES PRICE

REGIONAL TAZ AVERAGE	\$318,300
FOREST GROVE SITE (TAZ AVERAGE)	\$202,700

Site-Specific Key Takeaways

Access to opportunity is limited in the site TAZ.

With a relatively high poverty rate (15% higher than region), significantly lower median household incomes (\$39,000 lower), and slightly lower than average graduation rates (3.8% lower), people residing within the site TAZ have more limited access to opportunities than the average resident living in the region.

Housing within the site TAZ is relatively more affordable.

Housing within the site TAZ is generally more affordable for both renters and home buyers. Despite a lower than average median sales price, home ownership rates remain 27% lower than the regional average, indicating a higher than average percentage of renters residing within the site TAZ.

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WOODFOLD WEST SITE (FOREST GROVE) - EQUITABLE DEVELOPMENT

COMMUNITY ASSETS & NEEDS

Site Considerations

- The site is located in an Opportunity Zone and also an Enterprise Zone.
- A new roundabout and intersection improvements on Hwy 47 at NW Martin is planned for construction in the near future. Under the Forest Grove Transportation System Plan, an extension of 23rd/24th Ave is to bisect the Woodfold site and connect to the Hwy 47/Martin roundabout at a future unknown date.
- There is a rail line that abuts the site at Oak Street and the operator of the Forest Grove-Hillsboro short line has abandoned this track. This presents an opportunity for a bike/pedestrian trail, dedicated bus service or fixed rail bus, especially given that the track is within a quarter mile of a frequent bus line.

Affordable Housing Initiatives

- The Forest Grove City Council identified two objectives: “Promote Affordable Housing including completion of a housing needs analysis” and “Partner to Address Homelessness” in its 2019 Goals and Objectives Plan.
- The city completed a Housing Needs Analysis.
- City Council approved a Non-profit Affordable Housing Property Tax Exemption and a SDC Deferral Program for affordable housing.
- City Council passed a modification to the standard Vertical Housing Tax Credit allowing it to be adapted to affordable housing.
- The city completed an analysis of city-owned vacant lots to determine if any could be viable for an affordable housing project.

Diversity & Inclusion Initiatives

- The Forest Grove City Council identified Equity Assessment and Education including an Equity Plan in its 2019 Goals and Objectives statement.
- Economic Development has translated a “Starting a Business Brochure” into Spanish and its broader “Starting a Business in Forest Grove Guide” into Spanish.
- Economic Development helped fund a Small Business Equity Research Project. The purpose of this research is to identify the successes, needs, and barriers to market entry for Latino owned small businesses in the area.

Local Organizations

- *Adelante Mujeres* - the *Empresas Small Business Development* program - teaches and supports small business owners to create a vibrant local economy and open up opportunities for all individuals to pursue their business goals.
- *Bienestar* is a local housing development corporation based in Hillsboro that builds affordable housing in the metro area.
- *GroveLink* is free public transportation for the Forest Grove community.
- *Centro Cultural* is an organization that provides business training, workshops and other social services.
- Other local organizations offer programs that provide workforce training and General Education Diploma for High School classes.

KEY EQUITY CONSIDERATIONS

- Most existing initiatives revolve around housing production and affordability. More support for the program that boost equitable economic development is needed.
- Area is lower income than average Forest Grove census tract and experiencing higher than average community change.
- Walkability and transit access scores in the site area are well below the regional average.

POTENTIAL EQUITY ACTIONS

Engagement + Empowerment (ability for diverse community groups to exercise power and benefit from development outcomes)

- Consult the “Equity in the Context of Employment / Industrial Lands” of Task 4 for a general approach to community involvement and empowerment.
- Continue and expand on affordable housing equity work to provide larger context for industrial development equity strategies including but not limited to Community Benefit Agreements.

Workforce and Business Stability (access to finances, resources, and programming that help establish new employment uses)

- Foster relationships with local organizations that can help support small, minority-owned businesses that can provide services and supplies to site businesses.
- Connect Latino workforce and other communities of color with job opportunities, and affordable housing, workforce support and transit support.

Access (geographic access and increased mobility options)

- Include a bike/pedestrian trail to increase site access with the rail line abandonment.
- Consider opportunities to expand GroveLink services to regional employment sites to provide better access, especially to populations without access to vehicles.

ROCK CREEK SITE (HAPPY VALLEY) - BASE DEVELOPMENT SCENARIO

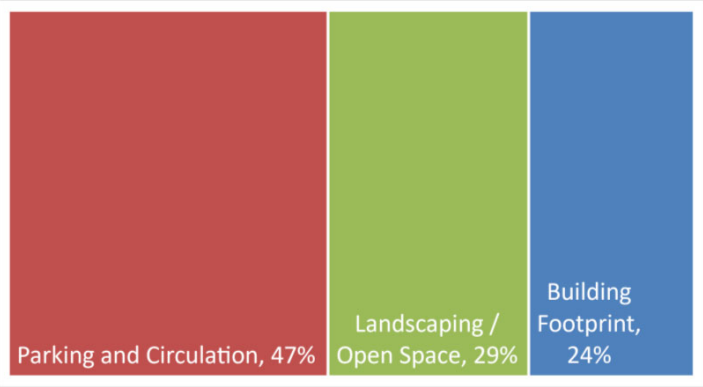
Development Concept



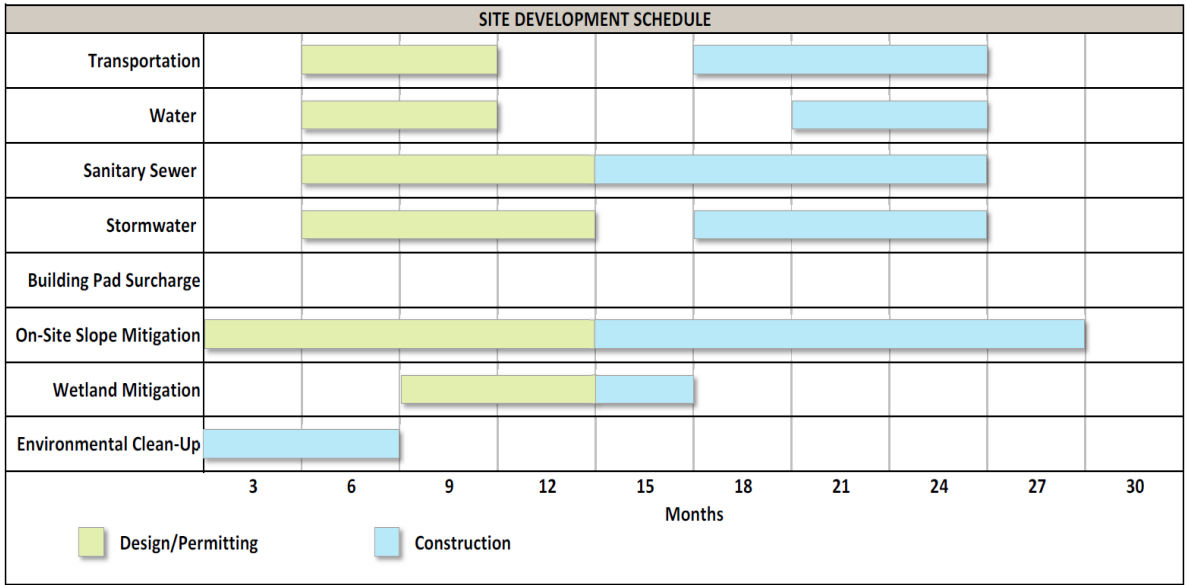
Multi-building single user high tech campus; includes office and clean room manufacturing buildings; similar uses such as Novellus Systems

Buildings	Size (sq ft)	Use
Building A	16,000	Office
Building B	16,000	Office
Building C	16,000	Office
Building D	12,000	Office
3-Story Office	150,000	Office
Manufacturing / Fabrication	155,000	General Manufacturing/Flex
Warehouse / Fabrication	132,000	Warehouse
Total	497,000	

Site Use	Size (sq ft)	%
Building Footprint	397,600	24%
Parking and Circulation	769,808	47%
Landscaping / Open Space	483,516	29%



Development Timeline



Total Development Timeline: 27 months

Site Readiness Challenges

On-site Issues	Off-site Issues	Land Use Issues
<ul style="list-style-type: none">Brownfield CleanupWetland FillFloodplain FillSlope Mitigation	<ul style="list-style-type: none">WaterSewerStormTransportation	<ul style="list-style-type: none">AggregationAnnexation

Development Programs Details

DEVELOPMENT PROGRAM

	Size (ac)	Size (sq ft)
Lot Area	37.9	1,650,924
Net Development Area	37.9	1,650,924
Office	4.1	178,500
General Industrial	3.0	131,750
Warehouse	2.6	112,200

Rent Assumptions

Office: \$28 / Sq Ft
Industrial: \$15 / Sq Ft
Warehouse: \$14 / Sq Ft

ROCK CREEK SITE (HAPPY VALLEY) - BASE DEVELOPMENT SCENARIO (COSTS)

Development Costs

PRE-DEVELOPMENT COSTS

	2020 Dollars	\$ / sq ft
Land Acquisition	\$9,905,544	\$6.00
Land Carry	\$1,377,738	-
Other Fees	\$198,111	-

SITE READINESS COSTS

Site readiness costs represent all the costs prior to vertical construction of buildings

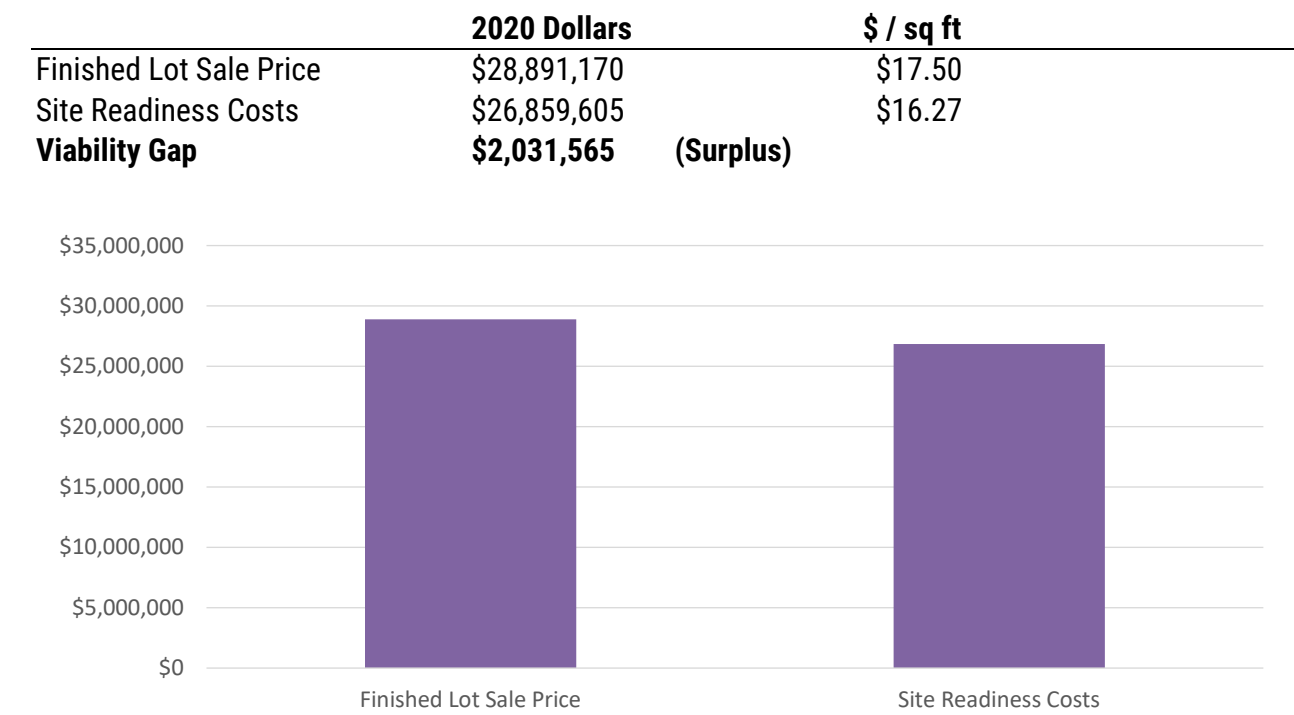
		2020 Dollars	\$ / sq ft
Off-Site	Sanitary Sewer	\$942,500	\$0.57
	Water	\$440,000	\$0.27
	Storm Water	\$878,440	\$0.53
	Transportation	\$2,775,000	\$1.68
On-Site	Wetland Mitigation	\$135,000	-
	Slope Mitigation	\$3,450,000	-
	Building Pad Surcharge	-	-
	Floodplain	-	-
	Environmental Cleanup	\$126,600	\$0.08
Total On-site and Off-site Costs		\$8,747,540	\$5.30
Time Costs		\$1,377,738	\$0.83
Soft Costs (includes SDCs)		\$1,749,508	\$1.06
Threshold Return		\$3,503,427	\$2.12
Total Site Readiness Costs:		\$26,859,605	\$16.27

VERTICAL CONSTRUCTION COSTS

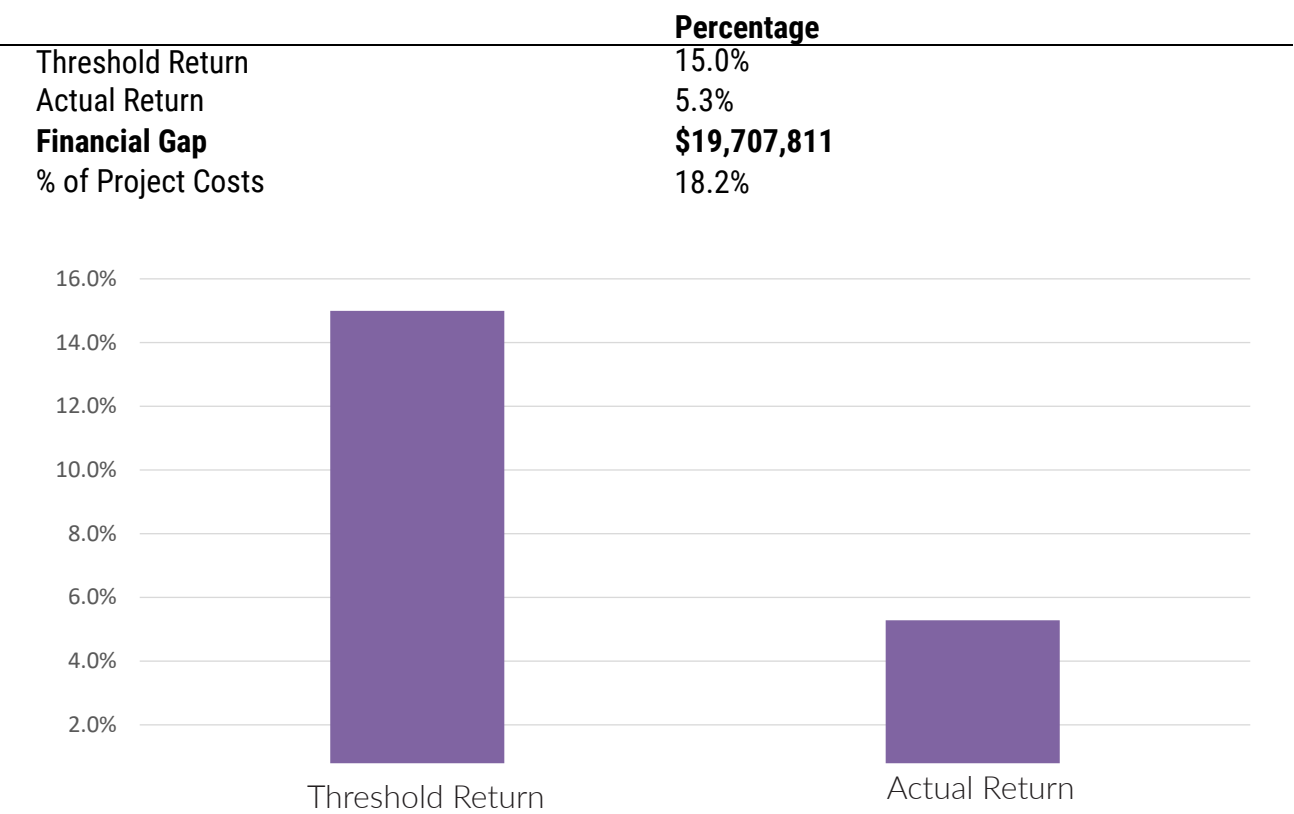
Vertical construction costs represent costs associated with the construction of bulidings

	2020 Dollars	\$ / sq ft
Parking and Pavement Construction	\$4,970,000	\$3.01
Office Construction Costs	\$35,100,000	\$167.14
Industrial Construction Costs	\$23,250,000	\$150.00
Warehouse Construction Costs	\$6,600,000	\$50.00
Soft Costs (includes SDCs)	\$12,640,098	\$25.43
Total All-In Costs:	\$125,832,659	\$253.18

Land Readiness Viability Gap / Surplus



Vertical Construction Viability Gap / Surplus



ROCK CREEK SITE (HAPPY VALLEY) - BASE DEVELOPMENT SCENARIO (ECONOMIC IMPACTS)

Annual Employment Impact

JOB AND INCOME CREATION

Estimated job and income creation at full buildout

	Jobs	Jobs / Acre	Labor Income	Output
Direct:				
Office	570	15.0	\$44,075,820	\$230,166,525
General Industrial	245	6.5	\$18,977,089	\$99,099,476
Warehouse	68	1.8	\$5,241,449	\$27,371,154
Indirect / Induced:				
Office	3,517	15.0	\$271,917,957	\$839,117,609
General Industrial	1,514	6.5	\$117,075,787	\$361,286,748
Warehouse	418	1.8	\$32,336,190	\$99,786,959
Total	6,332			

