

SOUTHWEST TUALATIN CONCEPT PLAN

Prepared for



In Conjunction With

**Oregon Transportation and
Growth Management Program**

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1 INTRODUCTION

The *Southwest Tualatin Concept Plan* (Concept Plan) is a guide for the industrial development of a 431-acre area currently outside the southwestern corner of the City of Tualatin (City). The Concept Plan follows the December 2002 and June 2004 decisions by the Metropolitan Service District (Metro) to bring the area inside the regional urban growth boundary (UGB), and thus set the stage for future urbanization of this area. Metro conditioned the land for industrial development as part of a strategy to balance the supply of land within the Portland Metropolitan region for job creation. The Concept Plan allows for flexibility in industrial development while promoting compatibility with adjacent land uses and natural resources.

Context and Setting

The Southwest Tualatin Concept Plan area is located southwest of Tualatin (Figure 1). The project area is comprised of land brought into the UGB at different times. Approximately 50 acres of the study area were within the pre-2002 UGB and owned by Tigard Sand and Gravel (TSG). The area known as the Tonquin Industrial Group (TIG), consisting of approximately 50 acres, was added in December 2002 through Metro Ordinance 02-969B. The area known as TSG, consisting of approximately 252 acres, was added in December 2002 through Metro Ordinance 02-990A. Another portion consisting of approximately 80 acres was added in June 2004 through Metro Ordinance 04-1040B. This portion is designated as Regionally Significant Industrial Area (RSIA) by Metro. The RSIA's are lands located throughout the Portland Metropolitan region that have been identified as important for future regional economic growth, with close access to the region's major transportation facilities. The balance

of the area (non-RSIA) is designated industrial by Metro. Through preliminary planning, and with property owners' consent, additional areas known as the "supplemental planning areas" were incorporated into the concept planning area. The entire area is bounded on the east and north by the City of Tualatin and on the south and west by unincorporated Washington County. The project area touches SW 120th Avenue to the north and SW Tonquin Road and SW Waldo Way to the south. Bonneville Power Administration (BPA) and Portland General Electric (PGE) power lines traverse the area. The Portland and Western Railroad runs on the east side of the project area, providing the potential for future direct rail service.

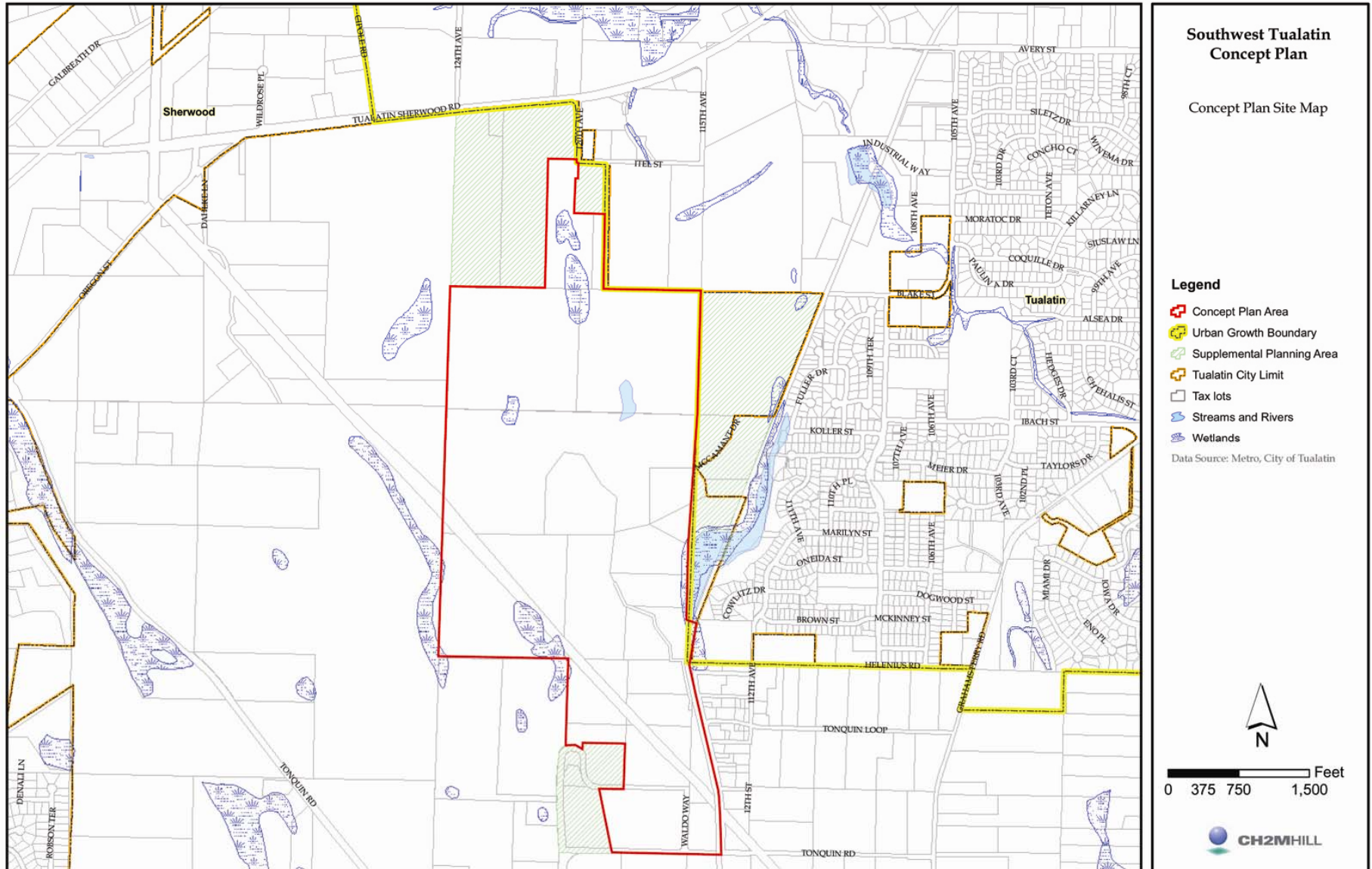
Plan Summary

Key features of the Concept Plan are summarized in Table 1. This is based on a conceptual development scenario as shown in Figure 3.

TABLE 1
Concept Plan Summary

Element	Description
Land Use and Development	Land use would be a mix of light industrial and high-tech uses in a corporate campus setting, consistent with new planning district requirements. The RSIA-designated area requires at least one 100-acre parcel and one 50-acre parcel for large industrial users. The remainder of the area is likely to include light industrial with some limited, local-serving commercial services.
Transportation	Primary access to the Southwest Tualatin Concept Plan area will be from an extended SW 124th Avenue south of Tualatin-Sherwood Road. Secondary access is planned via SW 115th and SW 120th Avenues. SW 124th Avenue would follow the City's major arterial street section as defined in the Tualatin Development Code (Eb&t). SW 115th and the unnamed east-west street between SW 124th and SW 115th will be collectors (Cb&t). The extension of SW Blake Street between SW 115th and SW 124th will be a major collector (Cb&t) and between SW 115th and SW 108th will be a minor collector (Cb). SW 117th Avenue, SW 122nd Avenue, and SW Iteel Street would follow the Local Commercial Industrial (B-CI) street section. All streets would be illuminated and landscaped.
Water	A planned 16-inch pipe is identified in the Tualatin Water Master Plan to provide a looped water supply to the Concept Plan area.
Sewer	The Tualatin Sanitary Sewer Master Plan includes a new 24-inch trunk line constructed along Tualatin-Sherwood Road to SW Avery Street. The plan also includes the replacement of the Bluff/Cipole lateral and trunk lines with an 18-inch to 36-inch pipe near the Tualatin-Sherwood Road intersection at Avery Street. New pump stations may be required to serve the south portion of the Concept Plan area.
Storm Drainage	<p>North Half of Concept Plan Area: A new on-site storm drainage system would be created with detention ponds at low points within the area. A portion of the site would also drain north to the collection system along Tualatin-Sherwood Road.</p> <p>South Half of Concept Plan Area: Drainage flows south toward Coffee Lake Creek/Seeley Ditch, which flows to the Willamette River, and thus will involve coordination with downstream areas.</p>
Natural Resources	Existing regulations would minimize potential adverse effects on resources identified in the Tualatin Natural Features Map and Tualatin Basin Natural Resource Recommendations to Metro.

FIGURE 1. SITE MAP



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2 PLANNING PROCESS

What is a Concept Plan?

A concept plan guides how land newly added to the UGB will be used, provided with urban services, and developed in the context of existing adjacent communities. Concept plans, which typically focus on issues of land use, transportation, public infrastructure, and natural resources, are defined in Title 11 of Metro's *Functional Plan* (Code Sections 3.07.1105 – 3.07.1140, "Planning for New Urban Areas"). The Concept Plan area is intended only for industrial development and supporting commercial activities. It is not large enough to be considered a complete community. As a result, not all of the concept plan parts defined in Metro's *Functional Plan* apply to this Concept Plan¹. The requirements for a concept plan are described in more detail in the Metro handbook titled *Livable New Communities* (2002). The eleven basic parts of a concept plan are listed below, with those relevant to the *Southwest Tualatin Concept Plan* shown in italics.

1. *Annexation plan*
2. Residential densities of at least 10 dwelling units per net residential acre
3. Provisions for a diversity of housing stock
4. Provisions for affordable housing
5. *Provisions for commercial and industrial land suited to the area*
6. *Conceptual transportation plan*

¹ Provisions for commercial use (other than directly supportive of industrial activities), housing, and schools are not applicable because the Concept Plan area is for industrial use only.

7. *Natural resource protection and restoration plan*
8. *Public facilities plan*
9. Plan for schools
10. *Overall urban growth diagram*
11. *Coordination among city, county, school districts, and other districts*

Although some land was already within the UGB prior to 2002, Metro added the majority of the area addressed by the Concept Plan to the regional UGB in December 2002 and June 2004, and at that time conditioned the land for industrial use. Preparation of this Concept Plan is the next step toward future urbanization of this land and annexation into the City.

How Was the Plan Developed?

The planning process consisted of four key components:

- Input from the Technical Advisory Committee (TAC)
- Involvement of property owners, other stakeholders, and the public
- Establishment of Concept Plan goals
- Review of existing conditions

INPUT FROM TECHNICAL ADVISORY COMMITTEE

Development of the Concept Plan was guided by input from a 29-member TAC that met seven times during the planning process. The TAC included representatives from the City of Tualatin, Oregon Department of Transportation (ODOT), Washington County, Metro, Clean Water Services (CWS), TriMet, City of Sherwood, City of Wilsonville, Bonneville Power Administration (BPA), Portland General Electric, Oregon Department of Geology and Mineral

Industries (DOGAMI), Department of Corrections (Coffee Creek Correctional Facility), ODOT Rail, Tualatin Valley Fire and Rescue (TVF&R), Oregon Department of Land Conservation and Development (DLCD), Genessee and Wyoming (Portland and Western Railroad), Tigard Sand and Gravel, and the Tonquin Industrial Group. Documentation of the TAC meetings is provided in Appendix A.

INVOLVEMENT OF STAKEHOLDERS AND THE PUBLIC

The broader community was involved in the Concept Plan process through mailings to interested parties, regular postings on the project’s webpage, and two public open houses. The public open houses were conducted on March 9, 2005, and June 14, 2005, to allow public review and subsequent revision of the Draft Concept Plan. Documentation of the public open houses is provided in Appendix B. In addition, a Neighborhood meeting was held on July 26, 2005 to discuss Conceptual Development Alternative 3, and on August 4, 2005, a letter with project information was mailed to over 1700 property owners.

ESTABLISHMENT OF CONCEPT PLAN GOALS

Goals for the Concept Plan were established early in the planning process. The goals, shown in Table 2, were reviewed and affirmed by the TAC at their meetings on March 30, 2005, and May 11, 2005.

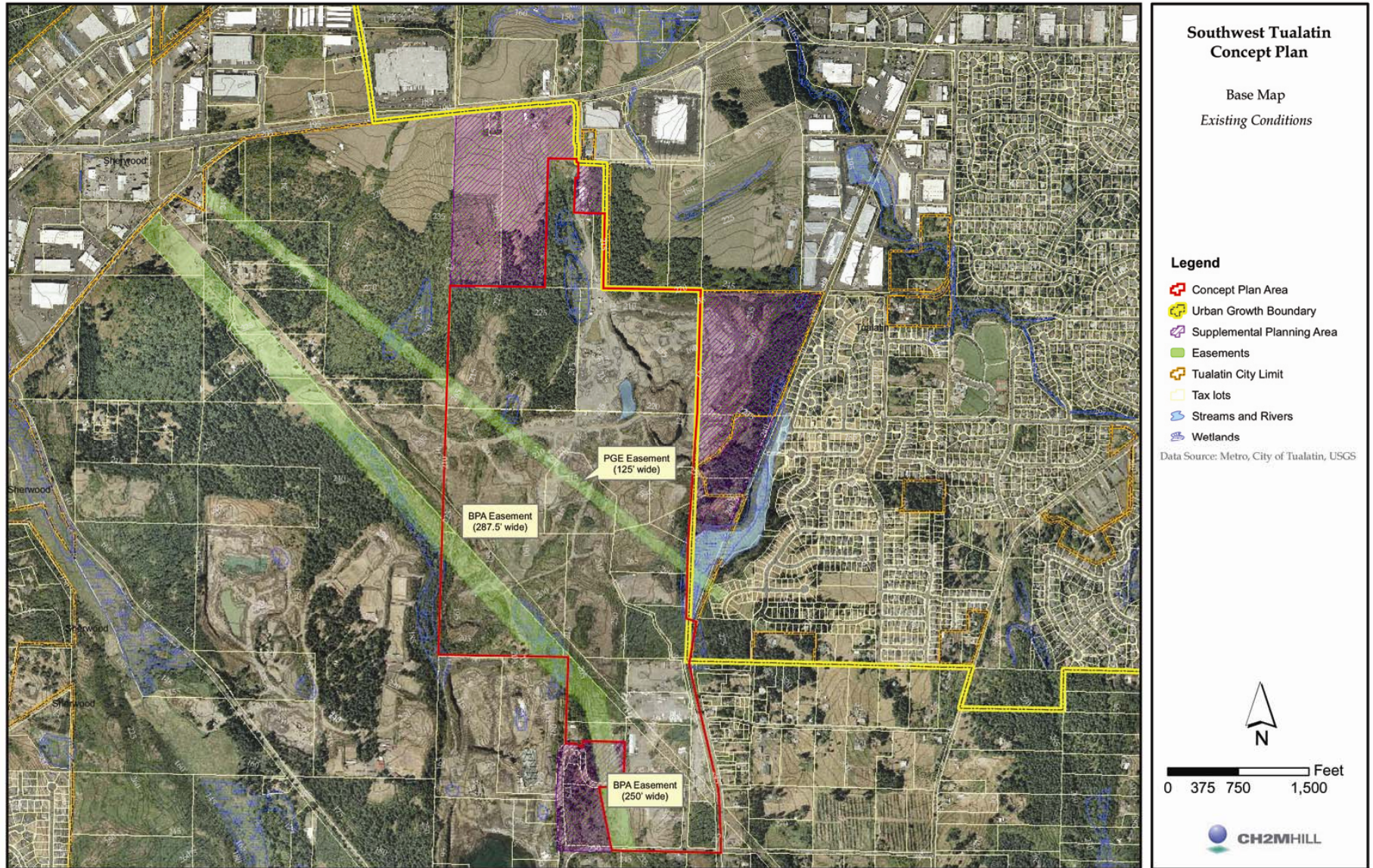
REVIEW OF EXISTING CONDITIONS

The first portion of the technical work for the Concept Plan focused on the review and analysis of existing conditions. This included a document review, site visit, and an analysis of transportation and infrastructure needs based on existing conditions. An existing conditions memorandum, including a traffic impact assessment, was prepared and is included in Appendix C. A map summarizing key existing conditions is included as Figure 2.

**TABLE 2
Concept Plan Goals**

A.	Create a plan to guide future development of the project area.
B.	Ensure Concept Plan meets Metro Ordinances 02-990A and 04-1040B.
C.	Ensure an adequate and efficient transportation system
D.	Coordinate the planning with the future I-5 / 99W connector.
E.	Involve broader community in planning process
F.	Work with BPA and PGE to ensure safe development
G.	Identify alternative methods of providing infrastructure and highlight any issues related to supply and delivery limitations for the different types of infrastructure systems.
H.	Identify the cost of infrastructure and identify alternative methods of funding for infrastructure provision.
I.	Evaluate limited commercial to serve the needs of the area's employees.
J.	Preserve significant natural resources

FIGURE 2. EXISTING CONDITIONS



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3 CONCEPT PLAN

The Concept Plan is described in the text below and illustrated in the referenced figures.

Land Use and Development Plan

ZONING

In adding the Concept Plan area to the UGB, Metro conditioned the land to be used for two types of industrial purposes: Regionally Significant Industrial Area (RSIA) and Industrial. When land in the Concept Plan area is annexed to the City of Tualatin upon redevelopment, the land use district shall be Business Park (Figure 1). There are several reasons for this designation.

1. As a new district within the City of Tualatin, it allows more focused types of light industrial, high-tech and campus employment users, with strict limitations on commercial development. This, in turn, will help meet Metro's goals regarding "regionally significant industrial" and other industrial development.
2. The new designation is intended to be a good transition zone between residential areas to the east and industrial areas. The new designation requires high quality landscaping, buffering, and design standards intended to alleviate and/or mitigate potential impacts on adjacent Residential Districts, while promoting light industrial activities within a campus-like setting.

Key development assumptions associated with the Business Park planning designation are shown on Table 3.

TABLE 3

Development Assumptions for Southwest Tualatin Concept Plan Potential Business Park Planning District

Minimum Parking	0.3 spaces per 1,000 square feet (warehouse) up to a range of 1.6-3.0 spaces per 1,000 square feet (manufacturing), depending on use.
Setbacks	Front: 30 - 50 feet Side/back: 0 - 100 feet* Private road: 5 feet Public road: none Parking areas: 20 - 25 feet
Impervious Surface	Up to 80 percent of the development area may be impervious.
Landscaping	A minimum of 20 percent of the development area is required to be landscaped.
Minimum Lot Size	20,000 square feet; except for RSIA-designated land, which shall include at least one 100-acre parcel and one 50-acre parcel.
Maximum Structure Height	65 feet; to 85 feet if certain yard requirements are met. Within 100 feet of residential district, maximum height is 28 feet.

* Within this range, setbacks will be larger if property abuts a residential area.

DEVELOPABLE AREA

Of the approximately 431 acres in the Concept Plan area, the actual developable area is reduced by the following factors or development requirements:

- Approximately 352 acres within the Concept Plan area are considered to be gross buildable acres (net of existing/planned public arterial and collector street right-of-way, wetlands, and floodways).

- Areas within BPA and PGE easements are subject to the following constraints:
 - Cannot be used for parking, buildings, or water quality facilities
 - No buildings can be constructed within 25 feet of the vertical members of the transmission line towers
 - Potentially could be used for public open space, such as a trail

It is assumed that impacts on potential floodplains and wetlands could be mitigated offsite and would not reduce developable area. Any offsite mitigation would be subject to the applicable regulations of the affected jurisdictions (e.g., Washington County).

The local resources in the Natural Resources Map would be protected, where appropriate, and enhanced as a condition for new development.

The Portland and Western Railroad right-of-way (owned by ODOT) traverses in a north-south alignment along the eastern boundary of the Southwest Tualatin Concept Plan area. ODOT's Rail Division has indicated that no new public at-grade street or pedestrian crossings would be allowed. Any new crossings would need to be either below or above grade.

FUTURE URBAN EXPANSION

When the Concept Plan area is annexed into the City of Tualatin, it will form the southwestern city limits. The Concept Plan area is surrounded on two sides by land that is currently inside the City of Tualatin city limits. The land to the west and south of the Concept Plan area is currently within unincorporated Washington County. However, this is an area that will become urbanized in the future. Adjacent to the SW Tualatin Concept Plan area on the northwest is the 354-acre "Quarry Area," and on the southeast the 916 acre

(approximate) "Tualatin Area" brought into the UGB by Metro in June 2004 for future industrial and residential development.

Traffic Analysis

BACKGROUND

As discussed above, in December 2002 and June 2004, Metro added land designated for future industrial development in Southwest Tualatin to the Portland regional Urban Growth Boundary. This, together with pre-2002 UGB land, makes up the 431-acre Southwest Tualatin Concept Plan area. This area is located south of Tualatin-Sherwood Road and west of the current Tualatin city limits and in the future will be annexed into the City of Tualatin. Current land uses in the planning area consist of aggregate mining (the majority of the area), agricultural activities, and a small amount of rural industrial and manufacturing uses at the south end of the area. The Southwest Tualatin Concept Plan is identifying land use, transportation, and urban services needs for the Concept Plan area, once mining operations cease and the agricultural, rural industrial, and other non-industrial sites redevelop. The draft preferred conceptual development plan (Alternative 3) is illustrated in Figure 3.

PLANNING PROCESS

The end result of the Concept Plan will be amendments to Tualatin's Development Code and Transportation Plan that will allow the future redevelopment of the Concept Plan area from its current rural industrial agricultural and aggregate extraction uses to more urbanized industrial uses. These future uses are assumed to be a mix of "light industrial" (e.g., printing, material testing, and assembly of data processing equipment) and "business park" uses (e.g., flex-type space for technology companies). In total, the area could have 5,500 to 5,700 jobs by the year 2025. Approximately 1,800 jobs are already assumed in city, county, and regional transportation plans, meaning

that the traffic impacts of 3,700 to 3,900 additional jobs needed to be addressed.

The transportation system in the year 2025 will not be the same as it is today. City, county, and/or regional transportation plans call for the following projects to be constructed by 2025, all of which provide extra roadway capacity that does not exist today:

- A new roadway connecting I-5 and Highway 99W. Although a new freeway connecting south of Sherwood, with an interchange at SW 124th Avenue, produces the best traffic operations, that alignment requires state approvals that have not yet been obtained. Instead, the Concept Plan work assumes a four-lane arterial along the Urban Growth Boundary that joins Tualatin-Sherwood Road northeast of Sherwood.
- Widening Tualatin-Sherwood Road to 5 lanes from Tualatin to Sherwood.
- A new bridge across the Tualatin River (either an extension of Hall Boulevard or a connection between Lower Boones Ferry Road and Tualatin Road).

The Southwest Tualatin Concept Plan's traffic work is also being coordinated with other planning work in the area, including the Northwest Tualatin Concept Plan (recently completed) and the Tualatin Town Center Plan.

SUMMARY OF RESULTS

The traffic analysis (see Appendix D) found there to be little difference in the overall number of trips generated by the three alternatives. Thus, there was little difference in the traffic operations results between the three alternatives.

The traffic analysis for the Concept Plan area studied the area's immediate vicinity, three key intersections in the Tualatin Town Center, and the North Wilsonville interchange. The traffic analysis found that the following intersections will require attention:

- Nyberg Road/I-5 Northbound Ramps would operate over capacity in the 2025 a.m. peak hour, before the Concept Plan area is redeveloped. Converting the westbound right-turn lane to a free-flowing movement (similar to the North Wilsonville interchange) would provide acceptable operations.
- Nyberg Road/I-5 Southbound Ramps would operate at 98 percent of its capacity in the 2025 a.m. peak hour, before the Concept Plan area is redeveloped. Afterwards, it would operate at 103 to 106 percent of its capacity. Restriping the existing Southbound off-ramp lanes to provide left, left-through-right, and two right-turn lanes (e.g., providing a triple right turn) would allow the intersection to operate at 84 percent of its capacity. Modifications to the interchange would require ODOT approval.
- Tualatin-Sherwood Road/Boones Ferry Road would operate at level of service (LOS) F and over capacity in 2025, before redevelopment of the Concept Plan area. All three alternatives would add more traffic through the intersection. The traffic work for the Tualatin Town Center Plan, which accounted for future traffic to and from the Concept Plan area, found that a combination of projects would be needed to provide LOS D operations in the year 2025. These include prohibiting left turns from Boones Ferry Road onto Tualatin-Sherwood Road and providing new local street connections that provide alternatives to making short trips on Tualatin-Sherwood Road.
- Tualatin-Sherwood Road/SW 120th Avenue would need to be restricted to right-in, right-out movements upon redevelopment of the Concept Plan area, as left-turning movements would experience lengthy delays.
- Tualatin-Sherwood Road/SW 124th Avenue would operate close to its capacity, if single left-turn lanes were used. A second

northbound left-turn lane would result in operations at 89 percent of the intersection's capacity. Alternatively, developing east-west collector streets between SW 124th Avenue and City of Sherwood would avoid the need to build a second left-turn lane.

All other study intersections would operate acceptably without mitigation in the year 2025.

Infrastructure Needs

WATER SYSTEM

There are currently no public water lines located in the Concept Plan area.

Development Issues: The Concept Plan area must be in the City of Tualatin prior to receiving water service.

Infrastructure Needs: The water master plan includes the Concept Plan area (referenced as the “Tigard Sand and Gravel Area”) in the hydraulic modeling and capital improvement project (CIP) identification tasks, see Appendix C, Table ES-1 and Figure ES-1. Figure 4 illustrates the extension of the City’s water system to and within the Concept Plan area. The routing of the pipes within the plan area has been modified to follow the new roadways proposed. Once development assumptions have been specified, more specific estimates of future infrastructure needs can be made. Over time, additional water sources will need to be identified to serve Tualatin’s future growth. At this time, the city is exploring options.

SEWER SYSTEM

No sanitary sewer system of adequate size currently exists within or near the Concept Plan area.

Development Issues: The Concept Plan area must be in the City of Tualatin prior to receiving sewer service.

Infrastructure Needs: The sewer master plan did include the Concept Plan area in the hydraulic modeling and capital improvement project (CIP) identification tasks. Three recommended CIP projects were identified to provide sanitary sewer service to the Concept Plan area and adjacent areas in southwest Tualatin. The recommended projects are:

- Tualatin-Sherwood Extension – a new 24-inch pipeline located in Tualatin-Sherwood Road, extending from the Concept Plan area/URA easterly to SW Avery Street;
- Bluff/Cipole Lateral – Increase existing 12-inch to 21-inch pipe to an 18-inch and 36-inch pipeline extending from near the SW Tualatin-Sherwood Road / SW Avery Street intersection to the existing Bluff/Cipole Trunk; and
- Bluff/Cipole Trunk improvements – upsize existing trunkline pipe diameters.

For the purposes of allocating offsite infrastructure improvements to the concept plan development, only the Bluff/Cipole Lateral project is included in the capital cost estimate to serve the Concept Plan area. Figure 4 illustrates the offsite sanitary sewer improvements. Appendix E provides more details on the assumptions contained in the capital cost estimates.

STORM DRAINAGE

No storm water system exists within the Concept Plan area. The plan area rises gradually in elevation from approximately 185 feet at the north to about 290 feet along the central east side, then drops to about 240 feet at the south. Drainage is imperfect, but generally toward the north and toward the south, with a break point at approximately the middle of the Concept Plan area. Drainage in the northern portion around and in the quarry infiltrates through the fragmented basalt. Drainage to the south flows toward Coffee Lake Creek/Seely Ditch, which flows to the Willamette River.

Infrastructure Needs: Runoff from future streets or access roads and development in the portion of the Concept Plan area that flows north will need to meet Clean Water Services (CWS) design criteria for storm water quality and quantity control. For the portion that flows to the south, design standards necessary for development will need to be

coordinated with those design standards applicable downstream and outside of the SWCP area. A new conveyance system will need to be installed along the roadways. Site development runoff will need to be treated and detained, if necessary, before being discharged to the public drainage systems. It should be noted that most of the Concept Plan area is outside of the current CWS service area. The CWS service area may be expanded in the future to include the Concept Plan area. If this does not occur, the City may require that new development meet CWS requirements.

OTHER UTILITIES

The only known utility that crosses the study area is electrical, with the Bonneville Power Administration (BPA) and Portland General electric (PGE) transmission towers crossing the study area. PGE provides electrical service in the Concept Plan area and has the capacity to serve the needs of the study area. PGE operates a 115-kV electrical transmission line that runs diagonally across the middle of the study area. A second 115-kV electrical transmission line run by BPA (referred to as the Keeler Oregon City #2, Oregon City Stub) crosses the Concept Plan area on BPA's right-of-way. This is a regional distribution line that is not used to provide electrical service to the site.

Conversations with BPA staff have indicated that in the future the site could be used for open space or perhaps a trail but is off limits for development or use as a water quality facility. BPA is willing to work with property owners or the City to provide road access to sites within the study area. No construction could occur within 25 feet of the transmission line poles. Also, no parking, refueling, or storage of flammable materials may occur on the BPA right-of way.

Phone service and natural gas utility service will be needed to serve future development in the study area. These private utilities shall be funded and constructed privately at development occurs.

Natural and Cultural Resources

Existing Conditions: Natural resources in the Concept Plan area have been highly modified by historical and current land uses.

The plant community consists predominantly of scrub-shrub vegetation with remnant patches of forested habitat. Shrub vegetation is dominated by oceanspray (*Holodiscus discolor*) and poison oak (*Rhus diversiloba*). Dominant trees include madrone (*Arbutus menziesii*), Scouler's willow (*Salix scouleriana*), black cottonwood (*Populus balsamifera*), and Douglas fir (*Psuedotsuga menziesii*). With the exception of a fairly large population of madrone, no unique species or species assemblages were found. Madrone is native to western Oregon, but not particularly common in this portion of the Willamette Valley. Introduction and dispersal of weeds is prevalent, facilitated by high truck traffic and the electrical transmission rights-of-way (i.e., BPA).

Wildlife activity appears sparse where vegetation is cleared and land use by people is active. Inactive land areas appear suitable for a variety of wildlife species, especially deer, coyote, small mammals, song birds, and reptiles.

The Washington County soil map indicates that most of the plan area is covered by Saum silt loam (38), Briedwell stony silt loam (5), Hillsboro loam (21), and Pits (76), all non-hydric soils. Wapato silty clay loam (43), a hydric soil, is present along Coffee Lake Creek and west of the old railroad station. Wetland resources tend to occur at hydric soil locations.

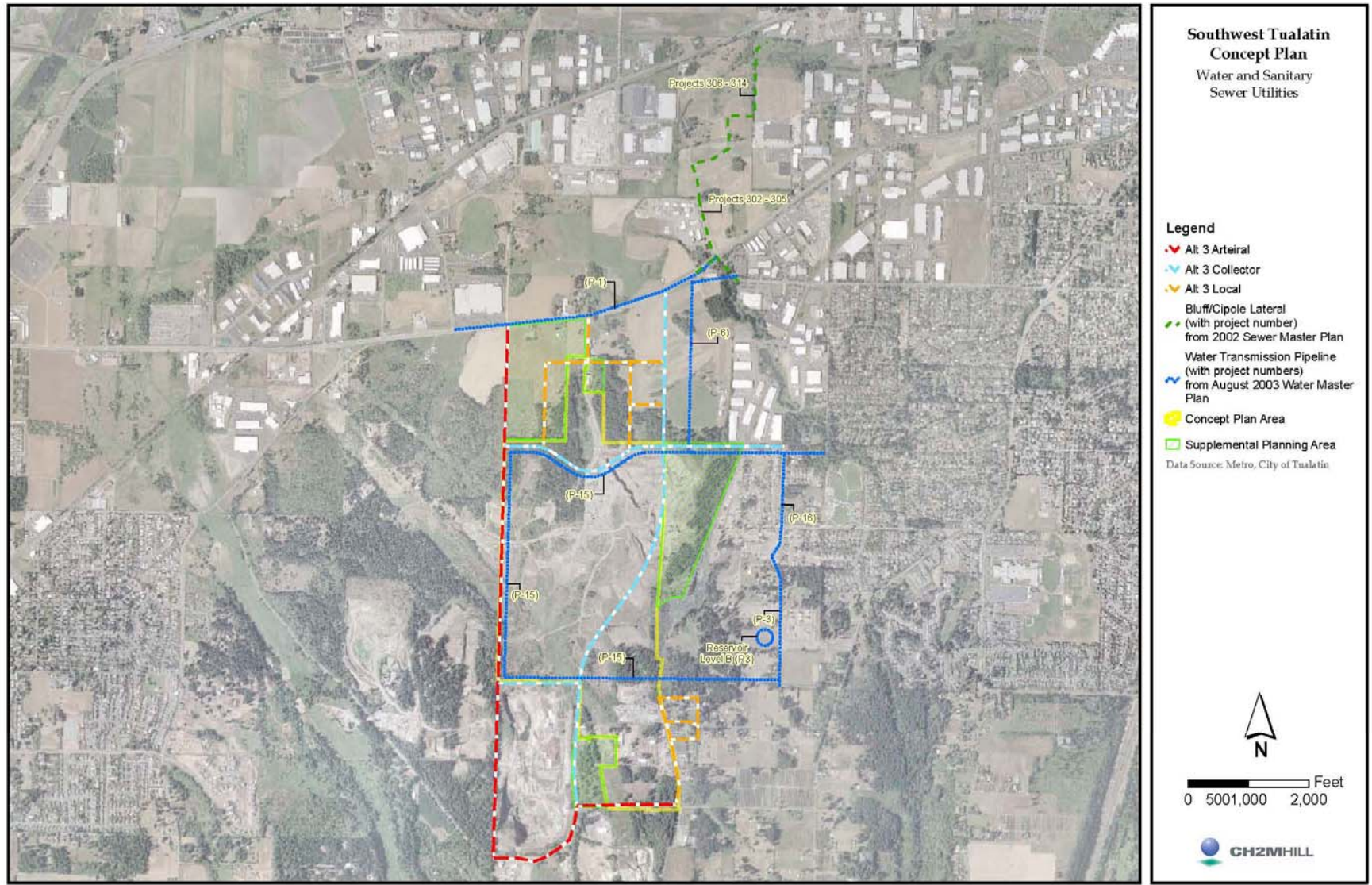
Waters and wetlands seem to occur where perched hydrology intersects with ground surfaces. A cursory search for potential waters and wetlands reveals the Kolk Ponds, shallow wetland ponds at the north end, and wetlands associated with Coffee Lake Creek.

Field observations indicate that wetland conditions exist at former borrow sites, where unimproved roads have altered surface drainage,

at roadside ditches, and at CWS Water Quality Sensitive Areas and Vegetated Corridors. It will be challenging to determine the jurisdictional status of wetlands that occur at active and formerly active quarry operations, potentially isolated wetlands, drainage ditch wetlands, and artificial ponds.

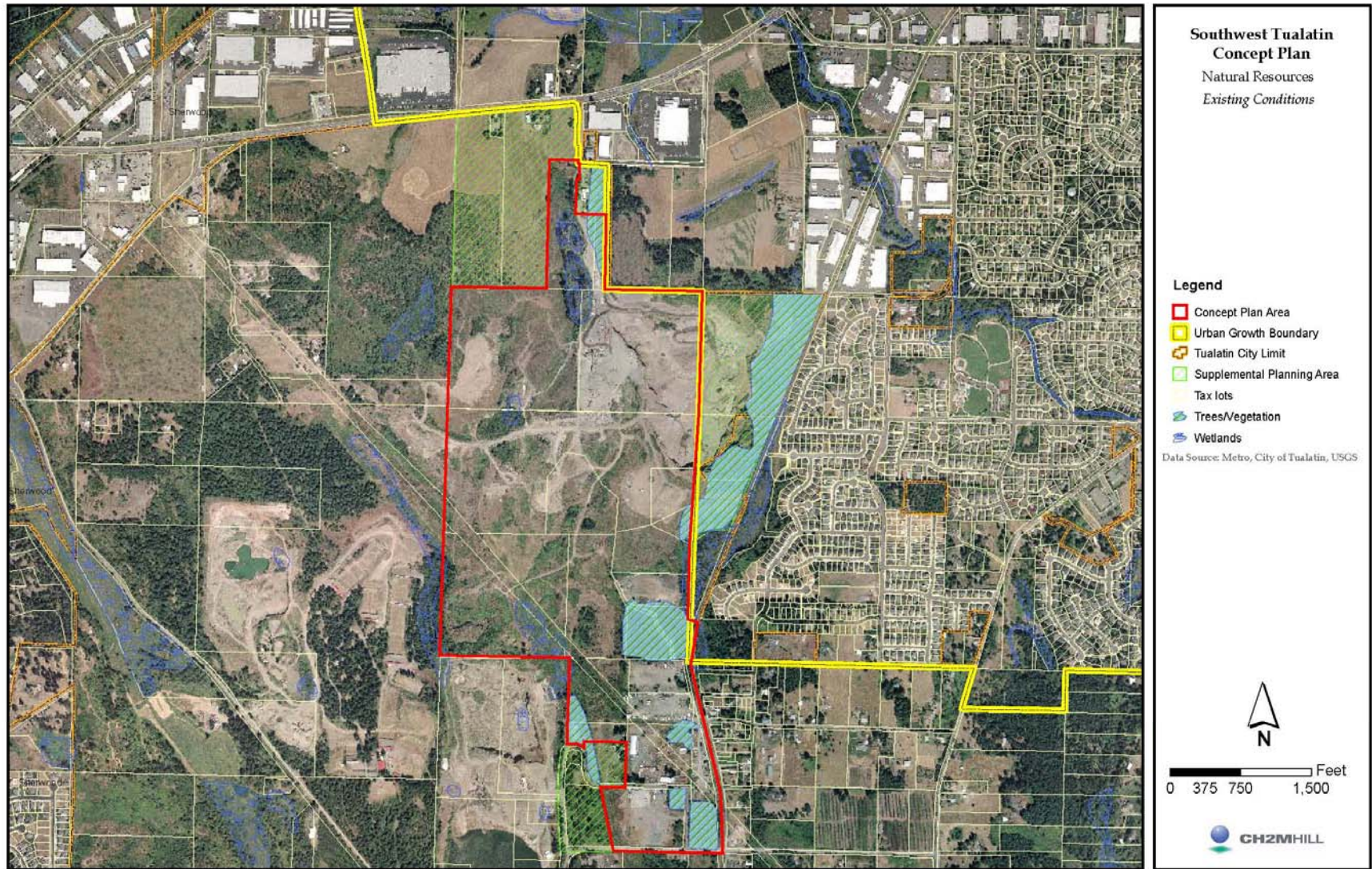
Development Issues: According to Washington County, the greatest resource value is for mineral and aggregate sources. Protection of waters and wetlands will constrain many land uses because regulated areas are scattered across the plan area. The initial impression is that threatened and endangered species protections do not appear to impact development. Presence of archeological resources is unknown, but unlikely at present and former borrow areas. Current stormwater and surface water patterns and management are disjunct and imperfect. Figure 5 identifies wetland areas as well as those areas with trees and vegetation. Further analysis of the natural resources in this area will be evaluated by the Tualatin Natural Resource Coordinating Committee.

FIGURE 4. WATER AND WASTEWATER INFRASTRUCTURE



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FIGURE 5. NATURAL RESOURCES



4 IMPLEMENTATION

This section addresses five key considerations for Concept Plan implementation: provision of urban services, cost estimates, funding options, fiscal impacts findings, and consistency with City plans and policies.

Provision of Urban Services

This plan assumes that the new SW 124th Avenue extension will be funded with a variety of local and Metro Regional Transportation Improvement Plan funding sources. Other roads and utilities will likely be funded by local resources, including City and private developer contributions. Developers will be responsible for providing local streets and utility connections to trunk line systems. However, to maintain flexibility, the plan does not identify specific locations or configurations for these local connections. Assumptions are that the best configuration of development on the Concept Plan area would be determined by market opportunities and constraints at the time of development, allowed uses, and other Tualatin Development Code requirements.

Development of the private tax lots within the Concept Plan area, either individually or in combination, would influence the sequencing of services provided. If the developable lots are developed separately, coordination is recommended so as not to preclude the provision of public infrastructure to the remaining sites through reasonable and affordable means. Such coordination would ensure that:

- Development on one parcel would not preclude the development of the remaining parcel(s).

- Connections to City utilities would not preclude connections from the remaining parcel(s).
- Pedestrian and vehicular access to one development project would not preclude pedestrian and vehicular access to the remaining parcel(s).
- Utility access to remaining development parcel(s) would be provided by initial development project(s).
- Any privately constructed infrastructure to be assumed by the City would provide capacity for full build-out of the planning area, and conform to applicable city standards and specifications.
- Surface water management for one development project would not preclude practicable and reasonable means for surface water management of the remaining parcel(s).

Cost Estimates

Total capital costs for major roads, sewer, water, and storm water systems have been estimated for buildout of the Southwest Tualatin Concept Plan area (see Appendix E.) Unit costs were prepared based on local and regional experience with a variety of roadway and pathway projects. Table 4 below summarizes the capital costs.

The preliminary cost estimates assume typical design sections for collector and arterial street improvements, and do not include any other cost for right of way acquisition, permitting or geotechnical soils work. Other costs may include special environmental mitigation, wetland enhancements and business or residential relocations.

The collector roads are assumed to be two lanes with bike lanes, sidewalks, underground utilities, and street illumination. The arterial road (SW 124th Avenue) is assumed to be four lanes with bike lanes, sidewalks, landscaped median, and street illumination, and a center

turn lane. We have assumed that the pathways would be comprised of soft trails (pervious surface) within the power line easements, and concrete trails around the ponds.

TABLE 4
Estimated Capital Costs

System	Cost
Arterial (124th Avenue)	\$20,380,000
Collectors	\$12,780,000
Bridge Structures	\$5,000,000
Intersection/Signals	\$1,687,000
Pedestrian/Trails	\$993,000
Water	\$8,200,000
Sanitary Sewer	\$8,600,000
Regulatory Mitigation	\$500,000
Total Capital Costs	\$58,140,000

Source: Otak, Inc. and CH2M HILL, based on Conceptual Development Alternative 3.

All costs stated in constant year 2005 dollars, at complete build out.

Major on- and off-site public infrastructure items including roads, trails, water, sewer, and storm water facilities are estimated to cost approximately \$58.1 million. Existing transportation SDC revenues are only anticipated to generate about \$4.7 million in revenue and existing sewer/water/storm drain fees are anticipated to generate about \$3.5 million in fee revenue.

Funding Options

To implement the Concept Plan, funding would be required to design and construct new or improved transportation and public utility infrastructure. Related costs could include environmental and other permitting, and legal fees.

The City in conjunction with Metro, ODOT, and private property owners and developers can fund the capital projects with a combination of traditional and innovative public-private funding sources.

Potential funding sources may include federal and state transportation grants (distributed through Metro); state infrastructure loans; special public works funds; Oregon Immediate Opportunity Program; and local funding through system development charges and establishment of an urban renewal district, local improvement district, or zone of benefit district. Public-private development agreements may also be considered which results in the advanced financing of major public improvements in exchange for system development charge waivers or credits.

Fiscal Impact Findings

It is anticipated there will be substantial direct economic benefits and costs associated with the planned light industrial development in the Southwest Tualatin Concept Plan area. The direct fiscal costs and benefits have been forecasted based on typical growth assumptions for light industrial developments (see Appendix F). If we assume 75 percent of the site is developed by year 2025, the general conclusions that can be reached by this analysis include:

- Total assessed value of development would increase by at least \$300 million over current assessed values;

- If annexed by the City of Tualatin, total annual property tax revenues and fees would likely amount to \$993,000 of added annual revenue to the City;
- Annual governmental service costs for police, fire and planning would amount to about \$82,500 per year;
- The annual cost of maintaining and operating the road and trail system is expected to cost the city over \$170,000 per year;
- There would also be added maintenance costs for the sewer and water systems of approximately \$360,000 per year, but that would likely be “covered” by rate collections by service providers, such as Clean Water Services.
- Significant positive economic impacts are anticipated from the more than 3,700 construction jobs and 5,760 permanent jobs. The direct and indirect payroll that supports these jobs is expected to yield over \$320 million in construction expenditures, \$248 million in annual direct wages, and \$372 million in annual indirect spending.
- The added permanent income of \$248 million is expected to support over \$11 million in additional state income tax revenues, and over \$2 million in Tri-Met tax revenues.

Consistency with City Plans and Policies

Implementation of the Concept Plan would require changes to City plans and policies, as outlined below.

TRANSPORTATION SYSTEM PLAN (TDC CHAPTER 12)

Tualatin’s TSP is implemented primarily by Chapter 11 of the TDC. The TDC would need to be amended to incorporate the following amendments. See Appendix G for a complete list of recommended changes to the TSP.

A summary of key transportation improvements includes:

- SW 124th Avenue, Tualatin-Sherwood Road to southern terminus of SWCP project area or to I-5/99W Connector
- SW 115th Avenue, Tualatin-Sherwood Road to Tonquin Road
- Blake Street, SW 108th Avenue to SW 124th Avenue
- East-West Connector, SW 115th Avenue to 124th Avenue
- Itel Street and SW 122nd, between SW 112th and Blake Street
- SW 112th and New Street, between Blake Street and SW 115th Avenue
- SW 117th Avenue Connector, between Itel Street and Blake Street
- East-West Street, between SW 117th and SW 112th Avenue

The TSP amendments would need to be reviewed by the Tualatin Planning Advisory Committee and adopted by the City Council.

OTHER

To codify the Concept Plan, a number of other elements of the Tualatin Development Code (and the Comprehensive Plan incorporated therein) would need updating with map changes and additional text. These changes will be identified by City of Tualatin staff as part of the adoption process.

**Southwest Tualatin Concept Planning
Technical Advisory Committee #1
October 11, 2004
11:00AM – 1:00PM
Council Chambers – 18884 SW Martinazzi Avenue
Tualatin**

A G E N D A

1. Introductions
2. Public Comment
3. Overview
 - a. Project Scope of Work
 - b. TAC Responsibilities
4. Project Area
5. Goals Discussion
6. Issues Discussion
7. Follow-up Public Comment
8. Schedule next TAC meeting –Early January

1. Introductions

For this, we'd go around the table and introduce ourselves, our agency affiliation and why we think we are at this table. SH lead.

2. Public Comment

For this, if there are folks observing, they would have an opportunity to share thoughts with the TAC. SH lead.

3. Overview

- a. Project Scope of Work
- b. TAC Responsibilities

In this item, I'll discuss the project scope of work and some history of the project. I'll tentatively touch on the schedule for the project, assuming a 6/30/05 end date. I'll also discuss the TAC responsibilities. This will be very similar to the NW TAC meeting format. SH lead.

4. Project Area

This is an unusual agenda item. While the area added in 2002 will be highlighted on maps, there are surrounding areas that the TAC may choose to include in its planning. For example – and most likely – Tigard Sand & Gravel owns lands to the east, which are already in the UGB but not part of the City. They have an odd history (they were in the city at some point, then TS&G decided to do aggregate extraction, which is not allowed in the City, so they deannexed). The concept plan will likely include this area.

Additionally, Metro added a bunch of land around the concept plan area in 2004 (not yet acknowledged by the state). Parts of these areas are critical for potential infrastructure planning for this area, and may come in to play later.

I'm happy to lead this part of the agenda. Your call.

5. Goals Discussion

A set of draft goals will be distributed at the TAC meeting for discussion. The TAC may choose to add more or rephrase some. This handout is intended to be reshaped some by the TAC. Project manager lead (Dave)

6. Issues Discussion

I liked Tim's format for this for the NW Tualatin TAC #1 meeting and would like to do the same. I can make a flip chart sheet like he created to help shape this discussion. Dave to lead.

7. Follow-up Public Comment

I thought it would be good to give the general public a chance to state anything else on their mind at the end of the meeting as well. This item will allow this to occur.

8. Schedule next TAC meeting –Early January

Southwest Tualatin Concept Planning Technical Advisory Committee #1 - Minutes October 11, 2004

In attendance: Stacy Hopkins – Tualatin; Dave Simmons – CH2M Hill; Andrew Johnson – ODOT; Weimin Tung – Portland General Electric (PGE); Jerry Renfro – Tualatin Valley Fire and Rescue (TVF&R); Roger Metcalf – Tigard Sand and Gravel (TS&G); Mark Brown – Tonquin Industrial Group (TIG); Brad King – Tualatin Police; Kaaren Hofmann – Tualatin Engineering; Dan Boss, Tualatin Operations; Craig Dye – Clean Water Services (CWS); Kevin Cronin – Sherwood; Chris Neamtzu – Wilsonville; Steve L. Kelley – Washington County

Also attending: Carl Johnson – TIG; Eric Johnson – TIG; Manny Angulo – PGE; Doug Rux – Tualatin Community Development; Nick Storie – TIG

Stacy welcomed everyone and provided orientation information on the project. This included: the size of the area; how it was brought into the UGB; and how the concept planning process was created and funded.

Everyone **introduced** themselves. During the introductions, people also stated reasons why they were there and involved in the process. Weimin Tung indicated that Manny Angulo will be attending in the future for PGE. The TIG representative will tend to rotate.

The meeting was open for **public comments**. Mr. Carl Johnson expressed satisfaction that this process was occurring.

Stacy described the various tasks of the **project scope of work**, then described the **role of the TAC** in the overall process. Generally, the TAC shall share its expertise with the project management team both in the formulation and the review of planning documents. Stacy also talked about the **project schedule**, highlighting future TAC meetings, noting the increasing frequency of meetings planned in the springtime.

Stacy described the **project study area**, referencing a couple maps that show surrounding cities, nearby lands that Metro added to the urban growth boundary in 2004, transportation networks and landscape features. She highlighted the area to the east of the concept planning area, indicating it was also owned by TS&G and that it could potentially be considered as part of the concept planning area. Roger Metcalf had no immediate concerns about this, but would want to make sure that regulations placed on the concept planning area by Metro or by Concept Plan itself would not also cover this additional area. Doug Rux also indicated that the lands immediately north of the study area may end up under consideration as the concept planning continues. Mark Brown raised questions about how this area would interface with adjacent residential land uses, both within the city and the county.

Dave introduced the draft **goals** written by the project management team and asked for any additions or changes. Two new goals are proposed – one related to water resources and one related to identifying the needed funding for actually implementing the concept plan.

TAC members raised other questions:

- Kevin Cronin asked how Tualatin currently received sewer services – Kaaren and Craig responded that the City maintains the sewer system on pipes up to 21” in diameter and CWS maintains the lines larger than 21” in diameter. City sewage is treated at the CWS Durham Treatment Plant.
- There was discussion on whether this area should connect to Wilsonville’s sewage system since the southern half of the concept planning area drains to the south. Chris responded that Wilsonville’s service boundary does not extend any further north than the Coffee Creek Corrections Facility and in the past, they have not been open to considering expanding that service area. He indicated that perhaps the City would consider revisiting this topic.
- The TAC discussed the need to identify an adequate water supply, providing both adequate flow and pressure to new developments.
- Mark Brown suggested that this project seek to add a spur to the existing railroad to this area. Around the south end of the study area, Mark suggested that new streets in the vicinity of 115th be located at some separation from a new rail spur to avoid conflicts between the street and rail traffic.
- Mark Brown also raised the issues of topography and the organization of existing roads.
- Dan Boss asked if we will be examining something like an urban renewal district for this area. Doug Rux indicated that it is an option.

Dave highlighted the elements of a concept plan and those items that are relevant to the SW Tualatin Concept Planning project.

Dave led a discussion on **issues** related to the SW Tualatin concept planning. He asked the TAC to think of issues they may have related to transportation, infrastructure, land use, natural resource or other issues.

Infrastructure issues include:

- Need to identify how much water is needed and make sure adequate volume and pressure can be provided for development use and fire protection. Dan indicated that the City currently receives water from the City of Portland Bull Run system, but that that system has limited capacity. The City has a charter in place that drinking water from any other source is not allowed without a vote of the citizens. The City is experimenting with options to increase its storage capacity for use during peak periods, including the use of Aquifer Storage and Recovery (ASR). Other solutions to serve new development include connecting to the City of Wilsonville Willamette River system or the Joint Water Commission Task

system, but the Charter would need to be amended to use sources other than Bull Run for drinking water.

- Need to provide adequate lighting for public safety.
- Identify the 'down stream' needs for water and sewer treatment – including line sizes and treatment facility.
- Consider and plan for adequate telecommunication needs.
- Need to engage BPA and NW Natural in this process.
- Identify the supply and distribution capacity for PGE.
- Need to locate the liquid petroleum line and identify how this, along with the BPA right of way and the PGE easement affect concept planning.
- More growth will require more police officers and equipment to serve the new areas.

Transportation issues include:

- Need to coordinate efforts with the freight rail system.
- Ensure an adequate roadway system for fire and rescue access needs – i.e. need connectivity between this and nearby industrial areas, and access via primary and secondary arterials.
- Need wider streets for fire access and industrial vehicular access.
- Consider the value of a potential stop for commuter rail near Tonquin Road.
- Access to and location of the I-5/99W Connector will be important to develop this area.
- Implementing the proposed arterial of 124th Avenue will be critical to developing this area.
- Need to consider how transit can be provided to this area.
- Development of roads and ownership and maintenance responsibilities will be important to define.
- Development type will influence traffic generated: need to consider how many trips may be generated and where will they go to – I-5 is at capacity. Warehouse and distribution uses would generate significantly greater truck traffic than high technology development.

Land Use issues include:

- Need to consider lands to the north for infrastructure provision.
- Need to consider how this area interfaces with the residential lands to the east and scattered in the rural area.
- Need to keep in mind the lands added by Metro in 2004 when doing rest of concept plan.
- Evaluate the need to accommodate taller structures in code development and in fire and safety services. High tech developments can be 4 or 5 stories tall.
- Identify the down stream effects of different land use options to other systems – i.e. on transportation, sewer, water, etc.
- Define the planning horizon.

- Determine if the lot size requirement – one 100-acre parcel and one 50-acre parcel – is truly feasible.
- Need to maintain individual community identify.

Natural Resource issues include:

- The topography will influence how infrastructure may be provided.
- Kolk pond is a major destination with the regional Tonquin Trail system.
- Need to identify historic resources, like the Tonquin Station.
- Identify the type of fish and wildlife resources located at this site.

Other questions arose as part of this discussion, including:

- Does this concept planning rule out any alternatives with the connector road?
- What exact type of land use is anticipated?
- Is there flexibility in the location of the mainline freight rail line?

Stacy described the **next steps** of the process – to visit the site, develop an existing conditions report and continue sharing information with the broader public.

The **next meeting** is scheduled for Wednesday January 12, 2005, 11:00AM – 1:00PM, same location.

**Southwest Tualatin Concept Planning
Technical Advisory Committee Meeting #2
January 12, 2005 11:00 am – 1:00 pm
Council Chambers, 18884 SW Martinazzi Avenue
Tualatin, Oregon**

A G E N D A

1. Introductions
2. Public Comment
3. Approval of Minutes from the October 11, 2004, meeting #1
4. Review of Project Goals
5. Draft Existing Condition Report Presentation and Discussion
6. Schedule Next TAC Meeting
7. Wrap-Up – Public Comments

Southwest Tualatin Concept Planning Technical Advisory Committee #2 - Minutes

January 12, 2005

TAC Attendees:

City of Tualatin: Doug Rux, Community Development Director
Kaaren Hofmann, Civil Engineer
Brad King, Police
Carol Rutherford, Office Coordinator
CH2M Hill: Dave Simmons
OTAK: Todd Chase
BPA: Dawneen Dostert and Neal Meisner
ODOT: Andrew Johnson
PGE: Emanuel (Manny) Angulo
Tigard Sand and Gravel : Roger Metcalf
Tonquin Industrial Group: Mark Brown
City of Wilsonville: Blaise Edmonds and Dave Waffle
Washington County: Steve L. Kelley

Property Owners:

Donna Albertson; Derek Colby; Ken and Mike Itel; Carl Johnson; Nick Storie

1. INTRODUCTIONS:

Doug Rux, Community Development Director from the City of Tualatin, welcomed everyone and introduced himself. He will serve as Project Manager, replacing Stacy Hopkins who has accepted a position with DLCD. Other TAC members and property owners introduced themselves.

2. PUBLIC COMMENT:

Derek Colby indicated his interest in learning more about the planning process for the area and to insure that the natural wetland resource area as well as traffic impacts are addressed. He voiced concern over the proposed increased rail activity (i.e. commuter rail) and hopes that money could be spent on roads rather than rails if possible.

Mike Itel indicated his interest in learning about the possible impacts to his property as related to the development of roads as well as the water source since his property is currently on a well.

3. APPROVAL OF MINUTES, OCTOBER 11, 2004, MEETING #1:

There were no comments or changes to the minutes from the October 11th meeting. Mr. Rux noted that there was one change to today's agenda. Item #5 should read, "Draft Existing Conditions Report Presentation and Discussion."

4. REVIEW OF PROJECT GOALS:

Mr. Rux encouraged TAC members to review these goals. This information is available as an attachment to the email sent to all TAC members or in paper form with the minutes of the October 11th meeting. He briefly referenced Tualatin's web site and the location of the updated information for the SW Concept Planning Project. If anyone would prefer a hard copy of the information, please contact Carol Rutherford.

5. DRAFT EXISTING CONDITIONS REPORT PRESENTATION AND DISCUSSION:

Dave Simmons, consultant from CH2M Hill, provided an overview of the Existing Conditions Report as well as a brief overview of the scope of the entire project. The purpose of today's meeting is to review this report.

This report identifies what is included in this study area today including physical existing conditions as well as infrastructure. This report will be used as a baseline for the development of the concept plan. The next step in this process will be to develop evaluation criteria and alternatives based on the goals developed at the October 11th TAC meeting. There is no new information to share with the TAC and property owners today. This report documents current conditions for this study area. Mr. Simmons inquired if there were any questions or concerns. There were none.

Mr. Simmons referenced the Appendix which contains baseline information including traffic analysis and volume studies prepared by Kittelson and Associates in Appendix A. Kittelson looked at key intersections near the study area and developed projections through 2025. In Appendix B, Otak prepared information from a planning context and policy framework that could be applicable to this plan. Todd Chase from Otak commented that the Kittelson Report identified the intersection of SW Boones Ferry Road and SW Tualatin-Sherwood Road as being over capacity in 2025. Other intersections studied (see Table 2 in the Kittelson Report) operate below capacity during the morning and afternoon peak periods, with the exception of the Nyberg Road/I-5

Northbound Ramps. It was noted that this analysis does not include future development within the concept plan area. That analysis will be developed following the development of alternatives.

Steve Kelly from Washington County indicated that this area has not had any jurisdictional review of the land use data used in 2025 Metro EMME2 Model. He foresees problems that may need to be addressed with Metro to determine what assumptions fed into this decision. Mr. Simmons suggested that the 2025 projections were developed from the 2020 model data, but he indicated he would confirm with Kittelson and Associates. Dave Waffle with the City of Wilsonville indicated that model data probably did not include the new industrial area added in North Wilsonville.

Mark Brown, Tonquin Industrial Group, commented that the only road identified in the area of Tonquin Road is Waldo Way. Grahams Ferry is only mentioned by name on page 2. It doesn't appear that it was actually studied. Mr. Simmons indicated that the study went further south, looking at the Wilsonville interchange. Mr. Chase indicated that assumptions made for the Hall Boulevard extension as well as the I5/99W connector need to be clarified in the report.

Mr. Chase provided an overview of this report from a land use perspective. There are currently no numbers for employment in that area. We should have a ballpark figure for use at the next meeting. He provided an overview of the Metro regulations as related to RSIA (Regional Significant Industrial Areas). This is a new designation never used before the first round of the UGB expansion. Metro is concerned about our ability to take larger contiguous sites and reserve them for potentially large employers. This language is under appeal right now because it is too limiting and doesn't include hospitals or non-corporate headquarters. It is also very limited in terms of retail – allowing support services only. “Big box” retail is not permitted in a RSIA nor are commercial offices. Metro's regulations permit corporate headquarters offices if there are at least 1000 employees. The appeal is being heard, and results may be available during this planning process. The SW Tualatin study area will be permitted to have two specific-sized properties, 50 and 100 acre contiguous sites.

Mr. Rux reviewed an additional study area shown in red on the map. Stacy Hopkins had a conversation with Lydia Neill of Metro indicating that some peripheral areas need to be looked at which were not included in our grant since they were not within the UGB at that time. These properties need to be considered to meet the 50 or 100-acre criteria and to address the infrastructure provision.

A discussion was held regarding transportation access into the area. The southern area is driven by a transportation connection to Tonquin Road. The proposed I/5-99W connector will also affect water, sewer etc. Mr. Rux reinforced our commitment to insure that we continue to expand involvement with Itel, TS&G, and other property owners in this area.

A field visit was conducted to the study area last November. Both PGE and BPA have transmission lines across this area, and there may be constraints that could result from those lines. BPA owns right-of-way (ROW) easements which have a combined width of almost 400 feet. Neal Meisner of the BPA indicated that roads are usually allowed to be developed perpendicular across the ROW. Some parking may be permitted in the easement areas, but not in ROW. The BPA would review this on a case-by-case and span-by-span basis.

PGE has a 125-foot wide easement in this area and may have requirements similar to the BPA. Manny Angulo was requested to provide information on the development restrictions within PGE's transmission line easement.

During the tour of this area, Roger Metcalf hosted TAC members for a tour of the quarry section of the property. There is a physical barrier with the railroad tracks in this area, and there is an on-going crushing operation in the pit area. The flattest land is the southern area owned by the Tonquin Industrial Group. There are no flood plains within the study area. The study area is very rural and does not contain much infrastructure. The only public roads are Tualatin-Sherwood Road, Waldo Way and Tonquin Road, and there is very limited access for roads. Water and sewer will have to be brought in. CH2M Hill will review the City's master plans for this area to address water issues and supply. Mr. Meisner suggested that we should not plan to use the right-of-way for pipeline waterways and felt that PGE may be in agreement on this request. There are no plans to underground the high voltage transmission lines. Service districts were briefly discussed.

Mr. Rux stressed the need to insure we are using the most recent language for the RSIA. Mr. Chase indicated that they were referencing language from early 2004. The ordinances drafted in May 2004 were not adopted by Metro. TAC members discussed the possibility of a coding or numbering system to be used consistently throughout this process which will include the peripheral properties to insure uniformity.

Discussion was held regarding the railroad tracks through this area. There are private easements across the railroad tracks. Representatives from ODOT rail have agreed to attend meetings if there is to be a discussion of proposed improvements within 500 feet of the railroad line. The old Tonquin railroad station is considered to be a cultural resource in the area. A brief discussion was held regarding the impact of commuter rail moving through this area and the desire to keep open the possibility of a future stop near Tonquin Road.

Mr. Johnson from ODOT updated TAC members on the status of the I5/99W connector. They are 2-3 years away from having a set alignment. Many public meetings will be scheduled to review options prior to the selection of a location for this roadway. There is a project team meeting next week.

Representatives from the City of Wilsonville inquired about regulations regarding removal of trees and some Goal 5 issues. While they have a tree-cutting ordinance, this code is not applicable to TIG since they are regulated by Washington County at this time.

Mr. Chase indicated that the next step is to develop evaluation criteria prior to the creation of the concept plan and alternatives. This will be both qualitative and quantitative criteria. TAC members provided the following comments for items to be included in the evaluation criteria:

- Job creation
- Ease of service
- Environmental consequences
- Compatibility with adjacent land uses
- Separation of heavy vs. light industrial uses
- Separation of traffic between the railroad and vehicles as much as possible
- Access issues to separate residential from industrial areas
- Impact of commuter rail based on the number of employees in the area. Could a train stop at the Tonquin station be added if a large number of employees utilize this mode of transportation?
- Insure that the concept plan takes into account the restrictions currently on RSIA lands.
- Insure connectivity and avoid truck traffic in the adjacent neighborhoods to maintain a pedestrian friendly area.
- Provide for connection for regional traffic.

Mr. Rux requested that any comments on the Existing Conditions report be submitted to him by January 26th.

6. SCHEDULE NEXT TAC MEETING:

The next TAC meeting is scheduled for Wednesday, March 2nd, from 9:00 – 11:00 a.m. in the City Council Chambers, 18884 SW Martinazzi Avenue. The focus of this meeting will be to draft evaluation criteria and review initial development concepts.

7. WRAP UP – PUBLIC COMMENTS:

Mr. Colby inquired if there were vehicle counts per hour for the intersection of SW Boones Ferry and SW Tualatin-Sherwood Road. He voiced concern about fire and life safety issues, particularly at rush hour after commuter rail begins operations. Police Lieutenant Brad King responded that police vehicles have numerous options for travel throughout that area. TVF&R from King City and Wilsonville also respond to some incidents depending on the location. Lt. King felt that commuter rail trains are short and should have minimal disruption or impact.

Minutes Prepared By: Carol Rutherford, City of Tualatin

**Southwest Tualatin Concept Planning
Technical Advisory Committee Meeting #3
March 2, 2005 9:00 am – 11:00 am
Council Chambers, 18884 SW Martinazzi Avenue
Tualatin, Oregon**

A G E N D A

1. Introductions
2. Public Comment
3. Approval of Minutes from the January 12, 2005, Meeting #2
4. Final Existing Conditions Memo
5. Draft Evaluation Criteria
6. Draft Concepts
7. Open House, March 9th, 5-7 p.m.
8. Discussion
9. Schedule Next TAC Meeting
10. Wrap-Up – Public Comments

Southwest Tualatin Concept Planning Technical Advisory Committee #3 - Minutes

March 2, 2005

TAC Attendees:

City of Tualatin:	Doug Rux, Community Development Director Dan Boss, Operations Director Kaaren Hofmann, Civil Engineer Brad King, Police Carol Rutherford, Office Coordinator
CH2M Hill:	Dave Simmons
METRO	Mary Weber
OTAK:	Todd Chase; Don Hanson
ODOT:	Andrew Johnson
ODOT Rail:	Michael (Swede) Hays; Dan MacDonald
Tigard Sand and Gravel:	Roger Metcalf
Tonquin Industrial Group:	Mark Brown
City of Sherwood	Kevin Cronin
City of Wilsonville:	Blaise Edmonds
Washington County:	Steve L. Kelley

Property Owners:

Stacey St. Amand; Ken Itel

1. INTRODUCTIONS

Doug Rux, Community Development Director from the City of Tualatin, welcomed everyone. TAC members and property owners introduced themselves.

2. PUBLIC COMMENT:

Stacey St. Amand, a property owner in the Lake Forest subdivision, distributed a letter outlining her concerns over the illegal harvesting of some trees by Tigard Sand and Gravel (TS&G) along the east side of their property in April 2004. These trees had served as a buffer between the homes in the Lake Forest subdivision and TS&G and

the gun club. Ms. St. Amand indicated that she has pursued the issue of mitigation during the past year with the State Department of Forestry, the Oregon Department of Geology and Mineral Industries (DOGAMI), Washington County, and the City of Tualatin, but nothing has been done. She has letters from her neighbors addressing the need for the tree buffer along the railroad tracks to lessen the noise from the quarry and gun club. There were no monetary ramifications or other punishment associated with this violation. Ms. St. Amand stated that the City of Tualatin granted permission to TS&G to sell the trees within 24 hours of cutting them. Washington County will require TS&G to do some mitigation, but they don't say what it is. They are waiting for Tualatin to advise them. Ms. St. Amand continues to have conversations with both the City and Washington County but feels that they cater to businesses and not to citizens. If the tree buffer is not planted, the homes will look down on the quarry. The homeowners request that these concerns be addressed.

Mr. Rux provided an overview of this situation from the City and County's position. TS&G had a Conditional Use Permit with Washington County and was granted permission to remove trees on the west side of their property. However, some trees were inadvertently removed on the east side. Upon being notified this was occurring, the City immediately contacted Washington County to instruct TS&G to stop. Since that time, Jim Jacks, Special Projects Manager for the City, has been involved with this issue and has been interfacing with Washington County.

At the time the City received the grant for the SW Tualatin Concept Planning project, staff determined it would be in our best interest to link the mitigation on the TS&G property with this process. This would avoid the possibility of mitigation occurring, only to have it changed as an outcome of this project. Currently, our consultants and staff are identifying the natural features to determine what areas should be preserved. When this process is complete, we will communicate back to the county. The other factor to consider in this process is TS&G's request to construct an office building on their property.

In summary, the City would like both processes interlinked. Mr. Rux encouraged Ms. St. Amand to talk to Jim Jacks directly to determine if he has any additional information to share regarding his work with the Enforcement Division at Washington County.

Mr. Rux stressed that he has had numerous conversations with property owners in this area. The City is committed to public involvement in this process. Communication avenues include letters to property owners and surrounding property owners, monthly updates in the City newsletter, and current information posted on the City's website. He has had notes documenting his conversations with the property owners, and this information will be considered as the plans for this area continue to develop. For the benefit of the TAC members, Mr. Rux showed the area in question on the maps prepared by the consultants.

Ken Itel, a property owner south of Tualatin Sherwood Road and 120th Avenue near the future extension of SW 124th Avenue within the study area was introduced. He had no comments at this time.

3. APPROVAL OF MINUTES, JANUARY 12, 2005, MEETING #2:

The TAC indicated their consensus to approve the minutes of the January 12, 2005, meeting.

4. FINAL EXISTING CONDITIONS MEMO

Dave Simmons of CH2M Hill indicated that he received feedback from Wilsonville and additional comments from the staff at the City of Tualatin. There are a few things being updated prior to finalizing this document. Some traffic/transportation issues are being evaluated. The maps of the study area are being updated to include the supplemental area (shaded in purple). His goal is to have the Existing Conditions Memo finalized prior to the open house. Hard copies of the document will be available.

5. DRAFT EVALUATION CRITERIA

The Draft Evaluation Criteria was included in the agenda packet sent via email to all TAC members. Mr. Simmons reviewed the document and solicited feedback. Each goal will be tied to quantitative and/or qualitative evaluation criteria. He reviewed the two alternatives (as shown on the maps displayed on the wall) and indicated that the final product could be either of these alternatives, or we could create a hybrid based on this criterion.

Mr. Cronin from the City of Sherwood inquired if this relates to Metro's Goal 5 which we identified as a goal at the first TAC meeting. Mr. Rux responded that Metro requires that we have to do Goal 5 since it is a condition of approval. He also explained the process that Stacy Hopkins was doing to identify where the natural features are and determine if we need to move roads or infrastructure to accommodate it. After this is accomplished, we will do a full Goal 5 analysis and roll it into our existing Goal 5 or future Goal 5 program region wide.

Mr. Rux reviewed the map and noted stream channels which no longer exist due to quarry activities. Morse Brothers stopped pumping water so the quarry is filling up. He showed the area where some tree massing is already gone. The City and Metro have a lot of background information, but it doesn't accurately represent the physical condition of the land and features found within the plan area today.

Mary Weber from Metro discussed the issue of Goal 5 and Title 11 reporting requirements in the Metro plan and stressed that we should look at the Goal 5 inventory as a concept plan and not a land use action. Any changes to our Comprehensive Plan must comply.

Steve Kelley from Washington County indicated that the TAC discussed the north/south arterial connection, but it is not mentioned as a goal or evaluation criteria. He suggested that this should be addressed when we are evaluating different alternatives. Mr. Rux responded that it should be coordinated with the proposed I5/99W project with the north/south alignments. We could identify that as a goal. After some discussion, Mr. Simmons and Mr. Rux agreed to include this in the evaluation criteria for clarity purposes. It was suggested that the best location may be in the mobility section of Goal C. There needs to be a north/south arterial through this area to north Wilsonville as an alternative to Boones Ferry Road. New criteria under Goal C should be created to insure this north/south connectivity.

Mr. Hays from ODOT Rail provided a comprehensive overview of traffic and pedestrian access planning from the rail standpoint. Bob Melbo, the State Rail Planner, could not attend this meeting but will be a good resource for addressing these issues in the future. Mr. Hays works in the Crossing and Safety Section and his boss, Dan McDonald, is manager of the Railroad Crossing Section. He explained that their office is the State Regulatory Authority over all public crossings in the State. They are taking an interest in this concept planning partially because of the commuter rail project that will skirt the eastern edge of our project area and will be part of commuter rail. With the implementation of commuter rail, we will see a significant increase in rail traffic and the speed of the trains. Their goal is to reduce the number of at-grade crossings in the area along the line. While ODOT rail recognizes the mobility issues into and out of the study area, they discourage new crossings and encouraged the City to use the existing crossings more effectively. He cautioned that new streets could get dangerously close to the railroad tracks and stressed that the best chance of success to obtain approval for a new crossing is to consider a grade separation, either above or under the tracks. As mandated by the legislature, their main focus is safety. This includes the closing of existing grade crossings if possible and to critically evaluate whether new ones should be approved for construction. While it is always a "tough sell" to obtain approval for a new grade crossing, this will be even more so due to the commuter rail project. He welcomed comments either now or at a later time.

A brief discussion was held regarding the evaluation criteria and the qualitative vs. quantitative factors. Mr. Hays indicated that while he doesn't plan to attend all TAC meetings, he felt that this is good opportunity to advise the TAC of the railroad's position prior to Bob Melbo joining the group. Mr. McDonald reinforced the mobility issues and stressed the safety element. Mr. Hays will be the point of contact until Bob Melbo is back at work.

Todd Chase from Otak inquired if this should be a criterion for the various options as it could "tip the scale" down the road. The values assigned are very clearly pointing in the direction of either no crossing or a grade separation for new crossings. Mr. Rux confirmed that this information is very consistent with information heard from railroad personnel on other projects.

Mr. Boss commented that there is not a goal addressing the need for natural buffers and separation between the residential and industrial development. He stressed the importance of having this separation and indicated that the City has the most issues in developed areas of the City where the boundary between residential and industrial or manufacturing is abrupt and lacking separation and visual buffers. The residential neighbors to the east of the plan area are very concerned.

Mr. Rux indicated that he has talked with 10-12 property owners and has encouraged the residents to read the newsletter. The City is committed to the public involvement process. The common theme being heard from the residents of the Lake Forest area is the protection of trees, quality of life, visual appearance of the development across the railroad tracks, wetlands, concern over outdoor storage, noise, and the height of the structures. Kolk Pond is identified as a natural feature as well as the Tonquin Trail system. Residents have voiced concern about looking over the industrial buildings, and some want the Gun Club to go away.

Mr. Rux indicated that one approach to alleviate some of their concerns is focusing on knowledge-based industry (i.e. research and development, high tech) similar to those along SW Tualatin Road by 108th Avenue. Concern has also been voiced over traffic, particularly trucks. The homeowners would obviously prefer no development and to protect the natural area. The City's challenge is to take this information and feedback from the Open House and determine how to create a new type of industrial area that looks more commercial than industrial, incorporates the protection of natural features, and addresses the transportation issues including the railroad tracks. The City will also work with Wilsonville and Sherwood on livability issues. Mr. Rux cautioned that we have to be careful on how to write issues with quality of life in consideration of this project. This means something different to everyone.

Ms. Weber stressed that this has happened throughout the area. There is the desire for some type of transition block or buffer between the residential and industrial areas. She suggested going into the Open House with a transition or buffer plan to alleviate some of these concerns. The residents will need to recognize that something has to happen with this area.

Mr. Boss feels that we need this issue to be identified as a goal or as evaluation criteria. Other areas in the City will look at how this study area is handled. Some residents don't trust us because of the tree issue with TS&G as well as Gun Club issues.

Mr. Rux indicated that Ms. St. Amand's statement that the City is more friendly to businesses than residents is not true. We are concerned about all our citizens and businesses. He concurred with establishing a goal regarding the transition between residential and the concept area and then craft evaluation criteria to achieve this goal. Options could include set backs, topography etc. Staff will review the Tualatin Development Code for current regulations since some of these details are already in place. However, the general public is not aware of them. Whether it is building sizes,

noise reduction, etc., the desired outcome would be for the residents to support the process and work with the City.

Returning to the subject of railroad crossings, Mr. Hays encouraged the TAC to think about the value of grade separation. Every rail car is the equivalent of about three trucks on the highway. Maximum use of the rails takes many trucks off our area roads and highways. This addresses quality of life issues in a different way, as it is a means to move large heavy cargo in bulk very efficiently. The railroad tracks can be an asset to the industry in the area.

TAC members agreed to add this new goal and descriptors, subject to change based on the input at the Open House. Staff will be clear about the purpose and limitations of this process, using a hybrid between involvement and the collaboration side to achieve a balance between all the issues and final product. No one individual group has sole approval. The City Council will be the final decision maker.

Andrew Johnson from ODOT suggested additional criteria under "C" to address the railroad grade issue. It would be very easy to quantify this goal.

Mr. Kelley inquired if the railroad crossing at Tonquin is at grade and if there is a private crossing in the mixed-use area. It was confirmed that there are two railroad crossings in the study area. In addition, the TSP identifies one along Blake which may not be an ideal location. Mr. Rux ran some numbers to identify areas where extensive employment opportunities could exist and addressed issues of how the employees could travel into and out of that area to minimize the number of cars and truck traffic in the residential areas. Mr. Boss indicated that it will get noisier with increased train traffic although there is a provision for a quiet zone.

In summary, Mr. Rux reviewed the proposed changes which include criteria for the north/south arterial, criteria to deal with railroad grade crossing issues, buffering and transition area, and Title 11 planning requirements.

6. DRAFT CONCEPTS

Mr. Chase distributed a memorandum outlining two concept alternatives for this area. Additionally, he will take the goals and criteria heard today, "tweak" it, and have additional information available for the open house on Wednesday, March 9th. Don Hanson from OTAK was introduced. Mr. Chase reviewed the memo and identified the preliminary alternatives as related to the goals endorsed by the TAC. He stressed there will be a variety of quality of life issues based on the location of the residents. Our challenge is to insure that our proposed plans incorporate features that will be appealing to the residents, i.e. trails, location of new jobs, etc. We need to be attentive to what it takes to attract high-quality workers to the area. Mr. Chase provided a brief overview of successful mixed-use areas throughout the country.

He then provided a detailed review of both alternatives, noting the similarities as well as the differences in the two alternatives. He pointed out the recommended access location – off of an extension of SW 124th Avenue which could connect to the proposed I5/99W Connector. This will be a heavily traveled corridor. He suggested that the TAC should think about the future; this lends itself well to phasing in from the north end of the site. Both alternatives would accomplish that. Both alternatives provide for the potential for a grade-separated crossing of the rail with the extension of Blake Street. One difference between alternatives is where the north-south collector street would be located. There also is the opportunity for a terraced development in the area. There could be a passive office setting near the neighborhood with a retaining wall and then a step down to the west with another terrace. Water features could be integrated in the area near the ponds. Both alternatives assume a mixed-use employment area. Metro and RSIA design type call for a limited amount of commercial development, i.e. stores and restaurants. The buildings could have multiple stories with mixed use. Alternatives I and II show the location of development sites in two different areas. Alternative II identifies a location for a possible commuter rail stop in the southern area.

Amenities on both alternatives include a trail system with a three-mile loop. The wild life refuge is a big amenity to the west of the plan area. Both alternatives meet or exceed Metro's 50 or 100-acre minimum. The RSIA designation would be the requirement of the property owner to not subdivide below 50 acres.

Mr. Hanson indicated that the requirement for the 100-acre parcel drove the geometry of this site. Open space is good amenity for this district which could attract employers looking for development in a space that offers employees more than just a place to work.

Mr. Chase asked for discussion from the TAC members.

Mr. Kelly voiced concern of the potential interchange location depicted by a dotted line. He recommended removing that dotted line and words since it signifies that something has been decided and that is not the case. Mr. Johnson recommended removing the word "interchange" for the same reasons.

Mr. Boss inquired about the concept of terracing, and how that would affect general drainage into that area. We may need a lake. Where will it go to naturally dissipate? Testing and modeling would need to be done in some places since, while some of the area is porous, it does have a lot of rock. Mr. Rux commented that it could be a good feature for the nearby residential areas.

Mr. Simmons commented that the sewer issues are based on flow and interface with Durham Treatment Plant. This area will need a pump station.

Mr. Metcalf stated that TS&G has material stockpiled on the site and are ready to fill the existing pit.

TAC members further reviewed the mixed-use areas. The pond is already in place in a good central location. It makes sense to have smaller parcels in that area. Alternative II would work if there is a commuter rail station. Safety considerations need to be considered in the design of this area.

Doug Rux indicated that the Metro ordinance adding this area to the UGB stipulated no commercial or retail, but that this doesn't make sense when you look at projected employment numbers for the area. The City has informed Metro about this concern.

Dan MacDonald expressed concern over the number of new rail crossings shown with the alternatives. Counting the trails and roads (3 each), there would be six railroad crossings, and we need to determine if they can be placed over or under the rail tracks. The greenway should connect with public ROW.

Mr. Rux commented that Alternative II could control the uses and lessens dust, noise, etc. Mr. Boss felt that the "stepped" transition provided more options for visual landscaping especially in the quarry area.

Ms. Weber inquired about how we plan to communicate this concept plan to the public on March 9th. Mr. Rux assured her we would be working on it and will identify the benefits of each approach. Photos would be beneficial. We needed feedback from the TAC today prior to working on the Open House. Smaller group interaction with Todd Chase, Dave Simmons and Doug Rux will be encouraged to provide the citizens with more "one on one" dialog. The first open house will be more preliminary and encourage the public to identify their objectives. Mr. Chase stated that we plan to accomplish a lot at the first meeting, allow the public to comment, but provide them with positive examples of possible plans for this area.

7. OPEN HOUSE, MARCH 9th 5 – 7 p.m.

An Open House is scheduled for Wednesday, March 9th, from 5:00 – 7:00 p.m. in the City Council Chambers, 18884 SW Martinazzi Avenue. As indicated earlier in this meeting, notification of this event has been published on the web site, the City newsletter, letters sent to the property owners and surrounding property owners, as well as notices sent to the area newspapers.

8. SCHEDULE NEXT TAC MEETING:

The next TAC meeting will be held on Wednesday, March 30th from 9-11a.m. at the City of Tualatin Council Chambers.

A brief discussion was held regarding walking/biking trails in the area and concern from ODOT rail about the safety of them in the vicinity of the railroad tracks.

9. WRAP UP – PUBLIC COMMENTS

Mr. Itel identified the land within the concept planning area that is owned by him and his parents. He also indicated that he is a land use planner. He recognizes this is a broad concept plan. The TS&G pond and stream runs across SW Tualatin-Sherwood Road and is identified as a Goal 5 resource by Metro. This could become a greenway corridor. The topography of his land is conducive for natural building sites. Going into areas C and E, based on the natural topography, he would recommend a road along the property line or further east skirting the edge of the pond. This could be difficult in terms of time and expense to mine some of the area for a different contour. All of the property added in June 2004 is outside the RSIA area. Does Metro want to add it in or remain outside the RSIA? He indicated that he disagrees with the City's proposal to not permit commercial uses along Tualatin-Sherwood Road and SW 124th Avenue. There is a high traffic volume and visibility in that area. Employees in this area will need some services, and they might not want to travel to the interior of the development. Other properties in this area are already developed. His parents have their property for sale. Mr. Itel feels that greater visibility on the main corner will serve more people in this area.

Mr. Chase commented that we are not thinking of a "Costco" type of commercial structure. Services such as a bank, deli, or restaurant to serve the existing employment base could be integrated without becoming a commercial focal point.

Minutes Prepared By: Carol Rutherford, City of Tualatin

**Southwest Tualatin Concept Planning
Technical Advisory Committee Meeting #4
March 30, 2005 9:00 am – 11:00 am
Council Chambers, 18884 SW Martinazzi Avenue
Tualatin, Oregon**

A G E N D A

1. Introductions
2. Public Comment
3. Approval of Minutes from the March 2, 2005, Meeting #3
4. Review of Draft Alternatives
5. Review of Open House Public Comments
6. Review of Draft Evaluation Criteria
7. Discussion
8. Schedule Next TAC Meeting
9. Wrap-Up – Public Comments

Southwest Tualatin Concept Planning Technical Advisory Committee #4 - Minutes March 30, 2005

TAC Attendees:

City of Tualatin:	Doug Rux, Community Development Director (9:55 a.m.) Jason Tuck, Development Coordinator Dan Boss, Operations Director Kaaren Hofmann, Civil Engineer Brad King, Police Carol Rutherford, Office Coordinator
CH2M Hill:	Dave Simmons
OTAK:	Todd Chase; Don Hanson
Bonneville Power Admin.	Neal Meisner
PGE	Manny Angulo
Tigard Sand and Gravel:	Roger Metcalf
Tonquin Industrial Group:	Mark Brown; Ed Christie
TVF&R	Jerry Renfro
City of Sherwood	Kevin Cronin

Property Owners/Guests:

Donna Albertson; Tom Aufenthie; Ken Itel

1. INTRODUCTIONS

Jason Tuck, Development Coordinator from the City of Tualatin, welcomed everyone. TAC members and property owners introduced themselves.

2. PUBLIC COMMENT:

Mr. Tuck suggested that following public comments, we discuss Agenda Item #5, "Comments from the Open House," prior to reviewing the additional Draft Alternative since that item evolved from discussions at the open house.

There were no public comments at this time.

3. APPROVAL OF MINUTES, MARCH 2, 2005, MEETING #3:

The TAC indicated their consensus to approve the minutes of the March 2, 2005, meeting.

4. REVIEW OF DRAFT ALTERNATIVES

Following the discussion of comments from the open house and exit survey, Dave Simmons and Todd Chase reviewed Alternative III which was developed as a result of input at the last TAC meeting and the open house. Mr. Chase explained the methodology used in creating this third concept and compared it to the other alternatives. Alternative III does not provide for future railroad stop north of Tonquin Road. It includes roadway alignments similar to Alternative II, except that the north-south collector extends further west in the lower section of the plan area, creating a better north/south flow than Alternative 1 and similar to Alternative II. There is a tree buffer that has been extended southward along the east side of the plan area. It is 300 feet wide; the City's requirement is 100-150 feet. The trail system includes an alignment for the Tonquin Trail, a regional trail that could follow along the BPA easement, but was originally shown in Alternative II on the PGE easement. The Tonquin Trail is proposed to continue through Sherwood to the Tualatin Refuge. The local east-west street and signal on SW 124th Avenue that is shown on Alternative II is not shown on Alternative III

Mr. Simmons provided input on how the three alternatives would function from an access and traffic flow standpoint. Alternative I includes a north-south collector approximately 600 feet east of the proposed 124th Avenue extension. This places the collector-to-collector street intersections close to the east-west collector street intersections with 124th Avenue, which could lead to congestion from one intersection interfering with the nearby intersection. Traffic flow would be better separated and disbursed with Alternative II and Alternative III. The goal of maximizing access spacing of street intersections on arterials (in this case, 124th Avenue) is best achieved with Alternatives I and III, with Alternative III likely to function the best.

Mark Brown made a point that Alternative III lacked an east-west local street at the south end that the other two alternatives had included, which provided access to several properties along the east side of the study access. It was discussed that the primary purpose of the concept planning process was to locate arterials and collectors. Local Streets could be added to connect land area that might otherwise be cut off.

On behalf of TVF&R, Mr. Renfro stressed his concern about traffic on Tonquin Road to Boones Ferry Road or the eventual connector and inquired how this project fits into the connector. Mr. Simmons commented that it is a "big guessing game" at this point and that we are one or more years away from Washington County refining the corridor study to the point of designating a specific route. Following that decision, environmental studies would need to be done. The SW Concept Planning Project will probably grow from north to south within the study area. Mr. Renfro stressed that the traffic volume is very high on Tualatin-Sherwood Road near the fire station. Accidents frequently occur

near their training facility on Tonquin Road. He would like to see something happening in that area prior to further development. While he voiced concern about the southern portion of the area, he indicated that he liked Alternative III because of its connectivity. In response to Mr. Renfro's inquiry, Mr. Metcalf indicated that Tigard Sand and Gravel could mine for many years (100) for the entire site.

5. REVIEW OF OPEN HOUSE PUBLIC COMMENTS

Mr. Chase provided an overview of the comments obtained from the open house as well as the results of the exit survey where citizens were given the opportunity to provide feedback on Alternatives I and II. This information is posted on the City's web site. Mrs. Rutherford can also provide hard copies of the material. The open house was attended by over 60 people with representation from property owners within the study area and adjacent to this area. The primary concerns are the tree buffer and the tree harvesting on the Tigard Sand and Gravel property last year. Don Hanson described it as the "green curtain" between the residential and industrial areas. Residents asked that the tree buffer be extended further south than depicted on the two initial alternatives. As a result, this suggestion has been incorporated into Alternative III which was created as an option based on information derived at the open house.

Mr. Simmons indicated that concern was noted about roadway connections throughout the area, specifically truck traffic through the residential area instead of using arterial connections. Mr. Chase provided an overview of discussions regarding smaller lots vs. one larger lot near the residential area. After reviewing the data, people were concerned that smaller lots could mean more noise, traffic, lighting and other issues. Property owners liked the proposed shelf approach and the grade change. They also supported the concept of a bigger setback with large lots and a campus-like setting.

Mr. Metcalf stated that he could not attend the open house but voiced concern about the retail market for large lots which may not be economically feasible. Large lots would greatly limit who can afford to purchase the land in the area. Mr. Chase countered that the Metro ordinance for the Regionally Significant Industrial Area, requires one lot of at least 100 acres on and one of at least 50 acres. Once those conditions are met, the remaining portion of the site can be subdivided as the property owner and city deem appropriate. The consultants are suggesting this as an option in the "H" area. Mr. Hanson stated that he found the marketing comments compelling and supports parcels of different sizes. We need some flexibility to divide the parcels and retain larger ones in other areas. He suggested incorporating some dotted lines on the perimeter parcels that could show future partitions or sub-dividing so that we don't deceive anyone. TAC members supported this suggestion. Parcel H is about 40 acres, and could be shown as four sites.

Mark Brown voiced concern that Alternative III does not provide direct access to his property unless the private railroad crossing is utilized. Alternative II and possibly Alternative 1 had connector streets on the west border. He felt that another road to avoid the railroad crossing would be advantageous. Mr. Simmons clarified that there

could be other access in this area but easements would be necessary since it is owned by various individuals. A link to Waldo Way could be created without interfering with other services. Alternative I showed a new road without disturbing the BPA lines. Mr. Hanson proposed a loop in the area through other property owners' land. Mr. Simmons stressed that the concept planning focus is to determine major infrastructure and for transportation, that included siting arterials and collector streets. It does not preclude the development of other local roads. Various scenarios were discussed to accommodate travel flow throughout the area. This information will be blended with options previously discussed and incorporated into Alternative III.

In summary, Mr. Chase indicated that TAC suggestions included the desire to show some the potential subdivision opportunities on Parcel H, addition of local road connections down into Parcel J, and the need to for mitigation improvements on Tonquin Road and Grahams Ferry east to I-5 to address safety issues to support site development.

6. REVIEW OF DRAFT EVALUATION CRITERIA

Mr. Simmons stated that the evaluation criteria has been updated based on information gathered from the Open House and previous TAC meetings. Another open house will be scheduled in June. Following TAC's review of the Evaluation Criteria, the consultants will prepare the first draft of the Concept Plan which will incorporate all the work done by the TAC.

Mr. Simmons reviewed the recent changes made to the Evaluation Criteria which included additional criteria under Goal C to address mobility with arterial-to-arterial or higher street classification connections and minimizing or doing a grade separation for the streets and trail crossing at the railroad tracks.

A new goal ("J") has been added to address the need to preserve significant natural resources. This verbiage evolved from discussions between Todd Chase, Doug Rux and Dave Simmons.

Three new criteria have been added to Goal E to be more specific about community involvement with criteria added to address issues related to visual buffers, design compatibility, including setbacks as well as site amenities and features such as trails, bicycle and pedestrian connectivity, and natural resources for employers and adjacent residential users.

Mr. Simmons commented that he feels we can qualitatively differentiate between the three alternatives. Weighting of the criteria will not be beneficial at this time. All three alternatives will be evaluated. It would be helpful if the TAC could reach a consensus based on these evaluation criteria prior to going to the Tualatin City Council to ask for a recommendation. This will be further discussed at the TAC's May meeting. At that meeting the TAC will apply the criteria and discuss each alternative against the criteria

and decide what is most important. Cost is key component of this project and will also be addressed at the May meeting.

7. DISCUSSION

There was no further discussion

8. SCHEDULE NEXT TAC MEETING:

The next TAC meeting will be held on May 11, 2005 at 9:00 a.m. in the Tualatin City Council Chambers,

9. WRAP UP – PUBLIC COMMENTS

None

Minutes Prepared By: Carol Rutherford, City of Tualatin

**Southwest Tualatin Concept Planning
Technical Advisory Committee Meeting #5
May 11, 2005 9:00 am – 11:00 am
Council Chambers, 18884 SW Martinazzi Avenue
Tualatin, Oregon**

A G E N D A

1. Introductions
2. Public Comment
3. Approval of Minutes from the March 30, 2005, Meeting #4
4. Review of Modifications to Alternatives
5. Results of Evaluation Criteria Analyses
6. Next Steps
7. Schedule Next TAC Meeting
8. Wrap-Up – Public Comments

Southwest Tualatin Concept Planning Technical Advisory Committee #5 - Minutes May 11, 2005

TAC Attendees:

City of Tualatin:	Doug Rux, Community Development Director Dan Boss, Operations Director Kaaren Hofmann, Civil Engineer Carol Rutherford, Office Coordinator
CH2M Hill:	Dave Simmons
Kittelson and Associates	Paul Ryus
OTAK:	Todd Chase
ODOT Rail	Swede Hays; Bob Melbo
PGE	Manny Angulo
City of Sherwood	Kevin Cronin
Tigard Sand and Gravel:	Roger Metcalf
Tonquin Industrial Group:	Donna Albertson; Carl Johnson; Nick Storie
TVF&R	Jerry Renfro
Washington County	Steve Kelley

Property Owners:

Bob and Nita Nelson, Orr Family Farm; Ken and Mike Itel

1. INTRODUCTIONS

Doug Rux, Community Development Director from the City of Tualatin, welcomed everyone. TAC members and property owners introduced themselves. Mr. Rux announced that we have hired a new Senior Planner, Elizabeth Stepp, who will begin work with the City on May 31st. She will be transitioning into this project between now and it's completion on September 15th. He encouraged TAC members and guests to sign in if they have not already done so.

2. PUBLIC COMMENT

There was no public comment. Mr. Rux stated that guests will have an opportunity to comment at the end of the TAC meeting.

3. APPROVAL OF MINUTES, MARCH 30, 2005, MEETING #4

The TAC indicated their consensus to approve the minutes of the March 30, 2005, meeting. Minutes will be finalized and posted on the website later today.

4. REVIEW OF MODIFICATIONS TO ALTERNATIVES

Mr. Rux turned the meeting over to Dave Simmons, Todd Chase, and Paul Ryus.

Mr. Chase briefly reviewed the three alternatives that were displayed on the wall. Based on discussions held at the last TAC, Alternative 3 has been revised to reflect the potential for local street connections and to reflect that Parcel H could be developed as either one large parcel or several medium sized parcels, as indicated by the addition of the dashed lines. The tree buffer area shown along the east side of Alternatives 1 and 2 were also revised to be consistent in width for all the alternatives, except that the buffer extends further south for Alternative 3. Goal 5 maps from Metro and the TBSC promote "significant resources," and preserving trees incorporates that goal. Mr. Chase asked if there were any questions; there were none.

5. RESULTS OF EVALUATION CRITERIA ANALYSES

Mr. Simmons referenced the Draft Evaluation Criteria dated May 3, 2005 that was included in the email agenda packet. Hard copies are also available. A Technical Memorandum dated May 2, 2005, prepared by Kittelson and Associates was also distributed and will be reviewed by Paul Ryus. The goal in reviewing this material is to obtain feedback on the consultants' rationale and to determine if this criterion makes sense.

Goal A: Create a plan to guide future development of the project area. Based on the criteria and findings, Alternative 3 netted the largest acreage by a small amount and would generate the most jobs. The development assumptions for all three alternatives predict that it would be approximately half light industrial with the remainder "Business Park" consisting of flexible buildings and some industrial. Kittelson and Associates ran the traffic projections based on this assumption. The area to the north around the lake is shown as mixed-use in all three alternatives. This equates to 11.4 jobs per acre and 43 jobs per acre for the Business Park that would have a higher density due to multi-story buildings. There would also be a small commercial component. Projected new employment would range from approximately 5,500 jobs in Alternative 1 to 5,800 in Alternative 3. These job numbers drive the traffic generation assumptions.

Goal B: Ensure Concept Plan meets Metro Ordinance 02-990. This is basically a “pass/fail” criterion. All alternatives can conform to this. Alternative 3 is a little more open and has more opportunities at the southern end to create different lot sizes.

Goal C: Ensure an adequate & efficient transportation system. This focuses on six evaluation criteria related to ensuring an adequate and efficient transportation system. Mr. Ryus provided an overview of the Traffic Technical Memorandum. The information presented today incorporates the job assumptions identified in the Transportation System Plan (TSP) done four years ago. At that time 1,800 jobs were projected to be created in the Concept Plan area. The three alternatives are projected to generate approximately 3,700-4,000 additional jobs. The street network assumes a connector between I-5 and 99W as well as an arterial to connect to SW Tualatin-Sherwood Road. The proposed configurations will generate additional traffic on SW 124th Avenue, particularly for vehicles making the left turn onto Tualatin Sherwood Road.

In reviewing the memorandum as related to the three alternatives, Mr. Ryus indicated that Alternative 1 focuses traffic from I-5 and central Tualatin and not much north/south connection. Alternatives 2 and 3 reflect a better north/south connection and access to the I-5 connector which reflect a better distribution and overall results

Steve Kelly from Washington County requested clarification on the Introduction to the memorandum with reference to 2025 traffic operations and cited problems with Metro 2025 traffic model. Mr. Ryus clarified that they used the 2020 traffic model and extrapolated to develop 2025 traffic projections.