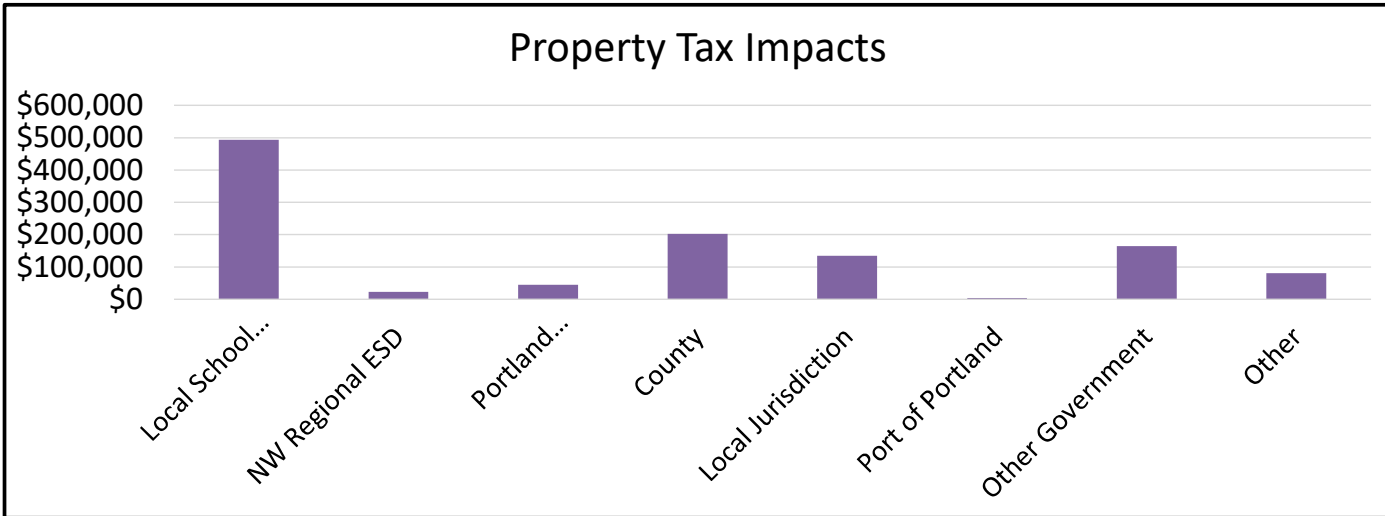
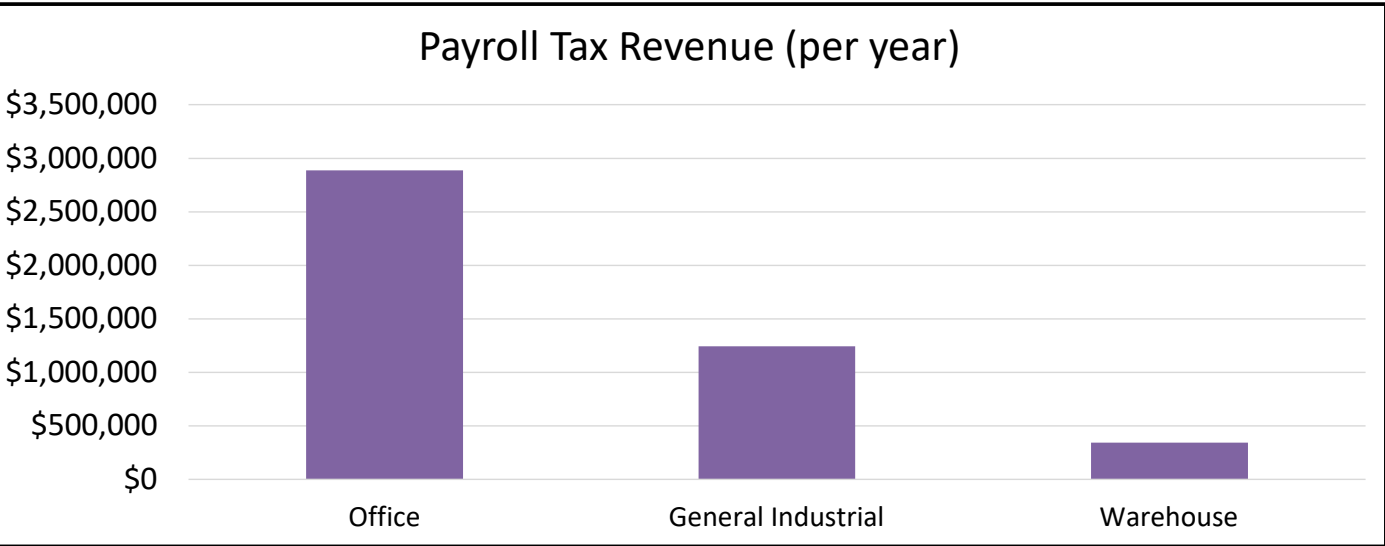
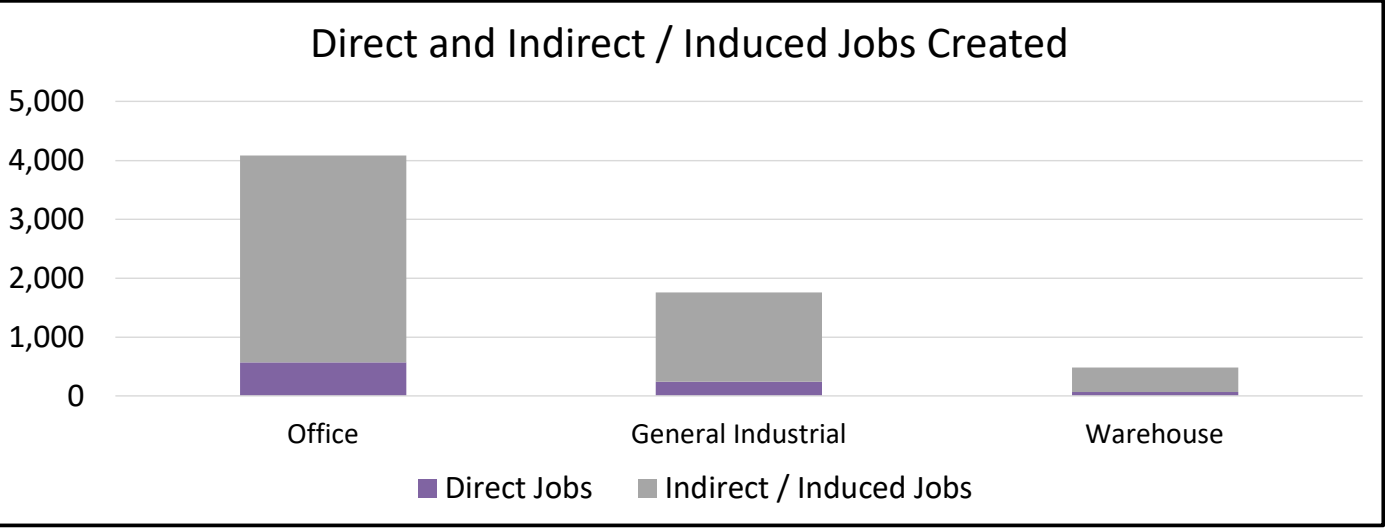
ANNUAL PAYROLL TAX REVENUE

Estimated annual payroll tax revenues based on direct jobs

Employment Type	Payroll Tax Revenue (per year)
Office	\$2,885,864
General Industrial	\$1,242,525
Warehouse	\$343,184
Total	\$4,471,573

Property Tax Impacts

Project Value	Annual Property Tax Revenue
\$103,290,825	\$1,148,521



ROCK CREEK SITE (HAPPY VALLEY) - TOOL IMPACT

TOOL DESCRIPTION

Base Scenario: the development scenario as proposed with no additional tools tested

Increase Industrial Density: assume a 20% increase in gross building area through modest reductions in landscaping and parking to accommodate for greater building area

URA Site Readiness Cost Reimbursement: reimburse costs associated with site readiness preparation; structured as property tax abatements scaled to site readiness cost figure reimbursed over ten years

SDC Financing: a public loan to cover system development costs associated with the project

Reimbursement District: public reimbursement in off-site infrastructure costs over 10 years

Industrial Land Bank (Land Waiver): a complete land cost waiver

Industrial Land Bank (Land Lease): a land lease with more favorable terms compared to a private loan to offset land acquisition costs

URA Tax Abatement for Vertical Improvements: a 10-year tax abatement for the vertical improvements (building investments) associated with the project

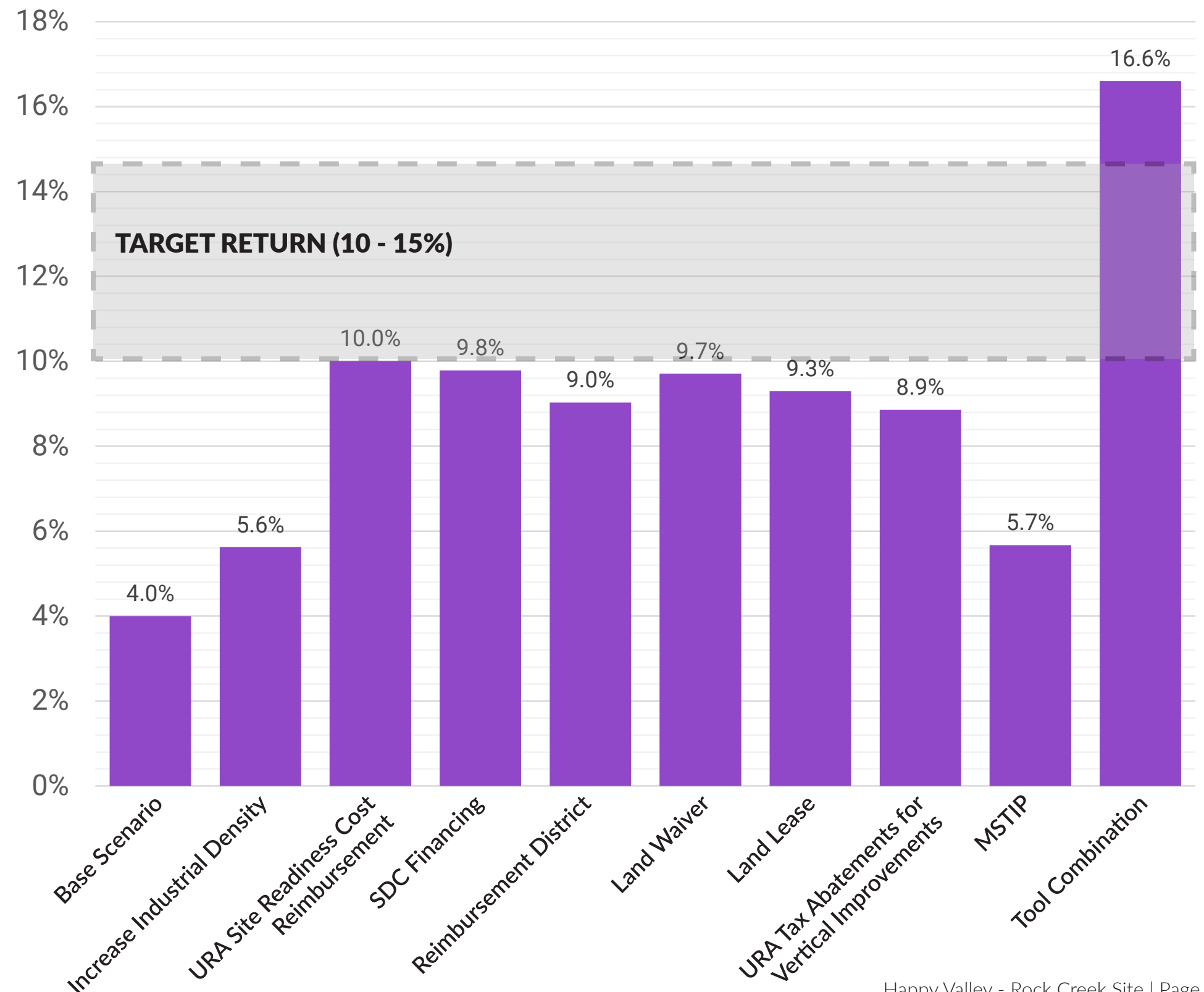
Major Streets Transportation Improvement Program (MSTIP): county funding to cover off-site transportation costs

Tool Combination: modeling the cumulative impacts of SDC Financing, URA Tax Abatements for Vertical Improvements, MSTIP, and Increased Industrial Density

A **Horizontal Development Agreement (HDA)** could be used to package or combine several tools in exchange for specific community benefits (see page 8).

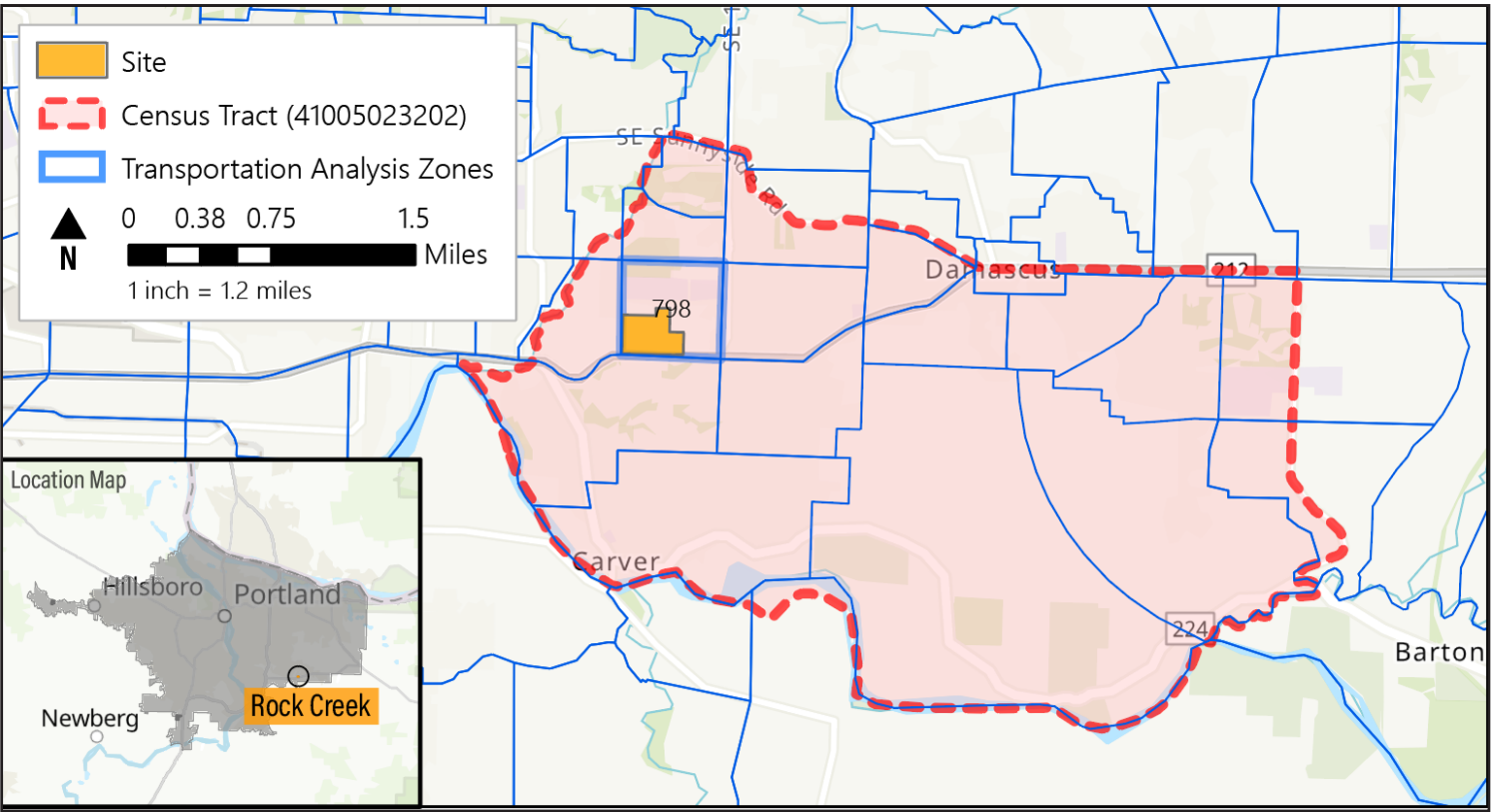
Individual testing of tools is found in Task 4 Appendix B

Rock Creek - Leveraged IRR



ROCK CREEK SITE (HAPPY VALLEY) - DEMOGRAPHIC SNAPSHOT

Site & Surrounding Area Map



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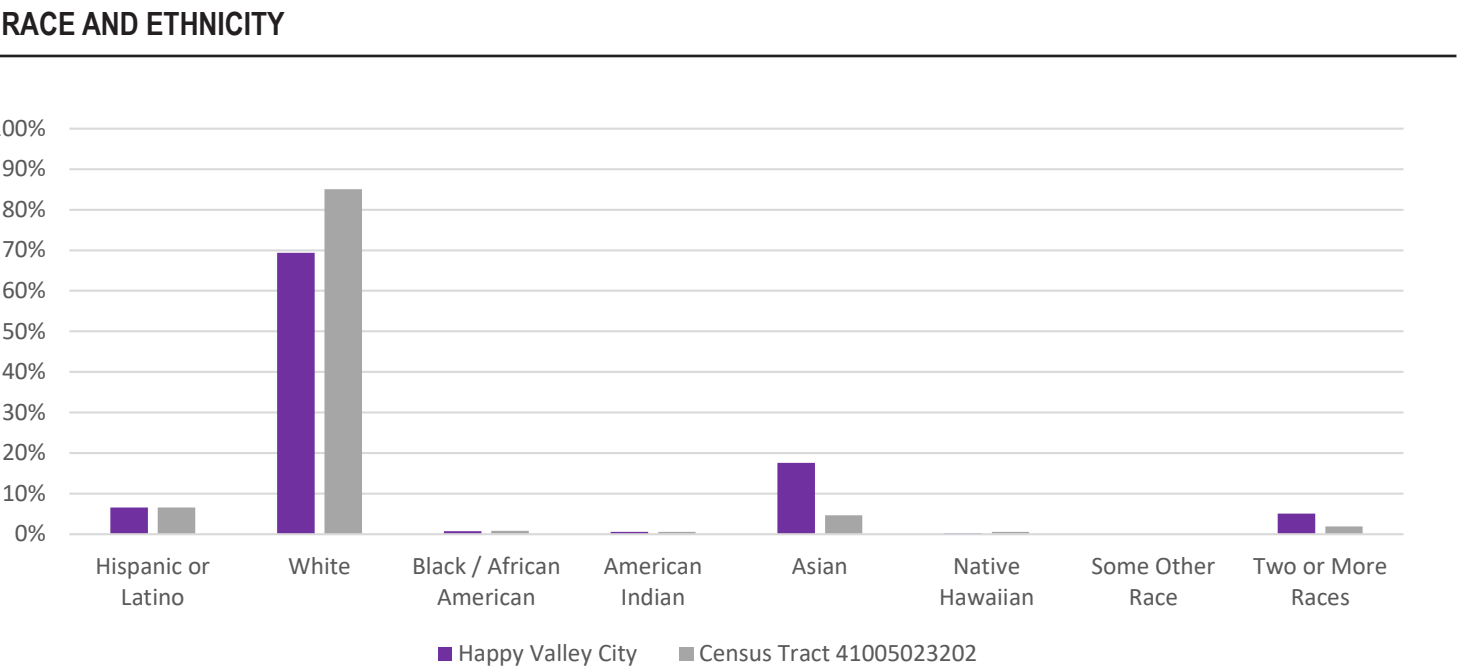
Key Takeaways

Although both median incomes are relatively high, the census tract median income is at 79% of the city’s median income.