Mr. Simmons indicated that traffic analysis assumes that the I-5/99W Connector follows a corridor north to either SW 124th Avenue or another street as was defined in the TSP. The actual corridor of the Connector has not been determined. A southern alignment for the Connector would significantly alter the results of the traffic analysis. Mr. Rux reaffirmed this dilemma. Mr. Cronin of Sherwood indicated that they will also be developing a concept plan for the area west of this plan area and his “best guess” is that it will go south of Sherwood. Mr. Kelley suggested removing the proposed connector from the maps to eliminate confusion. A brief discussion evolved around this suggestion since the connector is in the TSP which is an adopted document.

Mr. Rux indicated that the City of Tualatin and the City of Sherwood will be jointly applying for a grant to study the Quarry Area which encompasses 354 acres in the area from SW 124th Avenue west to Oregon Street south to Tonquin Road and out to the Gun Club (Study Area 48).

The City of Sherwood adopted their Transportation System Plan in March 2005, and this document will be helpful in future transportation planning. Kittelson and Associates could review the Sherwood TSP and make additional assumptions based on that data. The current maps show an arrow into the area and didn’t assume a Blake Street connection. Tonquin could be realigned with new collector streets and hook up with the

existing road. This is currently not in the modeling. Although the Quarry Area is an additional 354 acres, it is not known what additional road improvements may result.

Mr. Ryus briefly addressed the Level of Service numbers. The intersection at Boones Ferry Road and SW Tualatin-Sherwood Road is currently projected to be a Level of Service F without the additional traffic generated by the Concept Plan area alternatives. The Town Center Plan Project addresses the traffic flow in the downtown Tualatin area in more detail. Some limitations may need to be identified to get the level of service within the standard.

A brief discussion was held regarding entrances/exits along the I-5/99W connector. Mr. Rux commented that there could be very limited access – only one or two connection points between 99W and I-5.

Mr. Simmons summarized the data prepared by Kittelson and Associates and the comparison between alternatives from a qualitative review and a traffic operation perspective. Alternatives 2 and 3 did a better job of street networking and are more disbursed throughout the site than Alternative 1. Fundamentally, the criteria for Goal C focuses on mobility which is why Alternative 3 came out best

Mr. Simmons also provided a summary of the other Evaluation Criteria within Goal C:

Alternate travel routes/modes: Alternative 2 fared best because of the possibility of two transit hubs, which may not be realistic. Alternatives 1 and 2 both suggest a more robust pedestrian/bike trail network.

Connectivity: Alternative 3 came out better in this criteria, although arterial-to-arterial to SW 124th Avenue in Alternatives 1 and 3 were essentially the same.

Minimizes or grade separates street/trail crossing of railroad: Alternative 3 ranked highest as it eliminates an existing private crossing north of Tonquin Road.

Accommodates potential rail spur: Alternative 3 provides the best opportunity for this to occur in the southern portion of the study area.

Goal D: Coordinate with the I-5/99W Connector. Without information on where the connector will be located, this goal is difficult to evaluate at this time.

Goal E: Involve broader community in planning process. This goal focuses on broader community involvement in the planning process. The majority of this evaluation criteria is difficult to rank at this time, as the public has only had the opportunity to review Alternatives 1 and 2 at the open house held last March. Another open house is scheduled for June 14th from 6 – 8 p.m. at the Police Department at which time all three alternatives will be presented, and the public will have an opportunity to comment. A formal presentation will be made at 6:30 p.m.

The evaluation criteria focusing on site amenities and features does rank Alternative 3 highest as it includes the recommendation for visual buffers extending further south along the east side of the project area adjacent to the residential area. Mr. Rux commented that this also focuses on design compatibility issues and the desire to achieve a more campus-like appearance similar to the Leveton area or the Tektronix or In Focus campuses rather than industries along SW Tualatin-Sherwood Road.

Goal F: Work with BPA and PGE to ensure safe development. This goal stresses the need to work with both the BPA and PGE to ensure a safe development and is ranked equally for all three alternatives. The information provided from the BPA and PGE will need to be reviewed at the time of development. It was stressed that if the BPA or PGE have any additional comments on the three alternatives that they be submitted between now and the open house on June 14th.

Goal G: Infrastructure issues and systems. This criteria focuses on the availability and expandability of sewer, water, and storm water systems. Alternatives 2 and 3 are tied for #1 as they both have a roadway system that distributes public facilities more evenly across the entire site. An inquiry was made if consideration will be given to a tax increment finance district. This decision will be an outcome of Mr. Chase's analysis of the options and funding mechanisms.

Goal H: Cost. This addresses the issue of capital costs. All are very similar although Alternative 1 may be slightly higher due to a longer road network. Other infrastructure costs would be similar. Current assumptions are that we would utilize the Bull Run Water System, with new reservoirs extending water service into this area. Mr. Rux commented that the City is currently evaluating future water source options. Mr. Cronin stated that utilization of the Willamette River as a water source is currently on the Sherwood ballot.

Goal I: Evaluate limited commercial to serve the industrial base. This goal focuses on the amount of commercial usage in the industrial area and the associated limitations imposed by Metro's RSIA which stipulates that we are limited to 20,000 square feet per 50-acre parcel. Mr. Chase stated that we are assuming some ancillary commercial space for uses such as dry cleaners, day care and restaurants. There will be no "big box" retail in this area. While there may be slight differences in the three alternatives, they will all be treated the same way. Alternative 3 ranks slightly higher because it will result in more jobs and more developable land. Opportunities for commercial support will be slightly higher.

Goal J: Preserve Significant Natural Resources. This last goal reinforces the desire to preserve significant natural resources. There has been a lot of change in this area over the past few years. Goal 5 resources are not well defined. Alternative 3 preserves the most existing tree network. Mr. Rux stated that available natural resource reports are out dated and do not accurately depict what is currently in the study area.

In summary, both the traffic information as well as the other material can be modified based on input from the TAC. Comments should be directed to Mr. Rux who will then forward them on to Mr. Simmons and the other consultants. From an agency standpoint, it would be advantageous to receive all input prior to the open house.

6. NEXT STEPS

An open house is scheduled for Tuesday, June 14th from 6-8 p.m. at the Police Department. A formal presentation will be made at 6:30 p.m. Individual stations will be set up where citizens can obtain more specific information. As additional draft material is generated, it will be posted on the website. Additional traffic information will be done prior to posting that report on the website. Mr. Chase will continue working on financial data.

7. SCHEDULE NEXT TAC MEETING:

The next TAC meeting will be held on Tuesday, June 28, 2005 from 2:00 – 4:00 p.m. in the Tualatin City Council Chambers. Mr. Rux stated that the timeline for completion of this project has been extended to September 15, 2005. Our goal is to begin public committee work in July.

8. WRAP UP – PUBLIC COMMENTS

Mr. Carl Johnson inquired about how to fund sewer infrastructure. Mr. Rux replied that the City has an Intergovernmental Agreement (IGA) with Clean Water Services (CWS). Development cannot occur in the City unless it is connected to the sewer system. A brief discussion was held regarding the Tonquin area and Tigard Sand and Gravel. Mr. Chase indicated that a Local Improvement District (LID) may be an option. Funding will be an issue for existing property owners, and innovative alternatives (i.e. on-site sewage treatment facilities) will need to be considered.

Mr. Mike Itel posed several questions. The concept plan shows SW 120th Avenue going straight to the pond. He requests that we leave it as is and make no improvements. Mr. Rux indicated that any enhancements to this area would depend on the type of development going into that area. Engineering could require street improvements. Mr. Itel commented that if Itel Street were to go straight through, it could take off 25 feet of his property which would put the street 25 feet closer to his building. Can this street be adjusted south 20 feet to avoid the possibility of him losing several million dollars of his developable property? Mr. Itel requested that this issue be addressed in the SW Concept Plan to avoid the future possibility of it ending up with attorneys to resolve it. Mr. Rux assured Mr. Itel that we will look into it.

Mr. Itel inquired about the timeline for these proposed changes to occur. Mr. Rux replied that staff will go to the City Council in September for any needed changes to the Comprehensive Plan. Once approved, an ordinance is prepared which will take effect 30 days later. After that process is complete, the City could receive a request at any time to annex property into the City. Development of this land will be market driven. Build out could be 20+ years. The area improvements could be 75% developed over that time with the remaining 25% beyond that, possibly 25-30 years or more.

A brief discussion was held with the representatives of ODOT rail regarding a potential rail spur at southern end of this area. Comments from Tonquin Group indicate that they want to preserve rail spur access to directly serve buildings in that area. Commuter rail will also serve that area. This could result in a distribution situation with high volume and clean freight. Rail spurs may be OK in the southern part rather than the northern part of the concept planning area. It was clarified that commuter rail will be Class 4, operating on regular gauge tracks.

Minutes Prepared By: Carol Rutherford, City of Tualatin

**Southwest Tualatin Concept Planning
Technical Advisory Committee Meeting #6
June 28, 2005 2:00 pm – 4:00 am
Council Chambers, 18884 SW Martinazzi Avenue
Tualatin, Oregon**

A G E N D A

1. Introductions
2. Public Comment
3. Approval of Minutes from the May 11, 2005, Meeting #5
4. Comments from Open House #2
5. Annexation/Cost Impact Analysis – Draft #2
6. Traffic Analysis Technical Memo – Final Draft
7. Evaluation Criteria – Final Draft
8. Selection of Preferred Alternative
9. Concept Plan Discussion
10. Project Schedule Update
11. Public Comment
12. Next Steps
13. Schedule Next TAC Meeting
14. Wrap-Up

Southwest Tualatin Concept Planning Technical Advisory Committee #6 - Minutes June 28, 2005

TAC Attendees:

City of Tualatin:	Doug Rux, Community Development Director Elizabeth Stepp, Senior Planner Dan Boss, Operations Director Kaaren Hofmann, Civil Engineer Carol Rutherford, Office Coordinator
CH2M Hill:	Dave Simmons
Kittelson and Associates:	Paul Ryus
ODOT:	Andrew Johnson
OTAK:	Todd Chase
City of Wilsonville:	Chris Neamtzu
METRO:	Sherry Oeser
PGE:	Manny Angulo
Tigard Sand and Gravel:	Roger Metcalf
Tonquin Industrial Group:	Mark Brown; Nick Storie; Wayne Mangan

Property Owners/Guests: Donna Albertson, Tom Aufenthie; Ken Itel

1. INTRODUCTIONS

Elizabeth Stepp, Senior Planner from the City of Tualatin, welcomed everyone and introduced herself, and noted she will be assuming a primary role in the continued development of this project. TAC members and property owners introduced themselves. Ms. Stepp requested that TAC members and guests sign in if they have not already done so. For those people she has not yet met, she encouraged them to introduce themselves to her after the meeting. Updated and new materials were distributed to all attendees.

2. PUBLIC COMMENT

There was no public comment. Guests will also have an opportunity to comment at the end of the TAC meeting.

3. APPROVAL OF MINUTES, MAY 11, 2005, MEETING #5

The TAC indicated their consensus to approve the minutes of the May 11, 2005, meeting. These minutes will be finalized and posted on the website later today.

4. COMMENTS FROM OPEN HOUSE #2

An open house was held on June 14. There were fifteen attendees in addition to the consultants, staff and TAC members. Roger Metcalf and Mark Brown were present. This was the first time that the public had an opportunity to review Alternative 3, which was presented and discussed in detail. An updated traffic analysis was also presented by Paul Ryus of Kittelson & Associates that evening.

Following the Open House presentations, comments were received from 3 to 4 of the attendees, which does not represent a large sample size. Overall, the major issues stated were noise concerns from land development, traffic flow throughout the site, and aesthetics (not wanting to view the back of buildings from the residential area.)

Mr. Chase expanded on these issues. Discussions focused on the alignment of the proposed SW 115th Avenue and land uses planned between 115th Avenue and the adjacent neighborhood. Concern about thru-traffic was noted and its subsequent impact on the neighborhood, if Blake Street were to be extended to the west. Citizens preferred Alternative 1 because traffic on the north/south corridor was further west from the residential area than in Alternative 3. They also preferred Alternative 3 over Alternative 2 because it depicted larger potential building sites rather than a higher number of smaller sites in the eastern portion of the site.

Mr. Metcalf recapped a misconception by some of the attendees that thought SW 115th Avenue would be the only north/south street in the concept planning area. Consultants and staff clarified that these alternatives show just the major roads. As the area develops, there will be smaller streets for circulation throughout the area. The City has more control on setbacks of arterial and collector streets than smaller streets. Mr. Rux stated the design of SW 115th Avenue could include a landscape median in the roadway, bike lanes, and a tree canopy to enhance visual aspects and help to minimize noise. He also gave a thorough overview of options and control aspects of the road system as well as the design elements related to the elevation of buildings and vegetation that can be planted. Southwest 124th Avenue is actually on a high elevation, sitting higher than the railroad tracks; due to this, any traffic noise would more likely be coming from 124th Avenue than from 115th Avenue.

Mr. Chase expanded on the input from citizens, and noted the survey gave a general impression that there was a tie between Alternatives 1 and 3. There were different reasons why respondents liked each of them. No support was received for Alternative 2. Mr. Rux stressed that there needs to be a balancing act between all competing issues. There is no group of people who will get everything they want. Trade offs will occur. Our

goal is to develop something that everyone can live with. Additional discussion and the selection of a preferred alternative will be covered in agenda item #8 this afternoon.

5. ANNEXATION/COST IMPACT ANALYSIS – DRAFT #2

Otak has created an Annexation/Cost Impact Analysis (see attachment). Mr. Chase provided a detailed overview of this information and said it goes beyond Metro's Title 11 requirements for concept planning. The Analysis addresses local fiscal and economic considerations for new conceptual development based on Alternative 3 over the next 20 years. The approach used is similar to that done for other projects and master plan areas and includes a site analysis, a plan for the land use pattern, transportation connections, and the provision for urban facilities (water, sanitary sewer system, storm sewer system).

Mr. Chase provided an overview of the methodology as shown in Figure 1 of his report. Tables depict land use patterns, employment and population information, assessed values as well as annual revenue estimates and administrative costs associated with the development of this area. Table 7 shows an annual revenue estimate of \$711,213 for the year 2025. Annual administration costs go up to nearly \$70,000 as shown in Table 8. Table 9 highlights revenues that increase over time due to such items as business licenses, property taxes, and fees. Capital costs are reflected in Table 10, while Table 11 illustrates the projected Operating and Maintenance (O & M) costs. What is not included in these tables is the actual capital costs for construction. Funding options need to be explored and could include bonding, limited revenue from System Development Charges, and options for road construction. The largest cost will be the extension of SW 124th Avenue. Limited Metro Transportation Improvement Program (MTIP) funds may be available, but they only do one large project every five years. If Washington County has a program, it could help as well as a 50% local match. It is estimated that \$58 million will be needed, as shown in Table 10.

The Annexation/Cost Impact Analysis also looks at economic benefits of the project. As a Regionally Significant Industrial Area (RSIA), it is an important employment center in the Portland region. No other site has this kind of job base, which translates to a lot of money in state income tax revenue. There are many reasons for both the state and county to support this project. Timing could be a critical issue to maximize the option of utilizing MTIP funding. Another option is to apply for funding through grants. Mr. Johnson from ODOT feels that this project will generate interest from multiple State agencies. There is an "immediate opportunity fund" which has funds available with flexible pay back options. He will discuss this with his fundraising sources to identify further options.

Mr. Chase encouraged TAC members and guests to submit any comments on this report to Ms. Stepp by July 8.

Mr. Itel commented that the revenue from property tax in Table 7 seems low. It was clarified that this number is just for Tualatin. The school tax is treated as a "pass

through” to the State. A brief discussion was held with regard to adjustments that could occur to this figure based on changes in assessed value. It is difficult to predict the type of industry that will move into this area. High tech operations generate a high amount while the standard is light industrial which is more on the conservative side. As an example, Mr. Rux cited the tax revenue generated from Novellus. Mr. Metcalf requested that whatever methodology is used, that we insure it is consistent and comparing “apples to apples.” It was suggested that this methodology be documented as a footnote only in the Otak report.

6. TRAFFIC ANALYSIS TECHNICAL MEMO – FINAL DRAFT

Paul Ryus from Kittelson & Associates provided an overview of their Technical Memorandum that outlines future alternatives for traffic through this area. The initial draft of this memorandum was provided to the TAC at their May 11th meeting, and this document is a revised version.

Mr. Ryus stated that the major changes include new runs of the Regional Transportation Model. It was Kittelson’s goal to keep the findings in this Memorandum consistent with the study his company did as part of Town Center Plan Project. Using new modeling data, the general conclusions are similar to those previously reported. The new model shows less traffic on SW 124th Avenue which, in turn indicates that we will not need as large an intersection at SW Tualatin-Sherwood Road. The major complication is that the intersection of SW Boones Ferry Road and SW Tualatin-Sherwood Road will be over capacity in 20 years. Using the Transportation Planning Rule, the question becomes how to mitigate traffic impacts on the road system. At the May meeting, it was agreed to defer that decision until the Town Center Plan was done. However, as a result of discussions at the City Council meeting last evening, it was decided to put the Town Center Plan on hold until the visioning process is complete. That process could last 12-18 months prior to a “fix” being identified for this area. For this project, it means that we cannot develop a plan which will add more traffic in the area of the SW Boones Ferry Road and SW Tualatin- Sherwood Road intersection until a solution is found.

Mr. Brown inquired if we could begin development in the south end of the concept planning area. The market could drive developers to the south end prior to doing projects in the north. Mr. Rux stated that with the City Council not making a decision on the Town Center Plan, we cannot develop anything that would require changes to the Comprehensive Plan. This includes zoning changes, annexations, and concurrency issues. Transportation into the southern portion is also an issue since the City’s TSP and Metro’s RTP show a northerly alignment for the I-5/99W connector, whereas a southerly alignment would significantly alter traffic patterns in and around Tualatin. There would be obstacles to overcome on the transportation side of this equation, since to serve development transportation must be adequate. Mr. Rux reviewed the annexation process and related issues including the City’s inability to provide City services (e.g. water and sewer) to the southern area without a connection through the northern portion of the concept planning area.

Mr. Chase stated that if we delay addressing these key transportation issues, other nearby areas might develop, which means capacity in the traffic model could diminish if we do not get ahead of it or stay in line with other projects. Some allowance for nearby development has been factored into the model. TAC members and guests discussed this situation and agreed that it will be harder to find a solution if we have to wait a long time to implement this plan. Mr. Ryus stated that some new intersections have also been included in the analysis for operational efficiency. The intersection at SW Tualatin-Sherwood Road and Boones Ferry Road as well as the I-5 south off ramps were major factors in the analysis.

Mr. Rux reconfirmed that in reviewing the 2020 and 2025 projections, the intersection at Boones Ferry and Tualatin-Sherwood Road exceeds capacity, and alternatives must be identified. The south connector will help, but the City requires other circulation patterns that could help bring the level of service back in line with the TSP. Options need to be in place prior to dealing with mitigation. Mr. Rux provided additional information on Council's direction based on last night's meeting and reaffirmed that the City may be 18 months away from those answers. However on the positive side, by that time we may have more direction on the southern alignment and the I-5/99W connector.

Meeting attendees were encouraged to forward any comments on this material to Ms. Stepp by July 8, and she will then forward the information onto to Kittelson.

7. EVALUATION CRITERIA – FINAL DRAFT

Mr. Simmons reviewed the final draft of this material. Minor changes were made to include data in the category regarding public input (Item E) which now reflects a tie between Alternatives 1 and 3. As mentioned by Mr. Chase, there was very limited public input. Alternatives 1 and 3 are very similar in the eyes of the public. This Evaluation Criteria will now be used as a tool for the starting point in the next discussion item.

The TAC was requested to further review the three alternatives as related to the evaluation criteria and make a recommendation on the preferred alternative. After this is decided, the final step will be to make changes to the City's code to implement these changes.

8. SELECTION OF PREFERRED ALTERNATIVE

Mr. Simmons clarified the results show a tie for Alternatives 1 and 3; Alternative 2 has dropped to third place. Mr. Metcalf stated he was under the impression that we were not going to specify lot sizes and inquired if we are making a decision on the actual size as shown on the Alternative maps, and that if there is a decision being made about lot sizes at this time, he noted he had a problem with that. Mr. Rux clarified the report does not get down to that level of detail, but Code language to implement this will require us to look at Metro's requirement of having one 100-acre and one 50-acre parcel, and then establish a minimum lot size as well as other development-related parameters such as structure height, setbacks, type of uses, transportation system, sewer, water, greenway,

wetlands protection/preservation, etc. There was brief discussion regarding the area adjacent to the pond and a preference for mixed use to serve local businesses in the area.

Mr. Rux stated that as an outcome of these discussions today and previous communication with the public, staff will draft additional language to implement the various elements of the preferred alternative. An open house/neighborhood meeting will be scheduled in late July to present further information.

Ms. Stepp reviewed the timeline for the last segment of this process and referred attendees to the Project Schedule shown on the wall and the handout. Mr. Metcalf was encouraged to talk directly with her regarding his suggestions and concerns as related to the Tigard Sand & Gravel property. As part of the research being done to insure the success of this project, Ms. Stepp noted she has been looking at models and code language for other Portland area towns, including Hillsboro and Gresham. As some of Tualatin's existing code language will not work for this area, she is continuing to search for alternate models to better fit the dynamics of this area. Staff also needs to talk to Metro about the size of parcels and how they can be developed/divided. Mr. Rux provided an overview of what area residents have proposed, and noted it is our hope to reach a compromise or hybrid for density trade offs. He explained a variety of options and questions that may be posed.

TAC members discussed the proposed alternatives and how to develop code language for it to happen as well as meet all necessary requirements. Discussions focused on how to provide water and sewer in the southern area. There has been tremendous improvement in that area due to the construction of the prison and growth in Wilsonville. Tonquin Road is busy, in effect serving as a connector between I-5 and 99W. Transportation concerns remain. Even if someone wants to develop in this area, there are some constraints that could prohibit it at this time. A question was raised if water and sewer could be run along the railroad track, taking advantage of their ROW. While technically feasible, this solution would be costly and gaining approval from the railroad to construct the water and sewer infrastructure in railroad right-of-way is unlikely. An annexation report lays out the costs associated with development in this area. While this area is very close to Wilsonville, Tualatin does not have an agreement with Wilsonville regarding shared services. A brief discussion was held regarding an IGA, similar to what was done for Bridgeport Village as well as the agreement the City has with the River Grove area of Lake Oswego. Mr. Boss indicated that we would need a charter exclusion to tap into water sources other than Bull Run.

Mr. Simmons suggested that TAC members, on behalf of their respective agencies, provide pertinent comments. Each member present shared their views:

ODOT: Mr. Johnson stated that with regard to the Transportation Rule, there is not much difference between the alternatives; all three require that mitigation must be done. There is nothing that cannot be addressed. All alternatives tie into the proposed connector in the same general area. He stated a minor preference for Alternatives 2 or

3, with additional collector to distribute traffic in the plan area. Balancing the different pros and cons, he leans toward Alternative 3 or a hybrid of Alternatives 2 and 3.

PGE: Mr. Angulo stated he had no preference. PGE will be able to serve the area regardless of which alternative is selected. No new sub-station is needed. An additional transformer can be added as needed. Any expansion can be handled by the existing Avery Street facility.

Engineering: Ms. Hofmann stated that they can build anything. She is leaning toward Alternative 3 for the transportation system. Lot sizes do not matter from an engineering standpoint.

Operations/Public Works: Mr. Boss stated that he has no preference. His Department can work with anything. From a personal standpoint, he commented that Alternative 3 removes bottleneck issues.

City of Wilsonville: Mr. Neamtzu stated that he personally likes Alternative 2 with the additional transit center and mixed use area in the southern area. Bringing many jobs to this area will require additional transit service and mixed use with commercial services for employees. The trail system is good and provides off-street connections to the south. He likes what he has heard regarding land use.

Mr. Rux stated that early in the discussions there had been talk of an additional Commuter Rail stop option. However, this could not be supported given the speed of the freight trains and space between stops. Mr. Neamtzu commented that the City of Wilsonville has not started the concept planning process for the North Wilsonville area, and they need to think about it in the big picture. He is circulating this information among Wilsonville staff. They have an interest in this project, as Wilsonville is very close to the southern study area. At the time the prison was built, extra capacity for the provision of City services was built in that area by Wilsonville.

Tonquin Industrial Group: Mr. Brown and Mr. Storie feel that Alternatives 2 and 3 are OK. There is a rail spur in Alternative 3, which is important to industry in this area. Mr. Storie suggested that commercial services be located in the northern area to avoid employees traveling to Sherwood or Wilsonville.

Mr. Chase briefly commented on parcel sizes. Areas H, F, and J are intended to be large areas within the Comprehensive Plan. He reviewed these areas on the map and stressed that we can accommodate many different parcel sizes throughout the concept planning area.

Ms. Stepp asked if there were any questions. She explained the next steps in this process and the upcoming interaction with TPAC and Council, both of which continue to be briefed on a monthly basis. Draft code language will be available in August. TAC members and guests indicated that it would be beneficial if the minutes from the July 14th TPAC meeting would be available for review at the next TAC meeting. The

Consultant is responsible for the creation of the Concept Plan with information on how to implement it. There is a lot of work to be done in a short time span.

It was agreed to move forward with Alternative 3. This decision becomes part of the plan with another level of public and TPAC review after which further refinements may be made. Mr. Rux reiterated that Alternative 3 was a hybrid created based on comments from all sources. The TAC stressed its consensus to support Alternative 3 with the caveat that it can be fine-tuned or refined, as needed.

9. CONCEPT PLAN DISCUSSION

Ms. Stepp gave the group a very brief overview of what the concept plan will include. The traffic and fiscal impact analyses and others will become a part of the plan. It will include a description of this process, the conceptual land use alternative and information on how it could be successfully implemented. Staff is scheduled to present this plan to City Council on August 22. Due to timeline constraints, Ms. Stepp reiterated that she would need to receive comments from TAC members regarding the traffic technical memo, the annexation/cost impact memo, and any other draft document for this project handed out previously, on or before **Friday, July 8**.

Mr. Brown stated that he talked to Bob Melbo from ODOT rail. Their permit had expired and is now deeded to ODOT. The crossing for Tri-County Industrial Park is a private crossing, and the permit will be renewed.

10. PROJECT SCHEDULE UPDATE

Ms. Stepp distributed an updated project schedule that highlights the tight timeline to be followed for the remainder of this project. An overview of this project will be presented to the Tualatin Planning Advisory Committee (TPAC) on July 14 at 7:00 p.m. in the City Council Chambers. This is a public meeting, and everyone is invited to attend. City Council will be given a briefing at their July 25 meeting and on August 22, they will be presented with the Concept Plan. The traffic analysis and costs will be integrated into the final concept plan.

11. PUBLIC COMMENT: None.

12. NEXT STEPS:

Ms. Stepp stated that all reports/handouts would be posted on the web site with updated information as it becomes available. She encouraged TAC members and guests to check the site frequently.

13. SCHEDULE NEXT TAC MEETING:

The next TAC meeting will be held on Wednesday, July 20, from 10 a.m. –noon in the Tualatin City Council Chambers.

14. WRAP UP:

Ms. Stepp thanked everyone for attending the meeting.

Minutes prepared by: Carol Rutherford, City of Tualatin

**Southwest Tualatin Concept Planning
Technical Advisory Committee Meeting #7
July 20, 2005 10:00 am – 12:00 pm
Council Chambers, 18884 SW Martinazzi Avenue
Tualatin, Oregon**

A G E N D A

1. Introductions
2. Public Comment
3. Approval of Minutes from the June 28, 2005, Meeting #6
4. Transportation System Plan - Technical Memo
5. Annexation/Cost Impact Analysis Memo
6. Concept Plan – Draft Document
7. Proposed Changes to the Tualatin Development Code
8. Project Schedule Update
9. Public Comment
10. Next Steps – need to wrap up project by mid-September
11. Wrap-Up

Southwest Tualatin Concept Planning Technical Advisory Committee #7 - Minutes July 20, 2005

TAC Attendees:

City of Tualatin:	Doug Rux, Community Development Director Elizabeth Stepp, Senior Planner Dan Boss, Operations Director Kaaren Hofmann, Civil Engineer Carol Rutherford, Office Coordinator
CH2M Hill:	Dave Simmons
Kittelson and Associates:	Mark Vandehey
Metro:	Sherry Oeser
ODOT:	Andrew Johnson
City of Wilsonville:	Dave Waffle
Tigard Sand and Gravel:	Roger Metcalf
Tonquin Industrial Group:	Nick Storie

Property Owners/Guests: Ken Itel; Mike Itel; Bruce Watlack

1. INTRODUCTIONS

Elizabeth Stepp, Senior Planner from the City of Tualatin, welcomed everyone. TAC members, property owners and guests introduced themselves. Doug Rux and Dan Boss are attending another meeting and will join us later this morning.

2. PUBLIC COMMENT

There was no public comment. Guests will also have an opportunity to comment at the end of the TAC meeting.

3. APPROVAL OF MINUTES, JUNE 28, 2005, MEETING #6

The TAC indicated their consensus to approve the minutes of the June 28, 2005, meeting. These minutes will be finalized and posted on the website later today.

4. TRANSPORTATION SYSTEM PLAN – TECHNICAL MEMO

As Paul Ryus is on vacation, Mark Vandehey of Kittelson and Associates reviewed this document. It consists of changes to the Transportation System Plan (TSP). This document is still in draft form and continues to be “tweaked and polished.” However, it will substantially remain the same. A final draft will be done prior to being reviewed by TPAC in August.

Mr. Vandehey solicited comments based on the current layout. Mr. Simmons stressed the importance of wrapping things up. TAC members were requested to provide feedback by Monday, July 25th.

Ms. Oeser stated that she will show this document to the transportation staff at Metro. Mr. Waffle from the City of Wilsonville stated that it is consistent with everything in the works. His concern is that the main focus is on traffic moving north except for SW 124th Avenue to the eventual I-5 connector. An interim effect of this is traffic congestion and volume on Tonquin Road prior to the connector being built. Mr. Vandehey stated that this is a typical issue in doing long-range planning. Once new construction is identified, the developer will still have to go through the standard approval process and will have to address traffic impacts. Our task is to make assumptions of what facilities will be in place. Other interim improvements may be required. The phasing of future improvements analysis is not addressed in this document.

Mr. Johnson from ODOT commented that this is a good document. He will review the report one more time. He appreciated the verbiage addressing connections that "MAY" be provided, and not "SHALL" be provided since we won't know where they will be for many years. He will send a follow-up email for documentation purposes on behalf of ODOT.

5. ANNEXATION/COST IMPACT ANALYSIS MEMO

As Todd Chase from Otak is on vacation, Mr. Simmons reviewed this memo which was prepared by Otak and circulated to the TAC last week. It is a revised version of the memo that was distributed at the June 28th TAC meeting and incorporates comments provided by City staff. The essence and purpose is still the same. It contains updated costs and assessed value information for the type of land use projected for this area. This updated information increased the revenue projections. These future estimates come with a lot of uncertainty, and, as a result, we are taking a very conservative approach.

Ms. Hofmann inquired if the \$209,000 allocated for the sanitary sewer system on page 11 includes a pump station. If not, how much would it add on? Currently Clean Water Services maintains all facilities within the City so staff doesn't have that information readily available. Mr. Chase from OTAK would have to provide that figure. Ms. Stepp commented that she likes the format of the report; it is easier to read and navigate through. There were no further questions. Mrs. Stepp encouraged TAC members to provide any additional comments to her by Monday, July 25th.

6. CONCEPT PLAN – DRAFT DOCUMENT

This document was sent out yesterday via email to all TAC members; additional copies are available this morning. Mr. Simmons stated that there is no new information in this document - it is a summary which becomes apparent when reviewing the Table of

Contents. The bulk of information will be in the Plan's appendices that will contain the documents prepared throughout this process (i.e. TAC meeting minutes, open house documentation, Existing Conditions Technical Memorandum, Traffic Analysis, Annexation Cost Impact Analysis and recommended changes to the TSP.)

This plan also contains some more general information about the concept planning process. The plan still has some strikeouts and inconsistencies that need to be cleaned up. A thorough review will be done within the next week to insure consistency throughout the document. Ms. Stepp stated that the information will be changed to reflect that the Itels are not part of the Tonquin Group.

Mr. Johnson commented that any changes to signals or lane configuration would need to be approved by the Statewide Traffic Engineer. In reviewing the traffic information on page 11, the first bullet is OK. Any changes will have to go through the proper channels, and he can't speak to its approval. However, a triple right turn lane will be very difficult to get approved. Neither Mr. Johnson nor Mr. Vandehey are aware of any triple right turn lanes in the Portland area. This may be more of a design issue to be discussed at the time it is required. This concern could be identified by a note in the document.

Ms. Hofmann clarified that when referencing the restriping of lanes that it is on the ramps only and not the highway.

Ms. Stepp thanked everyone for taking the time to review this document and providing comments and asked that TAC members provide any additional comments to her by Monday, July 25th.

7. PROPOSED CHANGES TO THE TUALATIN DEVELOPMENT CODE

Doug Rux, Dave Simmons and Elizabeth Stepp met yesterday to discuss ways to implement the ideas for a light campus park-like setting in this area as well as a mixed-use area. She reviewed potential approaches and asked for suggestions from this group.

The initial approach is to create a new district since the Tualatin Development Code doesn't quite capture the mix of light industrial and high tech land uses in a corporate campus-like setting. She reviewed a design type document that outlines the proposed concept as well as a sketch of the area. Consideration is also given to this being a Regionally Significant Industrial Area (RSIA) and the associated requirements for areas with that designation. Special Code language will be created to attract and encourage this type of use and development standards to include the proposed buffer and adjoining residential area. An Overlay District may be created to focus on small-scale commercial uses to serve employees in this area for the mixed-use area near the ponds.

Ms. Oeser inquired about the size of the proposed parcels. Ms. Stepp stated that Alternative 3 shows Area "F," a 100-acre area, and area "G," a 50-acre+ area. This is to

meet Metro's RSIA requirements. Areas "I" and "J" are smaller, probably about 30-40 acres. Area "H" was shown to suggest that some sites could be developed for smaller scale light industrial uses.

Mr. Metcalf referred to page 9 of the Concept Plan as related to parking requirements and the various ratios. Mr. Rux clarified the information. It was agreed that we don't need to quote a "range," as different industrial uses have different ratios. This will be clarified in the final document. Mr. Johnson suggested that we may want to put in a "minimum" since we don't have maximums to aid in the clarification of these requirements.

Mr. Metcalf inquired about what building setback requirements were typical for Tualatin. He asked what the building setbacks were for the area and if these were similar to requirements in similar districts elsewhere in Tualatin. Ms. Stepp and Mr. Rux stated that setbacks could be up to 100 feet along the border to mitigate the buffer. SW 115th Avenue could be a 50 feet setback while SW 124th Avenue could be 50 feet. Zoning along SW 115th could be General Manufacturing (MG) or Light Manufacturing (ML). TAC members briefly reviewed the possible options. Mr. Rux suggested that we pick a midpoint to split the difference. Flexibility should exist, especially in the commercial area. Mr. Vandehey thought it was a good approach to have an Overlay District near the pond as well as the creation of a subset of standards in that area. Mr. Storie voiced concern about taking 100 feet off his property near Tonquin Road and the railroad. Mr. Rux clarified that this buffer would terminate at Helenius Road. However, things could change if the residential area to the east develops at a future time. At the present time this area is not in the UGB but could receive State approval soon.

Ms. Stepp stated that staff and the consultants will proceed with this approach to encourage industrial uses and provide for commercial services in an Overlay District. Ms. Stepp asked TAC members to send her any ideas or thoughts they might have on approaches to implementing the concept plan.

8. PROJECT SCHEDULE UPDATE

Mr. Simmons announced that there is a Neighborhood/Developer meeting scheduled on Tuesday evening, July 26th, from 6:00 – 8:00 p.m. in the City Council Chambers. Everyone is invited. The format will be very similar to the previous open houses. Some proposed draft Code language will be developed prior to the meeting and shared with attendees. Mr. Rux expanded on this indicating that the draft Code language will be straight forward, similar to what was created for the implementation of the NW Concept Plan. Staff won't have "specifics," and the intent is to explain the concepts and direction we are taking. Recommendations for changes to the TDC will be reviewed by TPAC on August 11th. A special TPAC meeting will be held on August 25th for a final review and recommendation to City Council. Council will also be briefed on this entire process on August 22nd. On September 12, 2005, a formal public hearing will be held on the proposed Plan and Map amendments to implement the recommended changes. The grant requires that the process be completed by September 15, 2005.

Mr. Rux reminded TAC members of the approach taken by our City Council on the Town Center Plan. They voted to accept the plan, but no changes to the Tualatin Development Code were approved, pending the outcome of the Community Visioning process. Mr. Johnson indicated that if Council should choose this approach for the SW Concept Planning Project, it shouldn't pose any problem as long as the big pieces of the project are done.

Ms. Oeser mentioned that we may be invited to Metro Council to provide an overview of this project. This would probably occur in October 2005. A brief discussion was held regarding a modification to the Metro ordinance regarding RSIA since, per the terms of that Ordinance, no commercial uses are permitted in a Regionally Significant Industrial Area. Ms. Oeser indicated that this should not be a problem since we have a solid rationale and justification for the request.

9. PUBLIC COMMENT

Mr. Boss inquired if this group will be meeting at any future time. Mr. Rux stated that this is the last TAC meeting. Updates will continue to be provided to the TAC members via email and the web page. The tasks assigned to the TAC members will be concluded after the TAC members submit any final comments to Ms. Stepp by Monday, July 25th.

10. NEXT STEPS

This was covered under the project schedule update. Ms. Stepp thanked everyone for their participation in this process.

Mr. Johnson commended Dave Simmons, Doug Rux, and Elizabeth Stepp for their efforts in coordinating this project. He stated that it was a very successful process, and he looks forward to its implementation.

Minutes prepared by: Carol Rutherford, City of Tualatin

SW TUALATIN CONCEPT PLANNING

OPEN HOUSE

March 9, 2005
5:00 P.M. – 7:00 P.M.

TUALATIN CITY COUNCIL CHAMBERS
18884 SW MARTINAZZI AVENUE

You are invited to stop by the City of Tualatin to learn more about the draft concept plan being prepared for the urbanization of a 430-acre area for industrial development located south of Tualatin-Sherwood Road, west of the Portland and Western Railroad tracks and north of Tonquin Road in the southwest corner of Tualatin. This area was brought into the Urban Growth Boundary (UGB) in December 2002 and an additional 80 acres brought into the UGB by Metro in June 2004.

The open house is an opportunity for citizens to review the work conducted to date and provide feedback. The concept plan is evaluating where new streets, sewer, and water lines would be located, location of environmental features to be preserved, and the type of industrial uses that could be built in the future as examples.

For more information, contact Doug Rux, Community Development Director, or visit our website at:

http://www.ci.tualatin.or.us/business/planning/sw_concept.cfm

Phone: 503.691.3018

Email: drux@ci.tualatin.or.us

Notice sent to all property owners and surrounding property owners as well as the people listed below:

MR GENE MILDREN
MILDREN DESIGN GROUP
7650 SW BEVELAND STREET SUITE 120
TIGARD OR 97223

MR TODD SHEAFFER
SPECHT PROPERTIES
15400 SW MILLIKAN WAY
BEAVERTON OR 97006

MR LANS STOUT
T. M. RIPPEY CONSULTING ENGINEERS
7650 SW BEVELAND STREET SUITE 100
TIGARD OR 97223

Updated: 2/24/05

SW TUALATIN CONCEPT PLANNING

OPEN HOUSE, MARCH 9, 2005

COMMENTS

1. Please protect both the pond and try to enhance it. Also, protect (do not cut them down) the trees of the rock quarry area.

Do not include additional heavy manufacturing in this development.
2. Most residents attending are probably not well-versed in land-use planning regulations. Simplified communication would be helpful.

It goes without saying that it's of primary importance to maintain a visual and sound buffer between industrial sites and residential areas to the east of the proposed development area.
3. Leave trees and wetlands intact – do not do anything except add trees and remove dead underbrush. Want entire wooded area to be protected not just large pond – Prefer Alternative 1.
4. Leave trees and wetland in natural state – include entire area bordering Tigard Sand and Gravel not just large pond. Alternative 1 more desirable.
5. Protect the trees. It is the most important thing!
6. Do not cut trees down.
7. Do not cut trees down in the neighborhood (Hedges Park – Fuller Drive)
8. Tigard Sand and Gravel should not cut down the trees in the neighborhood. We will organize and boycott and go to any lengths to stop them.
9. Save the Trees!!!
10. You are going to destroy the property value of a lot of homes if you allow the trees to be cut down.
11. Please maintain all existing trees and wetland areas between the housing areas and an industrial park. It is imperative that this barrier be maintained as both a sound and visual barrier between the two areas.

This issue is new to me, but I will try to be more involved and aware of this process going forward.

12. Please do not cut the trees off of the railroad line in Tualatin. Neither yourselves as a City nor by Washington County, nor by any future property owner on the other side of the railroad buffer area.

It would keep the residents of Tualatin happy and that would mean less angry housewives daily harassing the above-mentioned entities. Thank you.

13. The majority of the residents including myself are not against industry or development. But as a homeowner, we feel it is very important to keep the green screen of trees to separate development and the residential neighborhood from the eyesore of development. I feel that you would have a lot more community support with your plan if the trees are kept, protecting our property value and the feel of a neighborhood and not an industrial park.

14. The language used concerns me, specifically regarding the trees along the railroad tracks. "The City has not plans to cut the trees . . ." I understand that because you don't have jurisdiction over the land, but it sounds like this is a line used to placate people . . . sounds like "the tree will not be cut" but not what is truly being said. My stance is no trees should be cut even to create 'trails and parks.' Sounds like another way to placate the people . . . a % of trees will be gone but, look, you have trails. The trees should remain and trees should be replanted. It is an extremely important buffer, sound and visual, between industry and homeowners. Also concerned that the wetland area be protected in its current state.

15. We agree with Alternative Plan 1 - in respect to the road extension N/S with modification to align the road to the west property lines instead of through the center of our property - to connect to the proposed new route via Waldo Way to Tonquin Road and give us access and egress without needing to cross the RR and McCamant Drive for safety issues.

16. (1) Our primary concern is that the trees on the ridge to the east of the area remain as a visual and sound buffer between the industrial area and our neighborhood.

(2) Our secondary concern is that the industry not be noisy (especially at night) and any buildings not be visible from our neighborhood (at 320-foot elevation to the west). I prefer Plan II with small businesses

as an additional buffer between the neighborhoods to the west and heavier/larger industry.

(3) Thirdly, further development of a pedestrian path around Koch Pond would be a nice amenity along with a path through the trees on the east ridge as long as trees did not need to be cut down to accommodate such a path.

(4) Fourthly, we prefer any plan that would relieve truck traffic congestion away from our neighborhood, away from the center of Tualatin, and away from Boones Ferry Road.

17. This is a prime property for most kinds of industrial development which is badly needed to support jobs and economic conditions in this area as well as the metropolitan area. This is a well-established heavy industrial area, and housing should be kept at a distance that allowed continued operation of similar kinds of industrial development. Unreasonable restrictions on these properties should not be allowed and, if restrictions are made, the property owner should be compensated as in Ballot Measure 37.

18. I am concerned about the traffic flows through town and around Tualatin. Specifically, I am concerned with commercial traffic which Tualatin-Sherwood Road cannot currently support. I am also concerned with the industrial to residential ratio in Tualatin. While industry is important to growth, it should not supplant the quality of life of Tualatin's residents. Community compatibility should be the top priority in planning such as this.

19. Keep all the trees as a buffer between residential and industrial. Extend the tree buffer south of the pond along the railroad track. Extending the tree buffer would be very important to the residents. NO heavy manufacturing. Limit the type of industrial building to "clean" industry.

Limit the height of industrial buildings.

Create a housing buffer west of the railroad track.

20. I like Alternative ONE

I do not want an east/west street or a railroad crossing. I prefer a route OFF the west property lines of the Johnson's, Brown's, Albertson's, McGuire's and Albertson's north piece ending at the Tigard Sand property.

21. I realize that there will be industrial development, but I feel that the trees should remain and additional buffers be installed. For a Tree City, we do not really seem to be much for saving trees.
22. Area G of Alternative 1 should be limited in the amount of fill level to help screen the residential area from the industrial. Also, the pond area and beaver dam located in the southern portion of the lake guaranteed protection regardless of development decisions. Tree and wetland area buffer zone should be required to be donated as park land space for the City and made available for public use – hiking, natural use etc. Railroad tracks could be relocated to the west side of the industrial area.
23. I feel 99-15 connector needs to be in place before moving on (connecting with 124th)
24. Preserve the wetlands and create animal habitats.

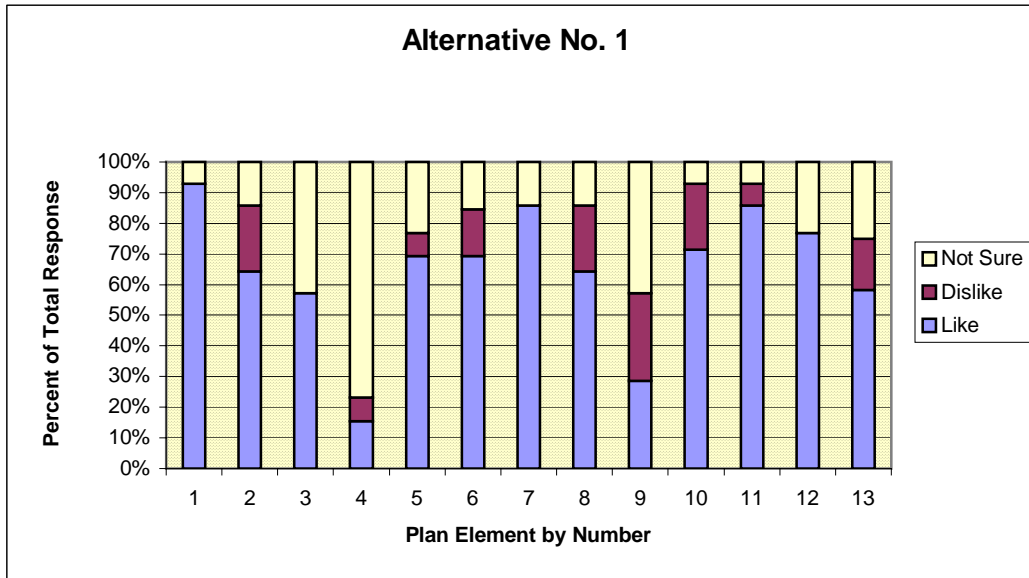
Open House #1 – Results of Exit Survey on Draft Alternatives

Plan Element	Draft Alternative No.	“Like”	“Dislike”	“Unsure”
Primary Access via 124 th Ave.	1	93%	-	6%
	2	100%	-	-
Secondary Access via 115 th Ave.	1	60%	26%	13%
	2	30%	50%	20%
Access spacing along 124 th Ave	1	60%	-	40%
Access spacing along 124 th Ave	2	44%	11%	44%
Site Circulation (Collector System)	1	15%	7.5%	77%
	2	25%	25%	50%
Transit Station near NW corner of site	1	71%	7%	21%
	2	80%	-	20%
Transit Station near SE corner of site - possible commuter rail stop <i>(Alt. 2 only)</i>	2	50%	40%	10%
Design / Landscaping & perimeter buffers along E side of site	1	86%	-	13%
	2	90%	10%	-
Mixed Use area near pond at N portion of site <i>(Alt. 1 only)</i>	1	71%	14%	14%
Mixed Use area near Transit Center at SE portion of site <i>(Alt. 2 only)</i>	2	44%	33%	22%
Trails within power line easements	1	66%	20%	13%
	2	50%	40%	10%
Potential Rail Spur <i>(Alt. 1 only)</i>	1	33%	26%	40%
Large lot industrial sites in central portion of site	1	73%	20%	6.5%
Large lot industrial sites in central portion, <i>with smaller sites along E portion of site (Alt. 2 only)</i>	2	40%	50%	10%
Medium sized lots along 124 th Ave. <i>(Alt. 1 only)</i>	1	86%	6.5%	6.5%
Medium sized lots along E portion of site <i>(Alt. 2 only)</i>	2	20%	50%	30%
Adjacent Land Use Buffering	1	78%	-	21%
	2	55%	11%	33%
Adjacent land use compatibility	1	54%	23%	23%
	2	50%	10%	40%

Compiled by E Stepp 6/6/05

Average Number of Respondents	
Draft Alternative 1	13.5
Draft Alternative 2	9.6

Summary of Responses to Proposed Alternatives
Tualatin Southwest Concept Plan Project
Open House #1, March 2005



Plan Elements *

1. Primary Access via 124th Ave.
2. Secondary Access via 115th Ave.
3. Access Spacing along 124th Ave.
4. Site Circulation
5. Transit Station near NW corner of site
6. Landscaping / Perimeter Buffer along east side of site
7. Mixed Use Area near pond near NW portion of site
8. Trails Within Powerline Easements
9. Potential Rail Spur
10. Large Lot Industrial Sites in central portion of site
11. Medium Size Lots along 124th Ave.
12. Adjacent Land use Buffering
13. Adjacent Land Use Compatibility

Elements Receiving the Highest Number of “Like” Responses

Primary Access via 124th Ave., Mixed Use Area near pond in NW portion of site,
 Medium Size Lots along 124th Ave., Adjacent land use buffering

Elements Receiving the Highest Number of “Dislike” Responses

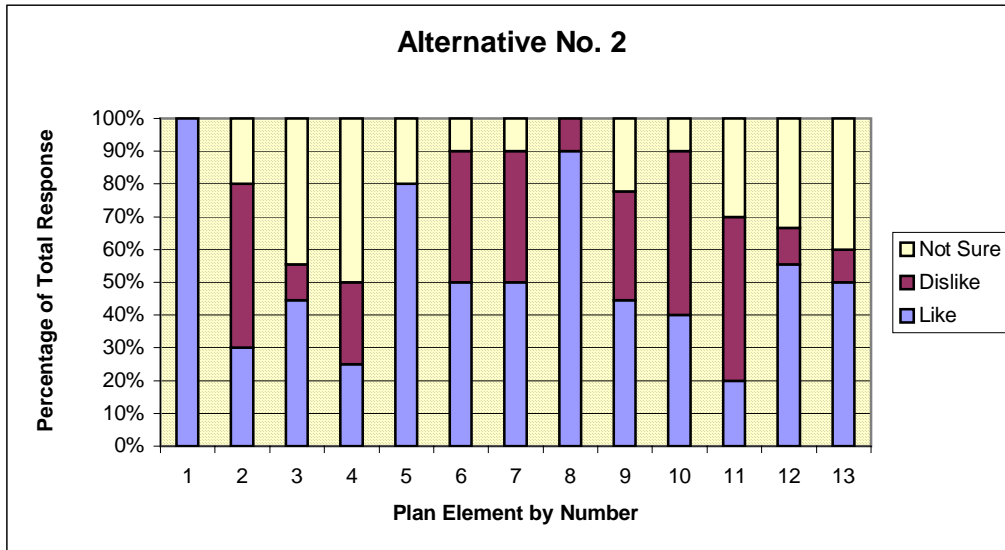
No strong dislikes for this alternative; highest response was to “Potential Rail Spur” (28% of total responses for this element)

Elements Receiving the Highest Number of “Not Sure” Responses

Site Circulation, Potential Rail Spur, Access Spacing along 124th Ave.

* please refer to the alternative plan diagrams to view these plan elements

Summary of Responses to Proposed Alternatives
Tualatin Southwest Concept Plan Project
Open House #1, March 2005



Plan Elements *

1. Primary Access via 124th Ave.
2. Secondary Access via 115th Ave.
3. Access Spacing along 124th Ave.
4. Site Circulation
5. Transit Station near NW corner of site
6. Transit Station near SE corner of site
7. Trails Within Powerline Easements
8. Landscaping / Perimeter Buffer along east side of site
9. Mixed Use Area in SE portion of site
10. Large Lot Industrial Sites in central portion of site
11. Medium Size Lots on eastern portion of site
12. Adjacent Land use Buffering
13. Adjacent Land Use Compatibility

Elements Receiving the Highest Number of “Like” Responses

Primary Access via 124th Ave., Transit Station near NW corner,
 Landscaping/Perimeter Buffer along east side, Adjacent Land Use Buffering

Elements Receiving the Highest Number of “Dislike” Responses

Secondary Access via 115th Ave., Large Lot Industrial Sites in central portion of
 site, Medium Size Lots on eastern portion of site

Elements Receiving the Highest Number of “Not Sure” Responses

Site Circulation, Access Spacing along 124th Ave., Adjacent Land Use
 Compatibility

* please refer to the alternative plan diagrams to view these plan elements

**SW TUALATIN CONCEPT PLAN
PUBLIC OPEN HOUSE
EXIT SURVEY ON DRAFT ALTERNATIVES**

<u>ALTERNATIVE 1 - Plan Element</u>	<u>LIKE</u>	<u>DISLIKE</u>	<u>UNSURE</u>
Primary Access via 124th Avenue	14		1
Secondary Access via 115th Avenue	9	4	2
Access Spacing Along 124th Avenue <i>Comment: depends on industry</i>	9		6
Site Circulation (Collector System)	2	1	10
Transit Station near NW Corner of Site	10	1	3
Design/Landscaping and Perimeter Buffers along East Side of Site <i>Comment: Very important for residential</i> <i>Comment: Needs to be dedicated parkway</i>	13		2
Mixed Use Area near Pond at North Portion of the Site	10	2	2
Trails Within Power Line Easements	10	3	2
Potential Rail Spur	5	4	6
Large Lot Industrial Sites in Central Portion of the Site	11	3	1
Medium Size Lots Along 124th Avenue	13	1	1
Adjacent Land Use Buffering	11		3
Adjacent Land Use Compatibility <i>Comment: Too close to residential</i>	7	3	3

Other: Please Describe

- (1) #1 Concern - Save the trees!
- (2) Pedestrian trail on east ridge through trees - as long as trees do not need to be cut for the path. Pedestrian trail developed along Koch pond
- (3) Favor Alt. #1 with modification as marked on site drawing (broken lines)
- (4) Like Alternative #1
- (5) Alternative 1 - YES!
- (6) Alternative 1 is better than A-2



SW TUALATIN CONCEPT PLANNING

OPEN HOUSE

**June 14, 2005
6:00 P.M. – 8:00 P.M.**

(Formal Presentation at 6:30 p.m.)

**TUALATIN POLICE FACILITY
8650 SW TUALATIN ROAD**

The City of Tualatin has scheduled a second open house to provide additional information about the draft concept plan being prepared for the urbanization of a 430-acre area for industrial development located south of Tualatin-Sherwood Road, west of the Portland and Western Railroad tracks and north of Tonquin Road in the southwest corner of Tualatin. This area was brought into the Urban Growth Boundary (UGB) in December 2002 and an additional 80 acres brought into the UGB by Metro in June 2004.

A formal presentation will be made at 6:30 p.m. and will include an overview of three possible alternatives for the development of this area. Citizens can review the work conducted to date and provide feedback. This concept plan includes an evaluation of where new streets, sewer, and water lines would be located, location of environmental features to be preserved, and the type of industrial uses that could be constructed in the future.

For more information, contact Doug Rux, Community Development Director, or visit our website at:

http://www.ci.tualatin.or.us/business/planning/sw_concept.cfm

Phone: 503.691.3018

Email: drux@ci.tualatin.or.us

Alternative I

Level of Support
(Please Check One for Each Element)

Plan Element	Like	Dislike	Not Sure
Primary Access via 124th Avenue <i>Extended south, this road could provide the main access to the area's interior</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secondary Access via 115th Avenue <i>Another potential road extension to provide interior access</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter Buffer <i>A natural landscape buffer area along the eastern portion of the site</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Natural Features <i>Includes natural area along a portion of the eastern side, and ponds</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Site Circulation <i>The proposed street layout and its connections to other roads</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trails for Bicycles and Pedestrians <i>Within power line easements, around ponds, and through eastern buffer area</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transit Station <i>A proposed transit station near the NW corner of the site could provide a transportation alternative</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mixed Use Area <i>In the NW portion, near the ponds</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential Rail Spur <i>Could provide for future flexibility along this commuter rail line</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central Portion for Large Lot Industrial Sites <i>Could provide opportunities for Business Park and Light Industrial types of uses</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medium Size Lots along 124th Avenue <i>Potential sites for smaller businesses</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adjacent Land Use Compatibility <i>Does the proposed conceptual design and layout promote compatibility with adjacent uses?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments:

Alternative 2

Level of Support
(Please Check One for Each Element)

Plan Element	Like	Dislike	Not Sure
Primary Access via 124th Avenue <i>Extended south, this road could provide the main access to the area's interior</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secondary Access via 115th Avenue <i>Another potential road extension to provide interior access further east</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter Buffer <i>A natural landscape buffer area along the eastern portion of the site</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Natural Features <i>Includes natural area along a portion of the eastern side, and ponds</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Site Circulation <i>The proposed street layout and its connections to other roads</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trails for Bicycles and Pedestrians <i>Within power line easements, around ponds, and through eastern buffer area</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transit Station – NW <i>A proposed transit station near the NW corner of the site could provide a transportation alternative</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mixed Use Area – SE Corner <i>Near the proposed SE Transit Station</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transit Station – SE Corner <i>Near the mixed use area, could provide a possible commuter rail stop</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central Portion for Large Lot Industrial Sites <i>Could provide opportunities for Business Park and Light Industrial types of uses</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Small Lots along Eastern Portion & near Ponds <i>Potential sites for smaller businesses</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adjacent Land Use Compatibility <i>Does the proposed conceptual design and layout promote compatibility with adjacent uses?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments:

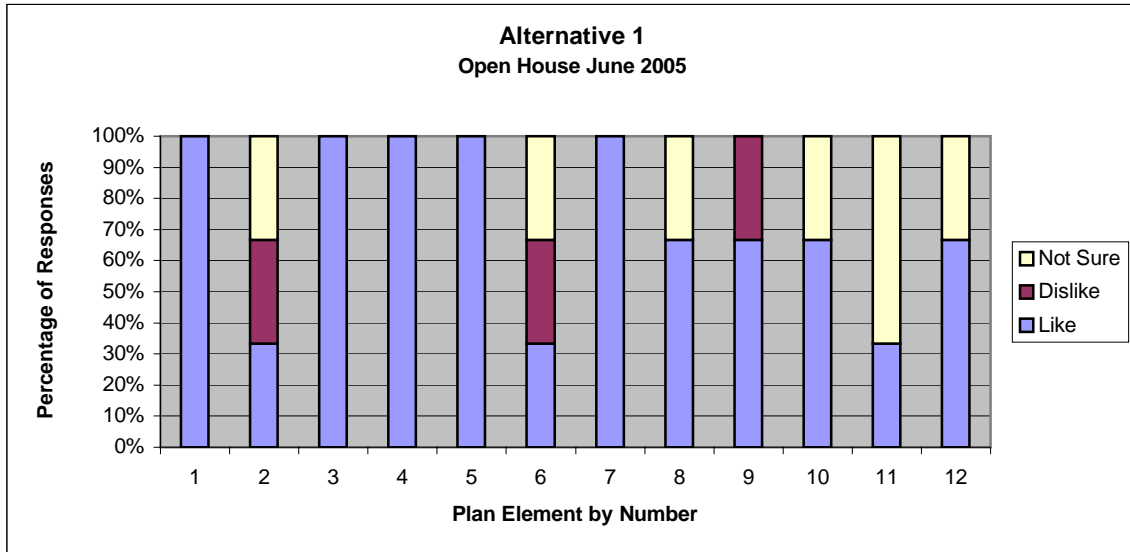
Alternative 3

Level of Support
(Please Check One for Each Element)

Plan Element	Like	Dislike	Not Sure
Primary Access via 124th Avenue <i>Extended south, this road could provide the main access to the area's interior</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secondary Access via 115th Avenue <i>Another potential extension to provide interior access further east</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter Buffer <i>A natural landscape buffer area along the eastern portion of the site</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Natural Features <i>Includes natural area along a portion of the eastern side, and ponds</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Site Circulation <i>The proposed street layout and its connections to other roads</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trails for Bicycles and Pedestrians <i>Within power line easements, around ponds, and through eastern buffer area</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transit Station <i>A proposed transit station near the NW corner of the site could provide a transportation alternative</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mixed Use Area <i>Near the proposed NW Transit Station, near the ponds</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential Rail Spur <i>Could provide for future flexibility along this commuter rail line</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central Portion for Large Lot Industrial Sites <i>Could provide opportunities for Business Park and Light Industrial types of uses</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smaller Lots along Eastern Portion & near Ponds <i>Potential sites for smaller businesses</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adjacent Land Use Compatibility <i>Does the proposed conceptual design and layout promote compatibility with adjacent uses?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments:

Summary of Responses to Proposed Alternatives Tualatin Southwest Concept Plan Project Open House #2, June 2005



Plan Elements - Alternative 1 *

1. Primary Access via 124 th Ave.	7. Transit Station near NW corner of site
2. Secondary Access via 115 th Ave.	8. Mixed Use Area near pond in NW portion of site
3. Landscaping / Perimeter Buffer along east side	9. Potential Rail Spur
4. Natural Features	10. Large Lot Industrial Sites in central portion of site
5. Site Circulation	11. Medium Size Lots along 124 th Ave.
6. Trails for Bikes & Pedestrians	12. Adjacent Land Use Compatibility

Elements Receiving the Highest Number of "Like" Responses **

Primary Access via 124th Ave., Landscaping/Perimeter Buffer, Natural Features, Site Circulation, Transit Station near NW corner

Elements Receiving the Highest Number of "Dislike" Responses **

Secondary Access via 115th Ave. (see also "Neutral" below), Trails for Bikes and Pedestrians (see also "Neutral" below), Potential Railroad Spur

Elements Receiving the Highest Number of "Not Sure" Responses **

Medium Sites along 124th Ave.

Mixed Responses that made the Element "Neutral" **

Secondary Access via 115th Ave., Trails for Bikes & Pedestrians

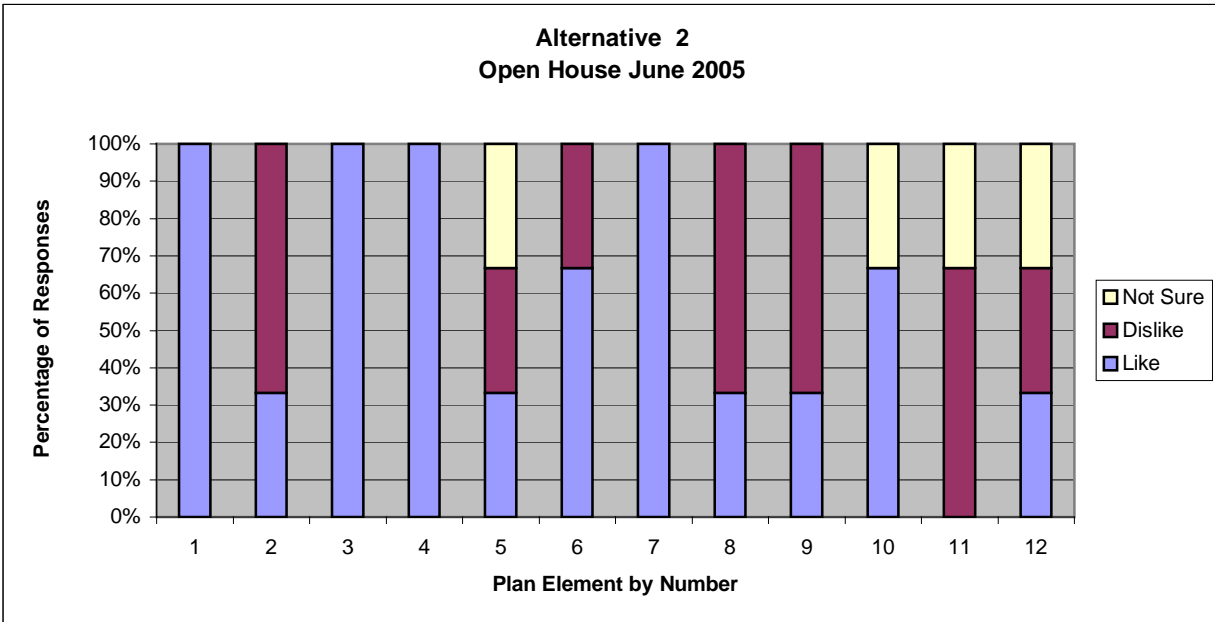
****Note: Total Number of Respondents: 3**

Additional Comments:

1. Tualatin and Sherwood has enough mixed use, and added use of Tualatin-Sherwood Road to this proposed mixed use might be questionable. Also, Tigard Sand might be at the north end a lot longer.
2. Best alternative.

* please refer to the alternative plan diagrams to view these plan elements

Summary of Responses to Proposed Alternatives Tualatin Southwest Concept Plan Project Open House #2, June 2005



Plan Elements – Alternative 2 *

1. Primary Access via 124 th Ave.	7. Transit Station near NW corner of site
2. Secondary Access via 115 th Ave.	8. Mixed Use Area in SE portion of site
3. Landscaping / Perimeter Buffer along east side	9. Transit Station in SE portion of site
4. Natural Features	10. Large Lot Industrial Sites in central portion of site
5. Site Circulation	11. Smaller Size Lots along Eastern portion of site
6. Trails for Bikes & Pedestrians	12. Adjacent Land Use Compatibility

Elements Receiving the Highest Number of “Like” Responses **

Primary Access via 124th Ave., Landscaping/Perimeter Buffer, Natural Features, Transit Station near NW corner

Elements Receiving the Highest Number of “Dislike” Responses **

Secondary Access via 115th Ave., Mixed Use Area in SE Corner, Transit Station in SE Corner, Smaller Size Lots along Eastern portion of site

Elements Receiving the Highest Number of “Not Sure” Responses **

No strong responses; each received one vote each: 5, 10, 11, 12

Mixed Responses that made the Element “Neutral” **

Site Circulation, Adjacent Land Use Compatibility

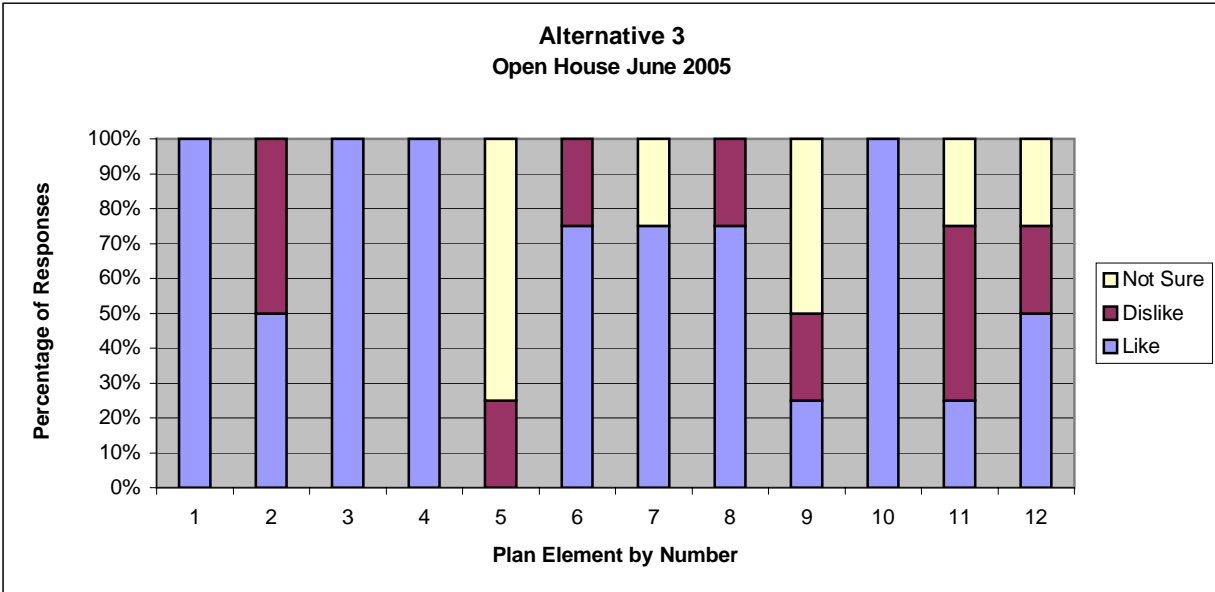
**** Note: Total Number of Respondents: 3; a fourth person responded to Elements 1 and 7.**

Additional Comments:

1. Not this alternative; worst alternative.

* please refer to the alternative plan diagrams to view these plan elements

Summary of Responses to Proposed Alternatives Tualatin Southwest Concept Plan Project Open House #2, June 2005



Plan Elements – Alternative 3 *

1. Primary Access via 124 th Ave.	7. Transit Station near NW corner of site
2. Secondary Access via 115 th Ave.	8. Mixed Use Area near pond in NW portion of site
3. Landscaping / Perimeter Buffer along east side	9. Potential Rail Spur
4. Natural Features	10. Large Lot Industrial Sites in central portion of site
5. Site Circulation	11. Smaller Lots along eastern portion of site & near ponds
6. Trails for Bikes & Pedestrians	12. Adjacent Land Use Compatibility

Elements Receiving the Highest Number of “Like” Responses **

Primary Access via 124th Ave., Landscaping/Perimeter Buffer, Natural Features, Large Lot Industrial Sites in central portion of site

Elements Receiving the Highest Number of “Dislike” Responses **

Secondary Access via 115th (see also below under “Neutral”), Medium Size Lots on eastern portion of site

Elements Receiving the Highest Number of “Not Sure” Responses **

Site Circulation, Potential Rail Spur

Mixed Responses that made the Element “Neutral” **

Secondary Access via 115th

**** Note: Total Number of Respondents: 4**

Additional Comments:

1. Mixed use should be at southeast.
2. Less than 5% of the 5500+ employees in 2025 will live within one mile of jobsite. Blake access is not needed. Keep the natural railroad barrier.
3. Not this alternative. Second best alternative.

* please refer to the alternative plan diagrams to view these plan elements



CITY OF TUALATIN

18880 SW MARTINAZZI AVENUE
TUALATIN, OREGON 97062-7092
(503) 692-2000
TDD 692-0574

NEIGHBORHOOD / DEVELOPER MEETING Southwest Tualatin Concept Plan

Dear property owners, surrounding property owners and interested parties,

You are cordially invited to attend a Neighborhood/Developer meeting on:

Date: Tuesday, July 26, 2005
Time: 6:00 – 8:00 p.m.
Location: Tualatin Council Chambers
18884 SW Martinazzi Avenue

The City of Tualatin has scheduled this meeting to provide additional information about the Southwest Tualatin Concept Plan being prepared for the future urbanization of a 430-acre area proposed for industrial development located south of Tualatin-Sherwood Road, west of the Portland and Western Railroad tracks and north of Tonquin Road in the southwest corner of Tualatin. A portion of this area was already within the Urban Growth Boundary (UGB) prior to 2002. The remaining portions were brought into the UGB by Metro in December 2002 and an additional 80 acres brought into the UGB in June 2004.

The purpose of this meeting is to provide a means for the City and property owners, surrounding property owners, and interested parties to meet and discuss proposed development regulations (zoning, setbacks, landscape requirements, road classifications, etc.).

For more information, contact Elizabeth Stepp, Senior Planner at 503.691.3028, email estepp@ci.tualatin.or.us, or visit our website at http://www.ci.tualatin.or.us/business/planning/sw_concept.cfm.

Regards,

Elizabeth Stepp
Senior Planner

Dear Citizens:

July 26, 2005

Welcome, and thank you for coming to the Open House. I hope you find the following information helpful. Please contact me if you have any questions or concerns, or need more information.

Thank you,

Elizabeth Stepp, Senior Planner, City of Tualatin
503.691.3028 email at estepp@ci.tualatin.or.us.

What is the Southwest Tualatin Concept Plan, and why are we doing it?

The Southwest Tualatin Concept Plan (SWCP) area includes about 430 acres slated for future industrial use to meet the region's growing need for industrial land. The SWCP area is located southwest of the present city limits, and is south of Tualatin-Sherwood Road, north of Tonquin Road and west of the Portland & Western railroad tracks.

Begun in November 2004, the SW Concept Plan project is now entering its final phase. City staff is working with a consultant team and with the local property owners, interested agencies and citizens to create this concept plan. Funding for this project is provided through the Transportation Growth Management program through the Oregon Department of Transportation.

In 2002 the regional government, Metro, added about 18,000 acres of land to the Urban Growth Boundary (UGB) to meet the region's 20-year need for residential and employment lands. Of this total, approximately 365 acres were added around Tualatin - with the bulk of it to the city's southwest - to partially meet the region's industrial land needs. The southwest portion contains the Tigard Sand and Gravel (TS&G) operations and the Tonquin Industrial Group (TIG) area, which together total approximately 350 acres. An additional (approximate) 80 acres was added into the UGB by Metro in 2004 for industrial land. This land has also been included in the Southwest Tualatin Concept Planning Project.

Concept planning examines how infrastructure – roads, water service and sewer - could serve an area, and how future land uses may occur in that area. It also involves looking at how opportunities – such as preserving trees – and constraints – such as railroad tracks and bluffs – could be addressed. This preliminary planning must be done before rural land can become urban, and it is designed to make efficient use of existing and future public investments in the improvements needed to serve urban land uses. Ultimately, the added land could be annexed to the City of Tualatin.

Metro's intent is to preserve scarce industrial land for future economic growth and effectively use the public - private investment made in the region's transportation system.

What's been done so far?

A Technical Advisory Committee (TAC) comprised of public agency representatives, property owners and other stakeholders has met to review the consultants' work and address public comments. On-going efforts include regular updates on the City's web page (Check it out at http://www.ci.tualatin.or.us/business/planning/sw_concept.cfm), City newsletter articles, and monthly letters to people on our mailing list. Anyone interested can call me or sign up on the project's webpage to receive updated information via email or regular mail.

An Open House event with approximately 70 citizens attending occurred in March 2005. Two alternatives showing conceptual development scenarios were presented. As a result of feedback from residents and other stakeholders, a third alternative was created. All three alternatives were shown at the second Open House event in June 2005, where 18 citizens attended. *Please see the attached map illustrating Conceptual Development Alternative 3.* The information gathered from this event tonight will be used to further assess the proposed Concept Plan and Conceptual Development Alternative 3.

What is Alternative 3?

Alternative 3 is a future scenario showing how the SWCP area could be served by roads, trails and transit, and how environmental features can be used to enhance the site. Parts of the plan are:

- A mix of light industrial and high-tech uses in a corporate campus setting;
- A trail system utilizing existing power line easements and providing access to natural resource features;
- Proposed protection of a naturally landscaped buffer of trees and wetland on the eastern perimeter;
- A commercial mixed use area clustered around existing ponds, with a mix of small-scale commercial and other business uses serving the needs of employees within the area; and
- A roadway system with primary access via a future extension of SW 124th Ave.

What's next?

We will continue to refine Conceptual Development Alternative 3 and complete the Concept Plan document. The SWCP project schedule is on the project's webpage. The Tualatin Planning Advisory Committee (TPAC) is scheduled to review the proposed Concept Plan on August 11, 2005. TPAC will meet again on August 25, 2005 to decide on a recommendation for City Council to consider. The Tualatin City Council will review TPAC's recommendation on the proposed Concept Plan on September 12, 2005.

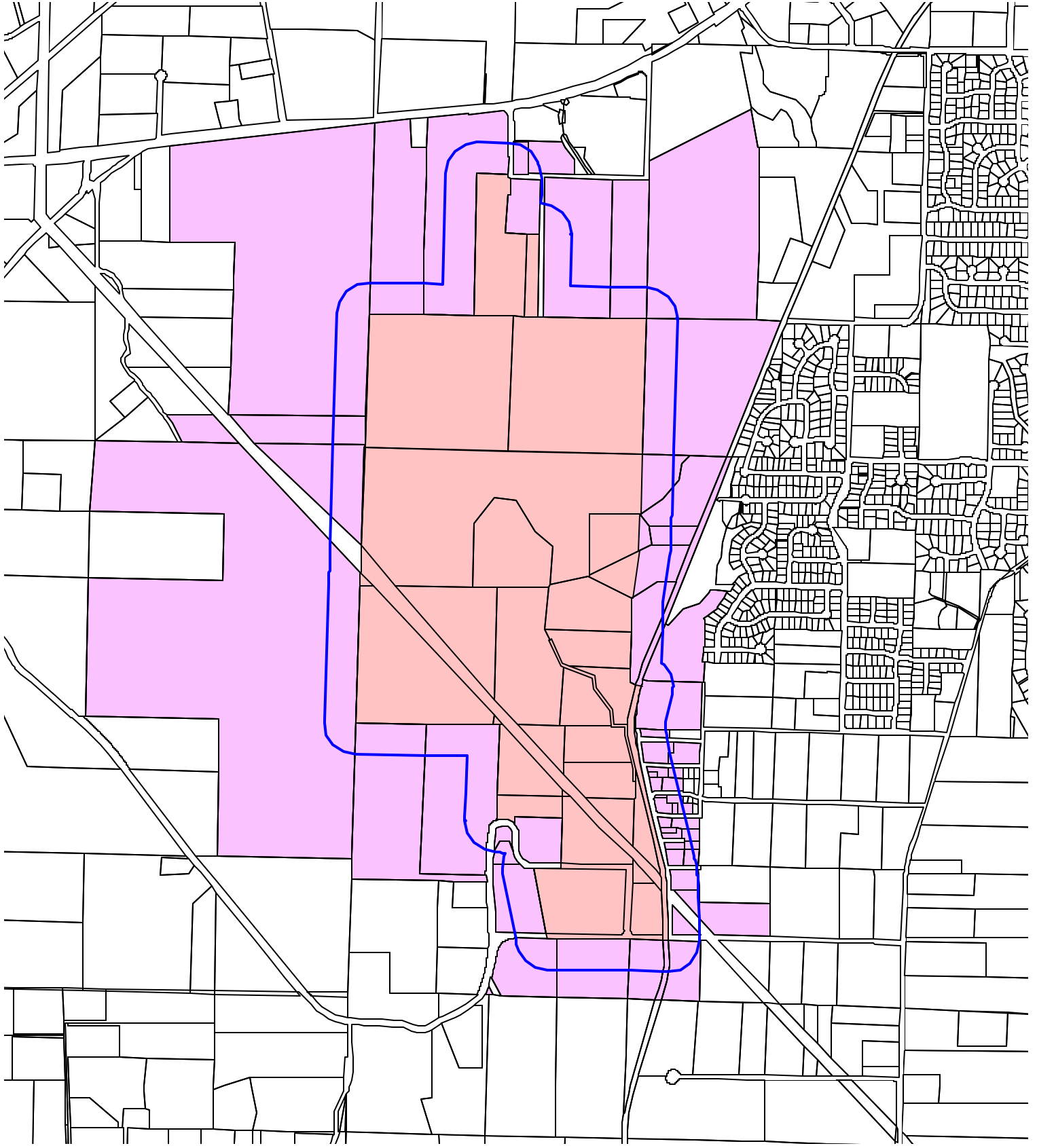
We will begin preliminary work on drafting proposed changes to the Tualatin Development Code that will serve to implement the concept plan in the future. This stage of the project will become a part of the City-wide visioning process that the Council will start soon.

How can I find out more?

- Sign-up tonight to get more information, or to get future updates
- Check out the city's web page: http://www.ci.tualatin.or.us/business/planning/sw_concept.cfm
- Sign up on the City's web page for future updates
- Call Elizabeth Stepp at 503-691-3028
- Email Elizabeth Stepp at estepp@ci.tualatin.or.us

ES

300 foot buffer Mail List Properties UGB Expansion Area



**NEIGHBORHOOD / DEVELOPER MEETING:
SOUTHWEST TUALATIN CONCEPT PLAN PROJECT**

**JULY 26, 2005
6- 8 p.m.
CITY COUNCIL CHAMBERS**

Staff: Doug Rux, Community Development Director, Elizabeth Stepp, Senior Planner; Carol Rutherford, Office Coordinator

Guests: Ten citizens. See attached list.

Ms. Stepp welcomed everyone and provided an overview of the project.

The concept planning area encompasses approximately 430 acres just outside of the City limits and includes the Tigard Sand and Gravel operations area and the Tonquin Industrial Group area, and an area to the east that was already within the city's urban planning area. Ms. Stepp referred to an illustration showing the project area on the wall, and also in each person's handout. The land was brought into the Urban Growth Boundary (UGB) in 2002 and 2004 to help meet the region's needs for future economic growth. The land is designated for future industrial land uses.

The City received a grant from ODOT to do the concept planning. Ms. Stepp provided an overview of the concept planning process and the importance of doing this type of planning for the area as a whole and how it can be served efficiently with urban services, rather than being developed in a "piece meal" manner. She provided an overview of the topography of the area that includes trails, ponds and a natural buffer next to existing residential development. She said that concept planning also looks at a site's opportunities – such as the ponds and trees, and it's constraints, such as the railroad tracks.

During the past 9 months, numerous meetings of the Technical Advisory Committee (TAC) and two open house events with residents and property owners from within and near the project area, and other interested persons, were held. The TAC developed two future conceptual development alternatives showing how the area could be served by roads, water, sewer and trails, and what kinds of land uses may be located there. Based on feedback from these sources and further discussions, a hybrid of the two was created, resulting in Alternative 3. This alternative was shown at the second Open House in June, and the TAC selected it as the preferred alternative for this project.

All three alternatives are based on a mix of light industrial and high-tech uses, with a mixed-use commercial area serving the needs of nearby employees, and with main

access to the site via a new southerly extension of SW 124th Ave. A color copy of Alternative 3 was provided in the handout given to all attendees. Ms. Stepp displayed examples of the various light-industrial and high-tech land uses being proposed. There is some mixed use in the northern section with small-scale commercial businesses. The trail system uses existing BPA easements and gives access to natural areas. Protection from the adjacent residential area to the east is provided by a forested natural area along bluffs, proposed to be protected. The proposed roads include a southern extension of SW 124th Avenue and internal connections along SW 115th Avenue to Tonquin and the east-west extension of Blake Street.

Ms. Stepp asked if there were any questions or comments. One attendee inquired if heavy industrial is being excluded. She confirmed that it was being excluded, as the adjacent property owners and surrounding property owners stated that they did not want that type of use. Tigard Sand and Gravel currently does their mining near and east of the pond. Mr. Rux confirmed that the gun club is located to the far southwest and is not included in this study area.

Ms. Stepp reviewed the next steps in this process. She encouraged attendees to provide written comments. The concept plan will be reviewed and discussed by the Tualatin Planning Advisory Committee (TPAC) on August 11th. TPAC will meet again on August 25th to finalize their recommendation, which will then be forwarded to the City Council to consider at their meeting on September 12th. Staff is currently doing preliminary work on changes to the Tualatin Development Code that would implement Alternative 3.

Ms. Stepp and Mr. Rux told the group that this last portion of the project – the implementation – will now be a part of the citywide visioning process that the City Council will undertake soon. Proposed changes to the Development Code will be postponed until the visioning process is complete to insure that the changes are consistent with the community vision. She encouraged attendees to sign up to get updates as this project continues to evolve and to check the city's website as project information is updated regularly.

Mr. Rux provided an overview of the citizen involvement process for this project. Articles have been published in the City newsletter for the past nine months. Letters have been periodically sent to property owners and surrounding property owners as well as individuals requesting email or US mail updates. He also personally discussed the project with many residents. Following an update at the City Council meeting last evening, Council members have requested that staff continue this process. Next week letters will be sent to all residents within an area west of Boones Ferry Road, and south of Avery to Helenius Road. The original goal was to have Code language written for presentation to the Council at their meeting on September 12th. However, it is now likely that this concept planning process will follow the format of the Town Center Planning project and that changes to the Code will be delayed, pending the outcome of the community visioning process. He reinforced that this change in the process is both manageable and doable.

A frequent question posed by the public is when will this area develop, and that is unknown at this time. Mr. Rux provided an in-depth description of the process that needs to be followed that ultimately results in annexation into the city. It requires interaction with various agencies and other jurisdictions, including Washington County. Because of the current lack of water service, sewer and roads, the likely progression for the future annexation and development of this area will be starting at the north end and moving southward, because existing city infrastructure can begin to be extended into this area easiest. Major issues involve identifying where additional water will come from to serve this area, and storm and sanitary sewer lines to provide these essential services. With development starting at the north end, current services could be extended south. If development would first be proposed at the south end of the planning area, obtaining services (sewer/water) from the City of Wilsonville could be an option since they currently provide services to the prison at the north end of Wilsonville. No discussion with Wilsonville has occurred on this option. The cost with extending lines coupled with adhering to State and Wilsonville requirements would have to be researched. Mr. Rux stated that the Tualatin City Council has an on-going discussion on potential water sources to serve Tualatin's future growth.

An attendee who owns property to the southeast of the current planning area, in unincorporated Washington County, inquired about the development of that area. Mr. Rux explained that this area has not been studied by the City as part of this plan and is not required by Metro ordinance until 2011. However, the DLCD has just officially acknowledged this area, and it is now within Metro's Urban Growth Boundary. Another area to the west near Sherwood is now also within the Metro UGB. Mr. Rux stated that additional information is available either on the DLCD website.

Mr. Rux provided a history of the Metro process to determine if the region has enough land to meet housing and employment needs. Yesterday the State issued a decision on the 2004 expansion of the UGB. This information is contained in a 71-page report. The last two pages provide a summary that shows the Tualatin and Quarry Area (west of the SW Concept Planning Area; the gun club is not included) are now in the UGB. There is a remand (sending back) that requires Metro to do additional work on points outlined in the report. These items must be addressed by 12/1/05. Concept planning for the Tualatin area must be done by either 2011 or within two years of the establishment of the I-5/99W connector's alignment. Mr. Rux reviewed possible locations for the I-5/99W connector and the requirement that stipulates that the area north of the connector be allocated for residential use while the area south would be industrial. He explained various scenarios and stated that regarding the connector, at the present time there are more questions than answers. Tualatin staff has talked to Wilsonville, and they're not ready to do concept planning. The City of Sherwood and Tualatin have jointly applied for a grant to do concept planning in the Quarry Project area. If we do not receive grant funding, it will be difficult to do a study of this magnitude.

The location of future roads in this area will also affect Wilsonville and Sherwood. Representatives from those two cities served on the TAC for this project, although it is

possible that residents of those two cities have not yet been exposed to it. Neither Washington County nor Sherwood wanted control of the SWCP project area land. Tualatin's City Council decided that it was strategic for Tualatin to determine the future planning for this area adjacent to current city limits, rather than someone else, and we are proactive in keeping our citizens informed.

Mr. Christie inquired if DLCD has signed off on our area. Mr. Rux affirmed that DLCD has already accepted the areas brought into the UGB in 2002 by Metro, including most of the SWCP area. The recent DLCD action deals with land brought into the UGB in 2004, and that those smaller portions of the SWCP area and another area south of Tualatin have also been acknowledged as OK by DLCD. However, DLCD has asked Metro to re-look at other areas, and that staff has not yet had a chance to read the entire decision as it came out earlier today. Mr. Rux provided a brief overview of the transportation modeling for this area and the current Transportation System Plan and the proposed changes.

Mr. Aufenthie inquired about the items to be included in Tualatin's visioning process. Mr. Rux replied that a final decision has not yet been made, but Council has been advised that it could include many components (area, sewer system, education, social services, parks, greenway, recreation, etc.).

Mr. Rux reviewed the map shown in Alternative 3. The area shown in purple is in the UGB and is eligible for annexation in the future. Washington County rezoned this area to FD20 (future development 20-acre parcel size) and has a modified list of uses that can occur here. There are regulatory controls in place, and developers will have to go to the county to obtain land use approval. Tigard Sand and Gravel currently has approval for their mining operation.

The next step is to complete the concept plan to set the framework of what will happen in the future. He stressed that Alternative 3 shows the general alignment of roads, trails and other elements, and is not specific at this time. The consultants have developed a fiscal analysis to tie in the proposed infrastructure improvements shown in Alternative 3 with projected costs. These costs can ultimately be funded by private developers or by public funds, or a combination of public and private. There are also zoning issues associated with this process. In addition to the light industrial/high-tech land uses, we are proposing a "business park" type of setting with stipulations on lot size, landscaping, set backs, building heights etc. Any changes to the TDC will also go through an extensive review process by TPAC and the City Council and, upon approval, will be adopted by ordinance. The next step after this implementation is done is annexation, which is done by the potential developer submitting an application to the City. However, the changes to the Code, necessary to set the stage for any eventual annexations, are going to be delayed pending the outcome of the community visioning process.

To concept plan the "Tualatin" area under normal circumstances, the timeframe for this entire process can be 1-2 years. The I-5/99W connector could be a factor in terms of timing, and, pending a decision on its location, could accelerate the concept planning

process. Another variable in this process is that the property owners could say that they want to do their own concept planning and then “shop it” to potential jurisdictions, and forward it on to Metro for review and approval. This scenario, however, is a relatively remote possibility.

Mr. Aufenthie inquired if the City has had any interest from developers. Mr. Rux stated that the property owner drives development proposals. Mr. Rux reiterated that the area is more likely to develop first at the northern portion, due to the proximity to existing sewer and water infrastructure.

Mr. Rux reviewed the proposed street configuration. The blue lines identify connector streets, red are the arterials, and black lines depict the local streets. Mr. Rux discussed possible options for the extension of Blake Street. Local residents have no desire for truck traffic in that area, so staff is proposing design features be addressed to discourage through truck traffic, such as a roundabout or street narrowing. The railroad will not permit an “at grade crossing” – it must go over or under the tracks. A brief discussion was held on the lack of satisfactory east/west connectivity in Tualatin. Mr. Rux provided an overview of long-range plans in the city’s Transportation System Plan for other road connections into Tualatin that include a bridge over the Tualatin River connecting to Hall Blvd. or through the PacWest property north of the downtown area. The Hall Blvd. proposal could actually make traffic worse from Tigard into downtown Tualatin. These projects are in the \$30-40 million dollar range in today’s dollars. It was also mentioned that the development of the other “Bridgeport” projects may have a heavy impact for traffic in Tualatin. Mr. Rux briefly described the current road project to extend SW 124th Avenue down to Tualatin-Sherwood Road that will provide a north/south link from 99W.

Mr. Aufenthie thanked Mr. Rux for his presentation. Ms. Stepp inquired if there were any other questions and thanked the audience for their attendance. Ms. Stepp again encouraged people to submit their comments on this proposal, to check the City’s webpage, and that all this information plus her contact information was on the handout that they can take for future reference.

Minutes Prepared by: Carol Rutherford

Southwest Tualatin Concept Plan: Existing Conditions Memorandum

PREPARED FOR: Doug Rux/City of Tualatin

PREPARED BY: Dave Simmons/CH2M HILL
Steve Mader/CH2M HILL
Tim Yamada/CH2M HILL
Steve Katko/CH2M HILL
Paul Ryus/Kittelson and Associates
Todd Chase/Otak

COPIES: Andrew Johnson/ODOT

DATE: April 1, 2005

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Figure ES-1: City of Tualatin Water Master Plan Update – Capital Improvements

Section 5: City of Tualatin Sanitary Sewer System Master Plan – Recommended Improvements and Financial Planning

Appendix D: Southwest Tualatin Concept Plan - Metro Regional Transportation Plan Designations

- Regional Motor Vehicle System
- Regional Street Design System
- Regional Freight System
- Regional Bicycle System
- Regional Pedestrian System

Appendix E: Southwest Tualatin Concept Plan – Washington County Tax Assessor Maps

- SW 1/4 Section 27 T2S R1W
- NW 1/4 Section 34 T2S R1W
- SW 1/4 Section 34 T2S R1W
- SE 1/4 Section 34 T2S R1W

Introduction

The Southwest Tualatin Concept Plan area is southwest of Tualatin (Figure 1). Metro added this land to the UGB in December 2002. The project area was added in two parts: The area known as the Tonquin Industrial Group (TIG), consisting of approximately 50 acres, was added through Metro Ordinance 02-969B; the area known as Tigard Sand and Gravel (TSG), consisting of approximately 252 acres, was added through Metro Ordinance 02-990A. It is bounded on the east and north by the City of Tualatin and on the south and west by unincorporated Washington County. The project area touches SW 120th Avenue to the north and SW Tonquin Road and SW Waldo Way to the south. Bonneville Power Administration (BPA) and Portland General Electric (PGE) power lines traverse the area. The Portland and Western Railroad runs on the east side of the project area, opening the area up for direct rail service.

Figure 1
Site Vicinity

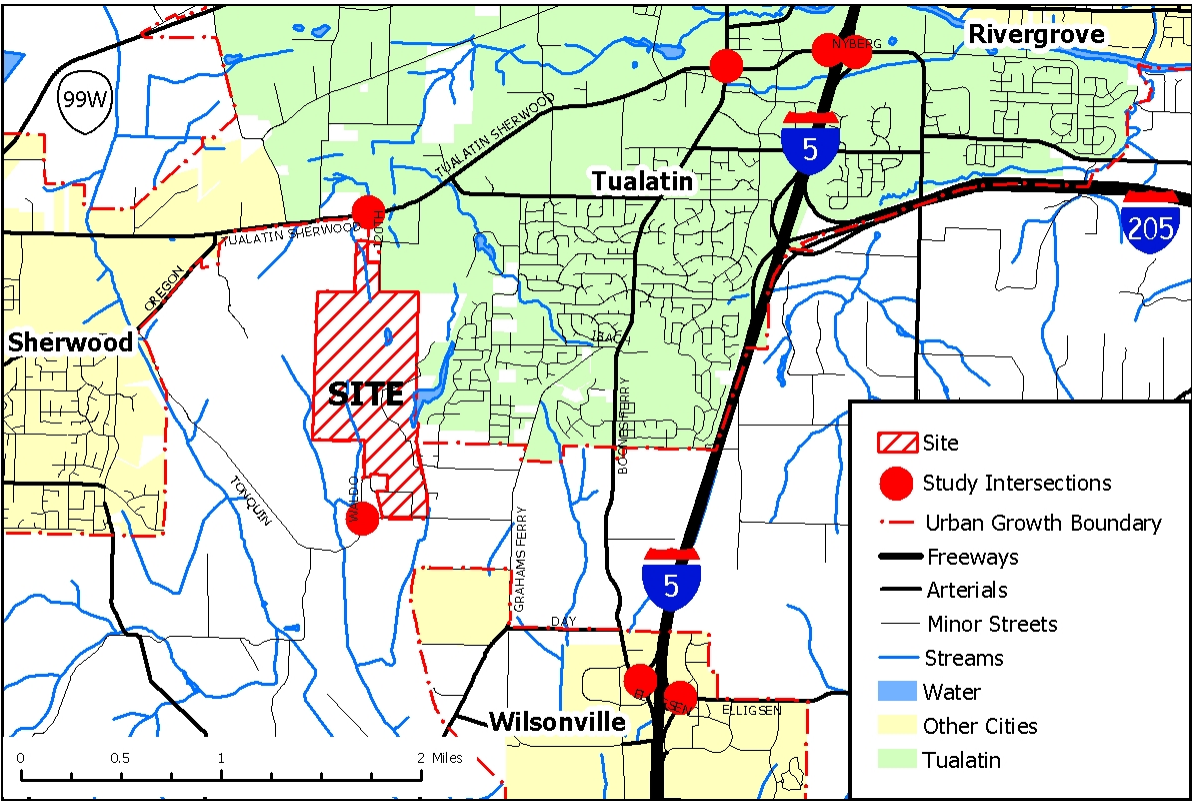


Figure 2 identifies the Concept Plan boundary as well as nine adjacent parcels consisting of approximately 103 acres that were added to the UGB in 2004 or are already in the City's planning boundary but outside the City limits. Based on discussions with ODOT and Metro, these supplemental areas outside the plan area will also be considered in the concept planning process.

This memorandum describes existing conditions of the *Southwest Tualatin Concept Plan* (Concept Plan) area as well as the supplemental areas noted in Figure 2. The memo is divided into two major sections:

- Document review summary
- Existing conditions and infrastructure needs

Supporting tables and maps are located in the appendix. The transportation analysis performed by Kittelson and Associates is provided in Appendix A.