The census tract population is 85% white, 15% higher than Happy Valley’s white population share.

Demographic Indicators

TOTAL POPULATION; AGE; GENDER			
	Total Population	Median Age	Sex
CITY	18,477	38.4 years	48% male, 52% female
CENSUS TRACT 41005023202	7,648	38.6 years	49% male, 51% female

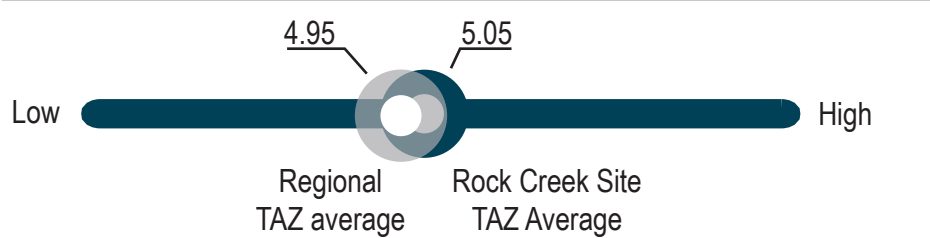


MEDIAN INCOME		* Reflects a 10% margin of error or greater
CITY	\$115,720	
CENSUS TRACT 41005023202	\$91,180*	

PERCENT HIGH SCHOOL GRADUATE OR HIGHER	
CITY	97.5%
CENSUS TRACT 41005023202	93.9%

ROCK CREEK SITE (HAPPY VALLEY) - EQUITY AND ECONOMIC SNAPSHOT

Community Change



CHANGE IN MEDIAN HOUSEHOLD INCOME

REGIONAL TAZ AVERAGE	+\$5,700
ROCK CREEK SITE (TAZ AVERAGE)	-\$4,200

CHANGE IN HOME SALES PRICE

REGIONAL TAZ AVERAGE	+\$2,000
ROCK CREEK SITE (TAZ AVERAGE)	+\$14,500

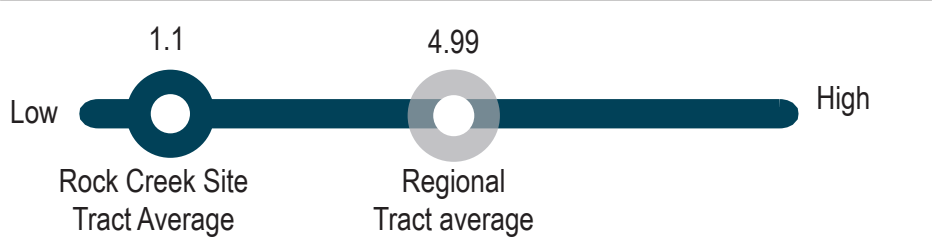
CHANGE IN PERCENT RENTERS

REGIONAL TAZ AVERAGE	1.40%
ROCK CREEK SITE (TAZ AVERAGE)	-1.70%

CHANGE IN PERCENT PERSONS OF COLOR

REGIONAL TAZ AVERAGE	1.70%
ROCK CREEK SITE (TAZ AVERAGE)	0.0%

Walkability and Transit Access



WALKABILITY

REGIONAL CENSUS TRACT AVERAGE	4.67
ROCK CREEK SITE (CENSUS TRACT AVERAGE)	1.96

TRANSIT TRAVEL TIMES

REGIONAL TAZ AVERAGE	54 minutes
ROCK CREEK SITE (CENSUS TRACT AVERAGE)	72 minutes

Site-Specific Key Takeaways

The site TAZ is experiencing slight below average community change.

The site TAZ experienced an above average increase in average home sale prices (\$12,500 higher) but saw a significant drop in median household incomes (\$9,900 lower), diverging from the regional trend of increasing median household incomes.

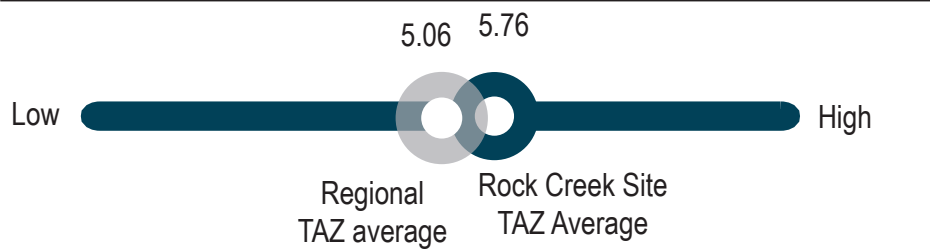
Walkability and transit access scores for the site TAZ are significantly below the regional average.

Compared to the region, walkability and transit travel times for the site TAZ are 18 minutes longer and result in communities more reliant on auto-vehicles to move around.

The Economic Value Atlas and Equitable Development Index Tool are offered as a public service, integrating various government records into a region-wide mapping system. Metro assumes no legal responsibility for the compilation of multi-source government information displayed herein. Users of this information are cautioned to verify all information with Metro staff.

ROCK CREEK SITE (HAPPY VALLEY) - EQUITY AND ECONOMIC SNAPSHOT

Access to Opportunity



PERCENT IN POVERTY

REGIONAL TAZ AVERAGE	13.1%
ROCK CREEK SITE (TAZ AVERAGE)	8.06%

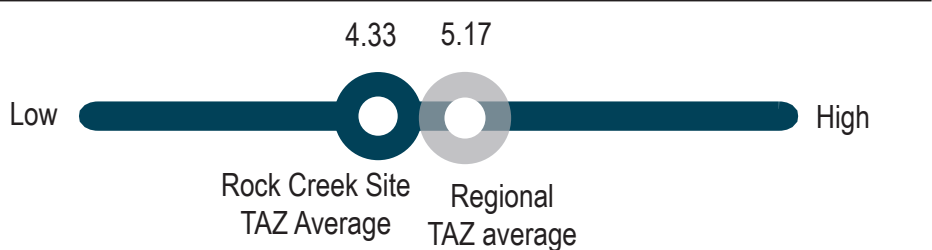
MEDIAN HOUSEHOLD INCOME

REGIONAL TAZ AVERAGE	\$68,084
ROCK CREEK SITE (TAZ AVERAGE)	\$80,886

HIGH SCHOOL GRADUATION %

REGIONAL TAZ AVERAGE	85.0%
ROCK CREEK SITE (TAZ AVERAGE)	93.5%

Affordable Housing



HOME OWNERSHIP %

REGIONAL TAZ AVERAGE	61.7%
ROCK CREEK SITE (TAZ AVERAGE)	91.7%

MEDIAN GROSS RENT PER MONTH

REGIONAL TAZ AVERAGE	\$1,141
ROCK CREEK SITE (TAZ AVERAGE)	\$1,605

MEDIAN SALES PRICE

REGIONAL TAZ AVERAGE	\$318,300
ROCK CREEK SITE (TAZ AVERAGE)	\$365,600

Site-Specific Key Takeaways

Residents in the site TAZ have better access to opportunities than the average resident living in the region.

With a lower poverty rate (5% higher poverty in the average TAZ compared to the site), significantly higher median household incomes (\$12,500 higher), and a higher than average high-school graduation rate (8.5% higher), people residing within the site TAZ have more access to opportunities than they would in the region on average.

Housing is less affordable in the site TAZ.

Housing within the site TAZ is less affordable, especially for renters (\$464 more compared to the regional average). This could indicate out of reach housing opportunities for most renters, explaining the significantly high rates of home ownership.

ROCK CREEK SITE (HAPPY VALLEY) - EQUITABLE DEVELOPMENT

COMMUNITY ASSETS & NEEDS

Site Considerations

- The site is located within a job desert. There is a need for a stronger job market with different types of industries.
- The site abuts two major Metro corridor proposals: the Sunrise Gateway and the Clackamas to Columbia Corridor, both increasing infrastructure capacity to better serve and support housing development and employment lands.

Affordable Housing Initiatives

- A new urban renewal area (URA) was formed in August 2019 near the site. Seven percent of URA funds are dedicated to affordable housing.
- The city's Land Development Code (LDC 16.44.060) provides incentives for affordable housing development (i.e., density bonus, SDC and other fee waivers).
- A Regional Housing Needs Analysis (HNA) has been completed and the city will pursue a city specific HNA in 2020, followed by a Housing Production Strategy as required by Oregon Revised Statute 197.290.
- The city has recently completed a Buildable Lands Inventory and Housing Needs Assessment for the Pleasant Valley/North Carver Comprehensive Plan.

Economic Development

- Rock Creek's increasing housing supply is outpacing local job growth.
- The city is currently conducting a comprehensive plan for 2,700 acres just east of this site — Pleasant Valley North Carver Comprehensive Plan.

Local Organizations

- United Community Alliance (UCA), a grassroots coalition of community leaders, initiated conversations about how to make Happy Valley a more welcoming and inclusive community. The city opened up City Hall and participated in many of the meetings with UCA.

Diversity and Inclusion Initiatives

- **DEI Proclamation:** To recognize the work of the UCA, in 2019, the City Council proclaimed that "the city celebrates and honors the spirit of unity that is bringing neighbors together and making our community the kind of place where everyone feels valued."
- **DEI City Council Goal:** The City Council established a goal to "support and foster a community and organizational culture that embraces and supports Diversity, Equity, and Inclusion" as one of seven priorities for 2020.
- **DEI Task Force & Strategic Plan:** As part of the City Council Goal to support DEI, the city is in process of developing a DEI Task Force to develop a DEI Strategic Plan. The vision is for the plan to provide guidance on tasks, communications, events, programs, and other initiatives that the city could undertake with the goal of recognizing diversity and building a more welcoming and inclusive community.

KEY EQUITY CONSIDERATIONS

- Affordable housing incentives / strategies are sparse. There is no framework around equitable economic development strategies.
- The area around the site is described as a "job desert" where more employment is needed.
- Walkability and transit access scores for the site area are well below the regional average.

POTENTIAL EQUITY ACTIONS

Engagement + Empowerment (ability for diverse community groups to exercise power and benefit from development outcomes)

- Consult the "Equity in the Context of Employment / Industrial Lands" of Task 4 for a general approach to community involvement and empowerment.
- Create a broad equity framework for the city that includes affordable housing, access to jobs, opportunities for business entrepreneurship, workforce development and training.

Workforce and Business Stability (access to finances, resources, and programming that help establish new employment uses)

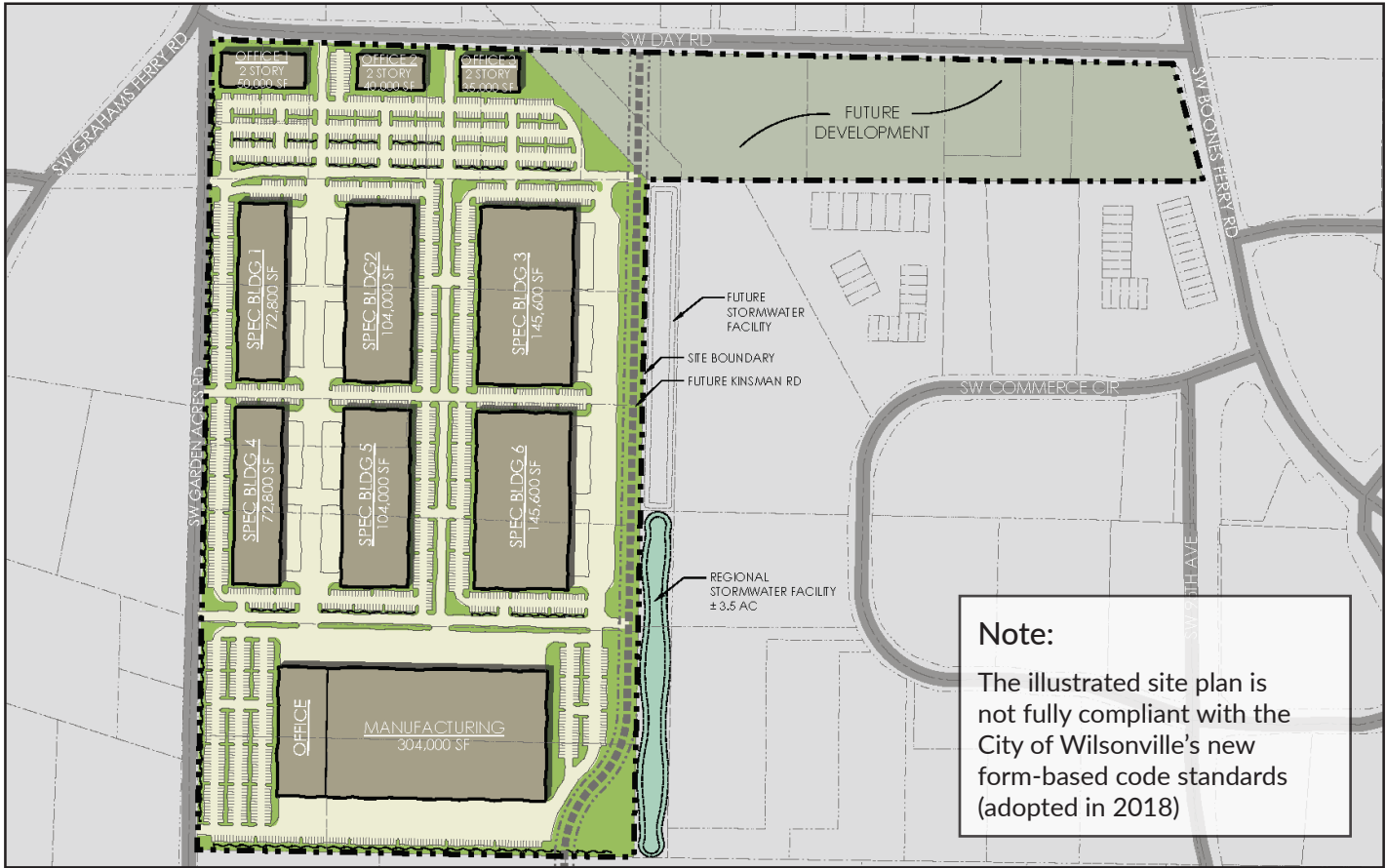
- Work with the new URA to dedicate a portion of funds towards off-site infrastructure costs to help prepare the site for development, which would increase local job opportunities and housing options (i.e., URA Affordable Housing Funds).
- Consider expanding on the recently completed Buildable Lands Inventory to include a finer analysis of other catalytic sites for employment uses in order to expand local job opportunities and better serve the local talent pool.

Access (geographic access and increased mobility options)

- Support successful development of the Sunrise Gateway and the Clackamas to Columbia Corridor to ensure better mobility and access to employment lands.

COFFEE CREEK SITE (WILSONVILLE) - BASE DEVELOPMENT SCENARIO

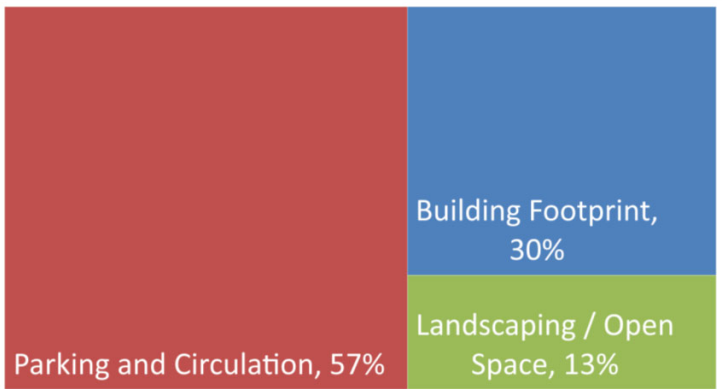
Development Concept



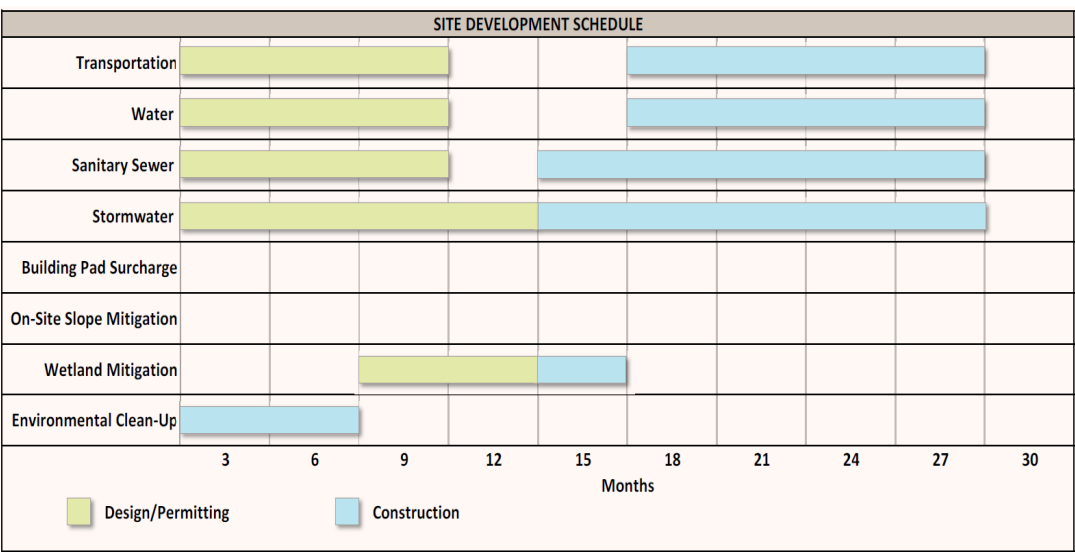
Combination business park and single user site; northern portion of site for 2-story office buildings; middle portion of site for multi or single tenant manufacturing/distribution uses; southern portion of site for single manufacturing user.

Buildings	Size (sq ft)	Use
Office 1	50,000	Office
Office 2	40,000	Office
Office 3	35,000	Office
Spec Building 1	72,800	General Manufacturing/Flex
Spec Building 2	104,000	General Manufacturing/Flex
Spec Building 3	145,600	General Manufacturing/Flex
Spec Building 4	72,800	General Manufacturing/Flex
Spec Building 5	104,000	General Manufacturing/Flex
Spec Building 6	145,600	General Manufacturing/Flex
Manufacturing	304,000	General Manufacturing/Flex
Total	1,073,800	

Site Use	Size (sq ft)	%
Building Footprint	1,010,592	30%
Parking and Circulation	1,881,792	57%
Landscaping / Open Space	431,244	13%



Development Timeline



Total Development Timeline: 27 months

Site Readiness Challenges

On-site Issues	Off-site Issues	Land Use Issues
<ul style="list-style-type: none">● Brownfield Cleanup● Wetland Fill● Floodplain Fill● Slope Mitigation	<ul style="list-style-type: none">● Water● Sewer● Storm● Transportation	<ul style="list-style-type: none">● Aggregation● Annexation

Development Programs Details

DEVELOPMENT PROGRAM		
	Size (ac)	Size (sq ft)
Lot Area	76.3	3,323,628
Net Development Area	76.3	3,323,628
Office	2.3	99,996
General Industrial	17.4	759,007
Rent Assumptions	Office: \$28 / Sq Ft Industrial: \$12.50 / Sq Ft	

COFFEE CREEK SITE (WILSONVILLE) - BASE DEVELOPMENT SCENARIO (COSTS)

Development Costs

PRE-DEVELOPMENT COSTS

	2020 Dollars	\$ / sq ft
Land Acquisition	\$19,941,768	\$6.00
Land Carry	\$1,666,909	-
Other Fees	\$398,835	-

SITE READINESS COSTS

Site readiness costs represent all the costs prior to vertical construction of buildings

		2020 Dollars	\$ / sq ft
Off-Site	Sanitary Sewer	\$2,596,250	\$0.78
	Water	\$687,500	\$0.21
	Storm Water	\$2,045,750	\$0.62
	Transportation*	\$5,030,000	\$1.51
On-Site	Wetland Mitigation	\$70,600	-
	Slope Mitigation	\$0	-
	Building Pad Surcharge	\$0	-
	Floodplain	\$0	-
	Environmental Cleanup	\$153,450	\$0.05
Total On-site and Off-site Costs		\$10,583,550	\$3.18
Time Costs		\$1,666,909	\$0.50
Soft Costs (includes SDCs)		\$2,116,710	\$0.64
Threshold Return		\$5,456,202	\$1.64
Total Site Readiness Costs:		\$41,830,884	\$12.59

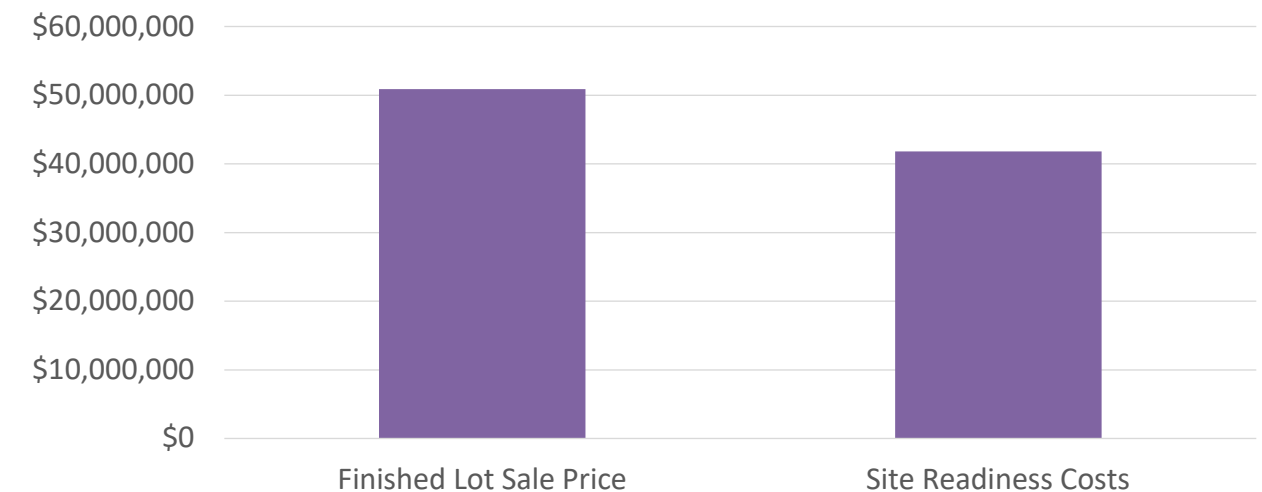
VERTICAL CONSTRUCTION COSTS

Vertical construction costs represent costs associated with the construction of buildings

	2020 Dollars	\$ / sq ft
Parking and Pavement Construction	\$10,105,919	\$3.04
Office Construction Costs	\$24,704,823	\$210.00
Industrial Construction Costs	\$110,752,896	\$124.03
Soft Costs (includes SDCs)	\$26,668,202	\$26.39
Total All-In Costs:	\$246,172,132	\$243.59

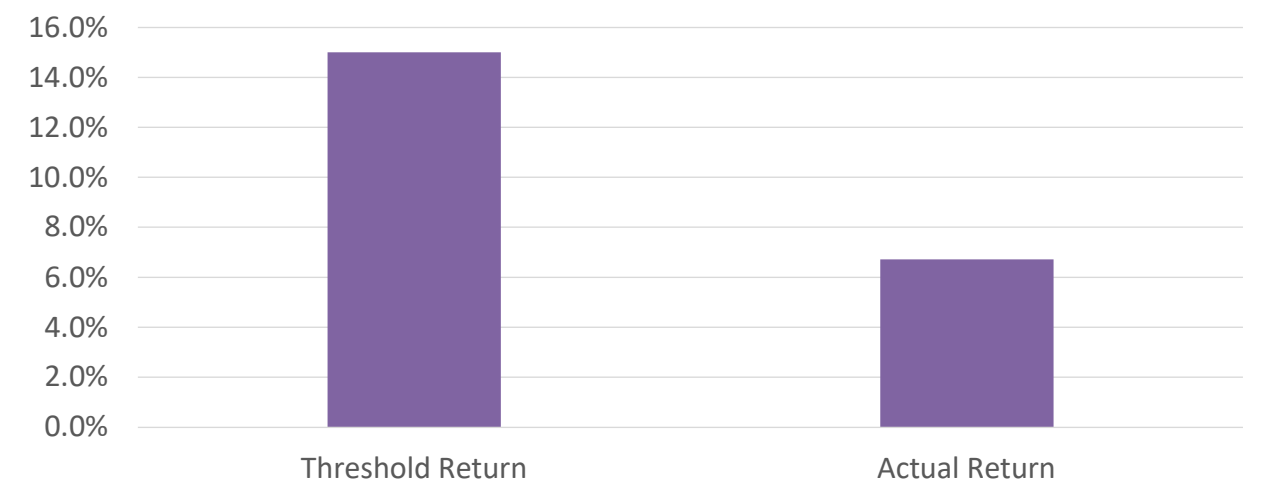
Land Readiness Viability Gap / Surplus

	2020 Dollars	\$ / sq ft
Finished Lot Sale Price	\$50,891,148	\$17.50
Site Readiness Costs	\$41,830,884	\$12.59
Viability Gap	\$9,060,264	(Surplus)



Vertical Construction Viability Gap / Surplus

	Percentage
Threshold Return	15.0%
Actual Return	6.7%
Financial Gap	\$62,290,842
% of Project Costs	29.1%



* Off-site transportation costs have changed since this analysis

COFFEE CREEK SITE (WILSONVILLE) - BASE DEVELOPMENT SCENARIO (ECONOMIC IMPACTS)

Annual Employment Impact

JOB AND INCOME CREATION

Estimated job and income creation at full buildout

	Jobs	Jobs / Acre	Labor Income	Output
Direct:				
Office	319	4.2	\$36,185,305	\$264,112,962
General Industrial	1,414	18.5	\$160,218,881	\$1,169,421,765
Indirect / Induced:				
Office	444	4.2	\$50,277,391	\$148,972,598
General Industrial	1,964	18.5	\$222,614,879	\$659,610,936
Total	4,141			

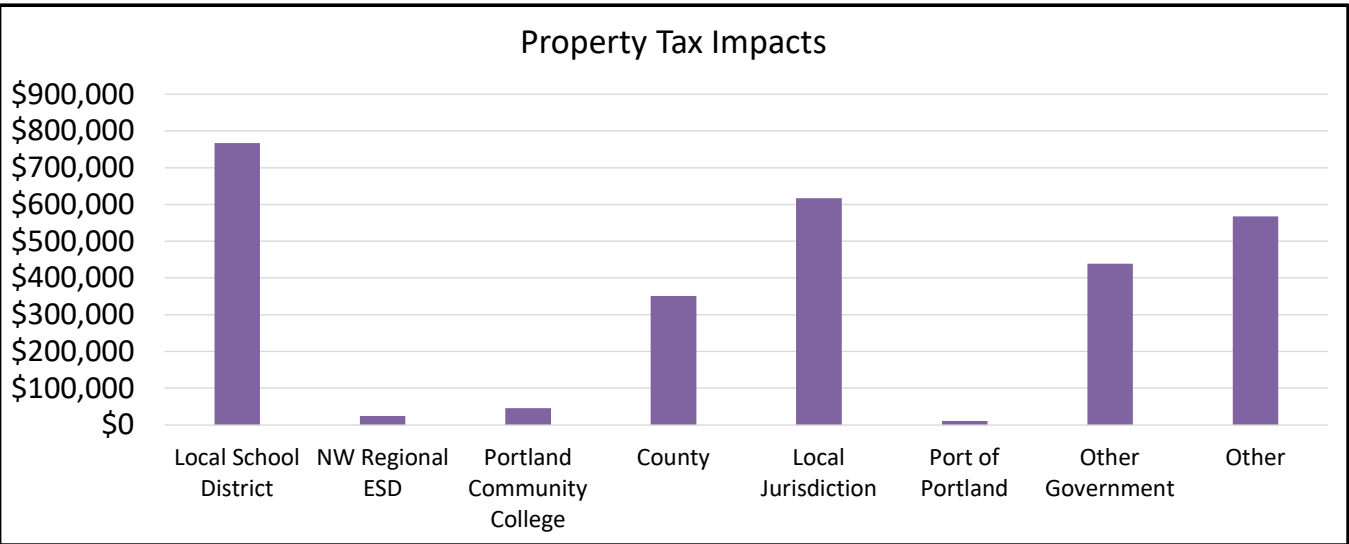
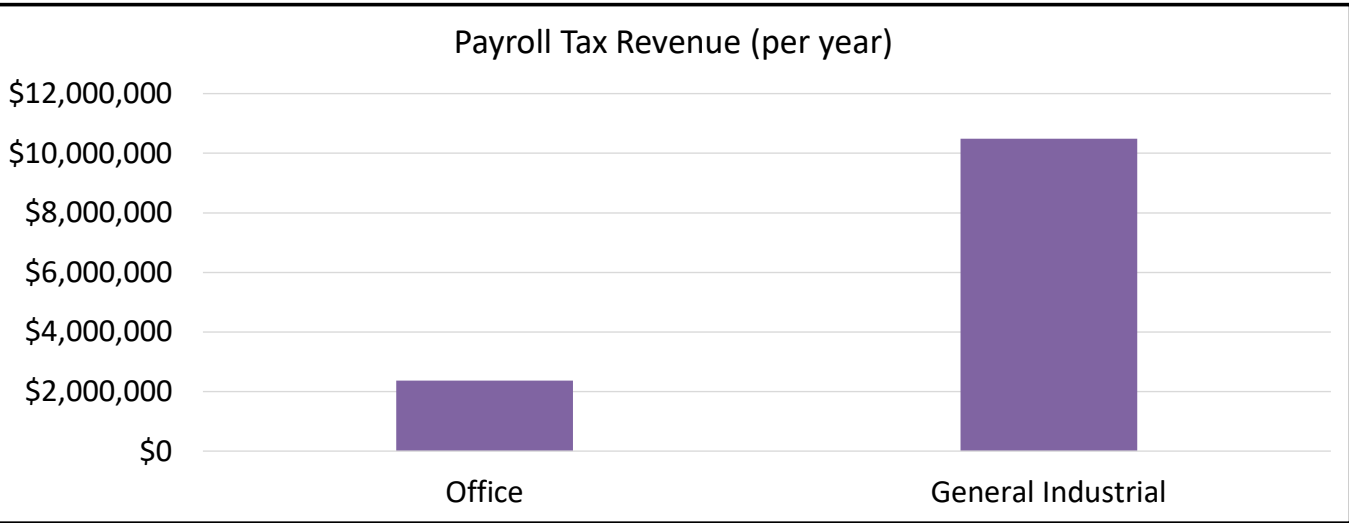
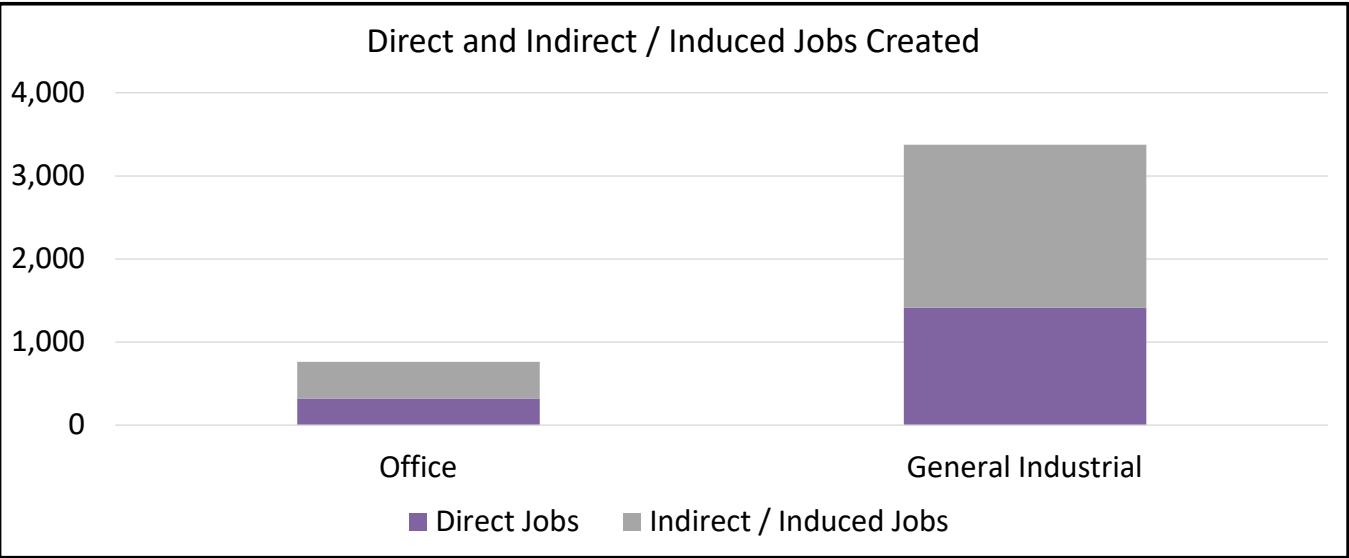
ANNUAL PAYROLL TAX REVENUE

Estimated annual payroll tax revenues based on direct jobs

Employment Type	Payroll Tax Revenue (per year)
Office	\$2,369,233
General Industrial	\$10,490,331
Total	\$12,859,564

Property Tax Impacts

Project Value	Annual Property Tax Revenue
\$204,230,977	\$2,820,235



COFFEE CREEK SITE (WILSONVILLE) - TOOL IMPACT

TOOL DESCRIPTION

Base Scenario: the development scenario as proposed with no additional tools tested

Increase Industrial Density: assume a 20% increase in gross building area through modest reductions in landscaping and parking to accommodate for greater building area

URA Site Readiness Cost Reimbursement: reimburse costs associated with site readiness preparation; structured as property tax abatements scaled to site readiness cost figure reimbursed over ten years

SDC Financing: a public loan to cover system development costs associated with the project

Reimbursement District: public reimbursement in off-site infrastructure costs over 10 years

Industrial Land Bank (Land Waiver): a complete land cost waiver

Industrial Land Bank (Land Lease): a land lease with more favorable terms compared to a private loan to offset land acquisition costs

URA Tax Abatement for Vertical Improvements: a 10-year tax abatement for the vertical improvements (building investments) associated with the project

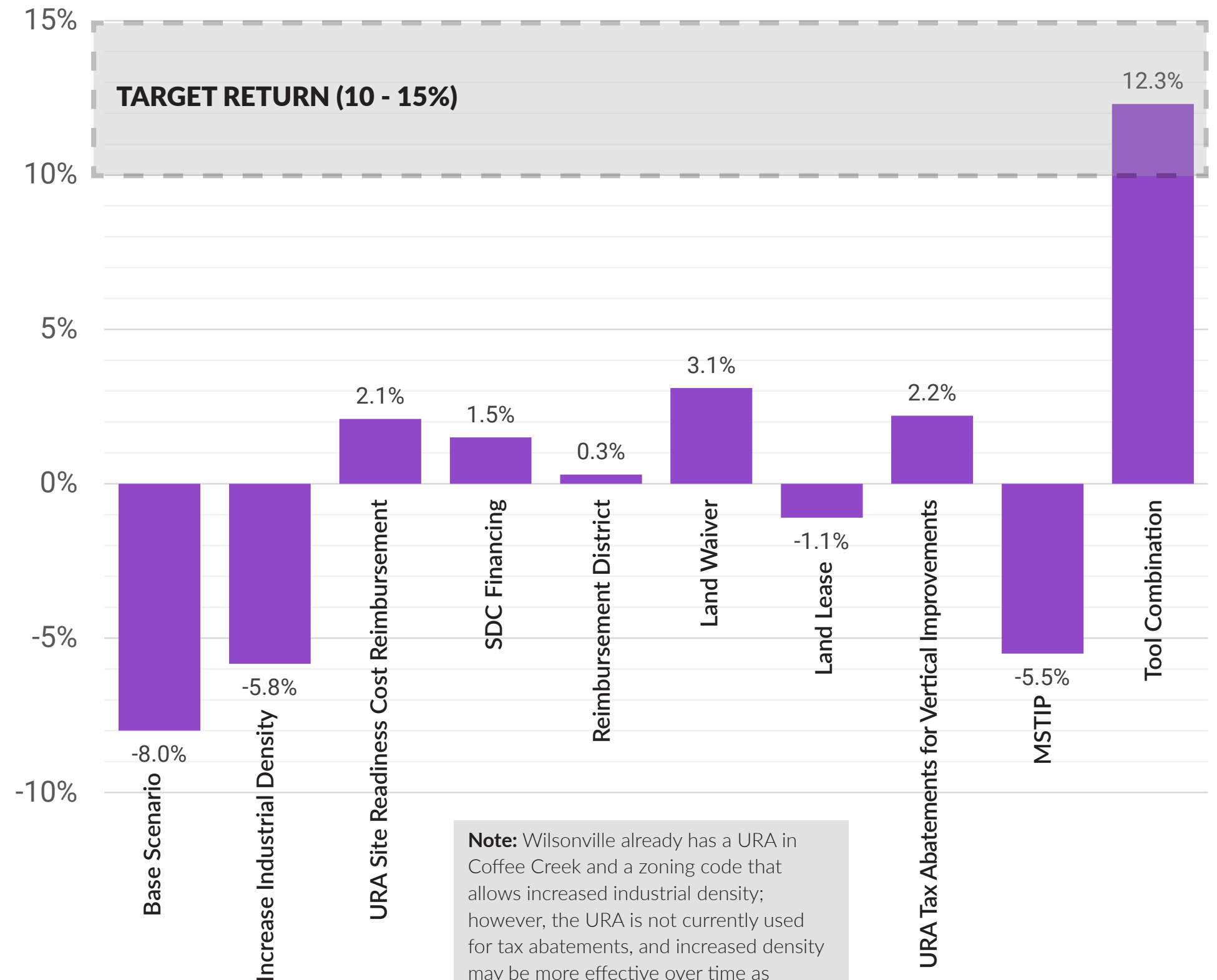
Major Streets Transportation Improvement Program (MSTIP): county funding to cover off-site transportation costs

Tool Combination: modeling the cumulative impacts of SDC Financing, URA Tax Abatements for Vertical Improvements, MSTIP, and Increased Industrial Density

A **Horizontal Development Agreement (HDA)** could be used to package or combine several tools in exchange for specific community benefits (see page 8).