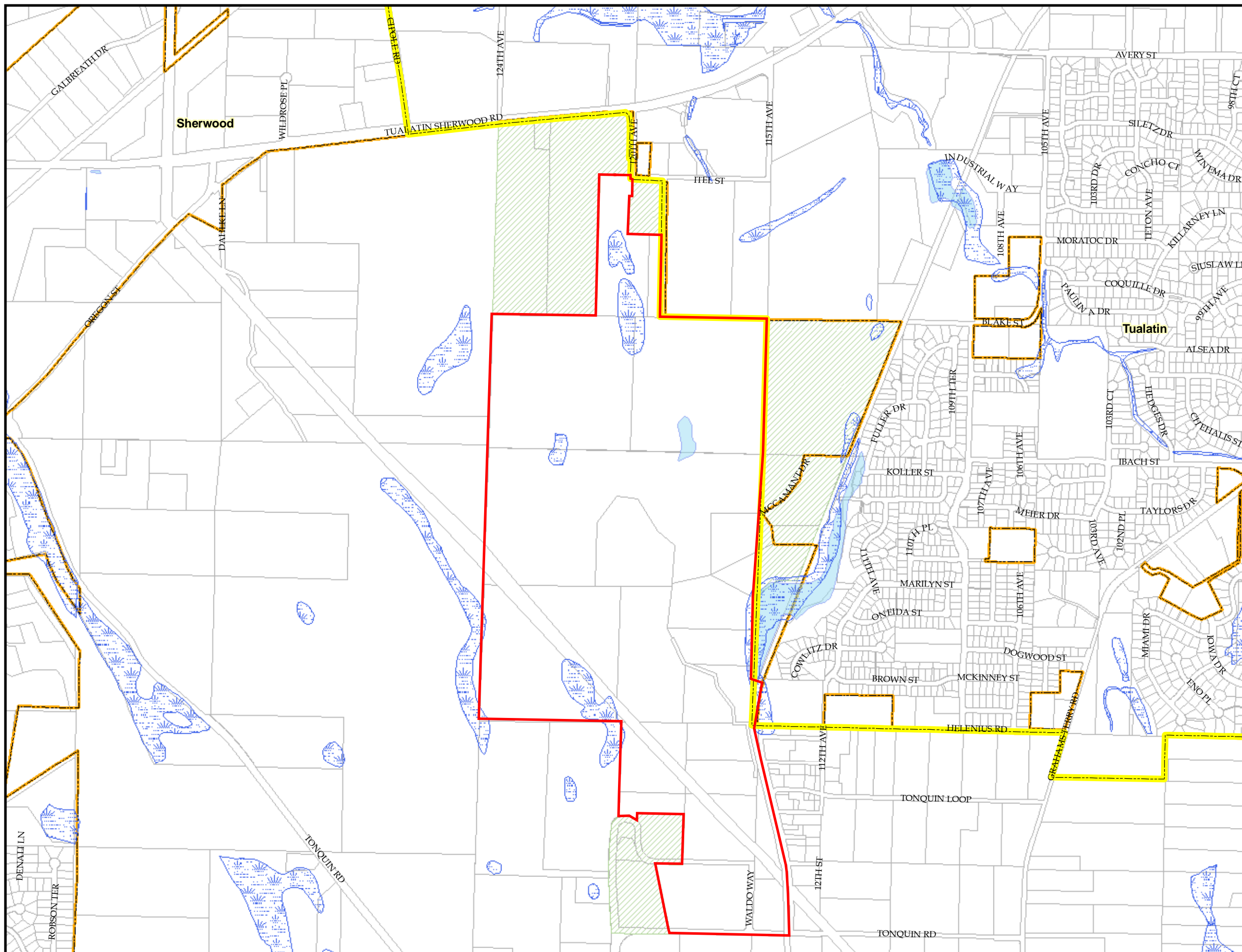
Document Review Summary

This section summarizes documents that are relevant to the Concept Plan area. A summary of each document is provided, along with a description of its relevance to the Concept Plan area and a discussion of key transportation and development issues.








**Southwest Tualatin
Concept Plan**

Figure 2

Concept Plan Site Map



Legend

-  Concept Plan Area
-  Urban Growth Boundary
-  Supplemental Planning Area
-  Tualatin City Limit
-  Tax lots
-  Streams and Rivers
-  Wetlands

Data Source: Metro, City of Tualatin

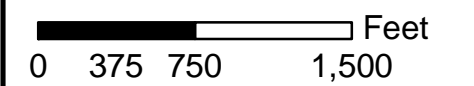


Figure 2
Concept Plan Site Map (11x17)

Land Use and Development

Tualatin Development Code (TDC)

Summary: The City of Tualatin's (City) Development Code guides development on land within the City's jurisdiction.

Relevance to Concept Plan: The Concept Plan area could be annexed into the City in phases corresponding to redevelopment or alternatively annexed as one large area. The TDC includes chapters related to planning and zoning, provision of infrastructure, and development processes.

Transportation and Development Issues: The Concept Plan area currently is conditioned to be zoned industrial. Three existing planning districts may apply to the Concept Plan area: the Light Manufacturing (ML - Chapter 60), General Manufacturing (MG - Chapter 61), or Manufacturing Park (MP - Chapters 62 and 63). For additional context, Appendix B provides summaries of other relevant chapters of the code.

An alternative to the current planning districts could involve creating a new industrial planning district to be incorporated into the TDC.

Washington County Development Code

Summary: Washington County's Development Code guides development on land within the County's jurisdiction.

Relevance to Concept Plan: The land that includes the Concept Plan area is currently located in Washington County. The portion of the Washington County Development Code most relevant to the Concept Plan area is Chapter 308 on the Future Development 20 Acre District (FD-20). Washington County B - Engrossed Ordinance No. 615 applied this designation to the Concept Plan area and Future Development 10 Acre District (FD-10) to the supplemental area on the east side of the Concept Plan. This is the interim zoning designation for the Concept Plan area. The supplemental area to the north of the Concept Plan boundary is currently zoned Exclusive Farm Use (EFU) and the supplemental area on the south side of the Concept Plan boundary is Agricultural and Forest 20 Acre (AF-20) or Agricultural and Forest 5 Acre (AF-5).

Transportation and Development Issues: As stated in the Washington County Code and in the ordinance, the FD-20 district "recognizes the desirability of encouraging and retaining limited interim uses until the urban comprehensive planning for future urban development of these areas is complete. The provisions of this District are also intended to implement the requirements of Metro's Urban Growth Management Functional Plan." This zoning will apply to the Concept Plan area until such a time when the properties in the Concept Plan area are annexed into the City. The supplemental areas currently zoned EFU or AF designated will likely be changed to an interim zoning designation similar to FD-20.

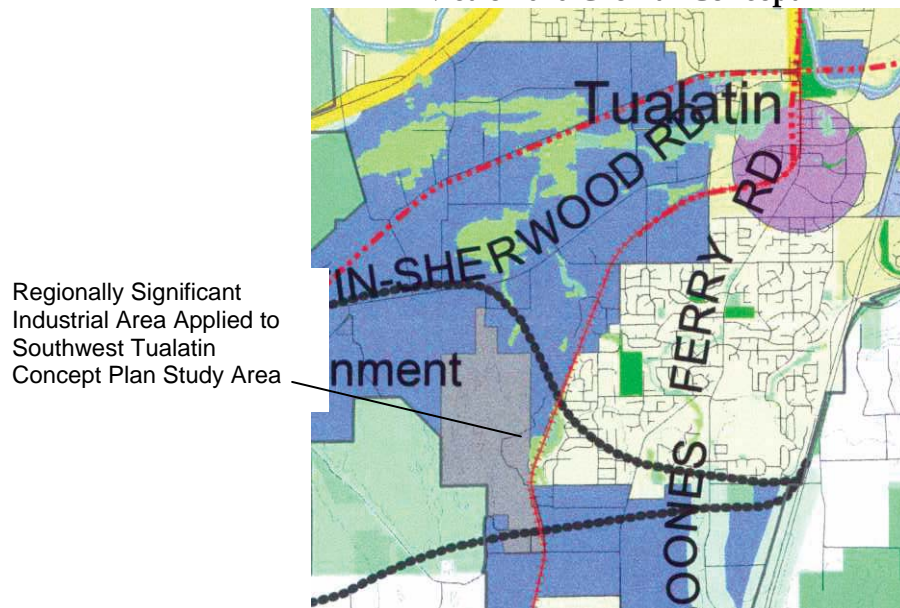
Metro Urban Growth Management Functional Plan

Summary: The purpose of Metro's Functional Plan, which is Section 3.07 of the Metro Code, is to implement regional goals and objectives adopted by Metro, in particular the Metro 2040 Growth Concept and the Regional Framework Plan. Cities and counties are required to

comply with the Functional Plan, including making changes to their Comprehensive Plans and implementing regulations.

Relevance to Concept Plan: As shown in Figure 3, the design type applied to the Southwest Tualatin Concept Plan is Regionally Significant Industrial Area (RSIA). Surrounding the study area, are Industrial Areas to the north and south, Resource Land to the southwest, and Outer Neighborhood to the east.

Figure 3
Metro 2040 Growth Concept



Regionally Significant Industrial Areas (RSIAs) are those areas near the region's most significant transportation facilities for the movement of freight and other areas most suitable for movement and storage of goods. Each city and county with land use planning authority over RSIAs shown on the Employment and Industrial Areas Map shall derive specific plan designation and zoning district boundaries of RSIAs within its jurisdiction from the Map, taking into account the location of existing uses that would not conform to the limitations on non-industrial uses in this section and the need to achieve a mix of employment uses.

According to Section 3.07.170, the average density levels for employment design types are recommended to consist of 20 persons per acre in Employment Areas, 9 employees per acre in Industrial Areas, and 9 employees per acre in RSIA.

According to Section 3.07.420 (revised by Metro per Exhibit B to Ordinance No. 04-140B), "Regionally Significant Industrial Areas are areas that are intended to offer the best opportunities for family-wage industrial jobs near the region's most significant transportation facilities for the movement of freight and other areas most suitable for movement and storage of goods."

According to Section 3.07.420 (B), in Regionally Significant Industrial Areas, "cities and counties shall review their land use regulations and revise them, if necessary, to include measures to limit the size and location of new buildings for retail commercial uses, such as stores and restaurants and retail and professional services that cater to daily customers -

such as financial, insurance, real estate, legal, medical and dental offices - to ensure that they serve primarily the needs of workers in the area. One such measure shall be that new buildings for stores, branches, agencies, or other outlets for these retail uses and services shall not occupy more than 3,000 square feet of sales or service area in a single outlet, or multiple outlets that occupy more than 20,000 square feet of sales or service area in a single building or in multiple buildings that are part of the same development project, with the following exceptions:

1. Within the boundaries of a public use airport...
2. Training facilities, whose primary purpose is to provide training to meet industrial need."

"After determining the boundaries of RSIA's pursuant to subsections A and B, cities and counties shall adopt implementing ordinances that limit the development in the areas to industrial uses, uses accessory to industrial uses, offices for industrial research and development and large corporate headquarters in compliance with Section E, utilities, and those non-industrial uses necessary to serve the needs of businesses and employees of the areas. Cities and counties shall include measures to limit the siting and location of new buildings for the uses described in subsection B and for non-industrial uses that do not cater to daily customers – such as bank or insurance processing centers – to ensure that such uses do not reduce off-peak performance on Main Roadway Routes and Roadway connectors shown on Metro's Freight Network Map, November 2003, below standards set in the 2004 Regional Transportation Plan or require added road capacity to prevent falling below the standards." [Section 3.07.420 (C)].

"Within an RSIA, a city or county shall not approve:

1. A commercial retail use with more than 20,000 square feet of retail sales area in a single building or in multiple buildings that are part of the same development project; or
2. Commercial retail uses that would occupy more than 5% of the net developable portion of all contiguous RSIA's. No city or county shall amend its land use regulations that apply to lands shown as RSIA on the Employment and Industrial Areas Map to authorize uses described in subsection B that were not authorized prior to July 1, 2004." [Section 3.07.420 (D)].

"As provided in subsection C of this section, a city or county may approve an office or industrial research and development or a large corporate headquarters if:

1. The office is served by public or private transit;
2. If the office is for a corporate headquarters, it will accommodate for the initial occupant at least 1,000 employees." [Section 3.07.420 (E)].

"Cities and counties may allow division of lots or parcels into smaller lots or parcels as follows:

1. Lots or parcels smaller than 50 acres may be divided into any number of smaller lots or parcels;

2. Lots or parcels larger than 50 acres may be divided into smaller lots and parcels pursuant to a master plan approved by the city or county so long as the resulting division yields at least one lot or parcel of at least 50 acres in size;
3. Lots or parcels 50 acres or larger, including those created pursuant to paragraph (2) of this subsection, may be divided into any number of smaller lots or parcels pursuant to a master plan approved by the city or county so long as at least 40% of the area of the lot or parcel has been developed with industrial uses or uses accessory to industrial use, and no portion has been developed, or is proposed to be developed, with uses described in subsection B.
4. Notwithstanding paragraph 2 and 3 of this subsection, any lot or parcel may be divided into smaller lots or parcels or made subject to rights-of-way for the following purposes:
 - a. To provide public facilities and services;
 - b. To separate a portion of a lot or parcel in order to protect a natural resource, to provide a public amenity, or to implement a remediation plan for a site identified by the Oregon Department of Environmental Quality pursuant to ORS 465.225;
 - c. To separate a portion of a lot or parcel containing a nonconforming use from the remainder of the lot or parcel in order to render the remainder more practical for a permitted use; or
 - d. To allow the creation of a lot for financing purposes when the created lot is part of a master planned development. [Section 3.07.420 (D)].

“A city or county may allow the lawful use of any building, structure, or land existing at the time of adoption of this ordinance to implement this section to continue and to expand to add up to 20% more floor area and 10% more land area.” [Section 3.07.420 (E)].

The City of Tualatin, as part of compliance with Section 3.07.1120 of the Urban Growth Management Functional Plan, shall derive comprehensive land use plan designation and zoning district designations/boundaries to ensure that development in Regionally Significant Industrial Areas is consistent with the Functional Plan.

Another relevant portion of the Functional Plan is Title 11 (Metro Code Sections 3.07.1105 - 3.07.1140), entitled “Planning for New Urban Areas.” The purpose of this section is to guide planning for land brought into the UGB for conversion from rural to urban use. This is the document that outlines the content of and requirements for a concept plan.

Transportation and Development Issues: Title 11 lists provisions that need to be addressed in the local jurisdiction’s comprehensive plan element, including an urban growth plan diagram and policies consistent with the Regional Framework Plan and adopted 2040 Growth Concept design types. The basic parts of a concept plan, in brief, are listed below. Only those in italics apply to the Concept Plan area.

1. *An annexation plan.*
2. Residential densities of at least 10 dwelling units per net residential acre.

3. Provision for a diversity of housing stock.
4. Provisions for affordable housing.
5. *Provisions for commercial and industrial land suited to the area.*
6. *A conceptual transportation plan.*
7. *A natural resource protection and restoration plan.*
8. *A public facilities plan.*
9. A plan for schools.
10. *An overall urban growth diagram.*
11. *Coordination among city, county, school districts, and other districts.*

The requirements for a concept plan have since been described in more detail in *Livable New Communities* (Metro, 2002).

Transportation

Summary: This section summarizes the transportation projects, policies, and standards that affect the site, based on the 1999 Oregon Highway Plan, Metro's Regional Transportation Plan (RTP), and the City of Tualatin and Washington County Transportation System Plans (TSPs). Rather than examining these document by document, this section is organized by issue. Issue topics include functional classification, traffic operations standards, access management standards, and planned projects.

Functional Classification

The functional classification of the roads in the Concept Plan area are as follows.

ODOT. There are currently no ODOT facilities near the Concept Plan area. Washington County is currently leading a study to determine potential corridors for a potential I-5/99W Connector, which may become an ODOT facility. Because no alignment for the Connector has been adopted yet, the transportation work for this site's alternatives analysis will assume a southerly alignment similar to that shown in the RTP, which has the Connector following the urban growth boundary (UGB) south of Tualatin and Sherwood. (Note that the attached "base future" transportation analysis assumes the northern alignment shown in the Tualatin TSP.)

Washington County. Tualatin-Sherwood Road, north of the Concept Plan area, and Tonquin Road, south of the Concept Plan area, are maintained by Washington County. Washington County classifies both facilities as arterials.

City of Tualatin. The Tualatin TSP identifies a future *expressway*, following a southerly extension of SW 124th from Tualatin-Sherwood Road to Tonquin Road. This is intended to represent the northern alignment of the Connector as shown in the RTP. The TSP notes that a southern alignment is preferred, but because it lies outside the UGB, was not shown.

The Tualatin TSP classifies Tualatin-Sherwood Road as a *major arterial*. According to the City TSP, this road is planned to have a five-lane cross section, with bicycle lanes, sidewalks, and

landscape strips. This road currently has a three-lane cross section with bike lanes and sidewalks north of the Concept Plan area.

Metro. The RTP governs long-range transportation planning within the Portland region. Local TSPs must be consistent with the RTP, thus ensuring the consistent implementation of the regional transportation vision. The RTP serves both as a policy document and as a plan outlining the regional transportation projects (1) that are needed over the 20-year planning horizon, and (2) for which funding is expected to be available during that timeframe. Specific standards are set by other documents such as the Oregon Highway Plan or the local TSPs.

The RTP must meet both federal and state requirements for content and time between updates; the portions used for federal funding decisions are updated every 3 years (most recently in summer 2004), while the portions used for Oregon land-use planning are updated every 6 years, with the next major update scheduled for 2007. Because the RTP is between major updates, some projects shown in the 2004 federal version of the RTP are not included in the 2000 plan that must be used for land use decision-making.

Metro's 2040 Growth Concept assigns the following designations to Tualatin-Sherwood Road and the Connector near the Concept Plan area:

- **Regional Street Design System.** The Regional Street Design System designates Tualatin-Sherwood Road near the site as an *Urban Road*. These streets carry significant vehicle traffic with some transit, bicycle, and pedestrian travel. They serve industrial areas and new urban areas. They have some public street connections, but few driveways. The Connector is designated as a proposed *Highway* with both a northerly and southerly alignment shown. These facilities usually have four to six vehicle lanes divided with a median and at-grade or grade-separated intersections.
- **Regional Motor Vehicle System.** The Regional Motor Vehicle System designates Tualatin-Sherwood as a *Minor Arterial*. These streets provide motor vehicle connections between town centers, corridors, main streets, and neighborhoods. Freight movement should also be provided with a balance of access and mobility. The Connector is designated as a *Principal Arterial*, which functions as a major freight route with mobility emphasized.

Traffic Operations Standards

The City and County have each developed traffic operations standards for intersections under their jurisdiction.

Washington County. Washington County's Code Section 60.55.10 states that intersections must have an average peak hour control delay no greater than 65 seconds per vehicle, using a signal cycle length no greater than 120 seconds. In addition, the peak hour v/c ratio for each lane group should be no greater than 0.98.

City of Tualatin. The City's operations standards are LOS D for signalized intersections (representing no more than 55 seconds of average control delay per vehicle) and LOS E for

unsignalized intersections (representing no more than 50 seconds of average control delay per vehicle on the worst approach).

Access Management Standards

ODOT. ODOT's access spacing rules are contained in OAR 734-051. However, no ODOT facilities would provide direct access to the Concept Plan area.

Washington County. Washington County's Community Development Code (501-8.5(3)) permits land uses with at least 150 feet of frontage to access a collector roadway, with a minimum access spacing of 100 feet. Minimum street and driveway access spacing is 600 feet along arterials.

City of Tualatin. The City's access management standards are contained in Chapter 75 of the Tualatin Development Code and generally apply to arterial streets. Section 75.070 indicates that new intersections on arterial streets shall be spaced 1/2 mile apart.

Planned Projects

ODOT. The I-5/99W Connector, depending on the functional classification and route selected, may be an ODOT facility.

Metro. The RTP governs long-range transportation planning within the Portland region. Local TSPs must be consistent with the RTP, thus ensuring the consistent implementation of the regional transportation vision. The RTP serves both as a policy document and as a plan outlining the regional transportation projects that are (1) needed over the 20-year planning horizon, and (2) for which funding is expected to be available during that timeframe. Specific standards are set by other documents such as the Oregon Highway Plan or by the local TSPs.

The RTP must meet both federal and state requirements for content and time between updates. The portions used for federal funding decisions are updated every 3 years (most recently in summer 2004), while the portions used for Oregon land-use planning are updated every 6 years, with the next major update scheduled for 2007. Because the RTP is between major updates, some projects shown in the 2004 federal version of the RTP are not included in the 2000 plan that must be used for land-use decision-making. One such project is the Tonquin Trail, a new recreational trail that would parallel SW Tonquin Road in the Concept Plan area.

Regional transportation improvement projects identified in the 2000 RTP in the vicinity of the Concept Plan area include: widening Tualatin-Sherwood Road to five lanes between Teton Avenue and 99W; and providing peak-hour commuter rail service from Wilsonville to Beaverton. These projects are included in the financially constrained system in the 2000 RTP, which is the version used for land-use planning.

Washington County. The Washington County TSP identifies the following future transportation projects:

- Widening SW Tualatin-Sherwood Road
- Wilsonville-Beaverton commuter rail.

City of Tualatin. The Tualatin TSP identifies the following long-term project needs in the site vicinity:

- Widening SW Tualatin-Sherwood Road.
- Wilsonville-Beaverton commuter rail.
- Extending SW 124th Avenue south from 99W to intersect SW Tualatin-Sherwood Road at a new traffic signal.
- Extending new alignments for SW 115th and 120th Avenue south from Tualatin-Sherwood Road through the plan area, along with an extension of Blake Street, all designated as Local Industrial Streets.

Water System

Tualatin Water Master Plan Update (August 2003)

Summary: This is the City of Tualatin's master plan for providing water infrastructure in the City. Most recently updated in 2003, it provides a forecast for future water supply needs under 2010 demand conditions.

Relevance to Concept Plan: The Concept Plan area is immediately adjacent to the southwestern City limits but is outside the City. There are currently no public water lines located within the Concept Plan area. The water master plan did include the Concept Plan area (referenced as the "Tualatin Sand and Gravel Area") in the hydraulic modeling and capital improvement project (CIP) identification tasks (see Table ES-1 and Figure ES-1 in Appendix C). The supplemental areas to the north and south were not included. Project Number P-15, 13,000 linear feet of 16-inch-diameter pipe, was identified in the master plan as a 2007 project to provide a looped water supply to the Concept Plan area. A new Level A reservoir (CIP Project R-1) and pipeline projects P-6 and P-16 are needed to provide water to the Concept Plan area. These projects were identified for construction ahead of project P-15. The fully modeled water supply would not be provided until the build-out year (2010), when the new Level B reservoir (R-3) and pipeline system (P-3) are completed.

Development Issues: Water supply to the Concept Plan area is not scheduled to be available until 2007. The Plan area must be annexed into the City of Tualatin prior to receiving water service. Actual development needs should be evaluated against the water master plan on a case-by-case basis to determine if the planned water infrastructure will be adequate.

Sewer System

Tualatin Sanitary Sewer System Master Plan (December 2002)

Summary: This is the City of Tualatin's master plan for providing sewer infrastructure in the City. Most recently updated in 2002, it provides a forecast for future sewer system needs under 2005 and 2010 demand conditions.

Relevance to Concept Plan: The Concept Plan area is immediately adjacent to the southwestern City limit but is outside the City. However, the sewer master plan did include the Concept Plan area in the hydraulic modeling and CIP identification tasks (see attached

Table 5-1 and Figures F-1, F-8, and F-9 in Appendix C). The supplemental areas to the north and south were not included. Three recommended CIP projects were identified to provide sanitary sewer service to the Concept Plan area and an adjacent urban reserve area (Tualatin-Sherwood URA). The recommended projects are:

1. Tualatin-Sherwood Extension: A new 24-inch pipeline located in Tualatin-Sherwood Road, extending from the Concept Plan area/URA easterly to SW Avery Street;
2. Bluff/Cipole Lateral: Increase existing 12- to 21-inch pipe to 18-inch and 36-inch pipeline extending from near the SW Tualatin Sherwood Road/SW Avery Street intersection to the existing Bluff/Cipole Trunk; and
3. Bluff/Cipole Trunk Improvements: Upsize existing trunk line pipe diameters.

Estimated construction schedule for the recommended projects are 2010 for the Tualatin-Sherwood Extension project, 2008 for the Bluff/Cipole Lateral project, and 2003 for the Bluff/Cipole Trunk line project.

Development Issues: No sanitary sewer systems of adequate size currently exist near the Concept Plan area. The recommend improvement projects identified in the master plan to provide sewer service to this area will not be constructed until 2010. The Concept Plan area must be annexed into the City of Tualatin prior to receiving sewer service.

Storm Drainage

Clean Water Services (CWS) Design and Construction Standards for Sanitary Sewer and Surface Water Management (February 3, 2004)

Summary: This document provides standards for sewer and surface water management relevant to the design and construction of sites and facilities within the CWS service area.

Relevance to Concept Plan: The Concept Plan area is outside the current CWS service area. However, it is assumed that the plan area would fall within the CWS service area about the time of annexation. Rules apply to construction of sanitary sewer and storm system components, and to all activities with potential to cause erosion. CWS regulation of land uses within Water Quality Sensitive Areas (Sensitive Areas) and Vegetated Corridors protects water quality and restricts development options.

Development Issues: Prior to development or redevelopment, CWS requires a natural resources assessment to identify the type, location, size, and condition of surface water resources under its jurisdiction. The agency usually defers to federal and state wetland removal/fill permitting agencies if re/development will affect Sensitive Areas, unless CWS has sole jurisdiction. Based in part on the results of the natural resources assessment and possible alternatives analysis, the Design and Construction Standards establish allowable uses and setbacks for development around drainage ways. If impacts to CWS jurisdictional areas are unavoidable, the rules direct appropriate mitigation of impacts.

Prior to obtaining a building permit or site development permit, CWS reviews the site plan to ensure the plan meets the District's requirements for water quality protection and issues a Service Provider Letter followed by a Stormwater Connection Permit Authorization.

Natural and Cultural Resources

The review of relevant natural and cultural resource documents that follows is divided into the following subsections:

- Statewide Planning Goal 5 Resources (natural resources, threatened and endangered species, cultural resources)
- Floodplains
- Stormwater

Statewide Planning Goal 5 Resources

Summary: Goal 5 resources generally are Natural Resources, Scenic and Historic Areas, and Open Spaces. Goal 5 encompasses 12 different types of resources, including wildlife habitats, mineral resources, wetlands, and waterways. It establishes a process through which resources must be inventoried and evaluated. The following documents were reviewed for this section: Tualatin Development Code, Washington County Rural/Natural Resource Plan, Metro Inventory of Regionally Significant Habitat, Tualatin Basin Partners for Natural Places Materials, and USGS topographic map.

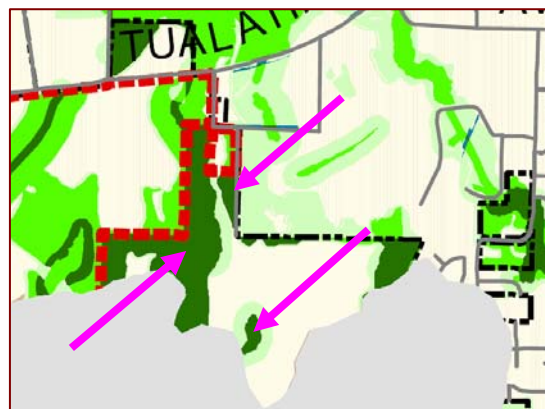
Relevance to Concept Plan: If a resource or site is found to be important, the local government has three policy choices: to preserve the resource, to allow the proposed uses that conflict with it, or to establish some sort of a balance between the resource and those uses that would conflict with it.

Development Issues: Map 72-1 (Natural Resource Protection Overlay and Greenway Locations) of the Tualatin Development Code excludes the Southwest Tualatin Concept Plan study area from consideration of Goal 5 resources because the site is outside the Planning Area Boundary.

Washington County's Rural/Natural Resource Plan indicates that all of the plan area is designated as a significant natural resource. Most of the area is in a Mineral and Aggregate Overlay – about three-fourths in District A, which is for aggregate production, and about one-fourth is in District B, which is a 1,000-foot-wide buffer to reduce conflicting land uses. A small resource area at the southeastern corner of the plan area – an old railroad station – is designated as Historic and Cultural Resources. No water, wetland, fish or wildlife habitat, or scenic resources are designated in the plan area.

Figure 4
Metro Goal 5 Resources

Metro's Inventory of Regionally Significant Habitat: The current Goal 5 inventory by Metro and the Tualatin Basin Natural Resources Coordinating Committee (Committee) does not cover the entire site. The northern part of the site appears to contain land that Metro and the Committee have designated as "strictly limit" for development (see green areas in Figure 4). Partial coverage may provoke Metro to extend its inventory and ESEE analysis to the entire



plan area. Washington County is not in the process of conducting new ESEE analysis for areas currently outside the UGB, and future plans are uncertain. If Metro does not do this, then the fallback is either the existing Washington County Goal 5 designations and applicable Community Development Codes (applicable to plan area prior to annexation), or a new ESEE analysis to be performed for the plan area (which would be needed for the Tualatin comprehensive plan). Metro is accepting map change requests if inventoried resources are in error. Recommendation of future UGB boundaries requires examination of a larger area than the 352-acre plan area.

The Tualatin Basin Partners for Natural Places has adopted Metro's Inventory of Regionally Significant Habitat for the Tualatin basin and has proposed Goal 5 program. In the Concept Plan area, the relative levels of protection – the Allow-Limit-Prohibit program recommendations – apply to the Metro-inventoried significant natural resources as follows: the Class 2 riparian habitat has a "strictly limit" designation, the Class 3 riparian habitat has a "moderately limit" designation, and the "impact area" has a "lightly limit" designation. The Tualatin Basin Partners for Natural Places are in the process of defining the relative levels of protection at this time. Proposed Statewide Planning Goal 5 protection measures would impose "lightly limit", "moderately limit", and "strictly limit" development restrictions where significant natural resources occur. Passage of Ballot Measure 37 is causing the Partners to rethink their draft designations in light of perceived impacts to property development interests and land valuation.

USGS Topographic Map: The plan area rises gradually in elevation from approximately 185 feet at the north to about 290 feet along the central east side, then drops to about 240 feet at the south. Drainage is imperfect, but generally toward the north and toward the south. The plan area is within the geologically unique Tonquin Scablands. The Tonquin Scablands were formed between 15,000 and 13,000 years ago when catastrophic floods, known as the Bretz floods, carved a series of 14 channels in a low basalt divide near the town of Tonquin between Sherwood and Tualatin. The resulting scabland topography contains disjunct, higher elevation areas where soil has been scraped away, exposing irregular areas of the underlying basalt. The map shows Coffee Lake Creek/Seely Ditch, which flows to Wilsonville, as existing water quality and natural resources.

Threatened and Endangered Species Database

Summary: The Oregon Natural Heritage Information Center (ONHIC) maintains a database of known occurrences of threatened and endangered species.

Relevance to Concept Plan: The presence of threatened and endangered species at the Concept Plan area or vicinity could present constraints on future development.

Development Issues: To date, an ONHIC database search has not been conducted for the Concept Plan area, but is recommended prior to development. A May 21, 2002 database search performed for the City of Tualatin Reservoir Project covered the plan area. The search yielded only one record of special status species within a mile or two: bald eagle (*Haliaeetus leucocephalus*). Lack of recorded special status species in the database does not assure that such species are not present at the plan area. Appropriately timed field survey(s) should be conducted prior to site development for a more definitive assessment of species' presence.

Cultural Resources

Summary: This section summarizes known information on cultural resources as relevant to future development of the Concept Plan area.

Relevance to Concept Plan: Presence of cultural resources could be a constraint to development of the Concept Plan area. The project area is occupied by quarries, a few commercial and residential structures, and woodlands. Borrow areas, gravel access roads, and previously graded fields are the major disturbances in the study area.

Development Issues: It is recommended that a records search be conducted for historical and cultural resources. Contact with the State Historic Preservation Office (SHPO) would reveal any known cultural resource sites or archaeological sites located within the Concept Plan area. However, few areas have been surveyed for cultural resource. SHPO guidance and state law provide that if any cultural material is encountered during project development, all work should cease immediately and an archaeologist contacted to assess the discovery. Cultural (archaeological) resources may exist at areas that were not previously surface-disturbed. Because of poor ground visibility on the site, exploratory subsurface probing is advised prior to re/development to ensure that these activities do not impact potential buried cultural resources. Documented archeological sites occur in the City of Tualatin.

Homes and structures older than 50 years would meet the minimum age criteria for potential eligibility for listing on the National Register of Historic Places. The four National Historic Preservation Act eligibility criteria for an historic property:

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important in prehistory or history.

If any of the properties are eligible and are impacted (directly or indirectly), the development's impacts on these resources would be determined according to the guidance established in Section 106 of the National Historic Preservation Act. If the home or property were eligible, mitigation would be required if the home were to be removed or otherwise impacted. The status of the old railroad station – a county-designated Historic and Cultural Resource at the southeastern corner of the plan area – should be further investigated. A farm house located in the supplemental area north of the plan area should also be investigated.

Floodplains

FEMA Flood Insurance Rate Maps

Summary: FEMA publishes maps of flood plains. The Tualatin Development Code is based on the 1987 Flood Insurance Rate Maps (FIRM).

Relevance to Concept Plan: FEMA map community-panel number 4100238 0575 B covers the Concept Plan area. It does not show floodplains in the plan area. The City of Tualatin will utilize updated flood plain maps when FEMA approves them.

Development Issues: The lack of mapped floodplains in the Concept Plan and supplemental areas indicates floodplains are not a constraint on future development.

Stormwater

Anecdotal Information

Summary: Little surface water leaves the TSG property. Instead, it infiltrates the fractured rock below ground. Water used in quarry operations is discharged to onsite ponds; water is not pumped outside the quarry (unlike the Morse Bros. quarry operation, which discharges water to Coffee Lake Creek). Withdrawal of well water by Morse Bros. for quarry operations has impacted water levels in domestic wells in the vicinity. Rates of groundwater withdrawal have diminished accordingly.

Relevance to Concept Plan: The plan will need to address stormwater management under build-out conditions, and guide the development of a functional system as site grading and phased development occur.

Development Issues: Stormwater quality and quantity will need to be managed and treated prior to discharge to receiving waters.

Existing Conditions and Infrastructure Needs

This section of the memorandum describes existing conditions of the Concept Plan area and discusses potential constraints and opportunities to future development and infrastructure needs.

The infrastructure analysis is based on the assumptions and planning horizons in the City of Tualatin's existing adopted infrastructure plans (Water System Master Plan, Sanitary Sewer Master Plan,, Transportation System Plan) and on the assumption that the site will be zoned for industrial use. This memo identifies general infrastructure needs; more specific needs (for example, pipe sizes, cost estimates) will be developed as part of the Draft Concept Plan.

Land Use and Development

Existing Conditions: The Concept Plan area consists of 21 parcels with 7 property owners. Uses include aggregate extraction, asphalt pavement production, industrial (trucking, wrecking yard, construction material storage) and limited residential (see Figure 5). The BPA holds a 100-foot-wide right-of-way along with two permanent easements that vary in width from 250 feet wide to 287.5 feet wide that run diagonally along the southerly portion of the study area. PGE also holds a 125-foot-wide permanent easement that run diagonally across the middle of the study area. The adjacent land uses are as follows: north = agricultural; west = rural/ forest land; east = residential; south = aggregate extraction/industrial/rural. The supplemental areas north, east, and south consists of nine parcels with six property owners.

Southwest Tualatin Concept Plan

Figure 5
Base Map

Existing Conditions

Legend

- Concept Plan Area
- Urban Growth Boundary
- Supplemental Planning Area
- Easements
- Tualatin City Limit
- Tax lots
- Streams and Rivers
- Wetlands

Data Source: Metro, City of Tualatin, USGS



0 375 750 1,500 Feet

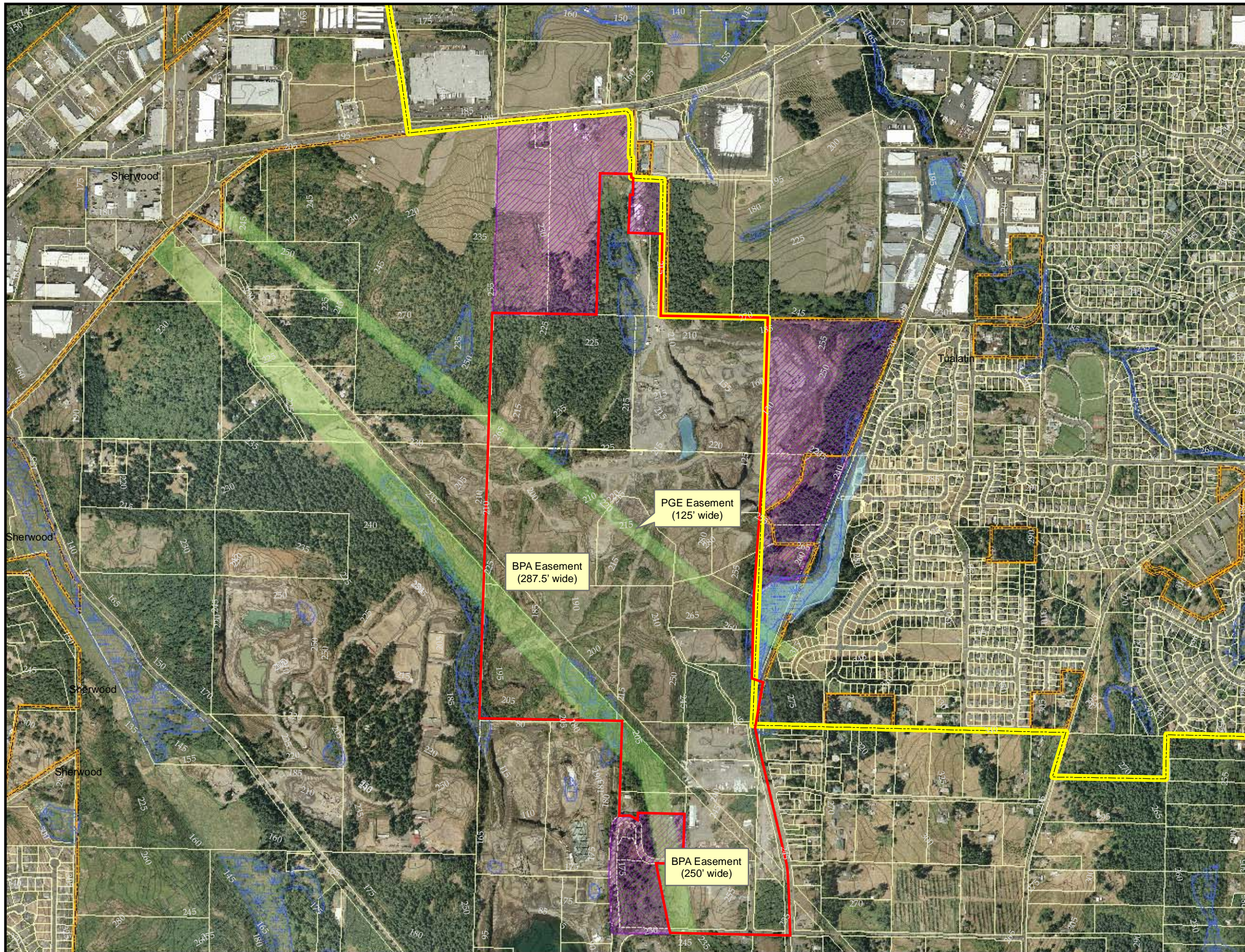


Figure 5 slip sheet (11x17)

Copies of tax assessment maps are provided in the Figures section of this report.

Development Issues: The Concept Plan area includes approximately 302 acres of land anticipated to be zoned and developed for industrial use. The study area is south of Tualatin-Sherwood Road, which connects to I-5 and Highway 99W. South of the study area is adjacent to Tonquin Road. The site is located at the western edge of the Portland Metropolitan UGB and is anticipated to be incorporated into the City of Tualatin in the future. The supplemental areas include approximately 103 acres of land directly adjacent to the Concept Plan area, which are anticipated to be developed for industrial use.

The BPA right-of-way and easements and the PGE easement areas are not developable as it is reserved for transmission line use. BPA rules limit the proximity of buildings to transmission towers to no less than 25 feet. Transportation and parking facilities within this land is acceptable. The potential presence of hazardous materials on the Concept Planning area is unknown.

Infrastructure Needs: See transportation, water, sewer, etc., below.

Transportation

Existing Conditions: There are no existing paved roads or public streets within the study area with the exception of Waldo Way and Tonquin Road, located at the southern end. Several gravel and dirt roads cross the parcels within the study area. There is no transit service provided near the study area. Tualatin-Sherwood Road does include bicycle lanes and sidewalks. No bicycle or pedestrian facilities are provided on Tonquin Road or Waldo Way.

Development Issues: Access to and within the Concept Plan area would require new alignments for both public and private roads. Constraints include topography, transmission lines, wetlands, and other natural resources.

Infrastructure Needs: Preliminary evaluations of the Concept Plan area have identified the following public street assumptions:

- Extensions of 124th, 120th, and 115th Avenues would be constructed north-south from Tualatin-Sherwood Road to Tonquin Road or the future Connector. Blake and Helenius Streets would be constructed east-west from 124th Avenue to 115th Avenue. Extending Helenius Street west from its current termini may prove difficult, due to terrain and the need to cross the railroad tracks.
- 124th Avenue would follow the City's Eb&T street section as defined in the Tualatin Development Code; 120th, 115th, Blake, and Helenius would follow the B-CI street section.
- All streets would be illuminated and landscaped.

Sight distance improvements will be required at the SW Tonquin Road/SW Waldo Way west intersection.

Once development assumptions have been specified, additional offsite needs can be identified.

Water System

Existing Conditions: There are currently no public water lines located in the Concept Plan area.

Development Issues: Water supply to the Concept Plan area is not scheduled to be available until 2007. The Concept Plan area must be in the City of Tualatin prior to receiving water service.

Infrastructure Needs: The water master plan includes the Concept Plan area (referenced as the "Tualatin Sand and Gravel Area") in the hydraulic modeling and CIP identification tasks (see Table ES-1 and Figure ES-1 in Appendix C). Project Number P-15, 13,000 linear feet of 16-inch-diameter pipe, was identified in the master plan as a 2007 project to provide a looped water supply to the Concept Plan area. A new Level A reservoir (CIP Project R-1) and pipeline projects (P-6 and P-16) are needed to provide water to the Concept Plan area. These projects were identified for construction ahead of project P-15. The fully modeled water supply would not be provided until the build-out year (2010), when the new Level B reservoir (R-3) and pipeline system (P-3) are completed.

Once development assumptions have been specified, more specific estimates of future infrastructure needs can be made.

Sewer System

Existing Conditions: No sanitary sewer systems of adequate size currently exist near the Concept Plan area.

Development Issues: The recommend improvement projects identified in the master plan to provide sewer service to this area will not be constructed until 2010. The Concept Plan area must be in the City of Tualatin prior to receiving sewer service.

Infrastructure Needs: The sewer master plan did include the Concept Plan area in the hydraulic modeling and CIP identification tasks (see attached Table 5-1 and Figures F-1, F-8, and F-9 in Appendix C). Three recommended CIP projects were identified to provide sanitary sewer service to the Concept Plan area and an adjacent urban reserve area (Tualatin-Sherwood URA). The recommended projects are:

1. Tualatin-Sherwood Extension: A new 24-inch pipeline located in Tualatin-Sherwood Road, extending from the Concept Plan area/URA easterly to SW Avery Street;
2. Bluff/Cipole Lateral: Increase existing 12- to 21-inch pipe to 18-inch and 36-inch pipeline extending from near the SW Tualatin Sherwood Road/SW Avery Street intersection to the existing Bluff/Cipole Trunk; and
3. Bluff/Cipole Trunk Improvements: Upsize existing trunk line pipe diameters.

Estimated construction schedule for the recommended projects are 2010 for the Tualatin-Sherwood Extension project, 2008 for the Bluff/Cipole Lateral project, and 2003 for the Bluff/Cipole Trunk line project.

Storm Drainage

Existing Conditions: No stormwater system exists within the Concept Plan area. The plan area rises gradually in elevation from approximately 185 feet at the north to about 290 feet along the central east side, then drops to about 240 feet at the south. Drainage is imperfect, but generally toward the north and toward the south, with a break point at approximately the middle of the Concept Plan area. Drainage in the northern portion around and in the quarry infiltrates through the fragmented basalt. Drainage to the south flows toward Coffee Lake Creek/Seely Ditch, which flows to Wilsonville.

Infrastructure Needs: Runoff from future streets or access roads and development will need to meet Clean Water Services (CWS) design criteria for stormwater quality and quantity control. A new conveyance system will need to be installed along the roadways. Site development runoff will need to be treated and detained, if necessary, before being discharged to the public drainage systems.

Other Utilities

The only known utility that crosses the study area is electrical, with BPA and PGE transmission towers crossing the site. PGE provides electrical service in the Concept Plan area. A 115-kV electrical transmission line runs diagonally across the middle of the study area.

A 115-kV electrical transmission line (referred to as the Keeler Oregon City No. 2, Oregon City Stub) crosses the Concept Plan area on the BPA property. This is a regional distribution line that is not used to provide electrical service to the site. Conversations with BPA staff have indicated that in the future the site could be used for open space or perhaps a trail but is off limits for development or use as a water quality facility. BPA is willing to work with property owners or the City to provide road access to the other sites. No construction could occur within 25 feet of the transmission line poles. Also, no parking, refueling, or storage of flammable materials may occur on the BPA property.

Natural and Cultural Resources

Existing Conditions: Natural resources in the Concept Plan area have been highly modified by historical and current land uses.

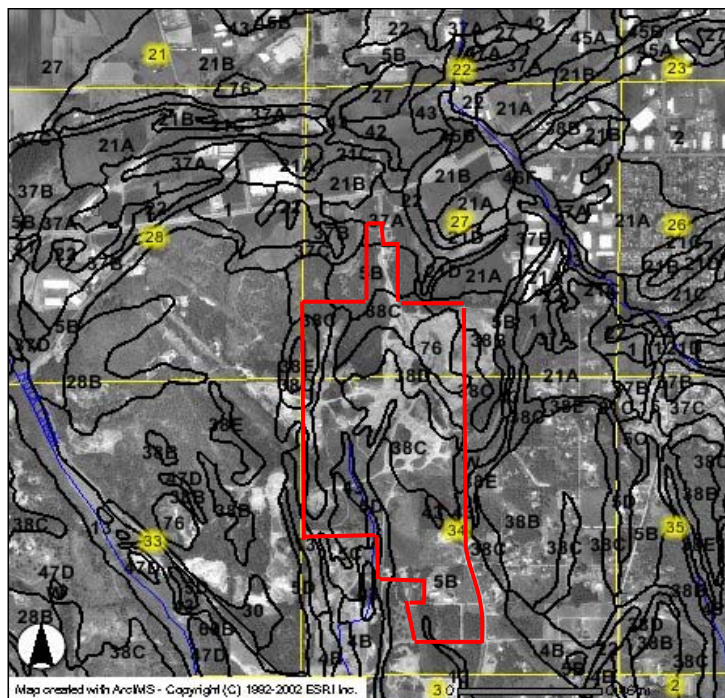
The plant community consists predominantly of scrub-shrub vegetation with remnant patches of forested habitat. Shrub vegetation is dominated by oceanspray (*Holodiscus discolor*) and poison oak (*Rhus diversiloba*). Dominant trees include madrone (*Arbutus menziesii*), Scouler's willow (*Salix scouleriana*), black cottonwood (*Populus balsamifera*), and Douglas-fir (*Pseudotsuga menziesii*). With the exception of a fairly large population of madrone, no unique species or species assemblages were found. Madrone is native to western Oregon, but not particularly common in this portion of the Willamette Valley. Representative species are listed in Table 1. Introduction and dispersal of weeds is prevalent, facilitated by high truck traffic and the electrical transmission rights-of-way (i.e., BPA).

Wildlife activity appears sparse where vegetation is cleared and land use by people is active. Inactive land areas appear suitable for a variety of wildlife species, especially deer, coyote, small mammals, song birds, and reptiles.

The Washington County soil map (Figure 6) indicates that most of the plan area is covered by Saum sil loam (38), Briedwell stony silt loam (5), Hillsboro loam (21), and Pits (76), all non-hydric soils. Wapato silty clay loam (43), a hydric soil, is present along Coffee Lake Creek and west of the old railroad station. Wetland resources tend to occur at hydric soil locations.

Waters and wetlands seem to occur where perched hydrology intersects with ground surfaces. A cursory search for potential waters and wetlands reveals the Kolk Ponds, shallow wetland ponds at the north end, and wetlands associated with Coffee Lake Creek. Field observations indicate that wetland conditions exist at former borrow sites, where unimproved roads have altered surface drainage, at roadside ditches, and at CWS Water Quality Sensitive Areas and Vegetated Corridors. It will be challenging to determine the jurisdictional status of wetlands that occur at active and formerly active quarry operations, potentially isolated wetlands, drainage ditch wetlands, and artificial ponds.

Figure 6
Washington County Soil Map



Development Issues: According to Washington County, the greatest resource value is for mineral and aggregate sources, and historical. Protection of waters and wetlands will constrain many land uses because regulated areas are scattered across the plan area. Initial impression is that threatened and endangered species protections do not appear to impact development. Presence of archeological resources is unknown, but unlikely at present and former borrow areas. Current stormwater and surface water patterns and management are disjunct and imperfect. Kendra Smith/CWS suggested that development should consider

100 percent stormwater infiltration and no surface discharge from the plan area, other than natural flows. Future development has the opportunity to incorporate stormwater management facilities and approaches that maximize interception and evapotranspiration by vegetation, soil infiltration, onsite detention through bioswales, ecoroofs, pervious paving, and other factors.

Infrastructure Needs: Stormwater system (see discussion above).