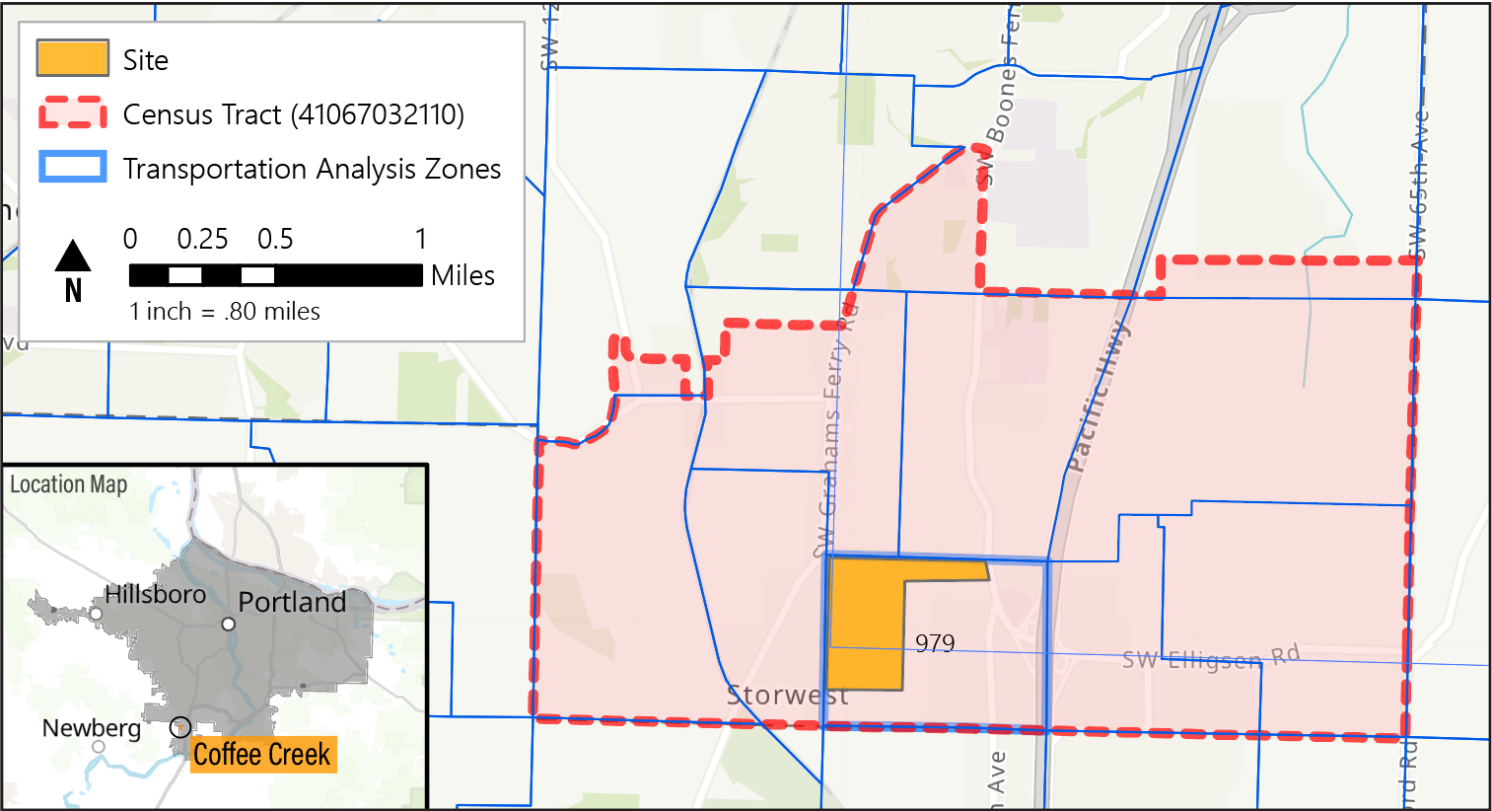
Individual testing of tools is found in Task 4 Appendix B

Coffee Creek - Leveraged IRR



COFFEE CREEK SITE (WILSONVILLE) - DEMOGRAPHIC SNAPSHOT

Site & Surrounding Area Map



Metro coordinates its regional forecasts with local governments to distribute, or allocate, the regional forecasts to smaller geographic areas known as TAZ, or Transportation Analysis Zones. TAZs are generally smaller than Census tracts and more closely align with site boundaries.

Key Takeaways

The census tract has a similar racial and ethnic composition as Wilsonville, both with a population that is over 70% white.

The census tract has a significantly higher ratio of women.

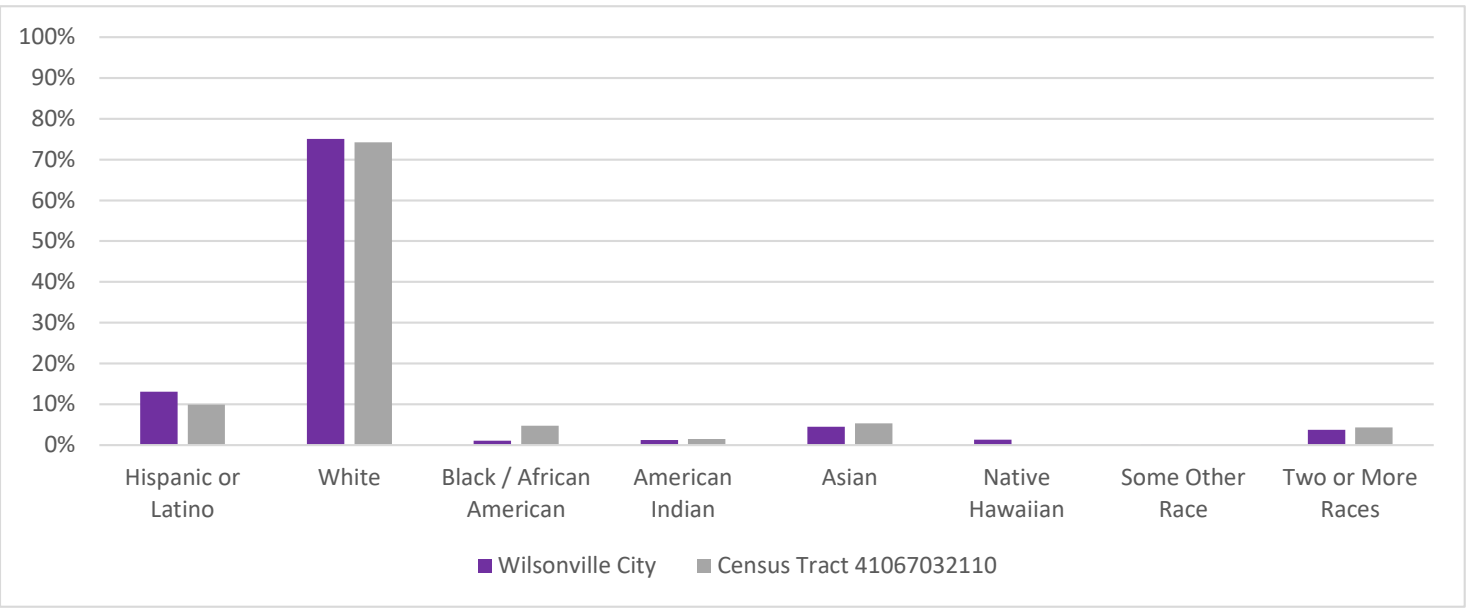
The census tract has a higher median income than Wilsonville.

The census tract median income is at 125% of the city's median income.

Demographic Indicators

TOTAL POPULATION; AGE; GENDER		* Reflects a 10% margin of error or greater	
	Total Population	Median Age	Sex
CITY	22,789	37.7 years	47% male, 53% female
CENSUS TRACT 41067032110	4,096	35.9 years	39% male*, 61% female

RACE AND ETHNICITY



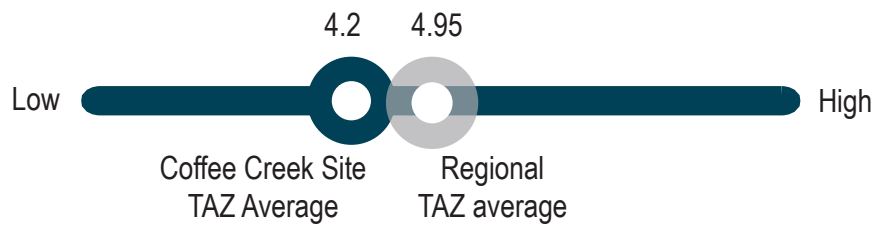
MEDIAN INCOME		* Reflects a 10% margin of error or greater
CITY	\$67,690	
CENSUS TRACT 41067032110	\$84,490*	

PERCENT HIGH SCHOOL GRADUATE OR HIGHER

CITY	95.6%
CENSUS TRACT 41067032110	91.8%

COFFEE CREEK SITE (WILSONVILLE) - EQUITY AND ECONOMIC SNAPSHOT

Community Change



CHANGE IN MEDIAN HOUSEHOLD INCOME

REGIONAL TAZ AVERAGE	+\$5,700
COFFEE CREEK SITE (TAZ AVERAGE)	+\$9,100

CHANGE IN HOME SALES PRICE

REGIONAL TAZ AVERAGE	+\$2,000
COFFEE CREEK SITE (TAZ AVERAGE)	-\$53,600

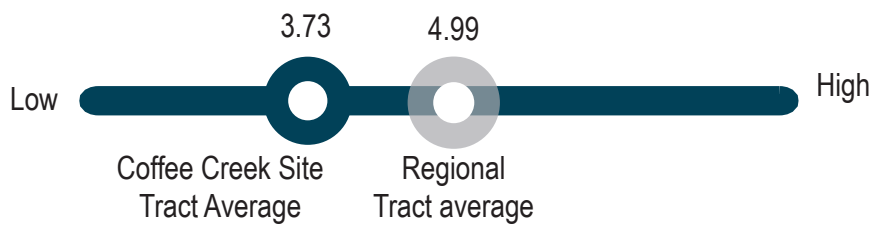
CHANGE IN PERCENT RENTERS

REGIONAL TAZ AVERAGE	1.40%
COFFEE CREEK SITE (TAZ AVERAGE)	1.09%

CHANGE IN PERCENT PERSONS OF COLOR

REGIONAL TAZ AVERAGE	1.70%
COFFEE CREEK SITE (TAZ AVERAGE)	2.50%

Walkability and Transit Access



WALKABILITY

REGIONAL CENSUS TRACT AVERAGE	4.67
COFFEE CREEK SITE (CENSUS TRACT AVERAGE)	2.05

TRANSIT TRAVEL TIMES

REGIONAL TAZ AVERAGE	54 minutes
COFFEE CREEK SITE (CENSUS TRACT AVERAGE)	49 minutes

Site-Specific Key Takeaways

The site TAZ is experiencing less community change relative to the region.

The site TAZ experienced a significant drop in average home sale prices (\$51,600 lower) and saw a slight average increase in median household incomes.

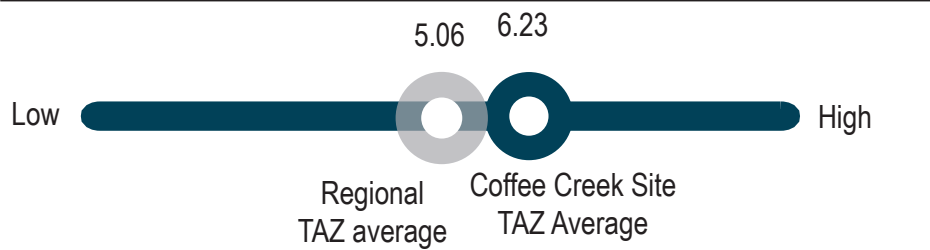
Walkability and transit access scores for the site TAZ are just below regional averages.

Although the walkability index is low, transit travel times take 5 minutes less than the regional average, resulting in an overall walkability and transit access score just below the regional score.

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COFFEE CREEK SITE (WILSONVILLE) - EQUITY AND ECONOMIC SNAPSHOT

Access to Opportunity



PERCENT IN POVERTY

REGIONAL TAZ AVERAGE	13.1%
COFFEE CREEK SITE (TAZ AVERAGE)	9.30%

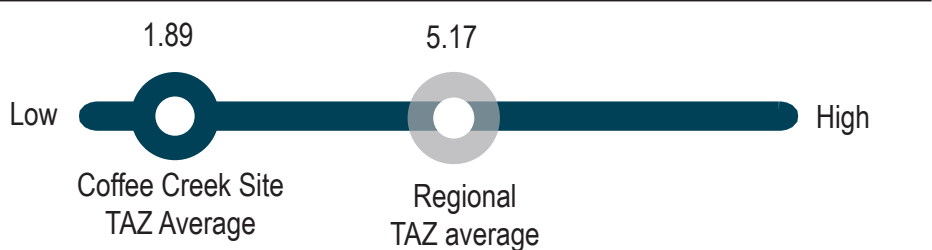
MEDIAN HOUSEHOLD INCOME

REGIONAL TAZ AVERAGE	\$68,084
COFFEE CREEK SITE (TAZ AVERAGE)	\$82,414

HIGH SCHOOL GRADUATION %

REGIONAL TAZ AVERAGE	85.0%
COFFEE CREEK SITE (TAZ AVERAGE)	97.4%

Affordable Housing



HOME OWNERSHIP %

REGIONAL TAZ AVERAGE	61.7%
COFFEE CREEK SITE (TAZ AVERAGE)	52.9%

MEDIAN GROSS RENT PER MONTH

REGIONAL TAZ AVERAGE	\$1,141
COFFEE CREEK SITE (TAZ AVERAGE)	\$1,349

MEDIAN SALES PRICE

REGIONAL TAZ AVERAGE	\$318,300
COFFEE CREEK SITE (TAZ AVERAGE)	\$533,900

Site-Specific Key Takeaways

Residents in the site TAZ have better access to opportunities than the average resident living in the region.

With a lower poverty rate (4% lower than the regional avearge), higher median household incomes (\$14,000 higher), and a significantly higher than average high-school graduation rate (12% higher), people residing within the site TAZ have more access to opportunities than they would in the region on average.

The site TAZ has a significantly low affordable housing score.

Housing within the site TAZ is much less affordable, especially for home buyers. The median home sales price is \$215,600 higher than the regional median. Median gross rents are also above average. Additionally, there is an even mix of homeowners and renters residing within the site TAZ.

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COFFEE CREEK SITE (WILSONVILLE) - EQUITABLE DEVELOPMENT

COMMUNITY ASSETS & NEEDS

Site Considerations

- Site proximity to a correctional facility offers the potential to create an employment placement program.
- Coffee Creek has a new form-based code limiting overall building sizes that could allow smaller MWESB an opportunity to establish businesses.
- Coffee Creek could benefit from additional strategies that apply to more than just housing and create a larger equity framework.

Economic Development

- Clackamas Community College provides customized training and staffing programs to help local employers with the tools and resources they need to grow and succeed. Training topics include leadership development, small business management, expansion/ downsizing/recovery, and technical on-the-job training.

Local Organizations

- The city offers free local SMART transit service in town that connects to Salem/Portland bus and commuter rail. Transit rides typically are only 10 minutes to anywhere in town.

Affordable Housing Initiatives

- The City Council approved an Equitable Housing Strategic Plan in June 2020, promoting below policy objectives to achieve more affordable housing in the region with:
 - Greater availability of a diversity of housing types for a full range of price points to serve the community.
 - Increased partnerships with nonprofit and for-profit housing developers.
 - New and expanded homeownership options, especially for first-time buyers.
 - Reduced risk of housing displacement.
 - Targeted housing opportunities in areas with access to services and public transit.
 - Maintenance and expansion of quality subsidized affordable housing stock.
 - Implementation of all housing policies through a lens of social equity and inclusion.
- The city established an 84 residential units of low-income senior housing at Creekside Woods in Wilsonville.
- Villebois, a planned residential community, integrates 73 units of mental health housing into the community.
- The City Council passed the Mobile Home Closure Ordinance to preserve affordable housing and lessen the resulting losses for homeowners when a mobile home park is closed. The ordinance requires any owner of a manufactured home park to provide 180 days notice of a park closure, a plan for where the park tenants could move their homes and a payment towards moving expenses.

KEY EQUITY CONSIDERATIONS

- Consider expanding the city's equity framework beyond housing by including access to jobs, opportunities for business entrepreneurship, workforce development and training.
- City Council has directed staff to look at best practices in establishing a committee on Equity and Inclusion to help inform city policy on a number of things, including master planning efforts, outreach/ community engagement, and leadership accountability.
- Walkability and transit access scores for the site area are well below the regional average.
- The area around the site is experiencing significantly higher housing prices; extra considerations are needed to provide affordable housing for future workers.

POTENTIAL EQUITY ACTIONS

Engagement + Empowerment (ability for diverse community groups to exercise power and benefit from development outcomes)

- Consult the "Equity in the Context of Employment / Industrial Lands" of Task 4 for a general approach to community involvement and empowerment.
- Start engagement with landowners to gauge willingness to sell property and / or to provide input for a potential Horizontal Development Agreement.
- Identify community organizations that can help provide input for a Community Benefit Agreement; identify potential programming or end users of the site that community organizations can help champion.

Workforce and Business Stability (access to finances, resources, and programming that help establish new employment uses)

- Explore partnerships with Craft3 to help provide local entrepreneurs with opportunities to utilize future development project space.
- Explore partnerships with Clackamas Community College, Oregon Tech, and the nearby correctional facility to allow for workforce and leadership training at the future development project.

Access (geographic access and increased mobility options)

- Consider opportunities to expand free transit to routes with large employment uses.

APPENDIX B: INDIVIDUAL TOOL TESTING

INCREASED INDUSTRIAL DENSITY

Goal: Add more leasable square footage to lower the marginal land cost.