TABLE 1. REPRESENTATIVE PLANT SPECIES AT THE SOUTHWEST TUALATIN CONCEPT PLAN AREA			
Scientific Name	Common Name	Scientific Name	Common Name
<i>Acer macrophyllum</i>	Big-leaf maple	<i>Polystichum munitum</i>	Sword fern
<i>Agrostis stolonifera</i>	Creeping bentgrass	<i>Populus balsamifera</i>	Black cottonwood
<i>Alnus rubra</i>	Red alder	<i>Prunus</i> sp.	Domestic cherry
<i>Amelanchier alnifolia</i>	Serviceberry	<i>Psuedotsuga menziesii</i>	Douglas-fir
<i>Arbutus menziesii</i>	Pacific madrone	<i>Pteridium aquilinum</i>	Bracken fern
<i>Carex obnupta</i>	Slough sedge	<i>Quercus garryana</i>	Oregon white oak
<i>Chrysanthemum leucanthemum</i>	Oxeye daisy	<i>Rhamnus purshiana</i>	Cascara buckthorn
<i>Cirsium arvense</i>	Canada thistle	<i>Rhus diversiloba</i>	Poison oak
<i>Corylus cornuta</i>	Beaked hazelnut	<i>Rosa gymnocarpa</i>	Baldhip rose
<i>Cytisus scoparius</i>	Scotch broom	<i>Rosa nutkana</i>	Nootka rose
<i>Dipsacus fullonum</i>	Teasel	<i>Rubus discolor</i>	Himalayan blackberry
<i>Epilobium angustifolium</i>	Fireweed	<i>Rubus laciniatus</i>	Evergreen blackberry
<i>Fragaria virginianum</i>	Wild strawberry	<i>Rubus parviflora</i>	Thimbleberry
<i>Fraxinus latifolia</i>	Oregon ash	<i>Rubus spectabilis</i>	Salmonberry
<i>Galium aparine</i>	Bedstraw	<i>Rumex acetosella</i>	Sheep sorrel
<i>Galtheria shallon</i>	Salal	<i>Salix scouleriana</i>	Souler's willow
<i>Geranium molle</i>	Dovefoot geranium	<i>Sambucus racemosa</i>	Red elderberry
<i>Geranium robertianum</i>	Robert's geranium	<i>Spiraea douglasii</i>	Douglas' spirea
<i>Holcus lanatus</i>	Velvet grass	<i>Symphoricarpos albus</i>	Snowberry
<i>Holodiscus discolor</i>	Oceanspray	<i>Trifolium dubium</i>	Small hop-clover
<i>Hypochaeris radicata</i>	Hairy cat's ear	<i>Trifolium repens</i>	White clover
<i>Juncus effusus</i>	Common rush	<i>Trifolium wormskjoldii</i>	Springbank clover
<i>Juncus patens</i>	Spreading rush	<i>Vaccinium</i> sp.	Huckleberry
<i>Lathyrus nevadensis</i>	Purple peavine	<i>Vicia americana</i>	American vetch
<i>Lonicera ciliosa</i>	Western trumpet honeysuckle	<i>Vicia cracca</i>	Bird vetch
<i>Physocarpus capitatus</i>	Pacific ninebark	<i>Vicia sativa</i>	common vetch

APPENDIX A

Southwest Tualatin Concept Plan
Transportation Analysis
(Kittelson & Associates)



KITTELSON & ASSOCIATES, INC.

TRANSPORTATION PLANNING/TRAFFIC ENGINEERING

610 SW ALDER, SUITE 700 • PORTLAND, OR 97205 • (503) 228-5230 • FAX (503) 273-8169

TECHNICAL MEMORANDUM

Southwest Tualatin Concept Plan Existing and Base Future Traffic Analysis

Date: December 9, 2004

Project #: 6689

To: David Simmons, CH2M HILL

From: Paul Ryus, P.E.

cc: Stacy Hopkins, City of Tualatin

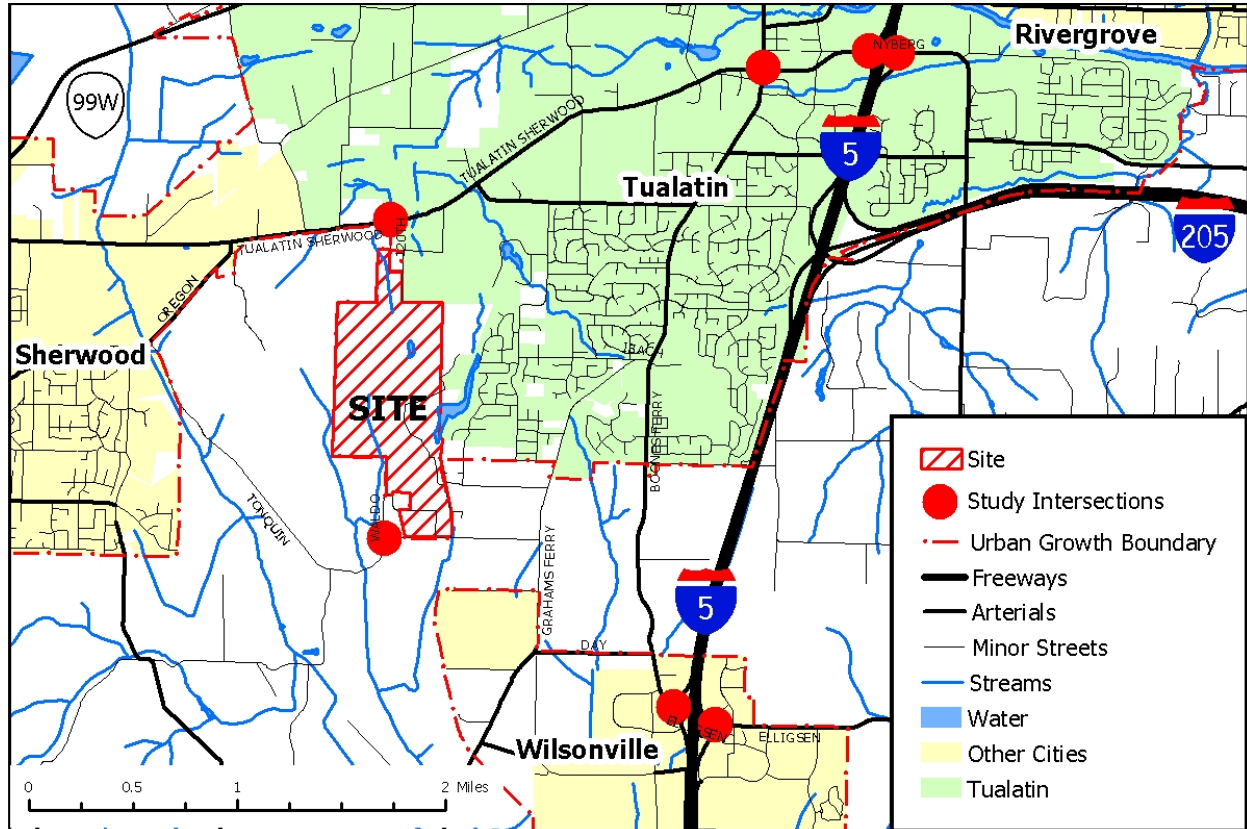
Introduction

In December 2002, Metro added two areas south of SW Tualatin-Sherwood Road and west of the current Tualatin city limits to the Portland regional Urban Growth Boundary (UGB). These areas are now within Tualatin's Planning Area boundary, meaning that they are intended to be annexed into the city in the future. Current land uses in the planning area consist of aggregate mining (the majority of the area) and a small amount of industrial and manufacturing uses at the south end of the area. Through the Southwest Tualatin Concept Plan, the City of Tualatin is identifying land use, transportation, and urban services needs for the Concept Plan area, once mining operations cease and existing industrial uses redevelop. This memorandum evaluates existing traffic operations at seven key intersections that could be impacted by Concept Plan area traffic, as well as year 2025 traffic operations, assuming no change in the current uses. This analysis is a first step toward evaluating the potential traffic impacts of various land use alternatives for the Concept Plan area, which will occur later in the project.

Study Area

The 352-acre Concept Plan area is illustrated in Figure 1. The area is generally located between SW Tualatin-Sherwood Road on the north and SW Tonquin Road on the south, west of the Portland & Western railroad. Access to the site is from SW 120th Avenue on the north, and SW Waldo Way and SW Tonquin Loop on the south.

Figure 1
Site Vicinity



SW Tualatin-Sherwood Road is maintained by Washington County and is designated as an *arterial* and an *existing through-truck route*. East of SW Teton Avenue, it has a 5-lane cross-section. West of SW Teton Avenue, it currently has a three-lane cross-section, but is planned to eventually be widened to a 4- or 5-lane cross-section. The Tualatin Transportation System Plan (TSP) designates it as a *major arterial* and *truck route*. Just west of I-5, SW Tualatin-Sherwood Road joins SW Nyberg Road, which has the same designations the rest of the way to the interchange.

SW Tonquin Road is maintained by Washington County and is designated as an *arterial*. A short section northwest of Morgan Road cuts a corner of Clackamas County, which designates it as a *local road*. The portion of the road within Washington County northwest of Morgan Road is designated as an *existing through-truck route*, while the portion east of Morgan Road is designated as a *proposed through-truck route*. The road has a 2-lane cross-section, which is planned to remain through Washington County's 2020 planning horizon. SW Tonquin Road connects southeast to I-5 via SW Grahams Ferry Road, Day Street, and SW Boones Ferry Road.

SW Grahams Ferry Road is maintained by Washington County, which designates the section providing the connection as an *arterial*. North of SW Tonquin Road and south of Day Street, it is designated as a *collector*. All of the road is designated as an *existing through-truck route*. The road has, and is planned to continue to have, 2 lanes. Wilsonville designates the road as a *major collector*.

Day Street is designated as an *arterial* by Washington County and a *major collector* by Wilsonville. It was recently widened to 3 lanes in conjunction with the development of the Coffee Creek Correctional Facility. Washington County also designates it as an *existing through-truck route*.

The portion of SW Boones Ferry Road between Tualatin's south city limits and I-5 is maintained by the Oregon Department of Transportation (ODOT) as part of Beaverton-Tualatin Highway #141. ODOT designates the road as a *district highway*. Washington County designates all of the road as an *arterial* and *existing through-truck route*. Wilsonville designates the portion within its city limits as a *major arterial*. The City of Tualatin maintains SW Boones Ferry Road within Tualatin; south of SW Tualatin-Sherwood Road, it is designated as a *major arterial* and *truck route*, and to the north as a *minor arterial* and *truck route*. Within Tualatin, and between Tualatin and Wilsonville, the road has a 2-3 lane cross-section. South of Day Street in Wilsonville, the road has a 4-5 lane cross-section. The various city and county plans anticipate the entire roadway eventually being widened to 4-5 lanes south of SW Tualatin-Sherwood Road; north of SW Tualatin-Sherwood Road, the road would have a 2-3 lane cross-section between intersections. East of I-5, SW Boones Ferry Road becomes Elligsen Road.

SW 120th Avenue, SW Waldo Way, and SW Tonquin Loop are all maintained by Washington County as *local roads*. They all have 2-lane cross-sections (not always full-width or striped).

Study Intersections

The following intersections were studied, per the project work scope:

- SW Nyberg Road/I-5 northbound ramps;
- SW Nyberg Road/I-5 southbound ramps;
- SW Tualatin-Sherwood Road/SW Boones Ferry Road;
- SW Tualatin-Sherwood Road/SW 120th Avenue;
- SW Tonquin Road/SW Waldo Way (west intersection);
- SW Boones Ferry Road/I-5 southbound ramps; and
- SW Elligsen Road/I-5 northbound ramps.

Figure 1 shows the locations of these intersections.

Existing Conditions

Traffic counts were conducted on Wednesday, November 17, 2004, between 6:00 and 9:00 a.m., and 3:30 and 6:30 p.m. The count sheets are attached to this memorandum. The I-5/SW Nyberg Road interchange (#289) was being widened at the time of the counts, but all lanes were open to traffic during construction. Results presented below for the ramp terminal intersections reflect the conditions that will exist following the completion of construction.

Traffic operations at the study intersections were analyzed using the procedures given in the *Highway Capacity Manual 2000*. Results are reported both in terms of level of service

(LOS) and volume-to-capacity ratio. Level of service is reported as a letter from A (best) to F (worst), and is based on the delay experienced by motorists. At signalized intersections, LOS is based on the average delay experienced by all motorists using the intersection, while at unsignalized intersections, it is based on the average delay experienced by the worst, or *critical*, movement. Volume-to-capacity (v/c) ratio represents the percentage of an intersection’s capacity being used.¹ Table 1 presents existing traffic operations at the study intersections. The analysis worksheets are attached to this memorandum.

Table 1
Existing Conditions Traffic Operations

Location	A.M. Peak Hour		P.M. Peak Hour	
	LOS	v/c	LOS	v/c
SW Nyberg Road/I-5 Northbound Ramps	C	0.91	C	0.69
SW Nyberg Road/I-5 Southbound Ramps	C	0.69	C	0.76
SW Tualatin-Sherwood Road/SW Boones Ferry Road	D	0.78	D	0.85
SW Tualatin-Sherwood Road/SW 120 th Avenue	D	0.22	D	0.16
SW Tonquin Road/SW Waldo Way (west)	C	0.07	B	0.06
SW Boones Ferry Road/I-5 Southbound Ramps	C	0.93	B	0.64
SW Elligsen Road/I-5 Northbound Ramps	B	0.53	B	0.43

LOS: level of service, v/c: volume-to-capacity ratio

As a follow-up to the site visit, sight distance measurements were made at the west intersection of SW Tonquin Road/SW Waldo Way. This intersection is located on a curve, with westbound SW Tonquin Road passing through a cut on its approach to the intersection. Based on the posted speed of 45 mph on SW Tonquin Road, the desired sight distance is 450 feet. Motorists on the SW Waldo Way approach who stop at the stop bar have 430 feet of sight distance to the left, slightly less than the standard. Many vehicles were observed stopping farther back, in order to improve drivers’ views of the road to the left. Vehicles making a left turn from SW Tonquin Road to SW Waldo Way have only 230 feet of sight distance available, much less than the standard. Sight distance improvements at this intersection should be considered as part of the Concept Plan process.

Year 2025 Traffic Volume Forecasts

The year 2025 was selected as the horizon year for this analysis, as the most recent Metro model will be used later in the project to test the transportation impacts of different land use scenarios. For the purposes of developing weekday p.m. peak hour “base future” volumes (year 2025 traffic assuming no change in land use in the Concept Plan area), several sources were used:

- For intersections within the City of Tualatin, year 2020 traffic volume forecasts were taken from the modeling work done for the Tualatin TSP’s “New Scenario #1” (Appendix G of the TSP), which most closely corresponds to the projects included in the final adopted TSP. In particular, this scenario includes a northern expressway alignment for the I 5/Highway 99W Connector running between I-5 and Tualatin-Sherwood Road, and an extension of Hall Boulevard over the Tualatin River.

¹ For future conditions analysis, the v/c ratio is technically a demand-to-capacity ratio, reflecting the number of vehicles that would like to use the intersection during a given hour. By definition, volume cannot exceed capacity. Demand in excess of capacity would appear as queues of cars unable to get through a traffic signal in a single cycle, assuming that no other bottlenecks existed upstream that would meter the flow of traffic to the downstream signal.

Weekday p.m. peak hour turning movement volumes were estimated using the process described in *NCHRP Report 255*,² which compensates for conditions where modeled volumes do not match existing volumes. Finally, the turning movement volumes were adjusted to 2025 conditions based on average 20-year growth rates.

- For the SW Tonquin Road/SW Waldo Way intersection, SW Waldo Way volumes were kept at current levels (reflecting no change in land use), while SW Tonquin Road volumes were increased by 41%, reflecting the average forecast change in minor arterial volume given in Washington County's TSP.³
- For the North Wilsonville interchange, year 2020 volumes were taken from work performed during the development of Wilsonville's TSP⁴ and were then adjusted to 2025 conditions based on average 20-year growth rates.

During the alternatives analysis, these forecasts will be rechecked, once data from the 2025 model are available. However, as there were no "borderline" results in the future-year analysis, no significant change in the results is anticipated.

Because the Metro model does not forecast weekday a.m. peak hour volumes, a different methodology was used to estimate these volumes. An average annual growth rate was determined for each intersection based on the growth forecast for the weekday p.m. peak hour. Twenty years of this growth was then added onto the existing weekday a.m. peak hour traffic volumes to arrive at the 2025 forecasted weekday a.m. peak hour volumes.

Planned Projects

The following intersection-specific projects were assumed in the base future analysis:

- SW Tualatin-Sherwood Road/SW Boones Ferry Road: second westbound left-turn lane (Tualatin TSP)
- SW Boones Ferry Road/I-5 Southbound Ramps: restripe southbound center lane to allow all movements (Wilsonville TSP)
- SW Tualatin-Sherwood Road/SW 120th Avenue: five-lane cross-section on SW Tualatin-Sherwood Road (Tualatin TSP)

Two other projects included in the Tualatin TSP, the I-5/Highway 99W Connector (north alignment) and the SW Hall Boulevard extension over the Tualatin River, result in shifts in traffic patterns compared to current conditions. The effects are most noticeable at the I-5 Tualatin (#289) interchange and on SW Tualatin-Sherwood Road at SW 120th Avenue, where future volumes are not that much greater than current volumes (and for some movements, are lower). The north alignment of the I-5/Highway 99W Connector runs through the Concept Plan area, joining SW Tualatin-Sherwood Road at the location of the future extension of SW 124th Avenue.

² JHK & Associates, "Highway Traffic Data for Urbanized Area Project Planning and Design," *NCHRP Report 255*, Transportation Research Board, National Research Council, Washington, DC (1982).

³ DKS Associates, Inc., "Technical Appendix B-1," *Washington County 2020 Transportation Plan*.

⁴ Entranco, Inc., *City of Wilsonville Transportation Systems Plan*, January 2003 Public Draft.

Base Future Conditions

Table 2 presents base future traffic operations at the study intersections. The analysis worksheets are attached to this memorandum.

Table 2
Base Future Conditions Traffic Operations

Location	A.M. Peak Hour		P.M. Peak Hour	
	LOS	v/c	LOS	v/c
SW Nyberg Road/I-5 Northbound Ramps	E	1.17	C	0.75
SW Nyberg Road/I-5 Southbound Ramps	C	0.77	C	0.84
SW Tualatin-Sherwood Road/SW Boones Ferry Road	F	1.08	F	1.32
SW Tualatin-Sherwood Road/SW 120 th Avenue	C	0.16	C	0.14
SW Tonquin Road/SW Waldo Way (west)	C	0.12	C	0.12
SW Boones Ferry Road/I-5 Southbound Ramps	C	0.89	B	0.73
SW Elligsen Road/I-5 Northbound Ramps	B	0.71	B	0.54

LOS: level of service, v/c: volume-to-capacity ratio

The Metro model shows SW Nyberg Road/I-5 Northbound Ramps intersection being impacted in the morning (and, to a lesser extent, in the evening) by traffic using SW Borland Road to avoid congestion on I-205. If this traffic were to materialize, providing a free-flow right-turn lane from westbound SW Nyberg Road to northbound I-5 (similar to the one at the SW Elligsen Road/I-5 Northbound Ramps intersection) would address the traffic operations problem, resulting in LOS C operations and a v/c ratio of 0.62.

The SW Tualatin-Sherwood Road/SW Boones Ferry Road intersection is constrained by the railroad tracks to the west, development elsewhere, and a general desire to not cut off the Tualatin Commons area from the remainder of downtown Tualatin by continuing to widen roads. Prohibiting left turns from SW Boones Ferry Road to SW Tualatin-Sherwood Road, and providing two through lanes in each direction, could provide LOS D and under-capacity operations; however, the effects of the diverted traffic on other streets would need to be assessed (for example, as part of the upcoming Tualatin Town Center study).

APPENDIX B

Southwest Tualatin Concept Plan
Policy Review
(Otak)

Memorandum

Date: March 1 2005
To: Dave Simmons, CH2M-Hill
cc: File 12621
From: Todd Chase and Charlotte Larson, Otak, Inc.
Subject: Southwest Tualatin Concept Plan, Policy Review
(revised)

Introduction

The Southwest Tualatin Concept Plan is being conducted to help meet the industrial jobs land demand in the City of Tualatin and the greater Portland metropolitan region for the next 20 years. The plan will include a site analysis and a plan for the land use pattern, transportation system connections and the provision of urban facilities (water, sanitary sewer system, storm sewer system). The plan will also result in an amendment to the Tualatin Development Code (TDC) and an addendum to the Tualatin Transportation Plan as seen in Chapter 11 of the TDC. Ultimately, the project area will be annexed into the City with the City providing urban services.

Metro added the Southwest Tualatin study area to the Metro UGB in December 2002. According to Metro Ordinance 02-969B, there are two main portions within the study area: the 290-acre area known as the Tigard Sand and Gravel site; and the 62-acre area called the Tonquin Industrial Group site.

This memorandum provides a summary of the existing local and regional land use and economic development policy documents, which pertain to the Concept Plan area, including:

- Tualatin Development Code (amended)
- Tualatin Economic Development Action Plan (June 2001)
- Metro Urban Growth Management Functional Plan (effective 9/24/03)
- Washington County Community Development Code (amended)
- Washington County Comprehensive Framework (2003)

Tualatin Development Code (amended)

This overall guiding policy document for the City of Tualatin establishes general comprehensive plan policies for land use, transportation, public facilities, housing, economic development, citizen involvement and related items. Relevant portions of the plans are described below.

Chapter 4 of the Tualatin Development Code deals with Community Growth. Key policies include:

- *Section 4.050 (1 and 2)* General Growth Objectives indicates that the Community Plan “will accommodate a population range of 22,000 to 29,000 people” and that the

city shall “cooperate with Metro to reach regional consensus on population growth within the Tualatin area”.

- *Section 4.050 (6)* states that the city shall “arrange the various land uses so as to minimize land use conflicts and maximize the use of public facilities as growth occurs.”
- *Section 4.050 (9)* indicates that the city shall “prepare a balanced plan providing a variety of living and working environments.”
- *Section 4.050 (10)* states that the city shall “encourage the highest quality physical design for future development.”
- *Section 4.050 (18)* states that the city shall “fully develop the industrial area located in Washington County west of the city only when adequate transportation facilities are available and the area has been annexed to the City and served with water and sewer services”.
- *Section 4.050 (19)* states that the city shall “cooperate with Washington County to study methods available for providing transportation, water and sewer service to the industrial area west of the City, designating this area as a special study area”.

Chapter 7 Manufacturing Planning Districts focuses on industrial land uses. Key policies include:

- *Section 7.020 (1)* “Encourage new industrial development.”
- *Section 7.020 (2)* “Provide increased local employment opportunity, moving from 12 percent local employment to 25 percent, while at the same time making the City, and in particular the Western Industrial District, a major regional employment center.”
- *Section 7.020 (3)* “Improve the financial capability of the City, through an increase in the tax base and the use of creative financing tools.”
- *Section 7.020 (4)* “Preserve, with minor exceptions, the City's existing industrial land.”
- *Section 7.020 (5)* “Cooperate with Washington County, METRO, and the State of Oregon to study the methods available for providing transportation, water, and sewer services to the Western Industrial District”.
- *Section 7.020 (6)* “Fully develop the Western Industrial District, providing full transportation, sewer, and water services prior to or as development occurs.”
- *Section 7.020 (7)* “Improve traffic access to the Western Industrial District from the Interstate 5 freeway through a new interchange at Norwood Road or a suitable and adequate alternative”.
- *Section 7.020 (8)* “Cooperate with the Department of Environmental Quality and METRO to meet applicable air quality standards by 1987. “
- *Section 7.020 (9)* “Construct a north/south major arterial street between Tualatin Road and Tualatin-Sherwood Road in the 124th Avenue alignment to serve the industrial area.”
- *Section 7.020 (10)* “Rebuild the Tualatin Road/Pacific Highway intersection to allow for substantially greater traffic flows.”
- *Section 7.020 (11)* “Provide truck routes for industrial traffic that provide for efficient movement of goods while protecting the quality of residential areas.”
- *Section 7.020 (12)* “Protect residential, commercial, and sensitive industrial uses from the adverse environmental impacts of industrial use.”

- *Section 7.020 (13)* Protect adjacent land uses from noise impacts by adopting industrial noise standards.
- *Section 7.020 (14)* “Continue to protect the Hedges Creek Wetland and Tonquin Scablands from adverse impacts of adjacent development”.
- *Section 7.020 (15)* “Continue to administer specific and enforceable architectural and landscape design standards for industrial development.”
- *Section 7.020 (16)* Encourage industrial firms to use cogeneration as a means to utilize waste heat from industrial processes and consider solar access when designing industrial facilities
- *Section 7.020 (17)* “Protect wooded areas identified on the Natural Features Map found in the Technical Memorandum by requiring their preservation in a natural state or by integrating the major trees into the design of the parking lots, buildings, or more formal landscaping areas of an industrial development. If it is necessary to remove a portion or all of the trees, the replacement landscape features shall be subject to approval through the Architectural Review”

Section 15 Parks and Recreation is a very important policy element within the Development Code. Key sections that may apply to the Concept Plan area include:

- *Section 15.020 (2)* “Provide a high-quality park and recreation system to offset the environmental impact of large areas of commercial and industrial development.”
- *Section 15.020 (3)* “Create a park and recreation system that provides diverse recreation opportunity.”
- *Section 15.020 (6)* “Preserve as greenways, specific City creeks and drainage swales to provide sufficient area for stormwater runoff, enhance water quality, preserve fish and wildlife habitat and provide, where appropriate, public pedestrian and bicycle access.
- *Section 15.020 (7)* “Preserve greenways, as much as possible, in their natural state.”
- *Section 15.020 (8)* “Preserve designated historic resources through public purchase or encouragement of compatible private reuse.”
- *Section 15.020 (9)* “Link the park and recreation system with a system of greenways and bicycle/pedestrian facilities.”
- *Section 15.020 (10)* “Develop design standards for development adjacent to greenways and natural areas.”
- *Section 15.020 (12)* “Encourage developers to utilize residential density transfers, landscaping credits, system development charge credits, reduction of minimum setback requirements, and other incentives for greenway, bikeway and pedestrian path purposes.”

Tualatin Economic Development Action Plan (June 2001)

As stated in the Economic Development Action Plan, the overall goal of the plan is “To become one of the premier economic activity centers of the metropolitan area, achieving commercial and industrial growth within the framework of high environmental standards and excellence in urban design”.

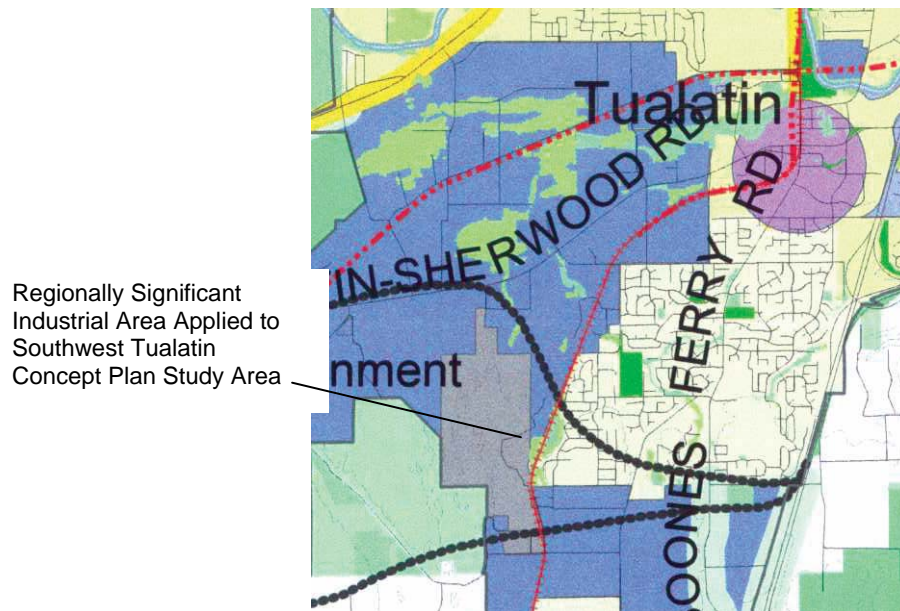
The Economic Development Action Plan Objectives include:

- Objective 3. Continue working with State, County and Regional agencies to guarantee that the I-5/99W Connector becomes a reality.
- Objective 8. Be prepared to address urbanization of areas adjacent to the City of Tualatin (i.e. Study Areas 12B [Stafford Basin], 14A [south of Tualatin] and 14G [southwest Tualatin]. Strategy A: Continue to participate in discussions at the regional and local levels on the viability of urbanization of land to the east, south and southwest of the City and the impacts urbanization would have on the existing community.

The Metro Urban Growth Management Functional Plan (effective 9/24/03)

This regional land use policy document identifies design types and density levels for local governments within Metro’s jurisdiction and seeks to improve the region’s economy by providing and protecting a supply of sites for employment. As shown in Figure 1, the design type applied to the Southwest Tualatin Concept Plan is Regionally Significant Industrial Area (RSIA). Surrounding the study area, are Industrial Areas to the north and south, Resource Land to the southwest and Outer Neighborhood to the east.

Figure 1
Metro 2040 Growth Concept



Regionally Significant Industrial Areas (RSIAs) are those areas near the region’s most significant transportation facilities for the movement of freight and other areas most suitable for movement and storage of goods. Each city and county with land use planning authority over RSIAs shown on the Employment and Industrial Areas Map shall derive specific plan designation and zoning district boundaries of RSIAs within its jurisdiction from the Map, taking into account the location of existing uses that would not conform to the limitations on non-industrial uses in this section and the need to achieve a mix of employment uses.

According to section 3.07.170, the average density levels for employment design types are recommended to consist of 20 persons per acre in Employment Areas, 9 employees per acre in Industrial Areas and 9 employees per acre in RSIA.

According to Section 3.07.420 (revised by Metro per Exhibit B to Ordinance No. 04-140B), *“Regionally Significant Industrial Areas are areas that are intended to offer the best opportunities for family-wage industrial jobs near the region’s most significant transportation facilities for the movement of freight and other areas most suitable for movement and storage of goods.”*

According to Section 3.07.420 (B), in Regionally Significant Industrial Areas, “cities and counties shall review their land use regulations and revise them, if necessary to include measures to limit the size and location of new buildings for retail commercial uses, such as stores and restaurants and retail and professional services that cater to daily customers – such as financial, insurance, real estate, legal, medical and dental offices – to ensure that they serve primarily the needs of workers in the area. One such measure shall be that new buildings for stores, branches, agencies or other outlets for these retail uses and services shall not occupy more than 3,000 square feet of sales or service area in a single outlet, or multiple outlets that occupy more than 20,000 square feet of sales or service area in a single building or in multiple buildings that are part of the same development project, with the following exceptions:

- Within the boundaries of a public use airport...
- Training facilities, whose primary purpose is to provide training to meet industrial need.”

“After determining the boundaries of RSIA’s pursuant to subsections A and B, cities and counties shall adopt implementing ordinances that limit the development in the areas to industrial uses, uses accessory to industrial uses, offices for industrial research and development and large corporate headquarters in compliance with Section E, utilities, and those non-industrial uses necessary to serve the needs of businesses and employees of the areas. Cities and counties shall include measures to limit the siting and location of new buildings for the uses described in subsection B and for non-industrial uses that do not cater to daily customers—such as bank or insurance processing centers—to ensure that such uses do not reduce off-peak performance on Main Roadway Routes and Roadway connectors shown on Metro’s Freight Network Map, November 2003, below standards set in the 2004 Regional Transportation Plan or require added road capacity to prevent falling below the standards.” [Section 3.07.420 (C)].

“Within an RSIA, a city or county shall not approve:

1. A commercial retail use with more than 20,000 square feet of retail sales area in a single building or in multiple buildings that are part of the same development project; or
2. Commercial retail uses that would occupy more than 5% of the net developable portion of all contiguous RSIA’s. No city or county shall amend its land use regulations that apply to lands shown as RSIA on the Employment and Industrial Areas Map to authorize uses described in subsection B that were not authorized prior to July 1, 2004.” [Section 3.07.420 (D)].

“As provided in subsection C of this section, as city or county may approve an office or industrial research and development or a large corporate headquarters if:

1. The office is served by public or private transit;
2. If the office is for a corporate headquarters, it will accommodate for the initial occupant at least 1,000 employees.” [Section 3.07.420 (E)].

“Cities and counties may allow division of lots or parcels into smaller lots or parcels as follows:

1. Lots or parcels smaller than 50 acres may be divided into any number of smaller lots or parcels;
2. Lots or parcels larger than 50 acres may be divided into smaller lots and parcels pursuant to a master plan approved by the city or county so long as the resulting division yields at least one lot or parcel of at least 50 acres in size;
3. Lots or parcels 50 acres or larger, including those created pursuant to paragraph (2) of this subsection, may be divided into any number of smaller lots or parcels pursuant to a master plan approved by the city or county so long as at least 40% of the area of the lot or parcel has been developed with industrial uses or uses accessory to industrial use, and no portion has been developed, or is proposed to be developed, with uses described in subsection B.
4. Notwithstanding paragraph 2 and 3 of this subsection, any lot or parcel may be divided into smaller lots or parcels or made subject to rights-of-way for the following purposes:
 - a. To provide public facilities and services;
 - b. To separate a portion of a lot or parcel in order to protect a natural resource, to provide a public amenity, or to implement a remediation plan for a site identified by the Oregon Department of Environmental Quality pursuant to ORS 465.225;
 - c. To separate a portion of a lot or parcel containing a nonconforming use from the remainder of the lot or parcel in order to render the remainder more practical for a permitted use; or
 - d. To allow the creation of a lot for financing purposes when the created lot is part of a master planned development. [Section 3.07.420 (D)].

“A city or county may allow the lawful use of any building, structure, or land existing at the time of adoption of this ordinance to implement this section to continue and to expand to add up to 20% more floor area and 10% more land area.” [Section 3.07.420 (E)].

The City of Tualatin, as part of compliance with Section 3.07.1120 of the Urban Growth Management Functional Plan, shall derive comprehensive land use plan designation and zoning district designations/boundaries to ensure that development in Regionally Significant Industrial Areas is consistent with the Functional Plan.

Washington Community Development Code (amended)

The Southwest Tualatin Concept Plan study area is currently regulated by the Washington County Community Development Code. The purpose of the Code is “to implement the Washington County Comprehensive Plan through the adoption and

coordination of planning and development regulations which provide for the health, safety and general welfare of the citizens of Washington County”.

The study area is designated Future Development-20 (FD-20) which applies to the unincorporated urban lands added to the urban growth boundary by Metro through a Major or Legislative Amendment process after 1998. The FD-20 District recognizes the desirability of encouraging and retaining limited interim uses until the urban comprehensive planning for future urban development of these areas is complete. The provisions of this District are also intended to implement the requirements of Metro’s Urban Growth Management Functional Plan.

Washington County Comprehensive Framework Plan (2003)

The Washington County Comprehensive Framework Plan provides the basis for the future growth and development of the County. Policy 20, Urban Area Economy, presents strategies for Washington County “to encourage and participate in activities which strengthen the local economy”. Among the strategies stated under Policy 20, are the following:

- “Help create a healthy climate for economic development by designating an adequate amount of serviced commercial and industrial land to ensure choice in the regional market place. The supply will be subject to periodic review to ensure that the economy is not harmed due to the fact that there is not enough land or that the size and location of remaining land does not meet market needs.”

Next Steps

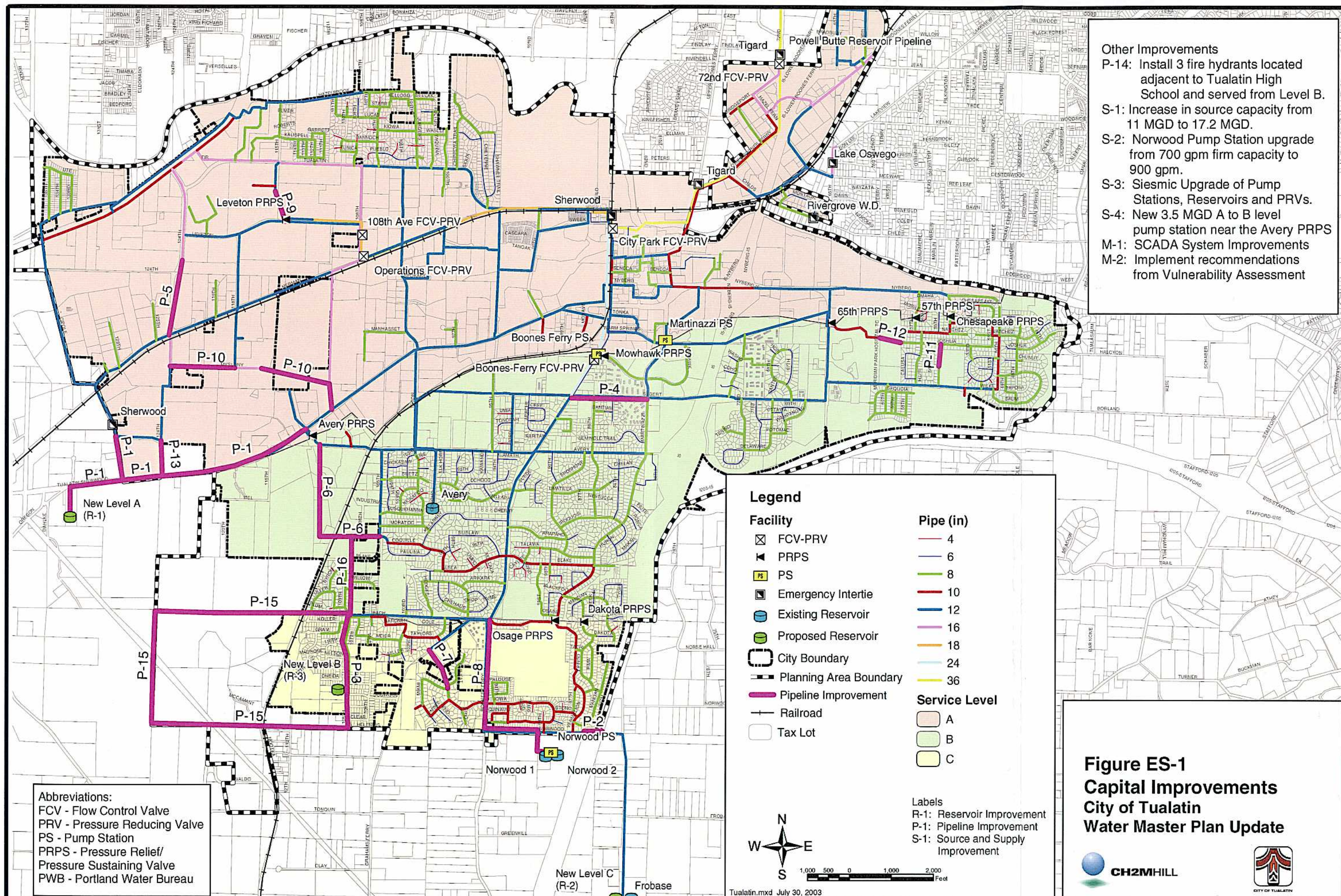
Otak will work closely with the project team to prepare draft land use and transportation alternatives for the study area. The alternatives will then be subjected to subjective and objective evaluation criteria and a refined preferred hybrid plan shall be identified for implementation.

APPENDIX C

*Southwest Tualatin Concept Plan
Water and Sewer Master Plan Documents*

TABLE ES-1
 Water System Capital Improvement Plan to Serve Buildout Demand Projections
 City of Tualatin Water Master Plan

Category	Project No.	Project Description	Project Purpose	Projected Year Needed	Construction Cost	Engineering, Administration, Legal, Contingencies 35%	Total Project Cost
Storage	R-1	Construct new Service Level A (A-2) 10-MG reservoir.	Existing storage deficit, peaking storage	2003	\$3,000,000	\$1,050,000	\$4,050,000
	R-2	Construct new Service Level C (C-2) 1-MG reservoir.	Storage for future growth	2005	\$445,000	\$156,000	\$601,000
	R-3	Construct new Service Level B (B-2) 1.9-MG reservoir.	Storage for future growth	2010	\$880,000	\$308,000	\$1,188,000
						Storage Subtotal	\$5,839,000
Source and Pumping	S-1	Increase MDD source capacity from 10.8 mgd to buildout MDD of 17.2 mgd. Aquifer storage and recovery is the assumed water source.	Capacity for future growth	2005			\$13,300,000
	S-2	Norwood Pump Station upgrade from 700 gpm firm capacity to 1,000 gpm firm capacity. Replacement of two pumps.	Capacity for future growth	2005	\$300,000	\$105,000	\$405,000
	S-3	Seismic upgrade of pump stations, reservoirs and PRVs.	System protection	2003	\$1,200,000	\$420,000	\$1,620,000
	S-4	Construct a 3.5-mgd pump station near the Avery PR/PS.	Redundant supply to Service Level B	2006	\$2,200,000	\$770,000	\$2,970,000
						Source and Pumping Subtotal	\$18,295,000
Transmission/Distribution System	P-1	2,000 feet of 18-inch-diameter pipe from the new Level A reservoir to the intersection of SW Cipole Road and SW Tualatin-Sherwood Road. 1,100 feet of 12-inch-diameter pipe from the intersection of SW Cipole Road and SW Tualatin-Sherwood Road. 4,600 feet of 16-inch-diameter pipe from the intersection of SW Cipole Road and SW Tualatin-Sherwood Road east along SW Tualatin-Sherwood Road to the existing 12-inch-diameter pipe north of the Avery PRV.	Service Level A storage, future fire flows, and PHD	2003	\$2,444,000	\$855,000	\$3,299,000
	P-2	700 feet of 12-inch-diameter pipe at I-5 crossing on Norwood Road. Assume boring under freeway.	Service Level C fire flow and future growth and connection to Frobase	2005	\$378,000	\$132,000	\$510,000
	P-3	2,200 feet of 16-inch-diameter pipe on SW 108th Avenue from new Service Level B reservoir to existing the 12-inch-diameter main on SW Ibach Street.	Service Level B storage, future fire flows, and PHD	2010	\$528,000	\$185,000	\$713,000
	P-4	1,900 feet of parallel 12-inch-diameter pipe on SW Sagert Street from SW Boones Ferry Road to SW Martinazzi Avenue.	Service Level B future fire flow and growth	2005	\$342,000	\$120,000	\$462,000
	P-5	1,900 feet of 16-inch-diameter pipe on SW 124th Avenue from SW Herman Road north to existing 16-inch-diameter pipe on SW 124th Avenue.	Service Level A future fire flow and growth	2003	\$456,000	\$160,000	\$616,000
	P-6	3,600 feet of 12-inch-diameter pipe grid west of SW 105th Avenue and south of SW Avery Street for future development.	Service Level B future growth	2005	\$432,000	\$151,000	\$583,000
	P-7	1,200 feet of 12-inch-diameter pipe along SW Iowa Drive from SW Lumbee Lane to SW Grahams Ferry Road for future development and redundancy.	Service Level C future growth	2008	\$216,000	\$76,000	\$292,000
	P-8	Parallel 4,500 feet of existing 12-inch-diameter pipe leading to the Norwood tanks in Service Level B with 12-inch-diameter piping or replace with a 16-inch-diameter pipe.	Future growth and reservoir refill of Norwood tanks	2005	\$1,080,000	\$378,000	\$1,458,000
	P-9	700 feet of 12-inch-diameter pipe along easement between SW Leveon Street and SW 115th Avenue to complete connection.	Service Level A future growth	2010	\$126,000	\$44,000	\$170,000



Other Improvements

- P-14: Install 3 fire hydrants located adjacent to Tualatin High School and served from Level B.
- S-1: Increase in source capacity from 11 MGD to 17.2 MGD.
- S-2: Norwood Pump Station upgrade from 700 gpm firm capacity to 900 gpm.
- S-3: Siesmic Upgrade of Pump Stations, Reservoirs and PRVs.
- S-4: New 3.5 MGD A to B level pump station near the Avery PRPS
- M-1: SCADA System Improvements
- M-2: Implement recommendations from Vulnerability Assessment

Legend

Facility	Pipe (in)
☒ FCV-PRV	— 4
▲ PRPS	— 6
PS	— 8
Emergency Intertie	— 10
Existing Reservoir	— 12
Proposed Reservoir	— 16
City Boundary	— 18
Planning Area Boundary	— 24
Pipeline Improvement	— 36
Railroad	
Tax Lot	

Service Level
A
B
C

Labels

- R-1: Reservoir Improvement
- P-1: Pipeline Improvement
- S-1: Source and Supply Improvement

W N E
S 1,000 0 1,000 2,000 Feet

Tualatin.mxd July 30, 2003

Abbreviations:
 FCV - Flow Control Valve
 PRV - Pressure Reducing Valve
 PS - Pump Station
 PRPS - Pressure Relief/
 Pressure Sustaining Valve
 PWB - Portland Water Bureau

**Figure ES-1
 Capital Improvements
 City of Tualatin
 Water Master Plan Update**




Recommended Improvements and Financial Planning

5.1 Recommended Improvements

The recommended improvements are listed in Table 5-1 with proposed construction years and order-of-magnitude cost estimates. The estimates are for costs to the City of Tualatin only. Total project costs, which are shared by Clean Water Services (CWS) for some projects, are shown in Table 4-2 in Section 4—Development and Evaluation of Sewer System Improvement Alternatives. For project locations, refer to Figure 4-1; for detailed maps of the projects, see Figures 4-2 through 4-11.

TABLE 5-1
City of Tualatin Sewer System Capital Improvement Project Cost Estimates
(includes costs to City of Tualatin; does not include CWS cost share)

Qualifies for Improvement ^a	Proposed Construction Year ^b	Summary Description of Projects ^c	Total Cost
2002	2003	Bluff/Cipole Trunk Line: Increase existing 18–24" line to 36–42" line	\$153,000
	2003	Boones Ferry Road Line: Increase existing 8–12" line to 12–15" line ^d	\$330,000
	2004	65 th Avenue Lateral Line: Increase existing 8" line to 18" line	\$31,000
	2005	Lower Tualatin Interceptor: Increase existing 30" line to 48" line	NA ^e
	2004	Nyberg Trunk Line: Increase existing 18" line to 24–30" line	\$1,624,000
2005	2003	Boones Ferry Road Lateral: Increase of existing 8" line to 10" line	\$42,000
	2005	SW Killarney Lane Septic System Replacement: Replace existing septic systems with new sanitary collection system and service laterals ^f	\$450,000
2010	2008	Bluff/Cipole Lateral: Increase of existing 12–21" line to 18–36" line	\$391,000
	2010	Extension of Tualatin-Sherwood Trunk Line to URAs, 24" new line ^g	\$1,406,000
	2006	Tualatin River Crossing Siphon	NA ^e
	2009	SW 103 rd Avenue: Increase existing 8" line to 10–12" line	\$45,000
Total			\$4,472,000

^aQualifies for improvement for the modeling scenarios developed for the 2002, 2005, and 2010 planning years. Based on hydraulic modeling for the 5-year 24-hour storm and CWS HGL criteria. Year 2002 represents existing population and land use conditions.

^bProposed construction years were developed based on the HGL priority ranking of the project and other factors such as logistics, magnitude of the project, and coordination with other projects. These are estimates only to use for financial planning.

^cProjects are listed in order of highest to lowest priority ranking.

^dApproximately 80 percent of flow during design event in portion of line requiring improvements originates in City of Durham.

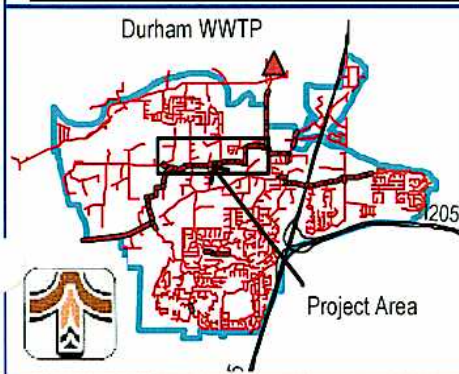
^eCWS is responsible for this project, although City may elect to accelerate schedule and split cost.

^fNot related to HGL criteria analysis.

^gNeeded to serve projected growth in Urban Reserve Areas (URAs).