Tool Considerations:

- To increase density, landscaping, parking/circulation area on the site must be reduced, or stories added.
- Adding stories is very rare and only viable in core areas of high rent metros, like logistics (last mile) uses in downtown Seattle.
- Reducing parking could be feasible in well connected areas that are bikeable, walkable, and transit served.
- On-site stormwater or other environmental constrained areas may limit ability to reduce landscaping beyond 8-15%, except in urban areas.
- Effective rents must be enough to compensate for increased construction costs in order to yield positive cash flow.
- Market forces (e.g., location, facility type, absorption) are important in deciding if increased density will produce positive result.

Site	IRR (Base)	IRR (w/ Tool)
Woodfold West	-2.3%	-1.0%
Rock Creek	4.0%	5.6%
Coffee Creek	-8.0%	-5.8%

Modelling Tests:

- 20% increase in gross leasable area.

URA SITE DEVELOPMENT COST REIMBURSEMENT

Goal: Reduce any number of costs associated with development; very flexible.

Tool Considerations:

- Recycled local property tax revenue provide limited but predictable annual amount.
- If URAs are established prior to development, post-development property tax revenue can be used to reimburse landowner for private financing of public infrastructure (annual direct payment, property tax abatement).
- Sites can generate roughly \$2 million / year.
- Increment from construction is much higher than raw land; there is limited ability to fund pre-construction improvements.
- Direct grants can be provided to property owners.
- Cities can impose minimum investments, minimum job levels and average wage levels as prerequisites.

Site	IRR (Base)	IRR (w/ Tool)
Woodfold West	-2.3%	5.6%
Rock Creek	4.0%	10.0%
Coffee Creek	-8.0%	2.1%

Modelling Tests:

- Property tax abatements equal to SDC costs divided over 10 years.

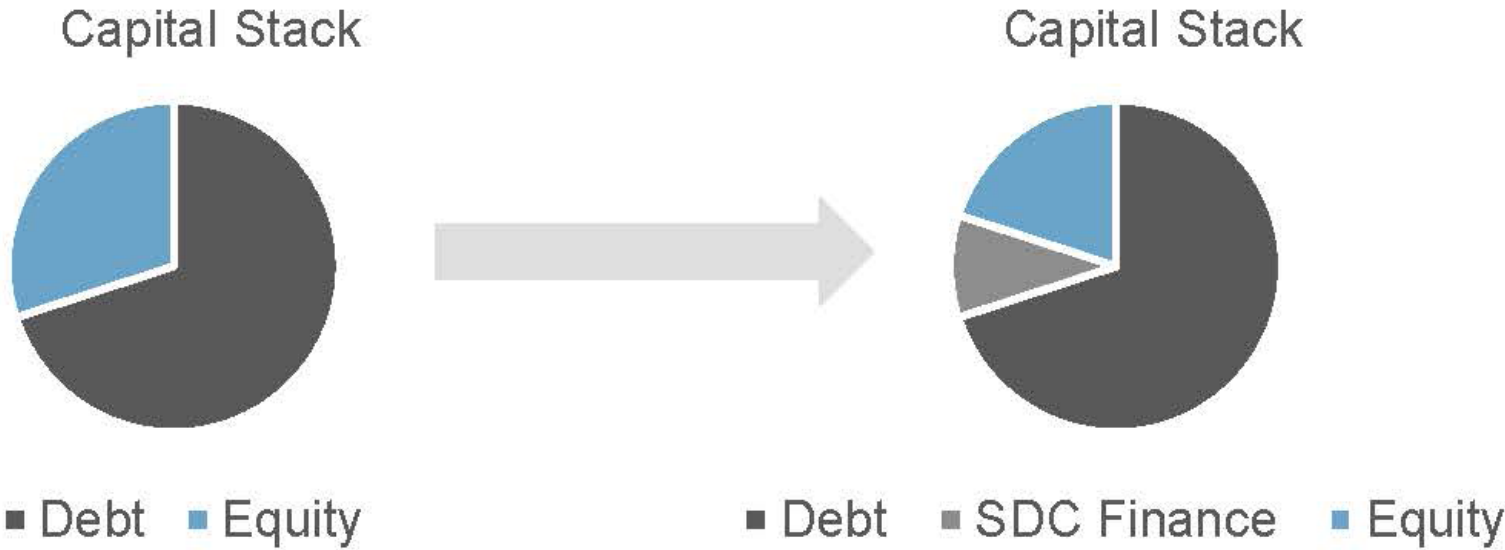
SYSTEM DEVELOPMENT CHARGES FINANCING

Goal: Convert upfront SDC expenses to operational expenses.

Tool Considerations:

- Project must have a minimum cash flow to take advantage of debt coverage.
- SDC financing is sensitive to both interest rate and loan term; longer loan term at lower rate makes greatest impact
- Find strategies to work with partnering jurisdictions to either reduce or waive SDC costs associated with development.
- This only works on projects that can support higher debt (i.e., positive cash flow).

Site	IRR (Base)	IRR (w/ Tool)
Woodfold West	-2.3%	5.5%
Rock Creek	4.0%	9.8%
Coffee Creek	-8.0%	1.5%



Modelling Tests:

- Convert upfront costs to operational expenses by taking on loan.

REIMBURSEMENT DISTRICTS

Goal: Use revenue from special assessments to fund specific capital improvements; convert upfront cost to operating cost.

Tool Considerations:

- Private financing of public infrastructure is extremely expensive; cost benefit trade-off is usually not worth it for public jurisdictions. Forest Grove off-site costs are \$6.1 million; total private financing payment equates to \$11 million.
- Compensation is disbursed to property owner over time for the additional capacity provided to neighboring properties.
- Tool is dependent on connections to the system within 10 years of creation.
- Reimbursement district boundaries would need to encompass a larger area to take advantage of future users.
- There is a degree of volatility in terms of future users and reimbursement certainty.

Site	IRR (Base)	IRR (w/ Tool)
Woodfold West	-2.3%	3.3%
Rock Creek	4.0%	9.0%
Coffee Creek	-8.0%	0.3%

Modelling Tests:

- Reimbursing off-site infrastructure costs.

INDUSTRIAL LAND BANK (LAND COST WAIVER)

Goal: Enable public acquisition of properties; waive land costs for developers.

Tool Considerations:

- Land banks can choose to sell land at a discounted price or provide land without charge to developers.
- Remedial costs can be covered by the land bank authority through grants and public and private sources.
- Land waivers have a larger impact than property tax abatements – time value of money favors upfront reductions (even if smaller dollar value overall).

Site	IRR (Base)	IRR (w/ Tool)
Woodfold West	-2.3%	8.3%
Rock Creek	4.0%	9.7%
Coffee Creek	-8.0%	3.1%

Modelling Tests:

- Waiving land cost.

INDUSTRIAL LAND BANK (LAND LEASE)

Goal: Enable public acquisition of properties; lease at a low rate for developers.

Tool Considerations:

- Land banks can choose to lease land at a discounted price or provide zero land lease terms to developers.
- Remedial costs can be covered by the land bank authority through grants and public and private sources.
- Project must have positive cash flow in the first place to take advantage of debt leverage.

Site	IRR (Base)	IRR (w/ Tool)
Woodfold West	-2.3%	3.9%
Rock Creek	4.0%	9.3%
Coffee Creek	-8.0%	-1.1%

Modelling Tests:

- Land lease.

URA TAX ABATEMENTS FOR VERTICAL IMPROVEMENTS

Goal: Provide property tax abatements / incentives for the vertical improvements related to the project.

Tool Considerations:

- Use property tax revenues (improvements) in the 10 year abatement period to help pay for project costs.

Site	IRR (Base)	IRR (w/ Tool)
Woodfold West	-2.3%	6.4%
Rock Creek	4.0%	8.9%
Coffee Creek	-8.0%	2.2%

Modelling Tests:

- Property tax abatements.

MAJOR STREETS TRANSPORTATION IMPROVEMENT PROGRAM

Goal: Use property tax funds to help pay for infrastructure related costs.

Tool Considerations:

- County board of commissioners decide which projects receive MSTIP funds; politically influenced and location dependent.
- MSTIP funds can be combined with local, state, and federal funding match revenues.
- Transportation costs are significant for all three sites (around \$3 – \$5 million).

Site	IRR (Base)	IRR (w/ Tool)
Woodfold West	-2.3%	-0.1%
Rock Creek	4.0%	5.7%
Coffee Creek	-8.0%	-5.5%

Modelling Tests:

- Waiving transportation related infrastructure costs.

TOOL COMBINATION

Goal: Combine SDC financing, URA tax abatements for vertical improvements, MSTIP, and increased industrial density tools

Tool Considerations:

- A Horizontal Development Agreement (HDA) can be used to help package together tools for specific sites in exchange for specified community benefits

Site	IRR (Base)	IRR (w/ Tool)
Woodfold West	-2.3%	16.7%
Rock Creek	4.0%	16.6%
Coffee Creek	-8.0%	12.3%

Modelling Tests:

- Combination of SDC financing, URA tax abatements, MSTIP, and increased industrial density

APPENDIX C: SITE PLAN AND CONSTRUCTION ASSUMPTIONS



I. ANALYSIS METHODOLOGY

The goal of this analysis is to identify public infrastructure improvements required to accommodate employment development on three (3) large sites throughout the Portland region; one in Wilsonville, Forest Grove, and Happy Valley. The three (3) sites were selected by the Project Advisory Team (PAT) and provided to Mackenzie for the purposes of this analysis. This project relies heavily on the work already conducted on these three (3) sites through the following projects:

- 2012 Regional Industrial Site Readiness Project
- 2014 Regional Lands Site Readiness Report
- 2015 Washington County Industrial Site Assessment Project
- 2017 Regional Lands Site Readiness Report

As such, the conceptual development plans presented in the projects listed above were not updated as a part of this report, however, the estimated building construction costs were. Changes that have been made to existing constructed public improvements and planned public improvements since the original studies listed above were provided by the respective jurisdictions and service providers and utilized by the consultant team.

This evaluation addresses each of the three (3) sites for public water, sewer, and storm drainage utility infrastructure, as well as transportation improvements and provides updates in 2020 dollars. Similar to the previous studies, this analysis continues to rely on the specific use and site layout developed for each site; costs for development are always dependent on the specific use. Mackenzie incorporated the updated information as provided by jurisdictions into the results of this report, updated the required public improvements, and updated costs in 2020 dollars. In addition, some on site costs, such as slope mitigation and environmental clean-up were also updated in 2020 dollars. This project assumed wetland mitigation costs remained the same as wetland mitigation bank costs are established at time of bank creation and continued with the previous assumption that none of the sites required building pad surcharge, therefore the costs as identified in the projects listed above remain unchanged.

Estimated building and facility construction costs are also reflected in 2020 dollars.

This section details the analysis methodology utilized in this report. These costs will be utilized by Cascadia Partners LLC to calculate and evaluate economic and fiscal impacts of the three large sites listed above.

Utility Infrastructure

This utility evaluation addresses each of the study sites for public water, sewer, and storm drainage. The analysis has been conducted based on the assumption that each site will develop independently, regardless of proximity to other sites in the previous studies. Using this methodology allows the development costs for each site to be considered independently, even though it is unlikely this will occur through actual development. Typically, infrastructure costs for the initial project in an area are higher and each neighboring project is then able to utilize the constructed infrastructure at a reduced cost.

Because of this methodology, the aggregate costs of infrastructure in this study would over-estimate the actual costs of infrastructure to serve all projects. For this study, each site is to be considered for fiscal needs and projected benefits to the local economy. Because the phasing of these projects is not known, each site includes the full cost of infrastructure as if it were the first site to develop, without the benefit of any preceding adjacent developments.

APPENDIX C: SITE PLAN AND CONSTRUCTION ASSUMPTIONS



Available public documents were reviewed (as provided by the three(3) jurisdiction partners) to develop existing conditions maps for public water, sewer, and storm drainage systems currently serving each study site. The documents include utility master plans, sub-area plans, planned capital improvement projects and as-built maps. Based on the available infrastructure, known utility deficiencies, regulatory requirements, and planned improvements, infrastructure upgrades or extensions that would be needed in order to accommodate development on the study sites were identified.

This utility analysis does not attempt to re-create the work completed to date for the sites and jurisdictions. Instead, this analysis relies on past work documented in utility master plans and sub-area plans to develop profiles of required upgrades at each site, referenced in the four (4) projects listed above. Where information is available, this analysis generally reflects the utility pipe alignments and sizes presented in past plans. This analysis lists public utility upgrades that are required to extend or improve service to each site, as well as any extensions that we expect jurisdictions would require to be installed with development of the sites. Construction for on-site utilities, such as private water, sewer, and storm drainage piping or treatment facilities is not included in the study, and has not been included in the projects listed above.

Cost estimates presented in this analysis have been developed at a planning level. Unit costs for water, sewer, and storm drainage system upgrades are based on linear feet of mainline pipes through a development area and are meant to reflect construction of the various parts of the overall conveyance system such as pipe, manholes, inlets, valves, trenching, etc. The unit costs developed for this study are generalized and assume consistent trench depths for pipes and standard excavation techniques, and include contingency for design.

The cost estimates reflect year 2020 construction costs, and do not include soft costs such as permitting and system development charges or credits for construction of infrastructure. Construction cost updates were originally estimated (in the projected listed above) based on cost factors reported by RS Means, Engineering News Record, and local utility master plans. Since the original reports, costs have been updated to reflect updated master plan documents, recent bid tabulations, and construction cost inflation.

Costs for private onsite utilities are not included in the public infrastructure costs provided in this study. The building construction costs provided include contingency for site development to include paving, landscaping, and onsite utilities; however, site development costs will vary with specific user needs.

APPENDIX C: SITE PLAN AND CONSTRUCTION ASSUMPTIONS



The following cost assumptions were used as the basis for estimating public utility infrastructure unit costs. Contingency and design are included in these unit costs.

TABLE 1. PUBLIC UTILITY INFRASTRUCTURE UNIT COSTS	
Utility Element	Estimated Cost
Water Distribution (8" Diameter)	\$180 per linear foot (LF)
Water Distribution (12" Diameter)	\$275 per linear foot (LF)
Sewer Conveyance (8" Diameter)	\$275 per linear foot (LF)
Sewer Conveyance (12" Diameter)	\$325 per linear foot (LF)
Sewer Conveyance (18" Diameter)	\$400 per linear foot (LF)
Storm Conveyance (15" Diameter)	\$325 per linear foot (LF)
Storm Conveyance (18" Diameter)	\$375 per linear foot (LF)
Regional Storm Pond	\$275,000 - \$325,000 per acre

Transportation Infrastructure

This transportation infrastructure evaluation addresses each of the subject sites for the major street (i.e., arterial or collector) access and frontage improvements. A comprehensive traffic impact analysis will likely be needed at the time of any site development to fully assess impacts to the surrounding transportation infrastructure and project specific mitigation.

Construction cost updates have been estimated based on historical bid price listings and the National Highway Construction Cost Index. The following cost assumptions were used as the basis for estimating transportation infrastructure costs:

TABLE 2. TRANSPORTATION INFRASTRUCTURE COST BASIS	
Roadway Element	Estimated Cost
Pavement Section	
Asphalt	\$14 per square foot (SF)
Concrete	\$17 per square foot (SF)
Curb	\$35 per linear foot (LF)
Sidewalk	\$17 per square foot (SF)
Landscaping	\$10 per square foot (SF)
Lighting	\$17 per linear foot (SF)
Contingency	30% of base cost
Design	10% of base costs

APPENDIX C: SITE PLAN AND CONSTRUCTION ASSUMPTIONS



The following cost assumptions were used to develop a linear estimate for three (3) general types of roadways (with asphalt paving): a 5-lane arterial, a 3-lane arterial or collector, and a 2-lane collector.

TABLE 3. LINEAR COST ESTIMATES FOR FULL STREET BY ROADWAY TYPE						
Feature	5-Lane Roadway		3-Lane Roadway		2-Lane Roadway	
	Size	Linear Cost	Size	Linear Cost	Size	Linear Cost
Roadway	74 ft	\$1,050	50 ft	\$700	30 ft	\$440
Curb	2 sides	\$70	2 sides	\$70	2 sides	\$70
Sidewalk	2 at 6 ft	\$210	2 at 6 ft	\$210	2 at 6 ft	\$210
Landscape	2 at 6 ft	\$120	2 at 6 ft	\$120	2 at 6 ft	\$120
Lighting	2 sides	\$40	2 sides	\$40	1 side	\$20
Subtotal	\$1,490/LF		\$1,140/LF		\$860/LF	
Contingency + Design	\$610/LF		\$460/LF		\$340/LF	
TOTAL	\$2,100/LF		\$1,600/LF		\$1,200/LF	

For some sites, an estimate more specific to the agency roadway standards was required. Example where this was necessary could include, an agency requirement for concrete pavement instead of asphalt or 8-foot sidewalks instead of 6-foot. These roadways were priced using the rates in **Error! Reference source not found.**

Right-of-way (ROW) dedications for on-site and frontage improvements are assumed to be part of the cost of the land and are addressed in the narrative and in the concept site plans. These ROW dedications affect the developable area of a site. Because the land costs are already addressed, the value of ROW dedications is not listed separately in this report.

On-Site Slope Mitigation

The Happy Valley site in this study contains more than approximately 60 feet of elevation difference from the high to low sides of the site. The Wilsonville and Forest Grove sites are generally much more gradually sloped. In general, industrial developments feature large-footprint buildings with flat floors and cannot accommodate steps or grade changes within the building. Loading dock accesses are generally set four feet below the floor, but otherwise the building footprint must be graded flat. Outside the building pad, parking, storage, and landscape areas have more flexibility for site grades and can accommodate steeper slopes. This planning level study does not include finish grading, only mass grading required to generally level the site for development. Final development plans are expected to address code-required accessibility standards and will require additional grading volumes beyond those identified in this analysis.

The goal of this study is to identify obstacles and major cost impacts to site development. As a general rule, it has been decided that slope areas steeper than 5% (5' of elevation change across 100' of site) should be evaluated for large-scale earthwork costs. This analysis considers the concept development layout to determine critical slope areas where slope mitigation may be required. For site areas where only minor areas exceed the 5% limits, we have estimated earthwork required to flatten the steep areas only. For site areas where major site grading is required for the concept development or where substantial grade changes are proposed, we have estimated costs for earthwork grading and retaining walls.

APPENDIX C: SITE PLAN AND CONSTRUCTION ASSUMPTIONS



Slope mitigation cost estimates have been prepared to reflect year 2020 construction costs for excavation, structural embankment, and retaining walls where required. Costs have been updated to reflect year 2020 costs based on initial study estimates escalated by inflation. In general, on-site excavation is assumed to stay as close to balanced cut and fill when site grades and operational constraints allow, and the cost estimates assume relatively short haul distances for off-site borrow or fill locations. For the Happy Valley site, we updated the earthwork estimates developed in preceding studies to reflect the reduced site footprint due to right-of-way acquisition from the southern part of the site.

Building Pad Surcharge

Soil surcharge is generally required when the building load is expected to induce consolidation settlement beyond tolerable limits. Evaluation of soil behavior is based on historical development and construction in the vicinity of the study sites. In general, the study sites are assumed to experience tolerable settlement under the concept development without surcharge mitigation. Site-specific soil analysis is required to confidently predict settlement potential. For development proposals on these sites, we recommend conducting a geotechnical evaluation to determine any necessary soil improvement measures.

None of the sites in this study were expected to require building pad surcharge prior to development, as identified in the projects listed above.

Wetland Mitigation

Wetland mitigation for the three (3) sites in this study is assumed to be accomplished through purchase of mitigation credits available through local wetland banks, as identified in the projects listed above. We understand that the credit pricing is fixed upon creation of the bank, and we assume that credits remain available for purchase at the time of this report. Therefore, the cost per acre for mitigation credits is shown unchanged from preceding estimates. Use of another mitigation bank or alternate mitigation strategies may result in different costs and schedules.

Environmental Clean Up

This study assumes that the environmental clean-up described in the projects listed above has not been completed and that clean-up remains necessary prior to development. Costs have been updated to reflect year 2020 costs based on initial study estimates escalated by inflation.

Timelines

Timelines for the offsite improvements have been developed assuming normally experienced periods for design, permitting and for construction phases. Timelines are based on the improvement length and complexity. The timelines could potentially be accelerated through increased coordination between design, permitting, and construction contractors and agencies; however, the timelines presented here are meant to represent typical industry schedules and sequencing of improvements.

APPENDIX C: SITE PLAN AND CONSTRUCTION ASSUMPTIONS



Facility Building Construction Costs

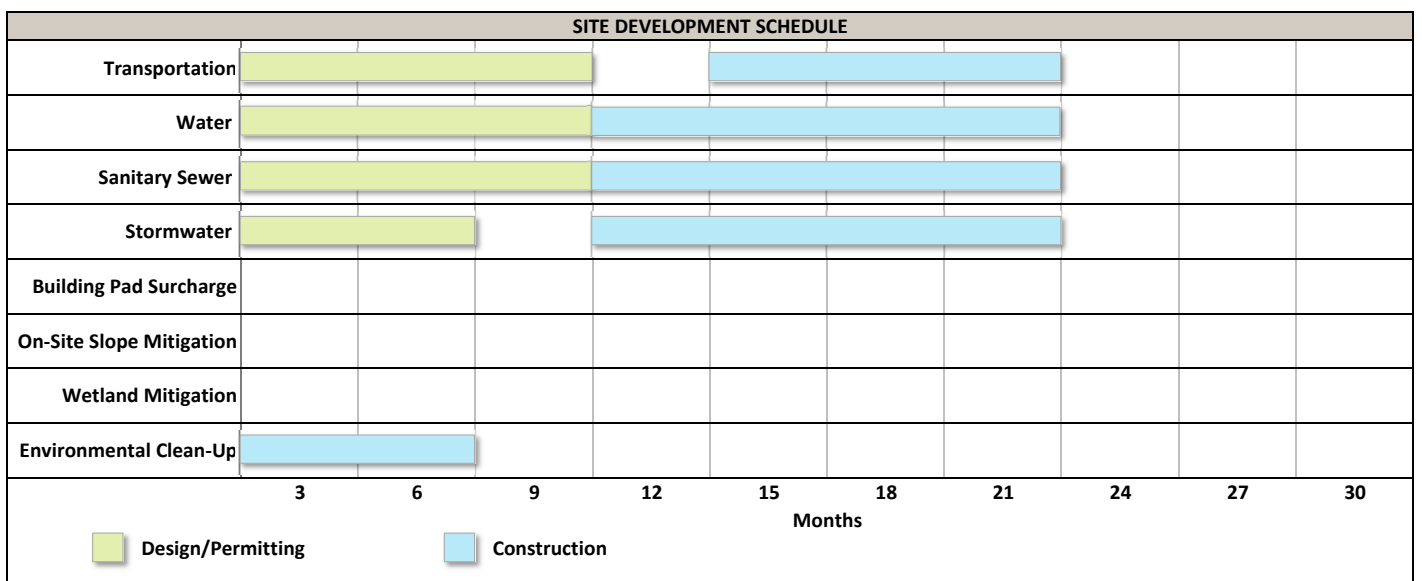
As the building construction cost estimates in the 2015 Washington County Industrial Site Assessment Project (found in Appendix F) are the most recent from the four projects listed above, Mackenzie updated those costs in 2020 dollars, based on the conceptual development plans presented for the three sites included in this project. The table below includes facility construction costs by building type of the building shell and the tenant improvement build out in 2020 dollars. Facility construction costs also include site improvements (parking, landscaping, drive aisles, etc). Mackenzie developed these estimates based on recent architectural project experience for each building type.

TABLE 4. BUILDING CONSTRUCTION COST BY BUILDING TYPE		
Building Type	Building Size Range	Cost per Building Square Foot
General Manufacturing/ Flex Industrial	Less than 25,000SF	\$200
	25,000SF to 40,000SF	\$165
	40,001SF to 80,000SF	\$150
	80,001SF to 150,000SF	\$125
	150,001SF to 300,000SF +	\$110
Warehouse	10,000SF to 50,000SF	\$68
	50,0001SF to 80,000SF	\$60
	80,0001SF to 120,000SF	\$55
	Over 120,000SF	\$50
High Tech Manufacturing	50,000SF to 80,000SF	\$185
	Over 80,000SF	\$275
Office	30,000SF to 60,000SF	\$210
	60,001SF to 120,000SF+	\$190

FOREST GROVE (WOODFOLD-MARCO WEST SITE)



Transportation		Water	
<u>Estimated Transportation Improvement Cost:</u>		<u>Water Service Provider:</u>	City of Forest Grove
\$3,985,000		<u>Estimated Water Improvement Cost:</u>	\$503,000
Design/Permit Timeline: 9 months	Construction Timeline: 9 months	Design/Permit Timeline: 9 months	Construction Timeline: 12 months
Sanitary Sewer		Stormwater	
<u>Sewer Service Provider:</u>		<u>Storm Drainage Jurisdiction:</u>	
City of Forest Grove/CWS		City of Forest Grove/CWS	
<u>Estimated Sewer Improvement Cost:</u>		<u>Estimated Stormwater Improvement Cost:</u>	
\$626,000		\$1,052,500	
Design/Permit Timeline: 9 months	Construction Timeline: 12 months	Design/Permit Timeline: 6 months	Construction Timeline: 12 months
Building Pad Surcharge		On-Site Slope Mitigation	
<u>No Building Pad Surcharge is Expected.</u>		<u>Site Slope Less Than 5% —No Slope Mitigation is Expected.</u>	
Wetland Mitigation		Environmental Clean-Up	
<u>No Wetland Mitigation is Expected.</u>		<u>Estimated Environmental Clean-Up Cost:</u>	
		\$55,000	
		Design/Permit Timeline: 0 months	Construction Timeline: 6 months



FOREST GROVE (WOODFOLD-MARCO WEST SITE)

Woodfold-Marco West, Site 65: Development Issues/Opportunities Summary

Transportation (Off-Site Development)

- The site will have direct access to the future collector roadway, assumed to be 24th Avenue with no access provided to Highway 47, and limited access to Oak Street due to the proximity of Highway 47.
- The City's TSP calls for an East-West collector connecting 23rd Avenue and Highway 47. For this analysis, the alignment is assumed to run along the boundary between the Woodfold and Grand Lodge parcels and align opposite 24th Avenue at Highway 47. Through this site, the roadway is assumed to be constructed to a full width and run along the south boundary adjacent to the substation, and stub to the west end of the site.
- The City's TSP also calls for an extension of Laurel Street as a collector to Highway 47, which has been partially constructed along the west boundary of the site as Kingwood Street. However, this option has not been vetted by ODOT nor is it on ODOT's RTP.
- The City's TSP calls for an east-west collector extending 26th Avenue from Kingwood/Laurel to Oak Street. Due to the conceptual development plan proposed on this site, this connection could be altered to connect to 23rd Avenue to the south at Kingwood Street. A small section of this Kingwood Street extension is located along the site frontage and is assumed to be constructed as a half-street improvement, but not connect to the new collector street along the 23rd/24th alignment.
- No off-site mitigation is expected with this conceptual development plan.
- Resulting anticipated improvements include:
 - Construct ½-street improvements on Oak Street along the entire frontage from Highway 47 to 24th Avenue: \$960,000
 - Construct full-street improvements on 24th Avenue between west side boundary and Oak Street: \$2,640,000
 - Construct sidewalk and planter strip along existing section of Kingwood Street: \$285,000
 - Construct ¾-street extension of Kingwood Street along western site frontage: \$100,000

Utility Infrastructure (Off-Site Development)

- **Public Water:** Existing water lines run adjacent to the site at the southwest corner and east side of the site. Approximately 350 LF of 8" water line and 1,600 LF of 12" water line are expected to provide a service loop through the southern portion of the site. Expected construction cost of these improvements is \$503,000, with timelines of 9 months for design and permitting and 12 months for construction.
- **Public Sewer:** An existing sewer line runs adjacent to the site near the southwest corner. Approximately 1,000 LF of 8" sewer line and 1,080 LF of 12" sewer line is expected to serve the site. Expected construction cost of these improvements is \$626,000, with timelines of 9 months for design and permitting and 12 months for construction.
- **Public Storm:** A 24" public storm line is adjacent to the site at the southwest corner. Approximately 2,250 LF of 18" public storm line is expected within the new roadways, draining to the municipal storm pond and to ODOT drainage facilities along Highway 47. Expected construction cost for this improvement is \$1,052,500, with timelines of 6 months for design and permitting and 12 months for construction.

Environmental (On-Site Development)

- This site has been exclusively used for residential and agricultural purposes. Known contamination sources were not identified. Assessment for the accumulation of agricultural chemicals and underground storage tanks should be completed prior to redevelopment.
- The estimated cost of cleanup for this site is approximately \$55,000 and it is estimated that the cleanup will take 6 months. There are no permits required for this cleanup.

Natural Resources (On-Site Development)

- Based on regional Metro GIS mapping, there are no wetlands and floodplains found on this site.
- DSL has reviewed this site and has found that jurisdictional wetlands do not exist on site; therefore, no mitigation is required.
- A 75-foot power easement containing BPA transmission lines runs from the northwest to the southeast through the site. No buildings are proposed within the easement corridor, though parking is proposed in the easement.

Legislative Action Required

- The property is currently inside UGB and Forest Grove city limits and is zoned General Industrial. No legislative action is required.

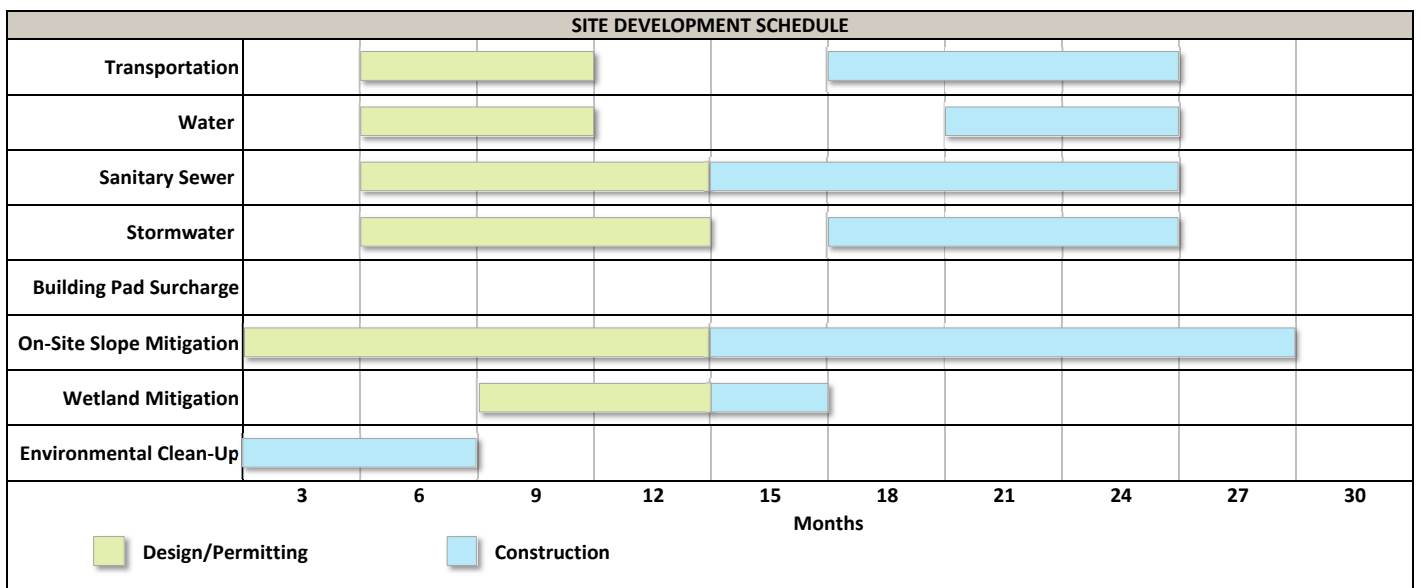
Land Assembly

- The site is made up of five separate parcels under common ownership. Parcel combination to eliminate lot lines is necessary in order to deliver the site as shown.

HAPPY VALLEY (ROCK CREEK SITE)



Transportation		Water	
<u>Estimated Transportation Improvement Cost:</u>		<u>Water Service Provider:</u>	Sunrise Water Authority
\$2,775,000		<u>Estimated Water Improvement Cost:</u>	\$440,000
Design/Permit Timeline: 6 months Construction Timeline: 9 months		Design/Permit Timeline: 6 months Construction Timeline: 6 months	
Sanitary Sewer		Stormwater	
<u>Sewer Service Provider:</u>		<u>Storm Drainage Jurisdiction:</u>	WES
<u>Estimated Sewer Improvement Cost:</u>		<u>Estimated Stormwater Improvement Cost:</u>	\$878,440
Design/Permit Timeline: 9 months Construction Timeline: 12 months		Design/Permit Timeline: 9 months Construction Timeline: 9 months	
Building Pad Surcharge		On-Site Slope Mitigation	
<u>No Building Pad Surcharge is Expected.</u>		<u>Slope Mitigation Cost:</u>	\$3,450,000
		Design/Permit Timeline: 12 months Construction Timeline: 15 months	
Wetland Mitigation		Environmental Clean-Up	
<u>Wetland Mitigation Cost:</u>		<u>Estimated Environmental Clean-Up Cost:</u>	\$126,600
Design/Permit Timeline: 6 months Construction Timeline: 3 months		Design/Permit Timeline: 0 months Construction Timeline: 6 months	



HAPPY VALLEY (ROCK CREEK SITE)

- The Happy Valley Transportation System Plan (TSP) includes a one Major Arterial street for the Rock Creek Employment Center Area supported by a network of Collector streets.
- The Sunrise Project (Highway 212) Phase 2 will extend the expressway through the Rock Creek Employment Center Area significantly limiting development of the southern portion the subject property. Although this project is currently unfunded, dedications of right of way are necessary to accommodate future widening and were purchased in 2019. The Oregon Department of Transportation (ODOT) and other partner agencies may seek to include this project in an upcoming transportation bond measure for the region.
- The TSP includes widening Rock Creek Boulevard to Major Arterial Standards and SE 162nd Avenue to Collector standards. It also includes a new east-west Collector street between SE 162nd Avenue and SE 172nd Avenue and a new north-south Collector street between Rock Creek Boulevard and the east-west Collector street. The north-south Collector street is assumed to be constructed with development of properties east of this Rock Creek site due to the unusual flag lot configurations. Because the proposed development contemplates aggregated properties, improvements assume the connectivity provided by east-west collector will be accomplished via internal development circulation. Resulting anticipated improvements include:
 - Dedicate property necessary to accommodate widening of OR212 to expressway standard (6 lanes)
 - Construct ½-street improvements on Rock Creek Boulevard (5 lanes) along property frontage: \$960,000
 - Construct ½-street improvements on 162nd Avenue (3 lanes) along property frontage: \$1,815,000

Utility Infrastructure (Off-Site Development)

- Public Water: Requires extending approximately 1,600 feet of 12" line along 162nd Ave. Anticipate 6 months for design and permitting, and 6 months for construction, with a cost of approximately \$440,000.
- Public Sewer (Local Service): Requires extending approximately 2,900 feet of 12" lines along 162nd Ave and Highway 212 to serve the site. Anticipate 9 months for design and permitting, and 12 months for construction, with a cost of approximately \$942,500.
- Public Sewer (Downstream System): Per the 2019 WES sewer collection systems master plan, the Clackamas Interceptor line needs to be upgraded to mitigate downstream capacity deficiencies at full build-out. The latest update of the sewer master plan identifies this overall project at \$50.8M to \$52.6M, to be constructed within the year 2040 plan horizon. Portions of this overall project are expected to be constructed in phases, and development of this site alone is unlikely to trigger downstream improvements. However, continued build-out of the Rock Creek area will reduce available capacity in the existing sewer collection system.
- Public Storm: Requires extending 15" local lines approximately 1,450 feet along Hwy 212 and constructing an on-site regional pond. Anticipate 9 months for design and permitting, and 9 months for construction, with a cost of approximately \$878,440.

Environmental (On-Site Development)

- The property was used for agriculture purposes between at least 1936 and present. Residual pesticides may be present in soil. A heating oil UST was possibly decommissioned in 2002.
- Residential/farm ASTs and/or USTs, used for storing gasoline, diesel, or heating oil, may be present at the site. Investigation of the magnitude and extent of pesticide and petroleum impacts, if any, may be necessary prior to site development. If ASTs/USTs are present, they should be decommissioned and remediated (if releases have occurred) prior to development at the cost of approximately \$126,600.