G_ID	EXSTG DIAM	LENGTH	SLOPE	DESIGN FLOW (2010)	DESIGN DIAM	CWS MP BLDOUT FLOW	CWS MP BLDOUT DIAM
113	24	469.862	0.00078	17	42	11	30
224	21	307.794	0.00295	18	42	11	24
225	24	114.969	0.00104	18	42	11	24
226	24	356.964	0.001	18	42	11	27
227	24	502.473	0.00081	18	42	11	30
228	24	329.102	0.00085	18	42	11	30
240	21	325.284	0.00368	17	36	10	21
243	21	212.51	0.00117	17	36	10	27
244	21	158.561	0.00126	17	36	10	27
245	21	361.924	0.00121	16	36	10	27
246	21	349.1	0.00117	17	36	10	27
247	21	355.209	0.00157	17	36	10	27
248	21	78.6444	0.00216	15	36	8	24
249	21	376.853	0.00124	15	36	8	24
274	18	100.162	0.00109	4	36	4	32
275	18	86.7603	0.00115	4	36	4	18
276	18	266.459	0.0012	4	36	4	21
277	18	149.897	0.0012	4	36	5	21
278	21	215.419	0.00097	15	36	8	27
279	21	270.007	0.00096	15	36	8	27
280	21	412.29	0.00099	15	36	8	27
281	21	59.1381	0.0049	15	36	8	21
356	24	409.658	0.0008	17	42	11	30
357	24	449.169	0.0008	17	42	11	30
358	24	452.485	0.00081	17	42	11	30
359	24	317.353	0.00081	17	42	11	30
418	24	455.476	0.00079	17	42	11	30
1,552	21	131.643	0.00113	17	36	10	27



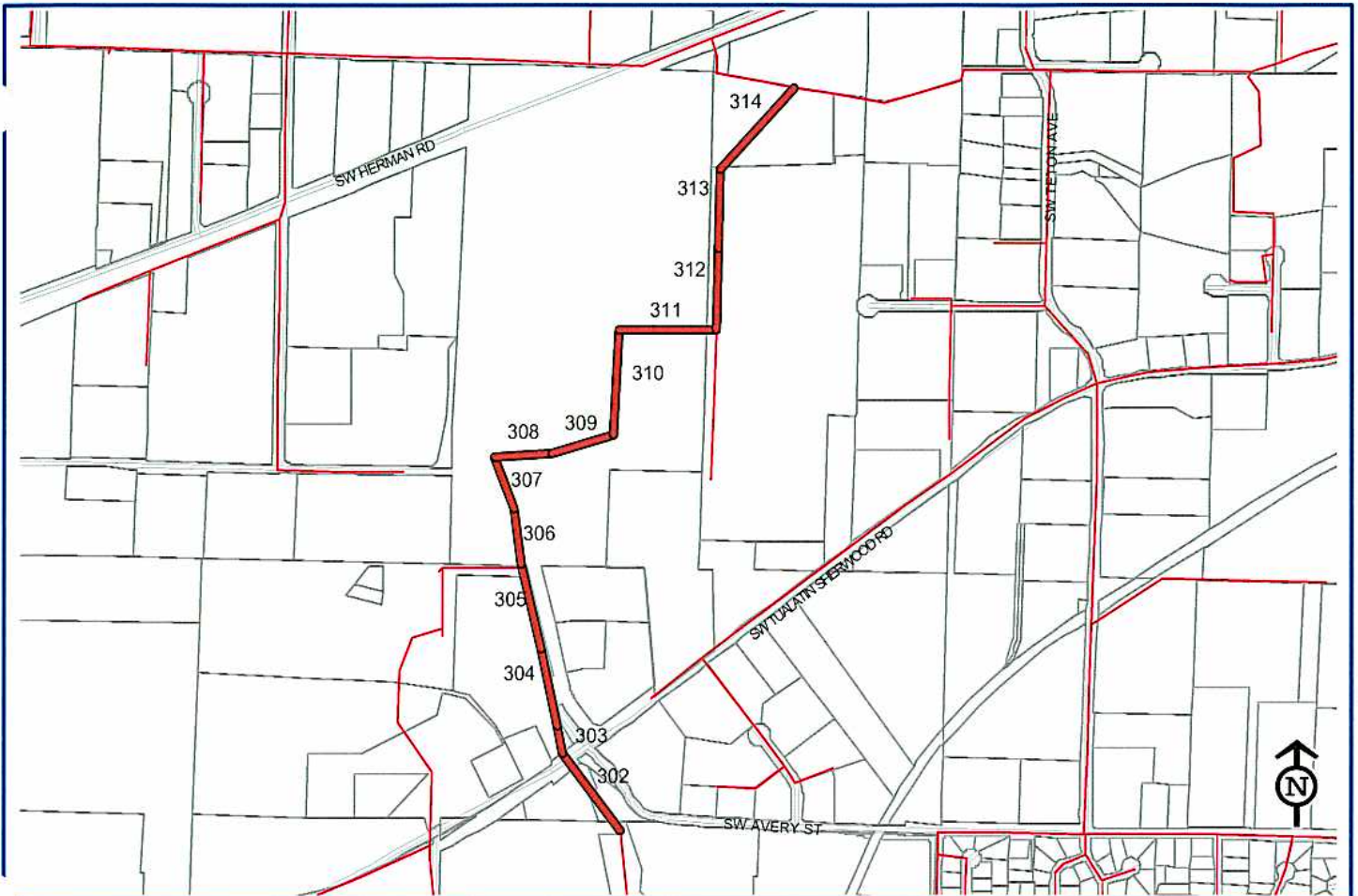
Legend

- Existing Pipe, No Work
- Existing Pipe w/ G_ID, Improvements Recommended
- Planning Area

FIGURE F-1

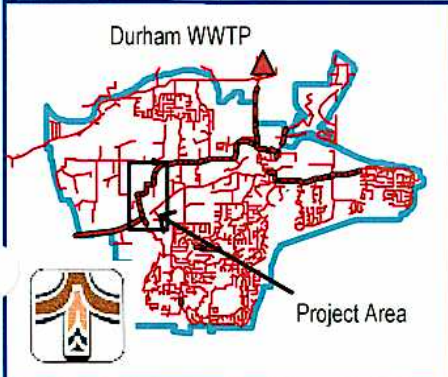
**BLUFF/CIPOLE TRUNK
Recommended Capital Improvements**





G_ID	EXSTG DIAM	LENGTH	SLOPE	DESIGN FLOW (2010)	DESIGN DIAM	CWS MP BLDOUT FLOW	CWS MP BLDOUT DIAM
302	15	500	0.00749	7.6	18	3.1	15
303	12	154	0.0173	10.2	18	3.1	12
304	12	415	0.01742	12.5	18	3.1	12
305	12	448	0.0174	12.8	18	3.1	12
306	21	292	0.00099	12.8	36	3.1	21
307	21	287	0.001	12.8	36	3.1	21
308	21	316	0.00101	12.8	36	3.1	21
309	21	336	0.00101	12.8	36	3.1	21
310	21	546	0.001	12.8	36	3.1	21
311	21	514	0.00087	12.9	36	3.4	21
312	21	421	0.0013	12.9	36	3.5	16
313	21	420	0.00116	12.9	36	3.6	21

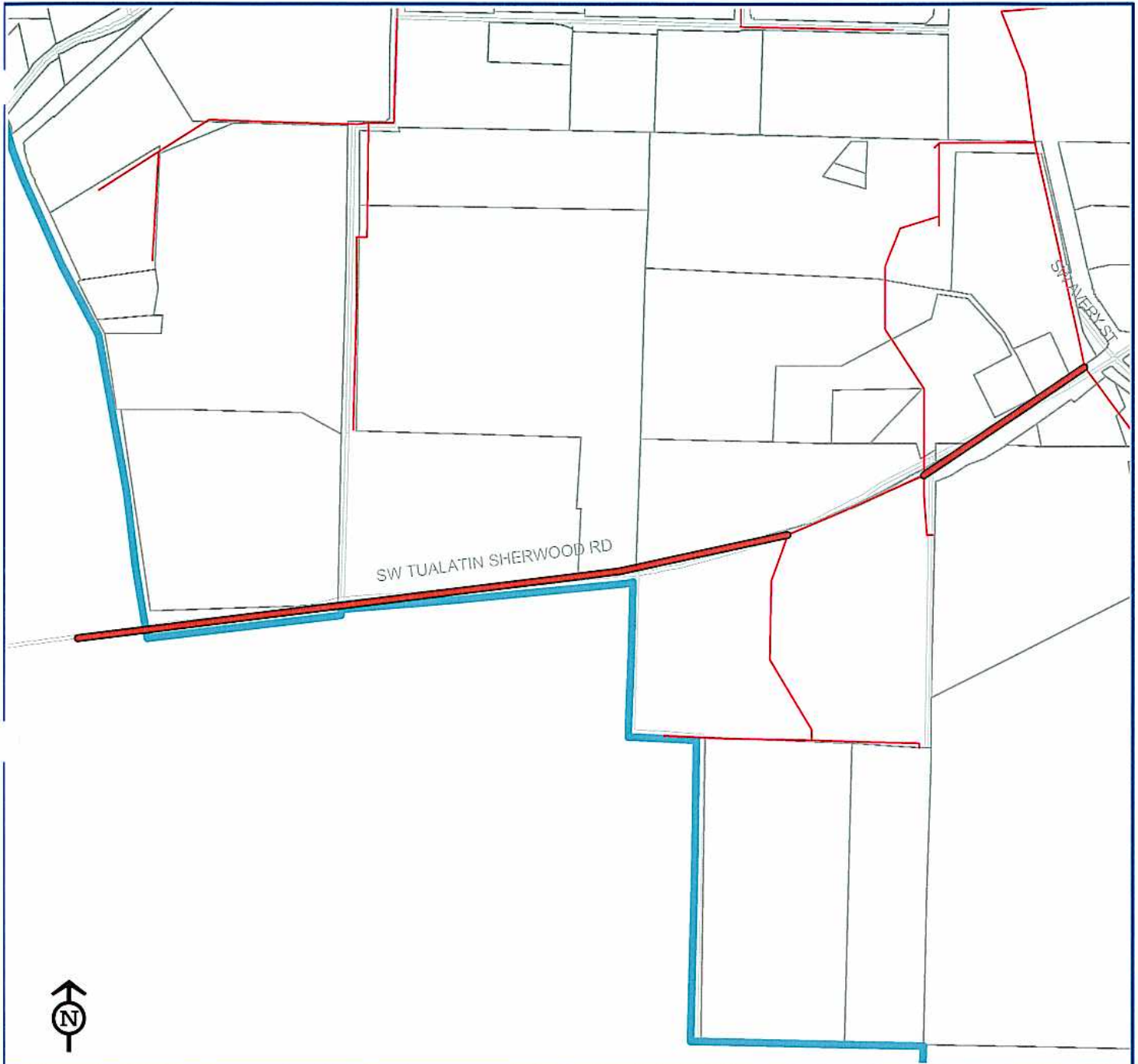
Note: The location and sizing of specific improvements for this project are largely dependent on the magnitude and location of flows from Tualatin-Wilsonville, Tualatin-Sherwood and Tigard Sand and Gravel URA's. Alternative routing may be appropriate.



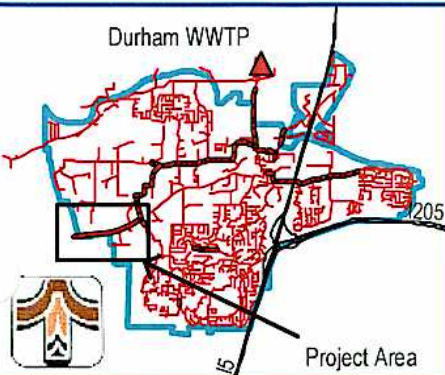
Legend

- Existing Pipe, No Work
- Existing Pipe w/ G_ID, Improvements Recommended
- Planning Area

FIGURE F-8 BLUFF/CIPOLE LATERAL Recommended Capital Improvements



Note: This project is dependent on the routing and magnitude of flows from URA developments. A portion of the expected flow will be accommodated by the 115th Avenue alignment. A flow split and additional line capacity will be required to meet demands. The design diameter is 24", based on expected land use demands.



Legend

- Existing Pipe, No Work
- New Pipe, Recommended
- Planning Area

FIGURE F-9
TUALATIN-SHERWOOD
EXTENSION
Recommended Capital
Improvements



APPENDIX D

*Southwest Tualatin Concept Plan
Metro Regional Transportation Plan
Designations*

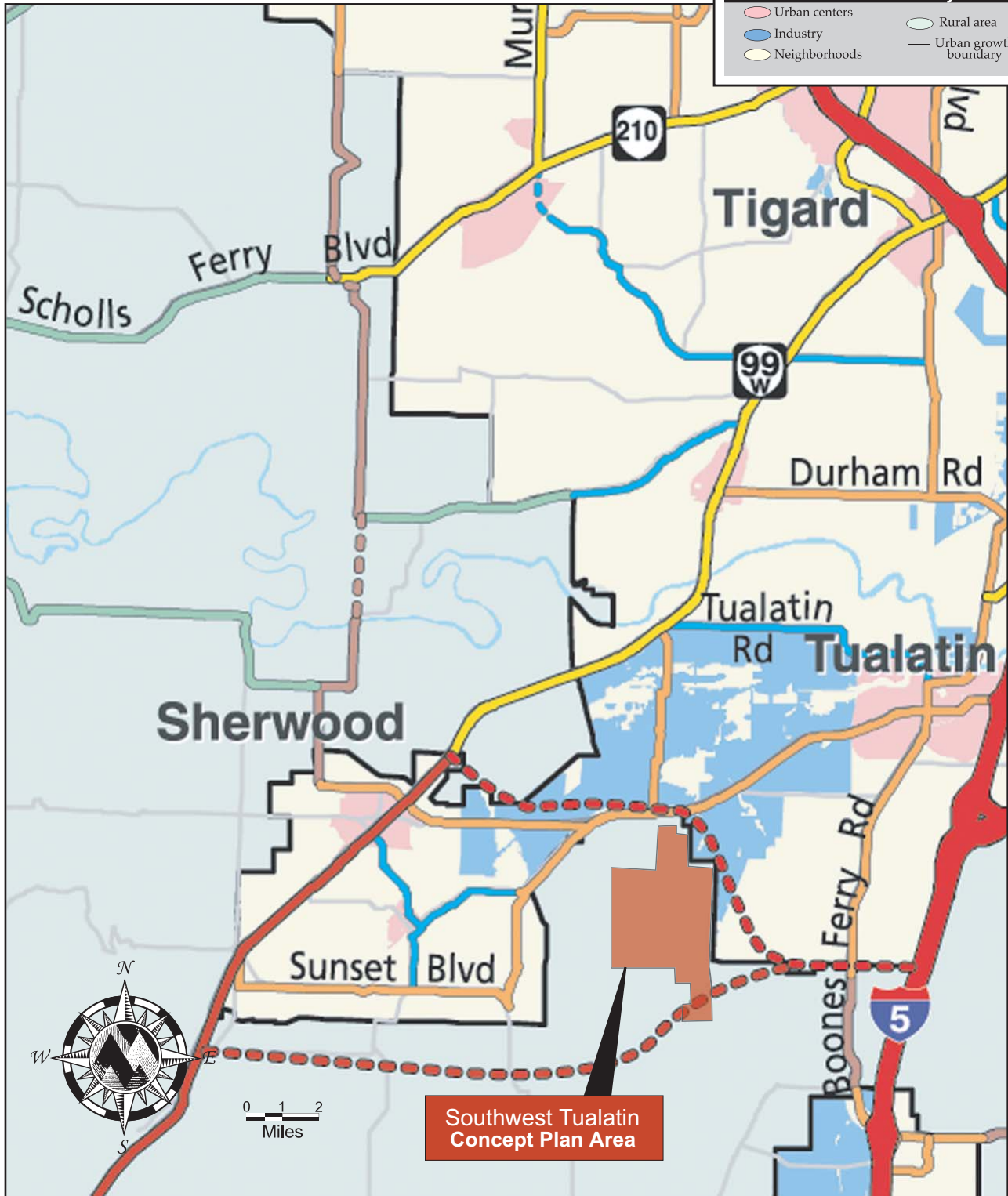
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Motor Vehicle Designations

	Principal arterial (freeway)		Collector of regional significance
	Principal arterial (highway)		Rural arterial (urban-to-urban)
	Major arterial		Rural arterial (farm-to-market)
	Minor arterial		(dotted lines represent proposed projects and are not intended to identify specific alignments)

Land-use Key

	Urban centers		Rural area
	Industry		Urban growth boundary
	Neighborhoods		



SOURCE: 2000 Regional Transportation Plan, 2004 Update (Metro)

Regional Motor Vehicle System

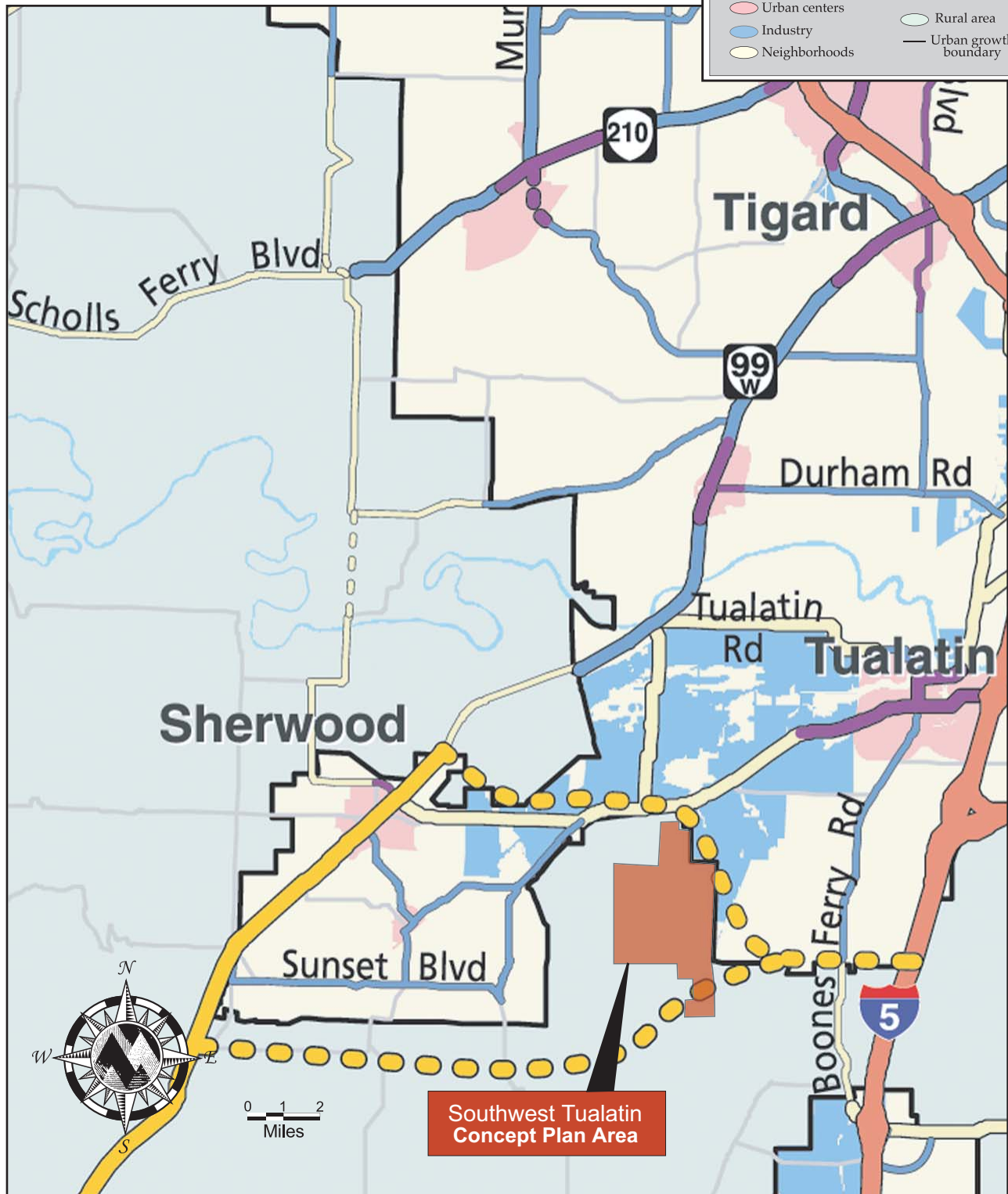
T112004006PDX 320604.01.04 3/4/05 kk an

Street Design Designations

	Freeway		Regional street
	Highway		Community street
	Regional boulevard		Urban road
	Community boulevard		Rural road
	Possible boulevard intersection	<small>(dotted lines represent proposed projects and are not intended to represent specific alignments)</small>	

Land-use Key

	Urban centers		Rural area
	Industry		Urban growth boundary
	Neighborhoods		

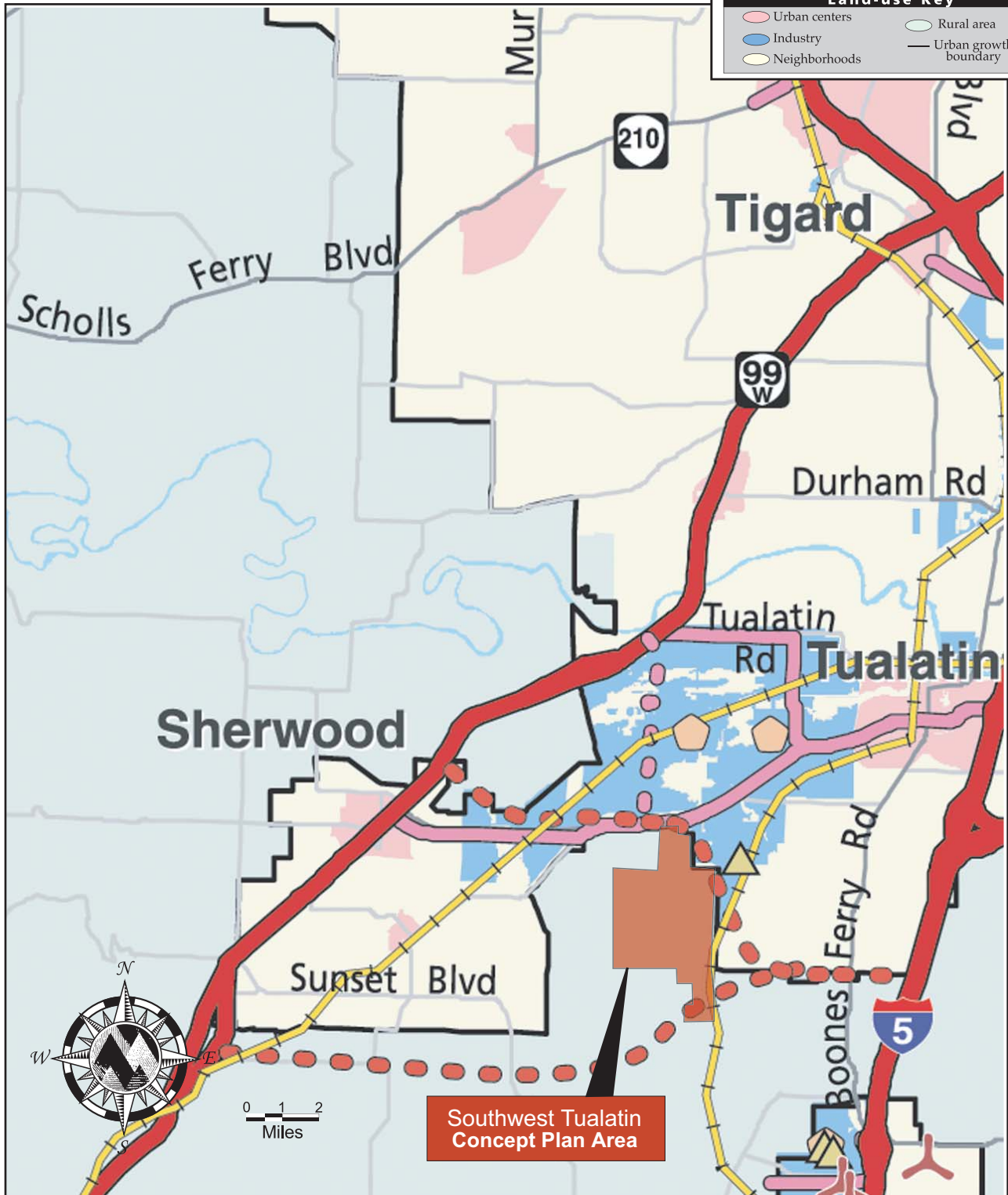


SOURCE: 2000 Regional Transportation Plan, 2004 Update (Metro)

Regional Street Design System

T112004006PDX 320604.01.04 3/4/05 kk an

Freight Designations			
	Main roadway routes		Marine facility
	Road connectors		Railroad facility
	Main railroad lines		Air cargo facility
	Branch railroad lines and spur tracks		Distribution facility
			Truck terminal
			Intermodal railyard
<small>(dotted lines represent proposed projects and are not intended to represent specific alignments)</small>			
Land-use Key			
	Urban centers		Rural area
	Industry		Urban growth boundary
	Neighborhoods		

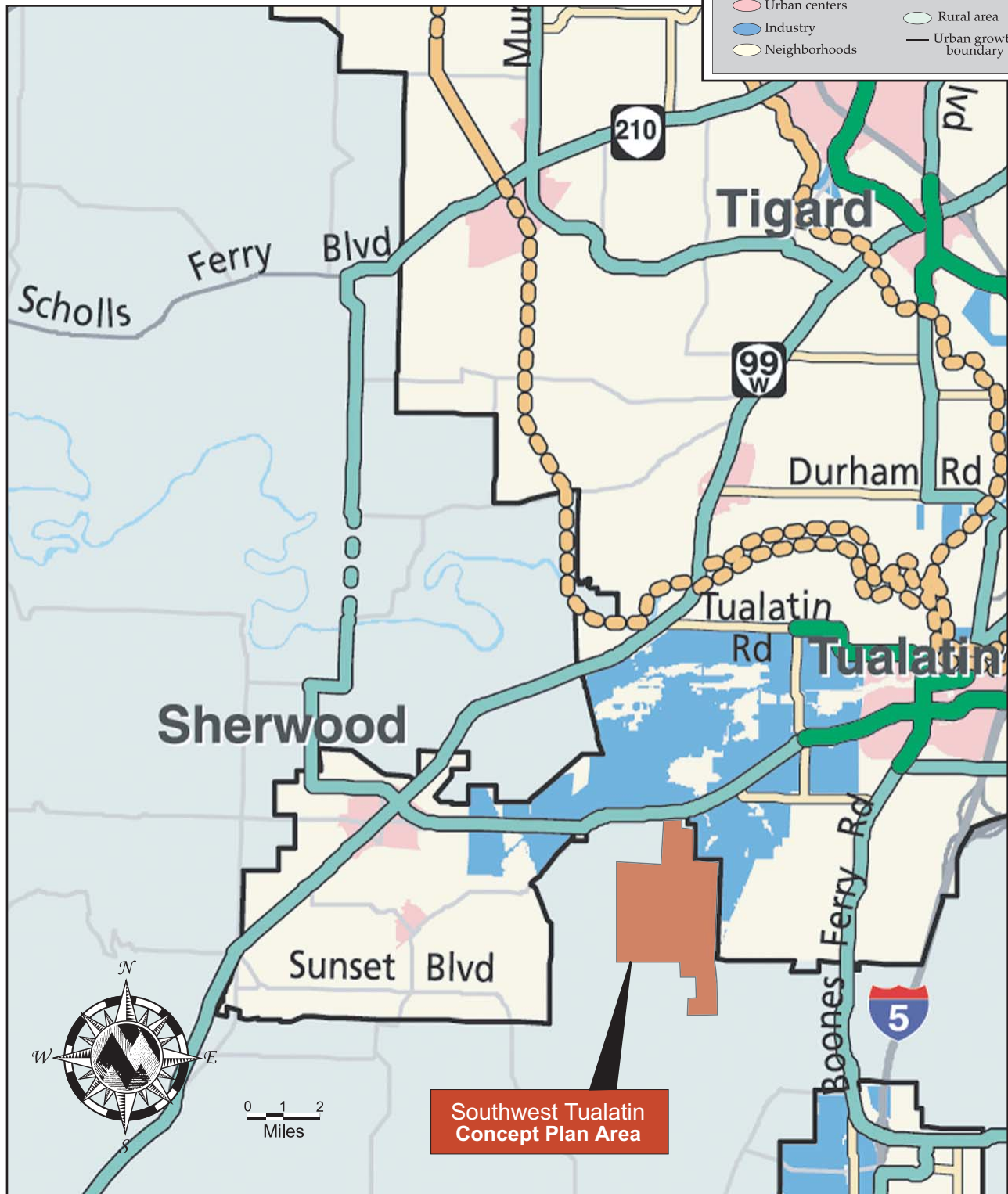


SOURCE: 2000 Regional Transportation Plan, 2004 Update (Metro)

Regional Freight System

T112004006PDX 320604.01.04 3/4/05 kk an

Bikeway Designations			
	Regional access		Regional corridor off-street
	Regional corridor on-street		Community connector
<small>(dotted lines represent proposed projects and are not intended to identify specific alignments)</small>			
Land-use Key			
	Urban centers		Rural area
	Industry		Urban growth boundary
	Neighborhoods		

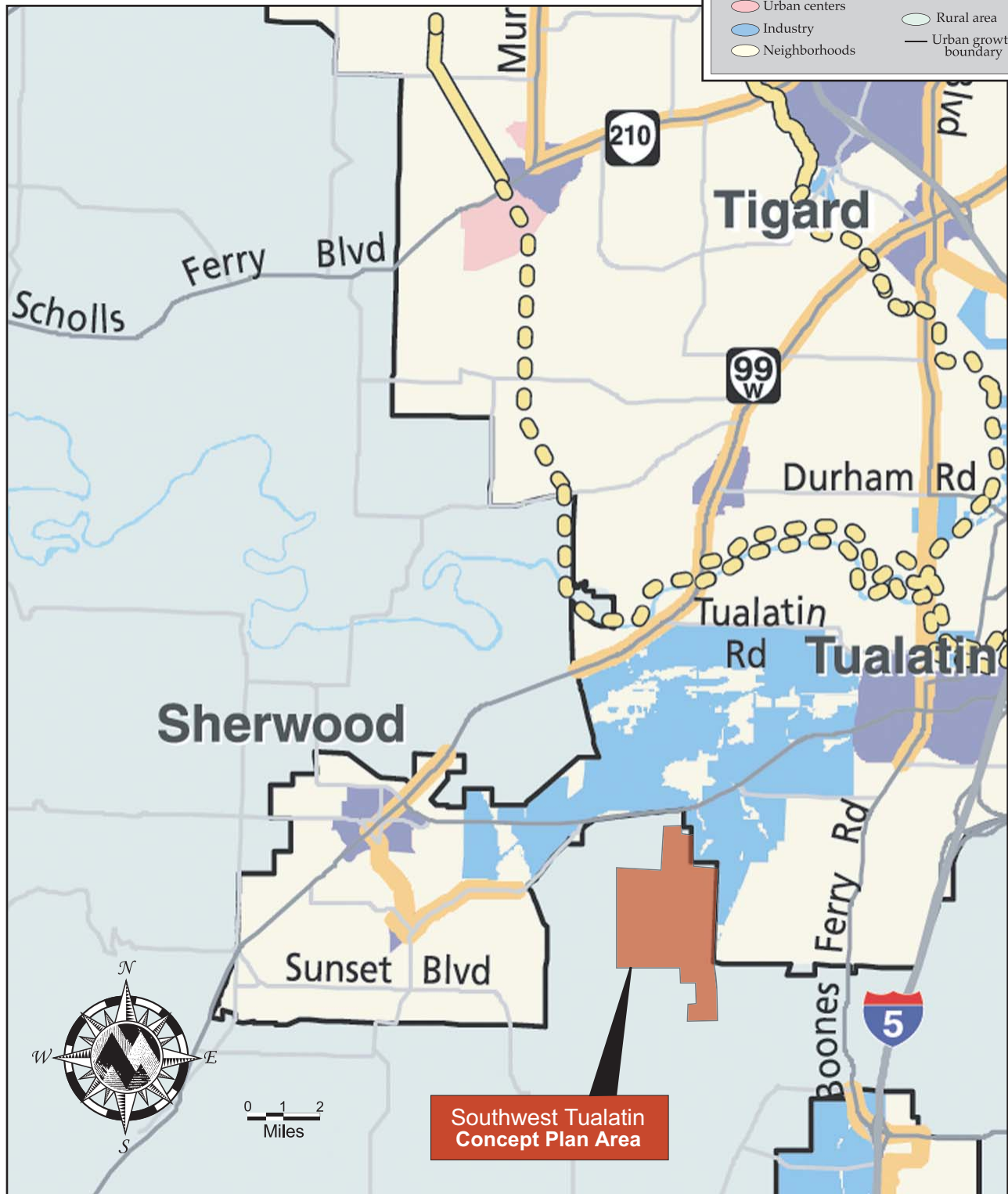


SOURCE: 2000 Regional Transportation Plan, 2004 Update (Metro)

Regional Bicycle System

T112004006PDX 320604.01.04 3/4/05 kk an

Pedestrian Designations	
Pedestrian districts (Mixed-use centers) includes urban centers and LRT station communities	Transit / mixed-use corridors
Multi-use facility with pedestrian transportation function	(dotted lines represent proposed projects and are not intended to identify specific alignments)
Land-use Key	
Urban centers	Rural area
Industry	Urban growth boundary
Neighborhoods	



SOURCE: 2000 Regional Transportation Plan, 2004 Update (Metro)

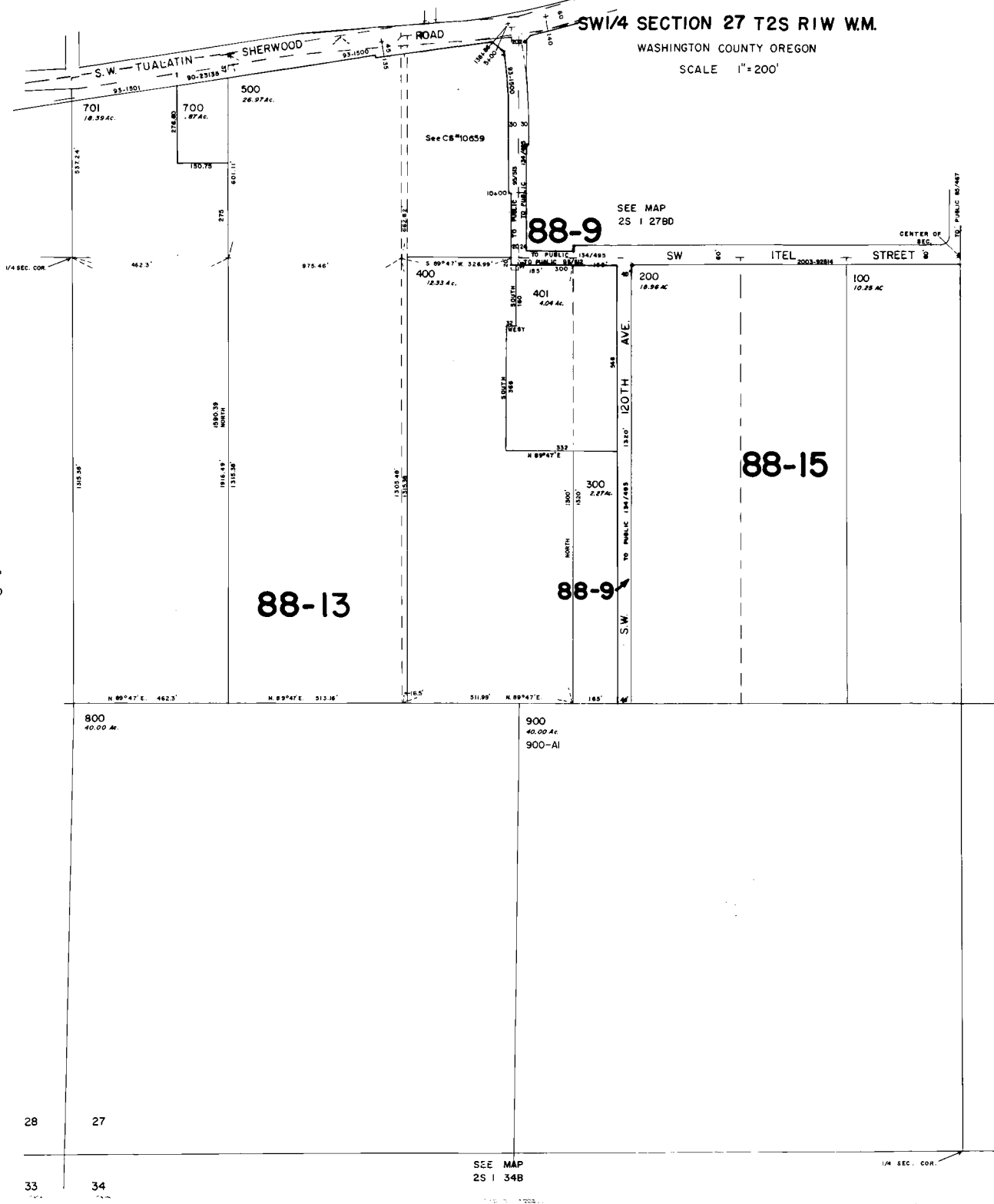
Regional Pedestrian System

APPENDIX E

Southwest Tualatin Concept Plan
Washington County Tax Assessor Maps

WASHINGTON COUNTY OREGON

SCALE 1"=200'



1/4 SEC. COR.

CENTER OF REG.

TR LIT 800 CANCELLED

SEE MAP
2S 1 28D

SEE MAP
2S 1 27D

FOR ASSESSMENT
PURPOSES ONLY.
DO NOT RELY ON
FOR ANY OTHER USE.

28

27

33

34

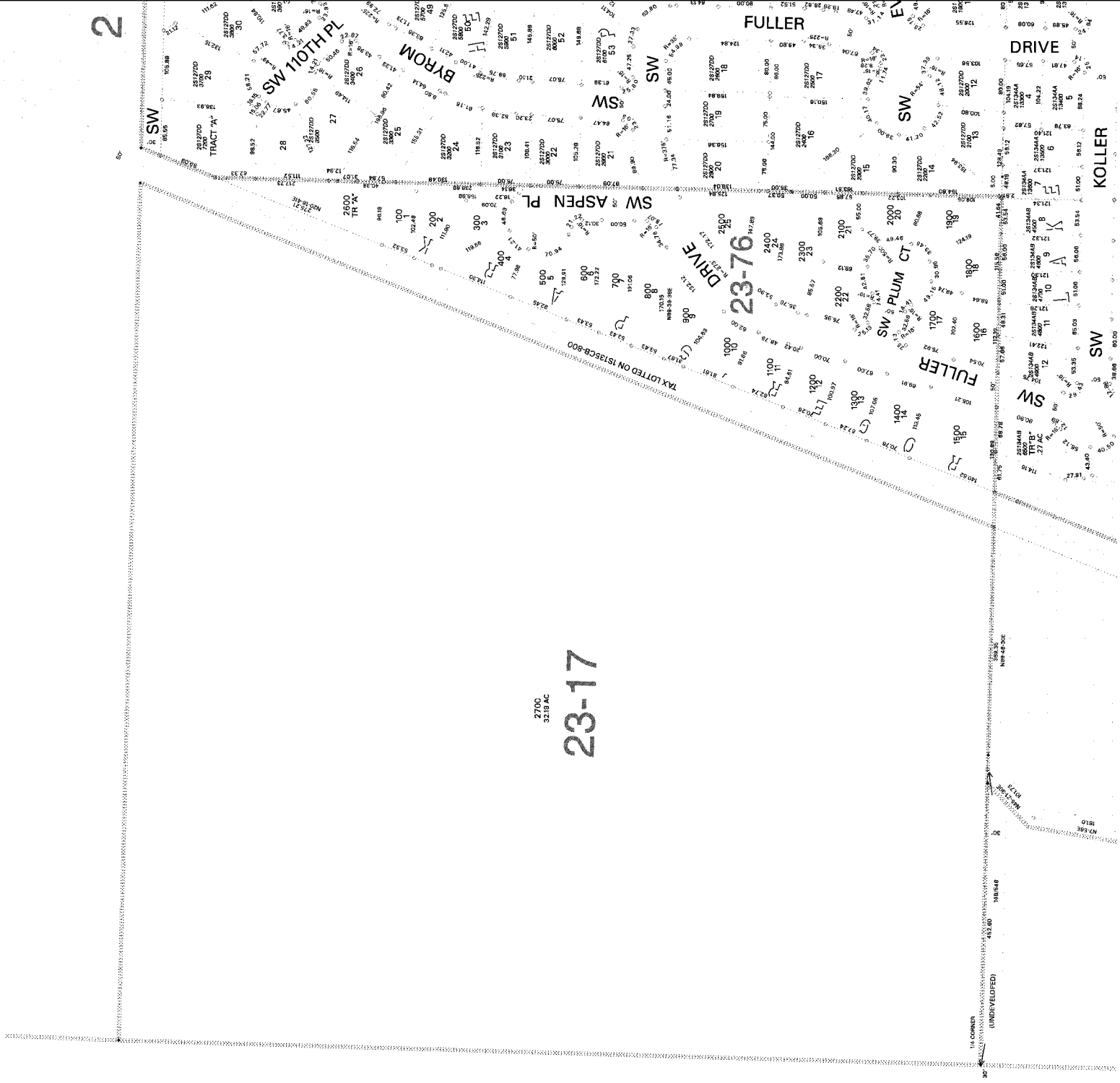
SEE MAP
2S 1 34B

1/4 SEC. COR.

TUALATIN
2S 1 27C

2S 1 27DC

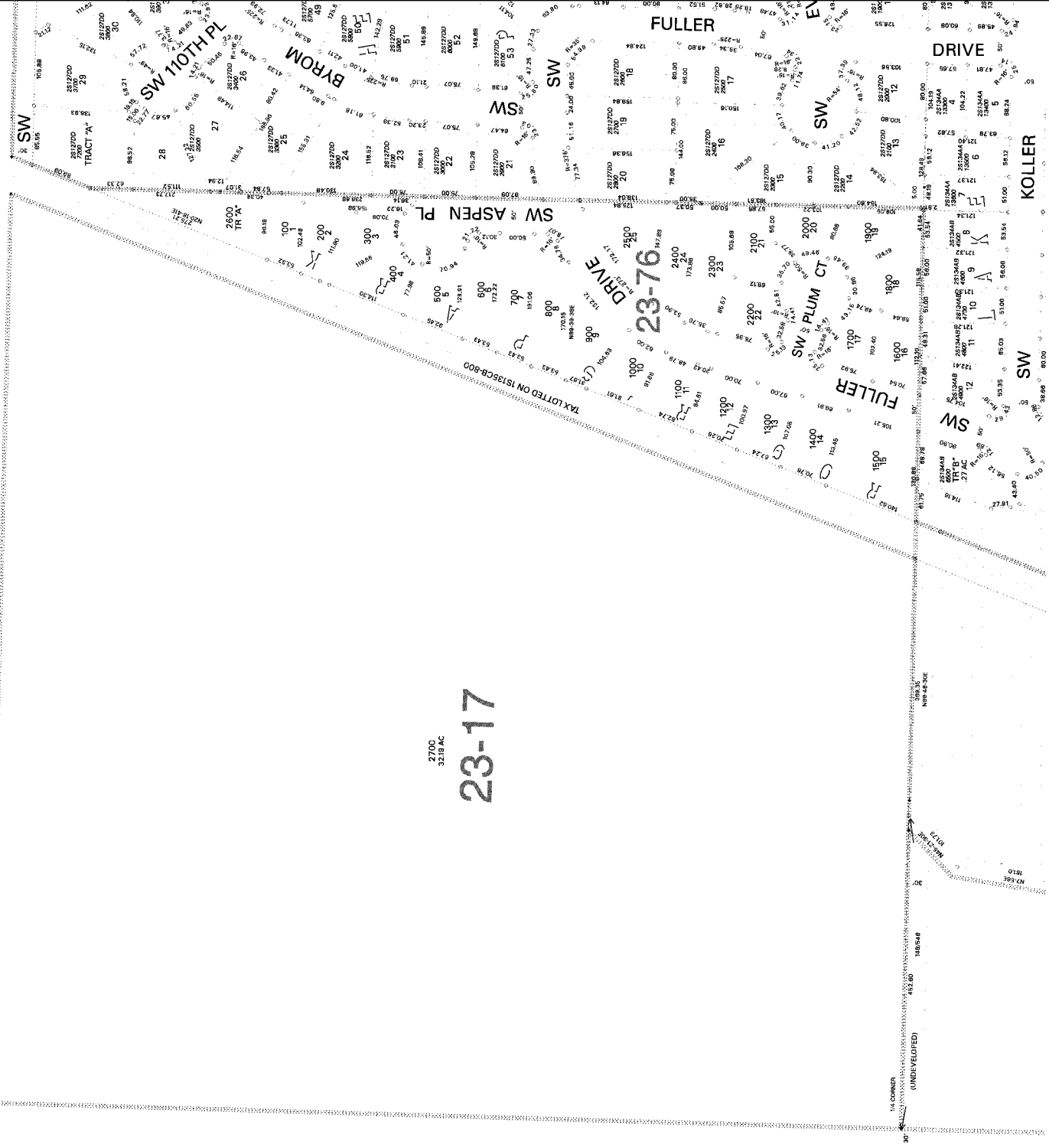
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2700
33.818 AC

23-17

2
SW 110TH PL



WASHINGTON COUNTY OREGON
SW 1/4 SE 1/4 SECTION 27 T2S R1W W.M.
SCALE 1" = 100'

36	31	32	33	34	35	36	31
1	6	5	4	3	2	1	6
12	7	8	9	10	11	12	7
13	18	17	16	15	14	13	18
24	19	20	21	22	23	24	19
25	30	29	28	27	26	25	30
36	31	32	33	34	35	36	31
1	6	5	4	3	2	1	6

FOR ADDITIONAL MAPS VISIT OUR WEBSITE AT
WWW.CO.WASHINGTON.ORG

BB BA AB AA
B A
BC BD AC AD
SECTION 27
CB CA DB DA
C D
CC CD DC DD



CARTOGRAPHY

PLOT DATE: November 20, 2002
FOR ASSESSMENT PURPOSES
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Map areas delineated by white gray shading are areas selected
for reference only and may not include the most
current property boundaries. Please consult the appropriate map
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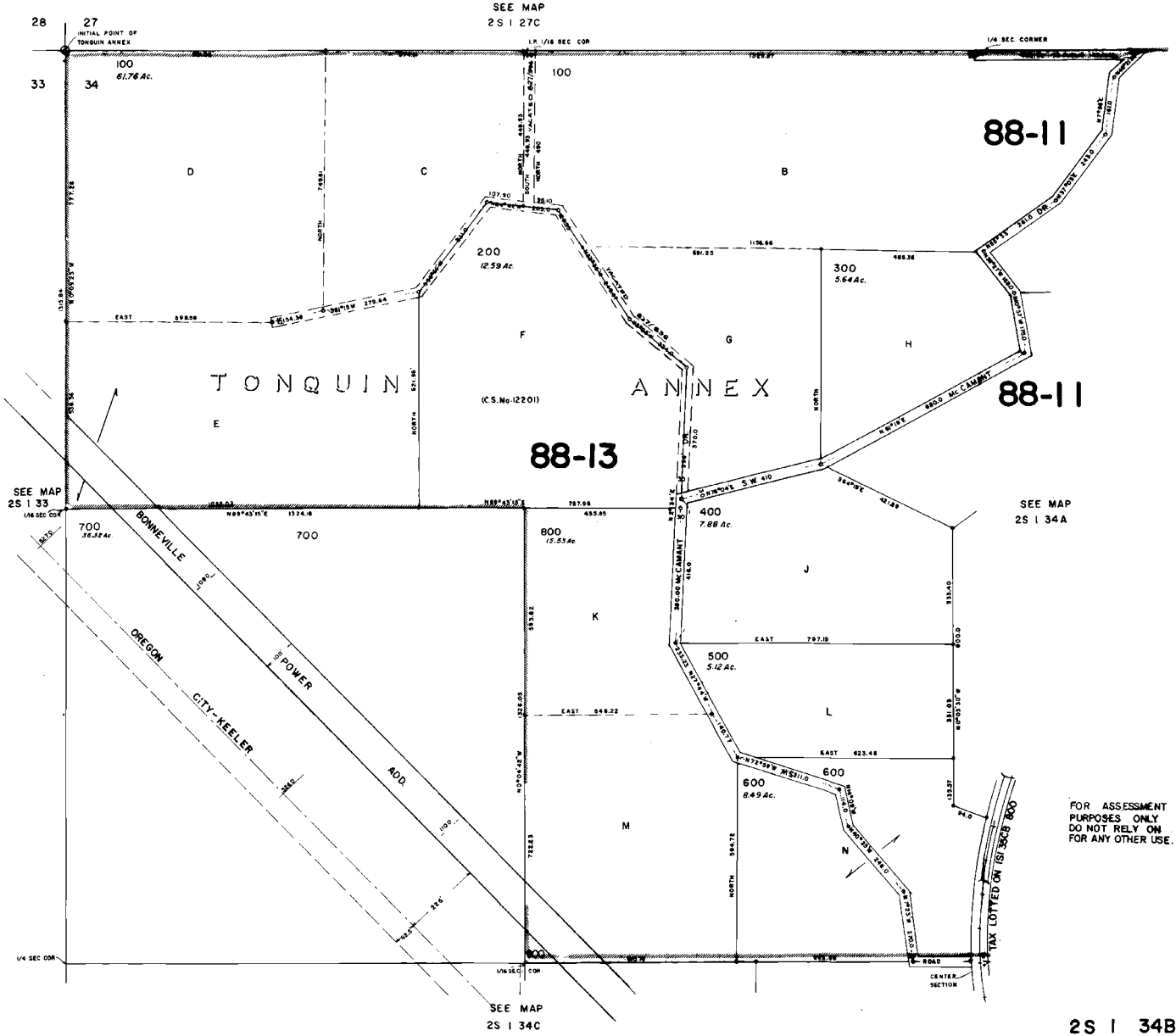
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NW 1/4 SECTION 34 T2S R1W W.M.