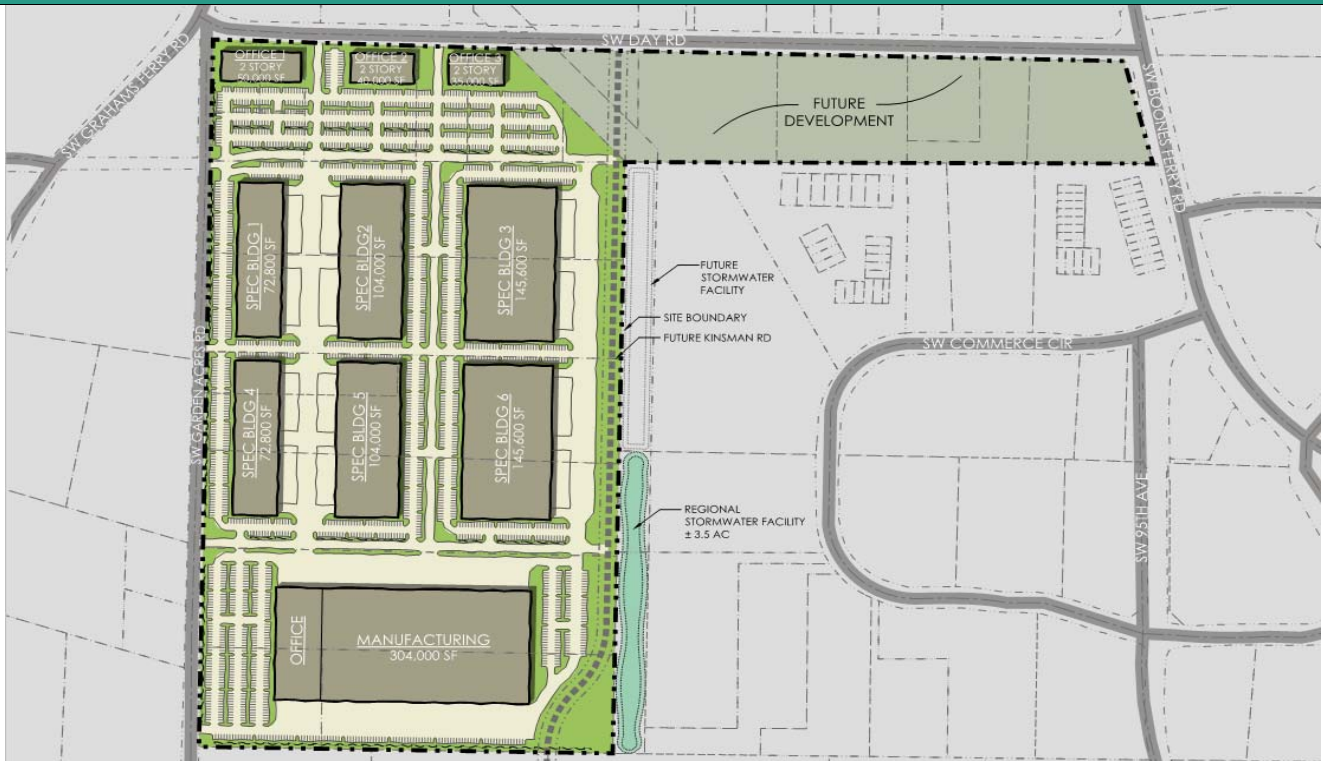
Natural Resources (On-Site Development)

- Based upon information shown on the City's Steep Slopes and Natural Resources Overlay Map, the site contains several regulated features including: Protected Water Feature and associated Vegetated Corridor, Conservation Slope Area and Buffer, and Moderate Value Habitat Conservation Area (HCA) overlays (via Metro). These features will need to be verified with a site specific study to determine whether or not the City's Natural Resources Overlays apply.
- According to the City's Economic and Community Development Manager, several of these overlays may not be located on the site due to the lack of accurate mapping data. Furthermore, the City is supportive of approvals related to the impact and mitigation of these features through the Environmental Review process.
- According to the City's Local Wetland Inventory, approximately 0.5 acre of wetland impact are necessary. A delineation is necessary to confirm. Pending the outcome of the delineation, approvals by WES, DSL and USACE may be necessary and are estimated to take 120 days. This site is currently served by the Foster Creek Mitigation Bank. The property owner is able to pay into this mitigation bank at a ratio of \$135,000/acre in order to mitigate the wetlands.
- Slope Mitigation: Requires approximately 212,500 cubic yards of slope mitigation earthwork with about 20,000 square feet of retaining walls to flatten steep slopes in the building areas. This will take 12 months permitting, 15 months construction, and cost approximately \$3,450,000.

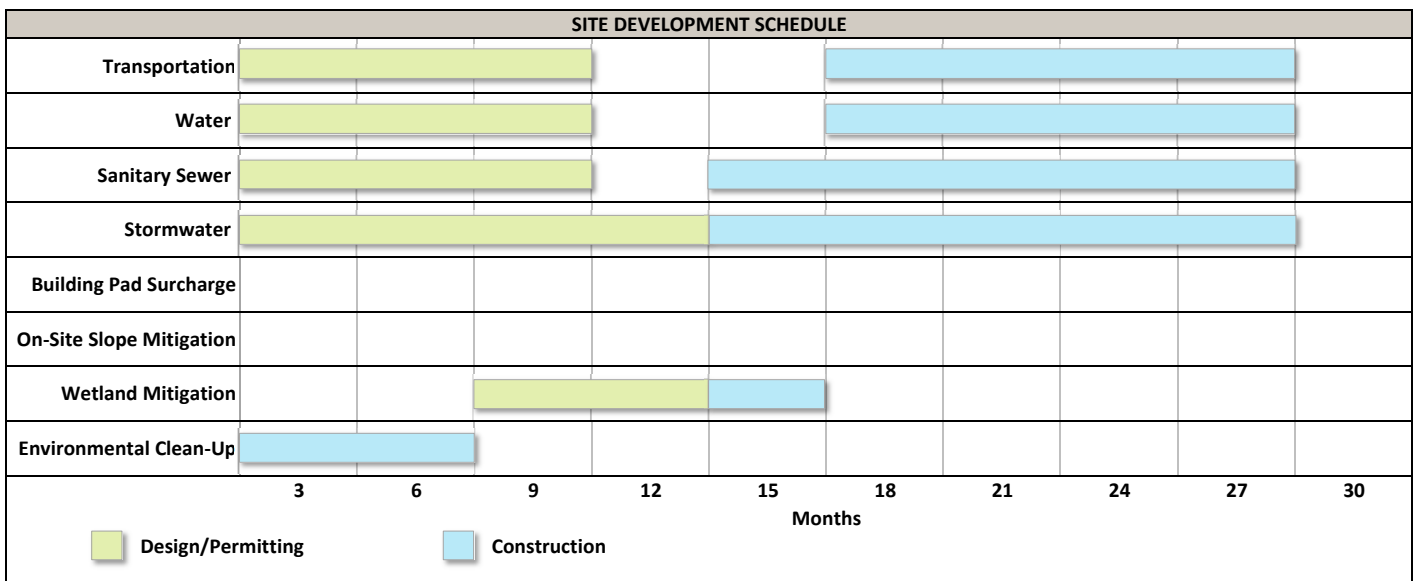
Legislative Action Required

- The site contains three separate Comprehensive Plan designations, IC, EC, and CCC and three separate zoning designations, IC, EC, and CCC. Some form of lot line adjustment(s) or lot consolidation may be necessary to deliver the site as shown. Additionally, depending on

WILSONVILLE (COFFEE CREEK SITE)



Transportation		Water	
<u>Estimated Transportation Improvement Cost:</u>		<u>Water Service Provider:</u>	
\$5,030,000		City of Wilsonville	
Design/Permit Timeline: 9 months Construction Timeline: 12 months		<u>Estimated Water Improvement Cost:</u>	
		\$687,500	
		Design/Permit Timeline: 9 months Construction Timeline: 12 months	
Sanitary Sewer		Stormwater	
<u>Sewer Service Provider:</u>		<u>Storm Drainage Jurisdiction:</u>	
City of Wilsonville		City of Wilsonville	
<u>Estimated Sewer Improvement Cost:</u>		<u>Estimated Stormwater Improvement Cost:</u>	
\$2,596,250		\$2,045,750	
Design/Permit Timeline: 9 months Construction Timeline: 15 months		Design/Permit Timeline: 12 months Construction Timeline: 15 months	
Building Pad Surcharge		On-Site Slope Mitigation	
<u>No Building Pad Surcharge is Expected.</u>		<u>Site Slope Less Than 5% —No Slope Mitigation is Expected.</u>	
Wetland Mitigation		Environmental Clean-Up	
<u>Wetland Mitigation Cost:</u>		<u>Estimated Environmental Clean-Up Cost:</u>	
\$70,600		\$153,450	
Design/Permit Timeline: 6 months Construction Timeline: 3 months		Design/Permit Timeline: 0 months Construction Timeline: 6 months	



WILSONVILLE (COFFEE CREEK SITE)

Transportation (On-Site Development)

- The Wilsonville Transportation System Plan (TSP) relies on primary access to the Coffee Creek Industrial Area from I-5/Elligsen Road via Boones Ferry Road and Day Road with additional access provided by Grahams Ferry Road, Ridder Road, and Kinsman Road.
- Construction of the planned improvements to Garden Acres Road are funded, and completion of the upgrade is anticipated in 2020.
- The intersection improvements at Day Road/Garden Acres Road are also funded, and construction is planned within the next 5 years.
- Roadway improvements to Day Road between Boones Ferry Road and Grahams Ferry Road upgrading to a concrete-surfaced, 5-lane multimodal urban standard. City staff have indicated this project is not funded and will likely be constructed with development; therefore, cost estimate include ½-street improvements along the site frontage.
- The Coffee Creek Industrial Master Plan identifies two new roadways including: Kinsman Road, a north-south roadway on the east side of the property, and Java Road, an east-west roadway extending between Garden Acres Road and Kinsman Road. Because the proposed development contemplates aggregated properties, improvements assume construction of Kinsman Road as a public roadway and the connectivity provided by Java Road will be accomplished via internal development circulation.
- Based on the conceptual site plan, anticipated transportation infrastructure improvements necessary to serve immediate subject property development are limited to direct property access improvements and the following:
 - Construct sidewalk and planter strip on Garden Acres Road along property frontage: \$720,000
 - Construct ¾-street improvements on Kinsman Road along property frontage: \$2,750,000
 - Widen and reconstruct Day Road ½-street improvements (5 lanes) with concrete surface along property frontage: \$1,560,000

Utility Infrastructure (Off-Site Development)

- Public Water: Connect SW Day Road to Ridder Road along future Kinsman Road with approximately 2,500 ft of 12" line. Anticipate approximately 9 months for design and permitting, and 12 months for construction, with a cost of approximately \$687,500.
- Public Sewer (Local Service): Extend approximately 6,800 ft of 12"-18" gravity line in a public utility easement through the site and along SW Day Road. Anticipate approximately 9 months for design and permitting, and 15 months for construction, with a cost of approximately \$2,596,000.
- Public Sewer (Downstream System): A downstream deficiency is identified in the United Disposal interceptor for full build-out of the Industrial Area. Development of this site alone may not trigger the need for upgrading the interceptor line.
- Stormwater: Requires constructing 18" local lines approximately 3,050 feet along Kinsman Rd from Day Rd to Ridder and constructing an on-site regional pond. Anticipate 12 months for design and permitting, and 15 months for construction, with a cost of approximately \$2,045,750. City of Wilsonville is currently constructing storm improvements within Garden Acres Rd on the west side of the site.
- The proposed utility alignments require public easement dedications on site.

Environmental (On-Site Development)

- Virtually the entire property was used for agriculture purposes between at least 1936 and present. Residual pesticides may be present in the soil. Residential/farm ASTs and/or underground storage tanks (USTs) used for storing gasoline, diesel, or heating oil, may be present at the site.
- Investigation of the magnitude and extent of pesticide and petroleum impacts, if any, may be necessary prior to site development. If ASTs/USTs are present, they should be decommissioned and remediated (if releases have occurred) prior to development, at the cost of approximately \$153,450 and a 6-month remediation timeframe.

Natural Resources (On-Site Development)

- There is a small area (1.0 acre) of wetlands located on the site. Necessary Corps/DSL permits will be required for the fill and mitigation of this wetland. In addition, it is assumed that the City will apply its Significant Natural Resource Overlay to these features, which will require a review of a Significant Resource Impact Report. Total timeline for all approvals is estimated at 150 days, and mitigation cost of \$70,600, which will be paid to the Mud Slough Mitigation Bank.

Legislative Action Required

- This site is currently within the UGB, however has not been annexed into the City of Wilsonville. Per conversations with City Planning staff, the annexation process could take approximately 12 weeks. Prior to annexation occurring, the City needs to adopt the Significant Natural Resources Inventory for this site. Per conversations with City Planning Staff, all land use and annexation approvals should take 120 days.

Land Assembly

- The site is made up of 21 separate parcels and 17 ownerships. Parcel aggregation is necessary in order to deliver the site as shown.
- The site has had some history of attempted aggregation that was unsuccessful due to the gap between market and perceived value of the property.

APPENDIX D: PRO FORMA MODELLING METHODOLOGY

APPENDIX D: PRO FORMA MODELLING METHODOLOGY

Site Programming + Infrastructure Summary

- Provided by Mackenzie; see Appendix C.

Site Development Issues

- Provided by Mackenzie; see Appendix C.

Pre-development Costs

- Land acquisition prices were based off comparable sales in the general submarket of each site location.
- Land carry was structured as 7% of the total off-site and on-site costs multiplied by the number of pre-development months divided over 12 months.
- Other fees represent the cost of legal fees and land entitlement processes.

Site Readiness Costs

- Site readiness costs represent the horizontal infrastructure costs required to get the land development ready.
- On-site and off-site costs were provided by Mackenzie.
- Time costs were structured the same as land carry costs and represent the opportunity costs for preparing the site for development.
- Soft costs were assumed to be 20% of the sum of on-site and off-site infrastructure costs, consistent with the previous methodology used for the Industrial Land Inventory update.
- The threshold return was structured as 15%, which is typical of a development project target return rate.

Vertical Construction Costs

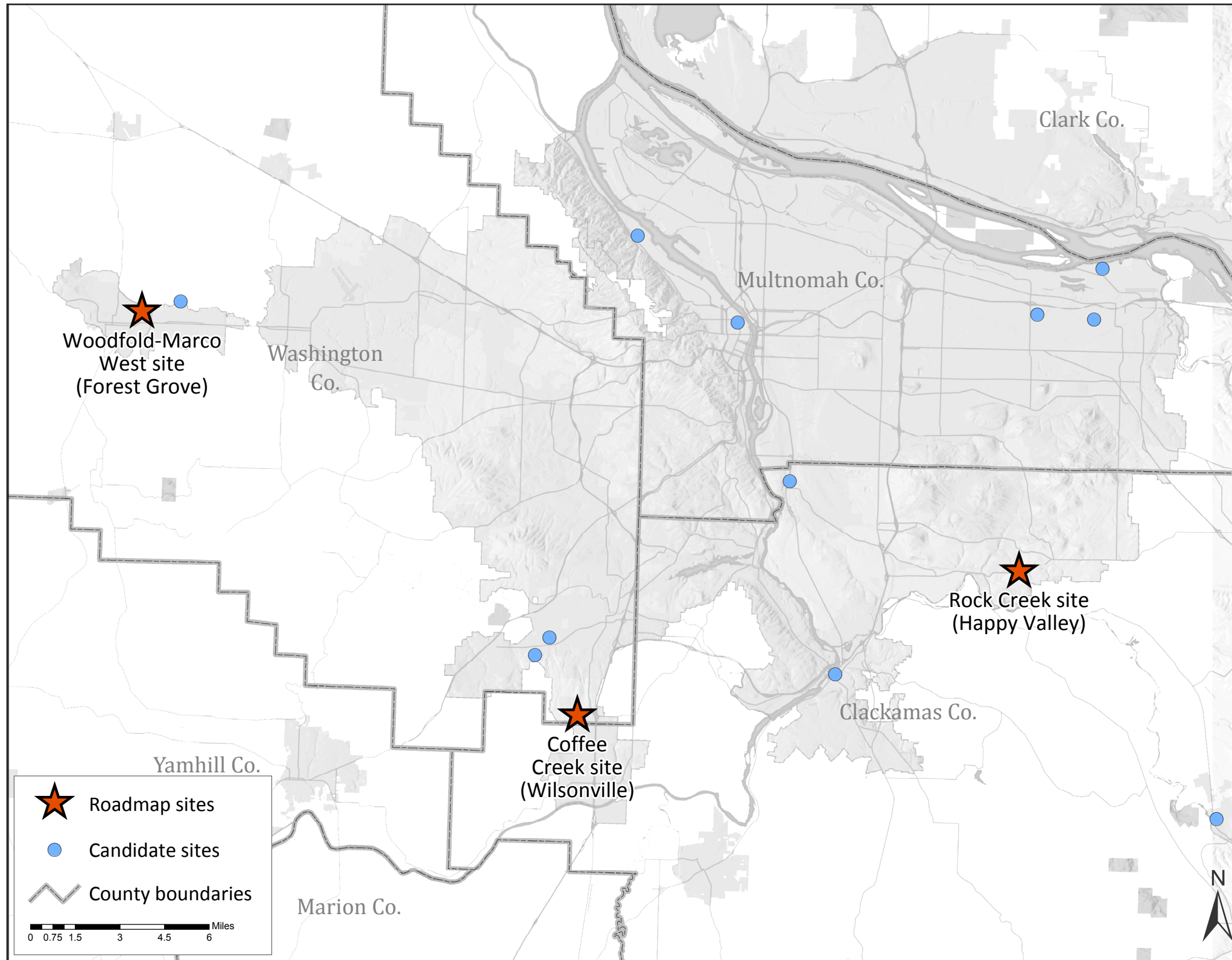
- Site readiness costs represent the horizontal infrastructure costs required to get the land development ready.
- Parking and pavement costs represent the estimated cost for all surface parking spaces in addition to paving.
- Construction costs for each use type (office, industrial, warehousing) was provided by Mackenzie.
- Soft costs were assumed to be 20% of the total construction costs.

Annual Employment Impact

- The number of direct and indirect / induced jobs, labor income, and output was updated using the same IMPLAN multipliers from the 2012 and 2015 updates.
- Taxable income was measured as 75% of the payroll wage (consistent with the 2012 and 2015 updates). A payroll tax rate of 8.73% was used to estimate the amount of payroll tax revenue.
- Property tax revenue was estimated using the assessment ratio and property tax rate local to each site.

APPENDIX E: ROADMAP CANDIDATE SITES

APPENDIX E: ROADMAP CANDIDATE SITES



Each of the members of the Project Advisory Committee (PAT) were asked to identify one site from the list of 59 sites identified as priority employment land sites at the beginning of the project. Fourteen jurisdictions (shown on the map) submitted sites for consideration. One site was eliminated from consideration as it was not located in the Urban Growth Boundary. Two jurisdictions removed their sites from considerations.

The 11 sites remaining sites were evaluated against the selection criteria established in the Metro Employment Land Site Readiness grant application and refined by the PAT. Based on the scoring of the sites against the criteria and discussions with the PAT, three sites were identified for Task 4 pre-development roadmaps:

- Forest Grove – Woodfold West site (54 acres)
- Happy Valley – Rock Creek site (38 acres)
- Wilsonville – Coffee Creek site (76 acres)

These three jurisdictions committed to work with the consultant team on the roadmaps, and present the roadmaps to their governing bodies for acceptance upon completion.