WASHINGTON COUNTY OREGON

SCALE 1" = 200'



2S 1 34AB

WASHINGTON COUNTY OREGON
 NW 1/4 NE 1/4 SECTION 34 T2S R1W W.M.
 SCALE 1" = 100'

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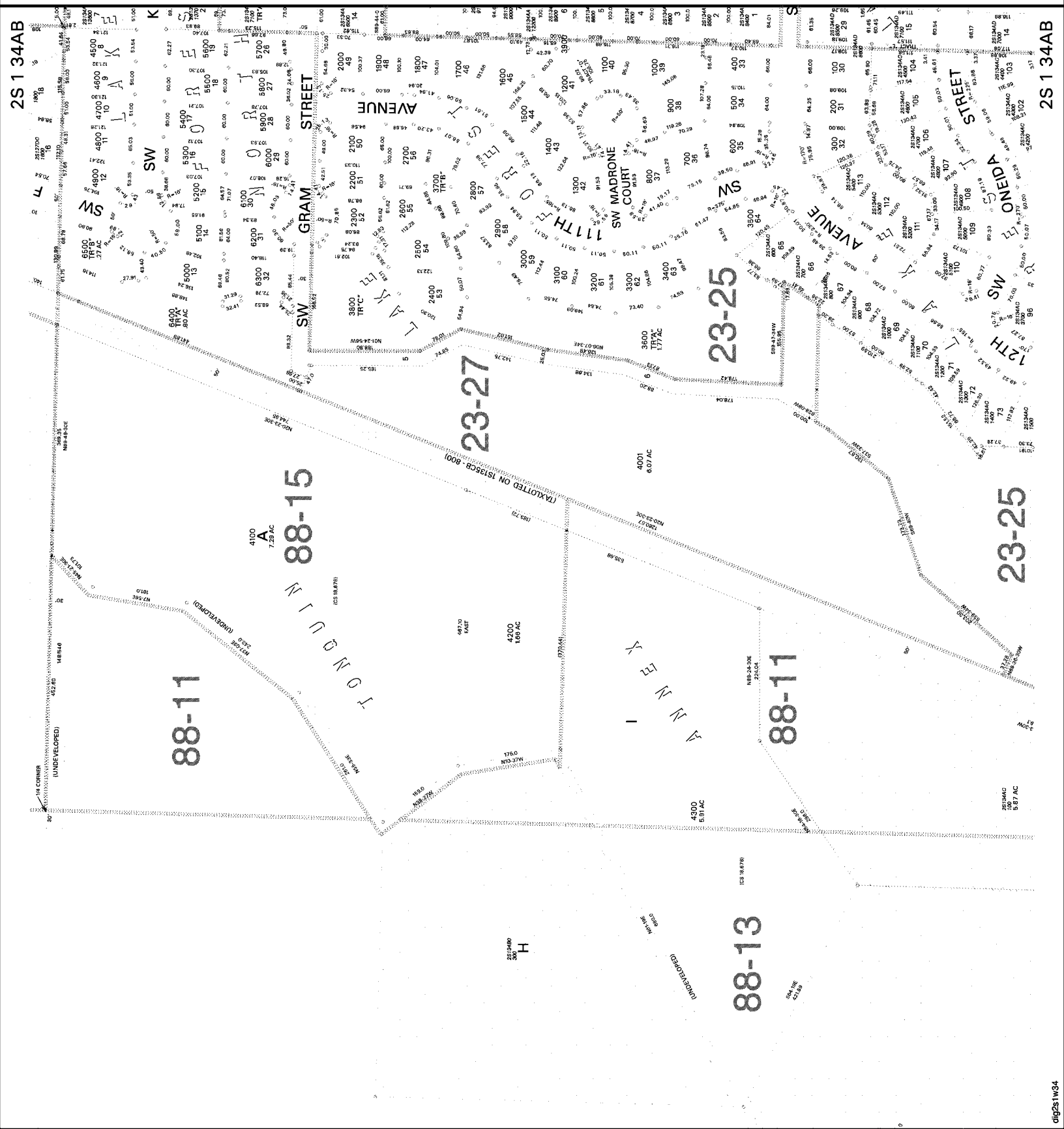
SECTION 34

Cancelled Taxlots For: 2S134AB
 4000-4002-4400.

CARTOGRAPHY

PLOT DATE: October 20, 2003
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SW1/4 SECTION 34 T2S RIW W.M.

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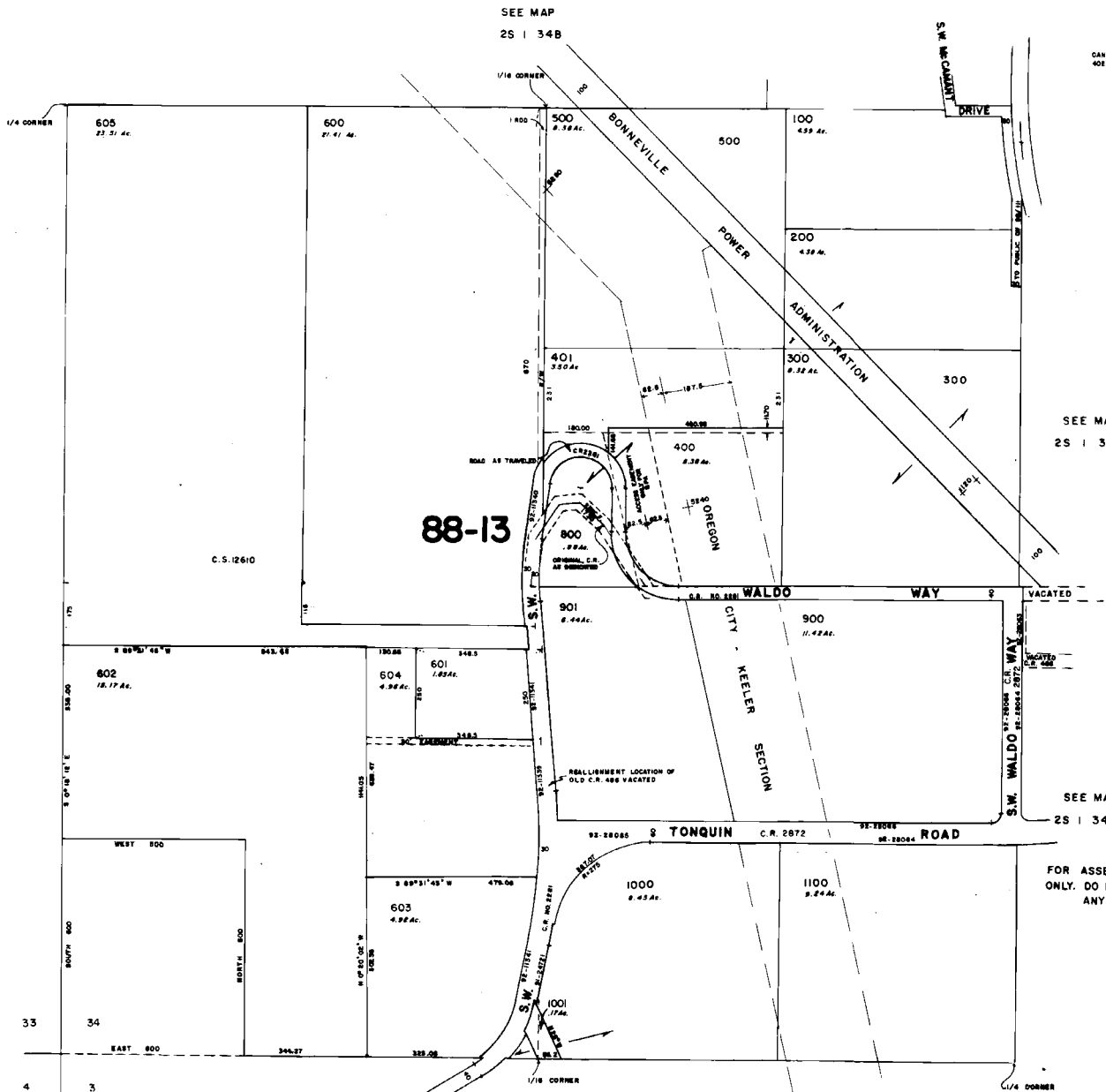
WASHINGTON COUNTY OREGON

SCALE 1"=200'

SEE MAP

2S | 34B

CANCELLED TAX LOTS
402, 700,



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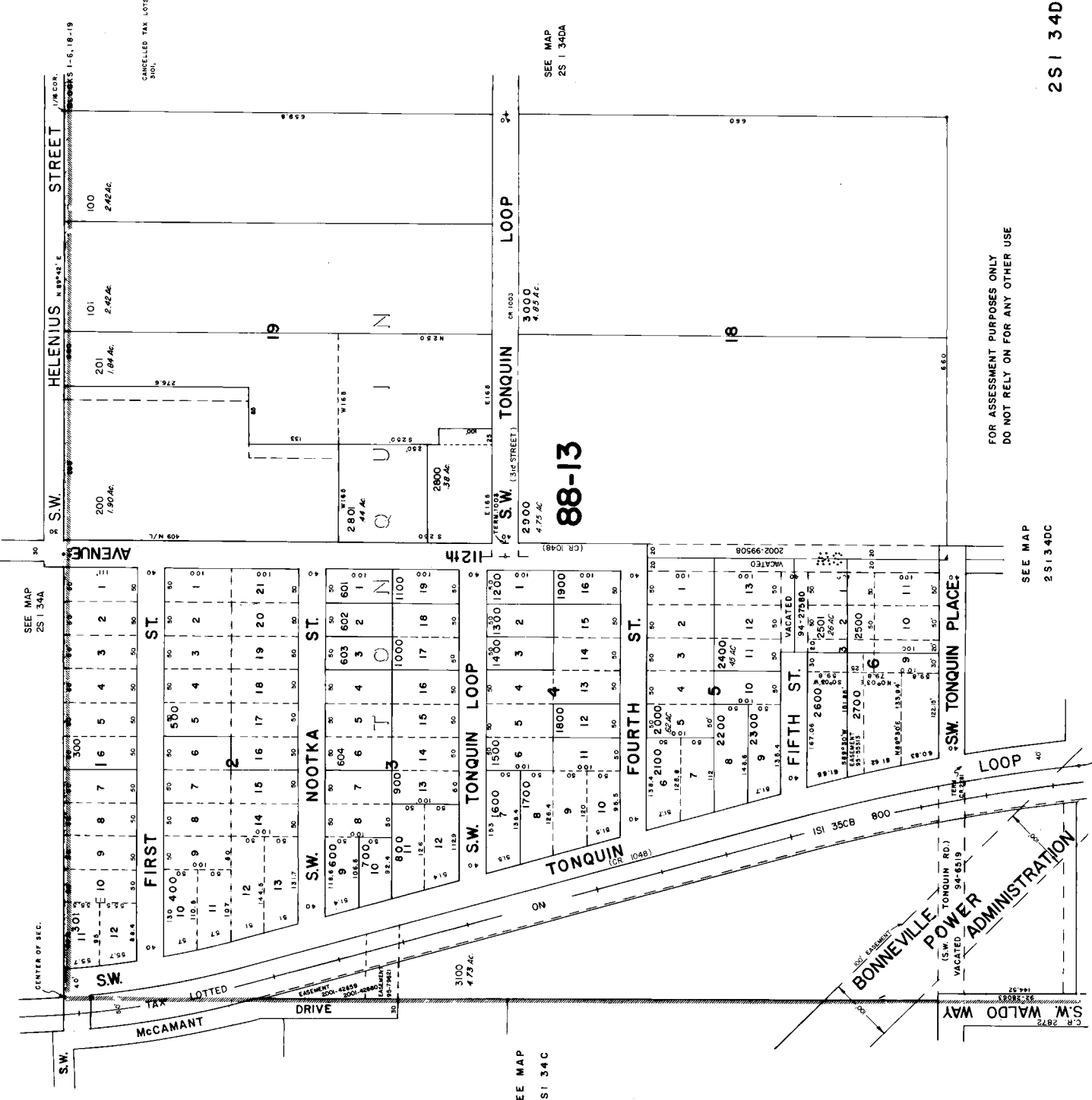
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CLACKAMAS
COUNTY



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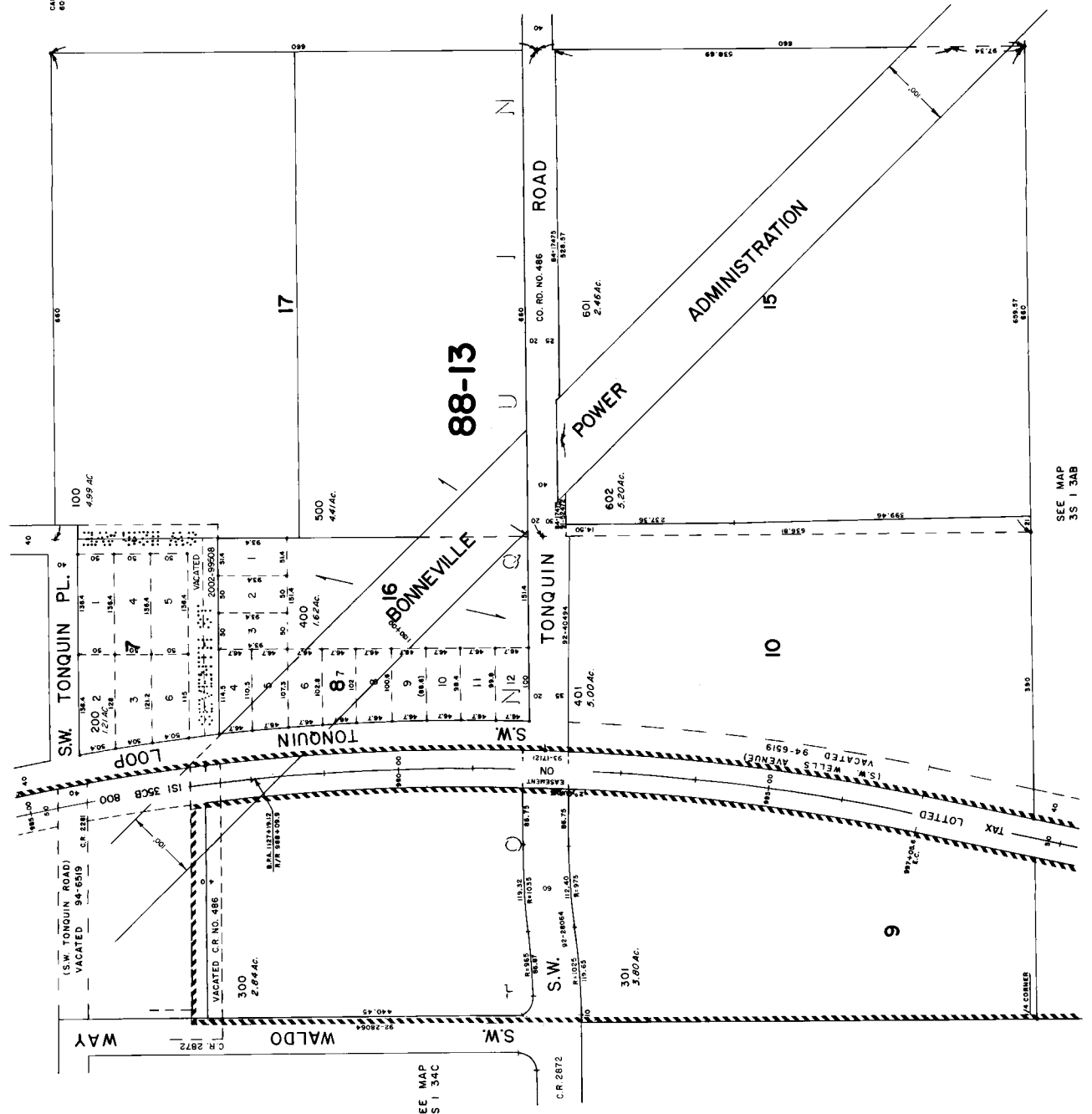
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BONNEVILLE
POWER
ADMINISTRATION

WALDO WAY

SEE MAP
2S 1-34DB



SEE MAP
2S 1 34DD

FOR ASSESSMENT
PURPOSES ONLY
DO NOT RELY ON
FOR ANY OTHER USE

SEE MAP
2S 1 34DB

SEE MAP
2S 1 34C



KITTELSON & ASSOCIATES, INC.

TRANSPORTATION PLANNING/TRAFFIC ENGINEERING

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TECHNICAL MEMORANDUM

Southwest Tualatin Concept Plan Future Alternatives Traffic Analysis

Date: May 2, 2005 (updated June 12, 2005)

Project #: 6689

To: David Simmons, CH2M Hill

From: Paul Ryus, P.E.

cc: Doug Rux, City of Tualatin

Background

In December 2002, Metro added two areas south of SW Tualatin-Sherwood Road and west of the current Tualatin city limits to the Portland regional Urban Growth Boundary (UGB). These areas are now within Tualatin's Planning Area boundary, meaning that they are intended to be annexed into the city in the future. Current land uses in the planning area consist of aggregate mining (the majority of the area) and a small amount of industrial and manufacturing uses at the south end of the area. Through the Southwest Tualatin Concept Plan, the City of Tualatin is identifying land use, transportation, and urban services needs for the Concept Plan area, once mining operations cease and the sites redevelop.

Several other ongoing or future planning efforts have been incorporated into the traffic analysis work for the Southwest Tualatin Concept Plan. These consist of:

- The Northwest Tualatin Concept Plan, which addressed a similar, but much smaller, UGB expansion near the Highway 99W/Cipole Road intersection;
- The Tualatin Town Center Plan, which includes a refinement plan for addressing traffic issues in the heart of Tualatin;
- The area between a future extension of SW 124th Avenue and Sherwood (i.e., the area immediately west of the Southwest Tualatin Concept Plan area), which was added more recently to the UGB and which is planned to be studied in 2005-06; and
- The future I-5/Highway 99W Connector.

Final decisions have not been made on any of these plans, with the exception of the Northwest Tualatin Concept Plan. The results presented in this memo should therefore be considered preliminary and subject to change, depending on decisions made through the other planning efforts. The traffic analysis work described in this memo presents reasonable worst-case assumptions with respect to the other plans: the Tualatin Town Center's preferred alternative, no street connections through the area west of SW 124th Avenue, and a "northern arterial" alignment of the Connector. As pointed out at various points in this memorandum, a different set of assumptions (e.g., east-west street connections to Sherwood and a "southern freeway" Connector alignment) could result in better traffic conditions than presented here.

The work described in this memorandum has been coordinated with the Tualatin Town Center plan—that is, the additional traffic that could be generated from the Southwest Tualatin Concept Plan area has been incorporated into the Town Center traffic analysis work, and the traffic associated with the Town Center Plan's preferred alternative has been incorporated into this memo's traffic forecasts.

Summary of Results

This memorandum evaluates year 2025 traffic operations at eleven key intersections identified in the Concept Plan work scope (intersections in the immediate vicinity of the Concept Plan Area, three key intersections in the Tualatin Town Center, and the North Wilsonville interchange). The memo studies a "no-build" scenario based on the area's current land use plan, as well as three alternative land use scenarios that were developed for the area through the Concept Plan process. Existing traffic conditions and year 2025 no-build conditions were evaluated in our December 9, 2004 memo. New modeling information developed through the Town Center Plan process has been incorporated into the analysis described in this memo and, as a result, the no-build results presented here are somewhat different than those presented previously.

The Concept Plan Area was enlarged from 352 to 431 acres between the time the existing conditions and future alternatives memos were produced. It was also originally anticipated that the future alternatives analysis would be based on Metro's 2025 regional traffic model. However, not all members of the Concept Plan's Technical Advisory Committee accepted the land use assumptions being used in that model. It was therefore agreed that the traffic analysis presented in this memorandum would be based on the 2020 version of the regional model, with traffic volumes increased to reflect an additional five years of growth.

This analysis finds that the amount of development assumed in land use Alternative I, in combination with the street patterns used in Alternatives II and III, results in the best overall transportation system performance in the year 2025. However, there is little difference in the overall site trip generation between the three alternatives and, thus, little difference in the traffic operations results for the three alternatives.

As a preferred alternative for the Concept Plan area is developed, the following intersections will require attention:

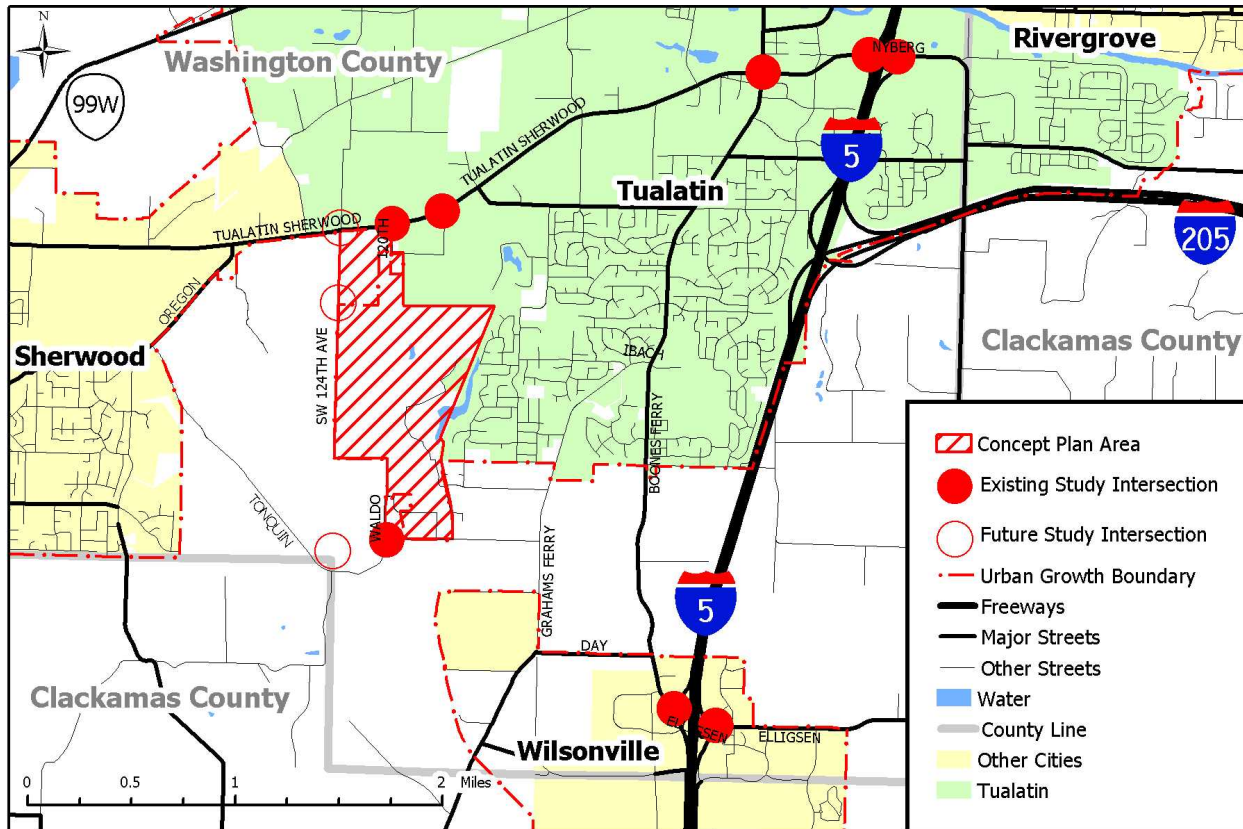
- **SW Nyberg Road/I-5 Northbound Ramps** would operate over capacity in the 2025 weekday a.m. peak hour without redevelopment of the Concept Plan Area. Converting the westbound right-turn lane to a free-flowing movement (similar to the North Wilsonville interchange) would address this issue.
- **SW Nyberg Road/I-5 Southbound Ramps** would operate at 98% of capacity in the 2025 weekday a.m. peak hour without redevelopment of the Concept Plan Area, and at 103-106% of capacity with redevelopment. Restriping the existing lanes to provide left, left-through-right, and 2 right-turn lanes (e.g., providing a triple right turn) would allow the intersection to operate at 84% of capacity.
- **SW Tualatin-Sherwood Road/SW Boones Ferry Road** would operate at level of service (LOS) F and over capacity in 2025 without redevelopment of the Concept Plan Area, and all three alternatives add more traffic through the intersection. The traffic work for the Tualatin Town Center Plan, which accounted for future traffic to and from the Concept Plan Area, found that prohibiting left turns on SW Boones Ferry Road (redirecting the turning traffic to other intersections), in combination with other projects (in particular, an extension of SW Lower Boones Ferry Road over the Tualatin River), would result in LOS D operations at the SW Tualatin-Sherwood Road/SW Boones Ferry Road intersection in the year 2025.
- **SW Tualatin-Sherwood Road/SW 120th Avenue** would need to be restricted to right-in, right-out movements upon redevelopment of the Concept Plan Area, as left-turning movements would experience lengthy delays.
- **SW Tualatin-Sherwood Road/SW 124th Avenue** would operate close to its capacity, if single left-turn lanes were used. A second northbound left-turn lane would result in operations at 89% of the intersection's capacity, or better. Alternatively, developing east-west collector streets between SW 124th Avenue and Sherwood would avoid the need for a second left-turn lane.

All other study intersections would meet their owning jurisdictions' standards in the year 2025.

Study Area

The Concept Plan area is illustrated in Figure 1. The area is generally located between SW Tualatin-Sherwood Road on the north and SW Tonquin Road on the south, and west of the Portland & Western Railroad. Access to the site at present is from SW 120th Avenue on the north, and SW Waldo Way and SW Tonquin Loop on the south. In the future, the extension of SW 124th Avenue to the I-5/99W Connector will serve as a main access route.

Figure 1
Site Vicinity



SW Tualatin-Sherwood Road is maintained by Washington County and is designated as an *arterial* and an *existing through-truck route*. East of SW Teton Avenue, it has a 5-lane cross-section. West of SW Teton Avenue, it currently has a three-lane cross-section, but is planned to be widened eventually to a 5-lane cross-section. The Tualatin Transportation System Plan (TSP) designates it as a *major arterial* and *truck route*. Just west of I-5, SW Tualatin-Sherwood Road joins SW Nyberg Road, which has the same designations the rest of the way to the interchange.

SW Tonquin Road is maintained by Washington County and is designated as an *arterial*. A short section northwest of Morgan Road cuts a corner of Clackamas County, which designates it as a *local road*. The portion of the road within Washington County northwest of Morgan Road is designated as an *existing through-truck route*, while the portion east of Morgan Road is designated as a *proposed through-truck route*. The road has a 2-lane cross-section, which is planned to remain through Washington County's 2020 planning horizon. SW Tonquin Road connects southeast to I-5 via SW Grahams Ferry Road, Day Street, and SW Boones Ferry Road.

SW Grahams Ferry Road is maintained by Washington County, which designates the section providing the connection as an *arterial*. North of SW Tonquin Road and south of Day Street, it is designated as a *collector*. All of the road is designated as an *existing through-truck route*. The road has, and is planned to continue to have, 2 lanes. Wilsonville designates the road as a *major collector*.

Day Street is designated as an *arterial* by Washington County and a *major collector* by Wilsonville. It was recently widened to 3 lanes in conjunction with the development of the Coffee Creek Correctional Facility. Washington County also designates it as an *existing through-truck route*.

The portion of SW Boones Ferry Road between Tualatin's south city limits and I-5 in North Wilsonville, and from the Tualatin River north, is maintained by the Oregon Department of Transportation (ODOT) as part of Beaverton-Tualatin Highway #141. ODOT designates the road as a *district highway*. Washington County designates all of the road as an *arterial* and *existing through-truck route*. Wilsonville designates the portion within its city limits as a *major arterial*. The City of Tualatin maintains SW Boones Ferry Road between Tualatin's south city limits and the south abutment of the Tualatin River Bridge. South of SW Tualatin-Sherwood Road, Tualatin designates the road as a *major arterial* and *truck route*. To the north, Tualatin designates it as a *minor arterial* and *truck route*. Within Tualatin, and between Tualatin and Wilsonville, the road has a 2- to 3-lane cross-section. South of Day Street in Wilsonville, the road has a 4- to 5-lane cross-section. The various city and county plans anticipate the entire roadway eventually being widened to 4-5 lanes south of SW Tualatin-Sherwood Road. North of SW Tualatin-Sherwood Road, Boones Ferry Road would have a 2-4 lane cross-section between intersections. East of I-5, SW Boones Ferry Road becomes Elligsen Road.

SW 120th Avenue, SW Waldo Way, and SW Tonquin Loop are all maintained by Washington County as *local roads*. They all have 2-lane cross-sections (not always full-width or striped).

Study Intersections

The following existing intersections were studied, as specified in the project work scope:

- SW Nyberg Road/I-5 Northbound Ramps;
- SW Nyberg Road/I-5 Southbound Ramps;
- SW Tualatin-Sherwood Road/SW Boones Ferry Road;
- SW Tualatin-Sherwood Road/SW 120th Avenue;
- SW Tonquin Road/SW Waldo Way (west intersection);
- SW Boones Ferry Road/I-5 Southbound Ramps; and
- SW Elligsen Road/I-5 Northbound Ramps.

The following future intersections were also studied, as specified in the project work scope or as identified during the land use alternatives development process:

- SW Tualatin-Sherwood Road/SW 115th Avenue;
- SW Tualatin-Sherwood Road/SW 124th Avenue;
- SW Blake Street/SW 124th Avenue; and
- Connector/SW 124th Avenue.

Figure 1 showed the locations of these intersections.

Year 2025 Base Traffic Volume Forecasts

The year 2025 was selected as the horizon year for this analysis. However, because not all members of the Concept Plan's Technical Advisory Committee accept Metro's 2025 land use forecasts, Metro's 2020 model was used as the base, with the volumes factored up to represent year 2025 conditions. The following process was used to develop weekday p.m. peak hour "base future" traffic volumes (i.e., year 2025 traffic volumes, assuming no change in land use in the Concept Plan Area):

- For intersections within the City of Tualatin, year 2020 traffic volume forecasts were taken from the new modeling work done for Tualatin Town Center Plan, using the model run for the Town Center Plan's preferred alternative. This model run includes a "northern arterial" alignment of the Connector that joins SW Tualatin-Sherwood Road between SW Cipole Road and SW Oregon Street. The model run also includes an extension of SW Lower Boones Ferry Road over the Tualatin River.¹ Weekday p.m. peak hour volumes between intersections were estimated using the process described in *NCHRP Report 255*,² which compensates for conditions where modeled volumes do not match existing volumes. Adding the adjusted 20-year growth to the year 2004 traffic counts resulted in year 2024 traffic forecasts for roadway segments between major intersections. The 2024 forecasts were then factored up by one year's worth of growth to obtain 2025 traffic forecasts. Turning movement volumes at the study intersections were derived from the year 2025 volumes entering and exiting each intersection and from existing turning movement patterns (for those intersections that currently exist). Volumes were balanced as needed between intersections.
- For the SW Tonquin Road/SW Waldo Way intersection, SW Waldo Way volumes were kept at current levels (reflecting no change in land use), while SW Tonquin Road volumes were increased by 41%, reflecting the average forecast change in minor arterial volume given in Washington County's TSP.³
- For the North Wilsonville interchange, year 2020 volumes were taken from work performed during the development of Wilsonville's TSP⁴ and were then adjusted to 2025 conditions based on average 20-year growth rates.
- Additional traffic resulting from (1) the Tualatin Town Center's preferred alternative and (2) the Northwest Tualatin Concept Plan area was added to SW Tualatin-Sherwood Road.

Because the Metro model is not used to forecast weekday a.m. peak hour volumes, a different methodology was used to estimate those volumes. A 20-year growth rate was determined for

¹ The Tualatin and Washington County TSPs currently show an extension of SW Hall Boulevard over the river, rather than an extension of SW Lower Boones Ferry Road. The Tualatin Town Center Plan model runs showed virtually no difference in traffic volumes in the vicinity of the Concept Plan area between the two bridge scenarios; however, the SW Hall bridge generated more traffic in the Town Center area, while the SW Lower Boones Ferry bridge removed traffic from the Town Center area.

² JHK & Associates, "Highway Traffic Data for Urbanized Area Project Planning and Design," *NCHRP Report 255*, Transportation Research Board, National Research Council, Washington, DC (1982).

³ DKS Associates, Inc., "Technical Appendix B-1," *Washington County 2020 Transportation Plan*.

⁴ Entranco, Inc., *City of Wilsonville Transportation Systems Plan*, January 2003 Public Draft.

each intersection for the weekday p.m. peak hour. This same growth rate was then applied to the existing weekday a.m. peak hour volumes to develop the 2025 weekday a.m. peak hour volumes.

Planned Projects

The following roadway improvement projects were assumed to occur by 2025:

- SW Tualatin-Sherwood Road/SW Boones Ferry Road: second westbound left-turn lane and two southbound through lanes (to be constructed this summer);
- SW Boones Ferry Road/I-5 Southbound Ramps: restripe southbound center lane to allow all movements (Wilsonville TSP);
- SW Nyberg Road/I-5 Southbound Ramps: ramp and bridge widening project currently nearing completion, including signal timing changes;
- SW Tualatin-Sherwood Road: widened to five lanes west of SW 90th Avenue (Tualatin TSP);
- SW Lower Boones Ferry Road: extension across the Tualatin River (Tualatin Town Center Plan preferred alternative);
- I-205: auxiliary lanes between Stafford Road and I-205 (financially constrained RTP); and
- I-5/Highway 99W Connector: four-lane arterial with a new interchange on I-5 between I-205 and the North Wilsonville interchange, and at-grade intersections with SW Boones Ferry Road, SW Grahams Ferry Road, and SW 124th Avenue (Tualatin TSP). Based on the Concept Plan's scope of work, the Connector was not assumed to follow SW 124th Avenue as shown in the Tualatin TSP, but would instead connect to SW Tualatin-Sherwood Road between SW Cipole Road and SW Oregon Street.

A preliminary analysis was conducted to identify the implications for the study area if the Connector ran along SW 124th Avenue instead of along a separate alignment. The SW Tualatin-Sherwood Road intersection would require a triple left turn northbound and a free-flowing double right turn eastbound with no redevelopment of the Concept Plan Area. Three lanes would likely be required on SW 124th Avenue in the vicinity of the Concept Plan Area, to provide sufficient capacity for turning movements out of the Concept Plan Area.

Based on the land use alternatives presented, it was assumed that SW Tonquin Road would be cut off in the future in the vicinity of the SW 124th Avenue/Connector intersection. The stubbed sections of Tonquin Road would serve local traffic only, and new street connections would be developed through the Concept Plan Area to link Tonquin Road to SW 124th Avenue.

Trip Generation

The land use assumptions built into the version of Metro's 2020 model used for the Tualatin TSP (as well as the Tualatin Town Center Plan) anticipated some development occurring within the Concept Plan Area. The Concept Plan Area includes portions of traffic analysis zones (TAZs) 371, 372, and 395. Appendix A provides an excerpt from the Tualatin TSP, with maps showing the TAZ locations and a table listing the land use assumptions used.

Metro's Regional Land Information System (RLIS) was used to identify the percentage of undeveloped land within each TAZ that fell within the Concept Plan Area. The Concept Plan Area includes about 11% of the total undeveloped land within TAZ 371, which was forecast to add 969 non-retail jobs by 2020. When looking only at undeveloped land that was either within the UGB in 2000, or falls within the Concept Plan Area (i.e., the land most likely to develop first), the Concept Plan Area accounts for 16% of TAZ 371's undeveloped land, which corresponds to 155 jobs.

The Concept Plan Area includes about 38% of the undeveloped area of TAZ 372, all of which was already in the UGB in 2000. As this TAZ was forecast to add 684 non-retail jobs, 38% of this amount corresponds to 260 jobs. The Concept Plan Area also covers about 29% of the total area of TAZ 395, none of which was within the UGB. All of TAZ 395's 2020 non-retail jobs—a total of 1,395 jobs—were assigned to the Concept Plan Area, under the assumptions that development would occur in the Concept Plan Area first and that existing quarry jobs would be replaced by any new industrial development that might occur. Thus, the "base future" traffic volumes already include the traffic from 1,810 jobs the regional model assumes will exist in the Concept Plan Area.

Based on direction from City of Tualatin staff, the following assumptions were used to develop "reasonable worst case" 2025 development scenarios for each of the three land use alternatives:

- 20% of the gross buildable acres were assumed to be used for public rights-of-way;
- 75% of the Concept Plan Area was assumed to be fully developed by 2025; and
- Development was assumed to be evenly split between "light industrial" uses (e.g., printing, material testing, and assembly of data processing equipment) and "business park" uses (e.g., flex-type space for technology companies).

The Institute of Transportation Engineers (ITE) *Trip Generation* manual, 7th Edition, was used to estimate the number of weekday p.m. peak hour trips per acre for the two land uses. ITE data were then used to convert trips per acre to trips per employee. Table 1 summarizes the total number of jobs forecast for 2025 for each land use alternative, along with the net increase in jobs, compared to the Tualatin TSP's 2020 land use forecasts.

The net increase in jobs for each alternative was then converted into a corresponding number of trips, based on ITE rates for each land use and in proportion to the number of jobs contributed by each land use. During the weekday p.m. peak hour, the number of net new trips generated by the Concept Plan Area ranged from 1,475 to 1,570, depending on the alternative. During the weekday a.m. peak hour, the range was 1,665 to 1,770 trips.

**Table 1
 Job Forecasts**

	Alternative I	Alternative II	Alternative III
CONCEPT PLAN AREA			
Gross buildable acres*	337	346	352
Public right-of-way (20%)**	67.4	69.2	70.4
Net buildable acres	269.6	276.8	281.6
Acres developed by 2025 (75%)**	202.2	207.6	211.2
LIGHT INDUSTRIAL			
Net developed acres	101.1	103.8	105.6
Jobs per acre	11.5	11.4	11.4
Jobs	1,164	1,188	1,204
BUSINESS PARK			
Net developed acres	101.1	103.8	105.6
Jobs per acre	43.2	43.2	43.2
Jobs	4,365	4,482	4,560
SUMMARY			
Total jobs by 2025	5,529	5,670	5,764
Tualatin TSP jobs forecast	1,810	1,810	1,810
Net increase in jobs, compared to TSP	3,719	3,860	3,954

*Estimate by OTAK, Inc. **City staff estimate

Trip Distribution

Metro provided select-zone runs from the 2020 version of the regional travel model for TAZs 372 and 395, which respectively cover the northern and southern halves of the Concept Plan Area. These runs were used to forecast the percentage of site-generated trips that would go to or from a particular direction. The two zones produced similar trip distribution patterns, with two exceptions. TAZ 372 had a considerably higher distribution north on SW 124th Avenue than did TAZ 395, while TAZ 395 had a much higher distribution south toward Wilsonville than did TAZ 372. The results of the runs for the two TAZs, both inbound and outbound, were averaged to determine an overall trip distribution for the Concept Plan Area. (The trip distribution was assumed to be the same in the year 2025 as the 2020 distribution produced by the regional model.) Table 2 shows the trip distribution percentages used for this analysis.

**Table 2
 2025 Trip Distribution**

Location	Trip Distribution Percentage
Sherwood via SW Oregon Street	14%
Highway 99W south & Roy Rogers	11%
SW 124 th Avenue north	13%
Boones Ferry Road north	2%
I-5 south	13%
North Wilsonville—west of I-5	2%
North Wilsonville—east of I-5	3%
I-5 north	17%
I-205 east	8%
Tualatin Town Center	6%
Tualatin east & south of Town Center	11%

Figures 2-4 show the net new site-generated traffic at each study intersection, for each land use alternative. As explained in the previous section, the “base future” traffic volumes include the traffic associated with 1,810 jobs that the regional model already assumes for the Concept Plan Area, while the land use alternatives result in 3,719 to 3,954 net new jobs. Therefore, the total number of trips associated with the Concept Plan Area, including the trips already included as part of the “base future” volumes, is approximately 50% higher than shown in Figures 2-4.

Future Traffic Operations by Alternative

Base Future Alternative

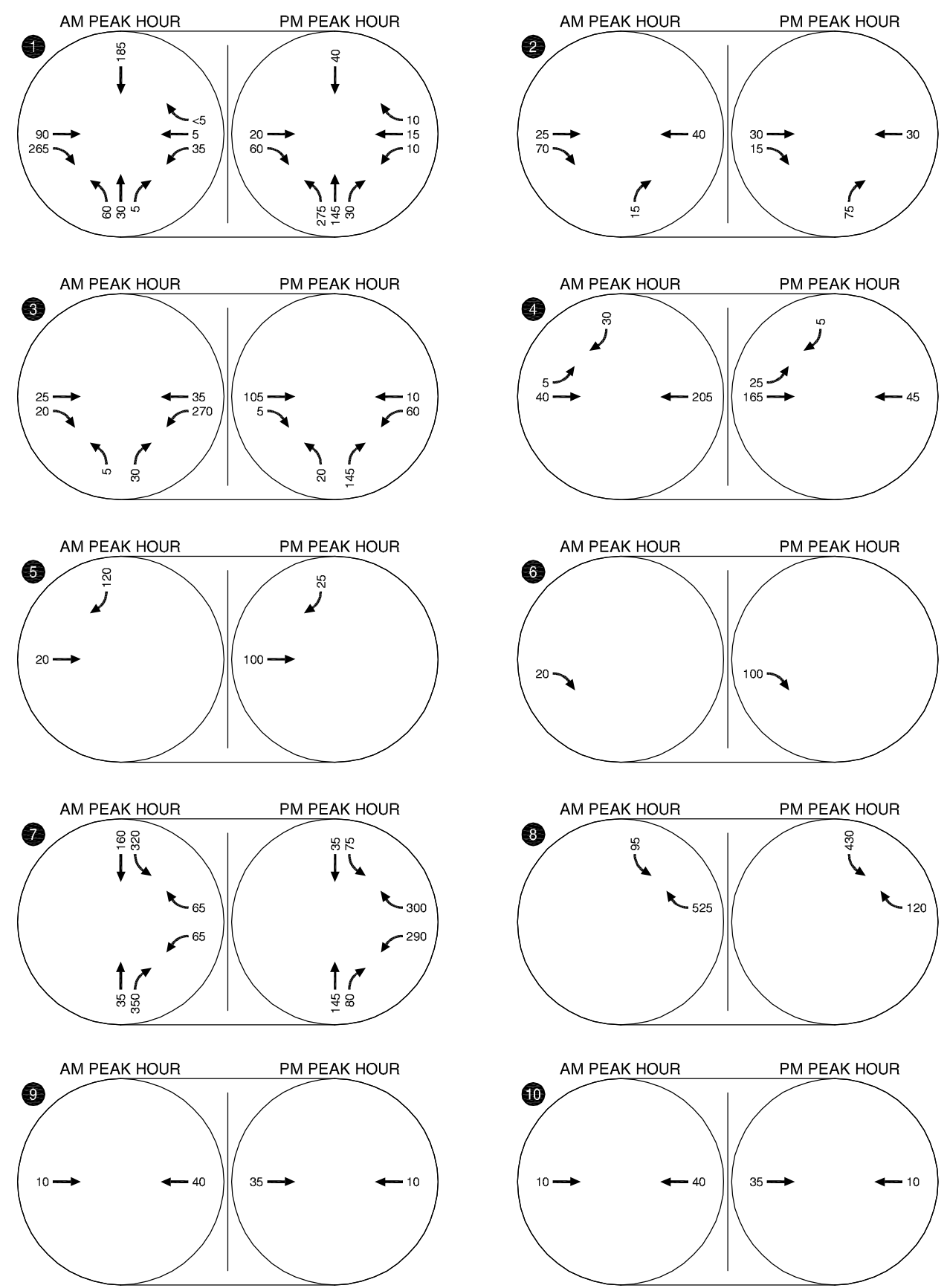
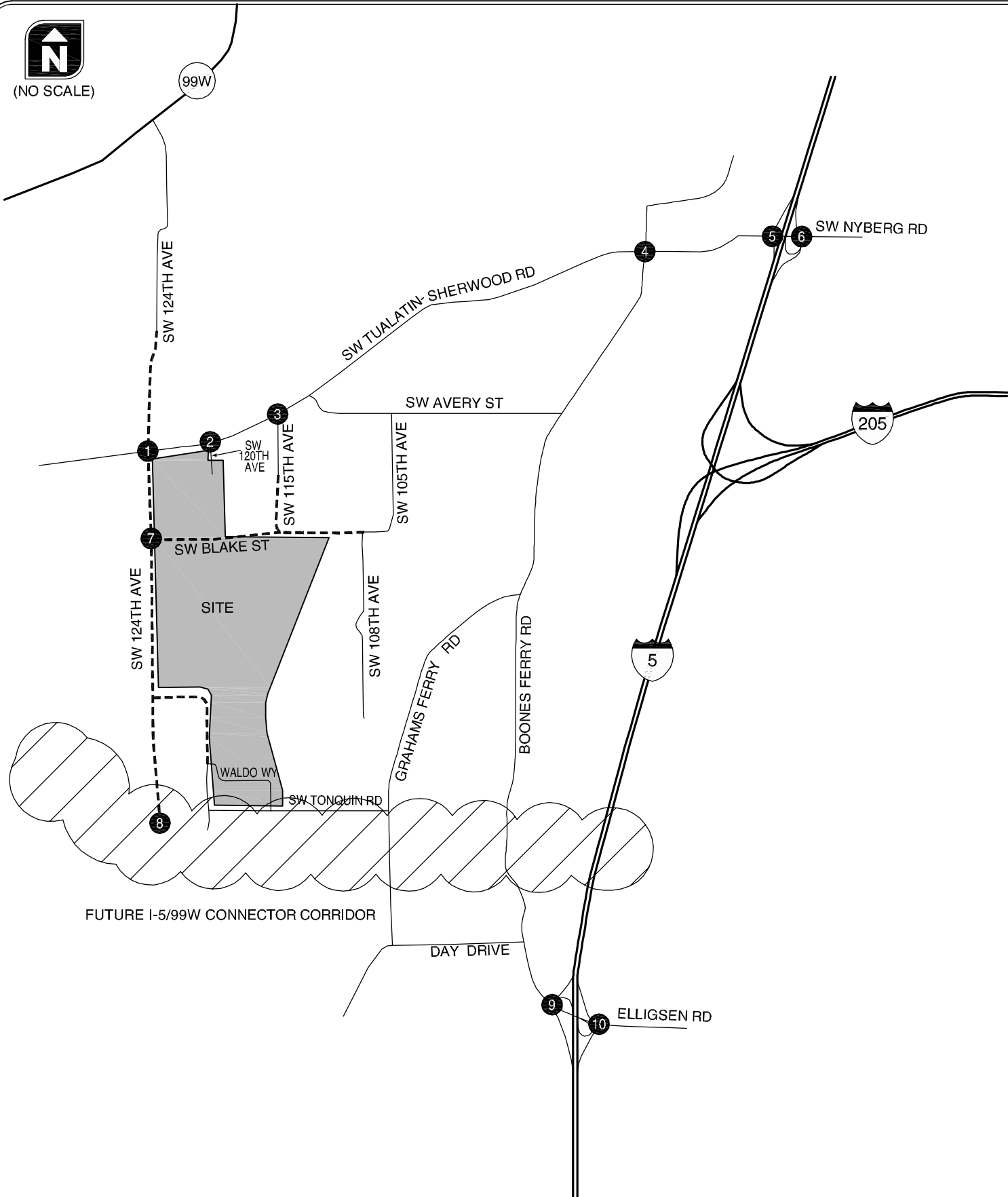
Table 3 and Figure 5 present “base future” traffic operations (without redevelopment of the Concept Plan Area) at the study intersections. The three study intersections within the Tualatin Town Center will operate at or above their respective jurisdictions’ traffic operations standards in 2025. All of the other intersections studied will operate within their jurisdictions’ standards in the year 2025.

Table 3
“Base Future” Traffic Operations

Location	A.M. Peak Hour		P.M. Peak Hour	
	LOS	v/c	LOS	v/c
SW Nyberg Road/I-5 Northbound Ramps	D	1.03	B	0.66
SW Nyberg Road/I-5 Southbound Ramps	D	0.99	C	0.90
SW Tualatin-Sherwood Road/SW Boones Ferry Road	F	1.14	F	1.15
SW Tualatin-Sherwood Road/SW 115 th Avenue				
SW Tualatin-Sherwood Road/SW 120 th Avenue	D	0.13	D	0.18
SW Tualatin-Sherwood Road/SW 124 th Avenue	D	0.87	C	0.76
SW Blake Street/SW 124 th Avenue				
Connector/SW 124 th Avenue	C	0.83	C	0.80
SW Tonquin Road/SW Waldo Way (west)	C	0.07	C	0.12
SW Boones Ferry Road/I-5 Southbound Ramps	C	0.89	B	0.73
SW Elligsen Road/I-5 Northbound Ramps	B	0.71	B	0.54

LOS: level of service, v/c: volume-to-capacity ratio, shading: intersection does not exist in this alternative

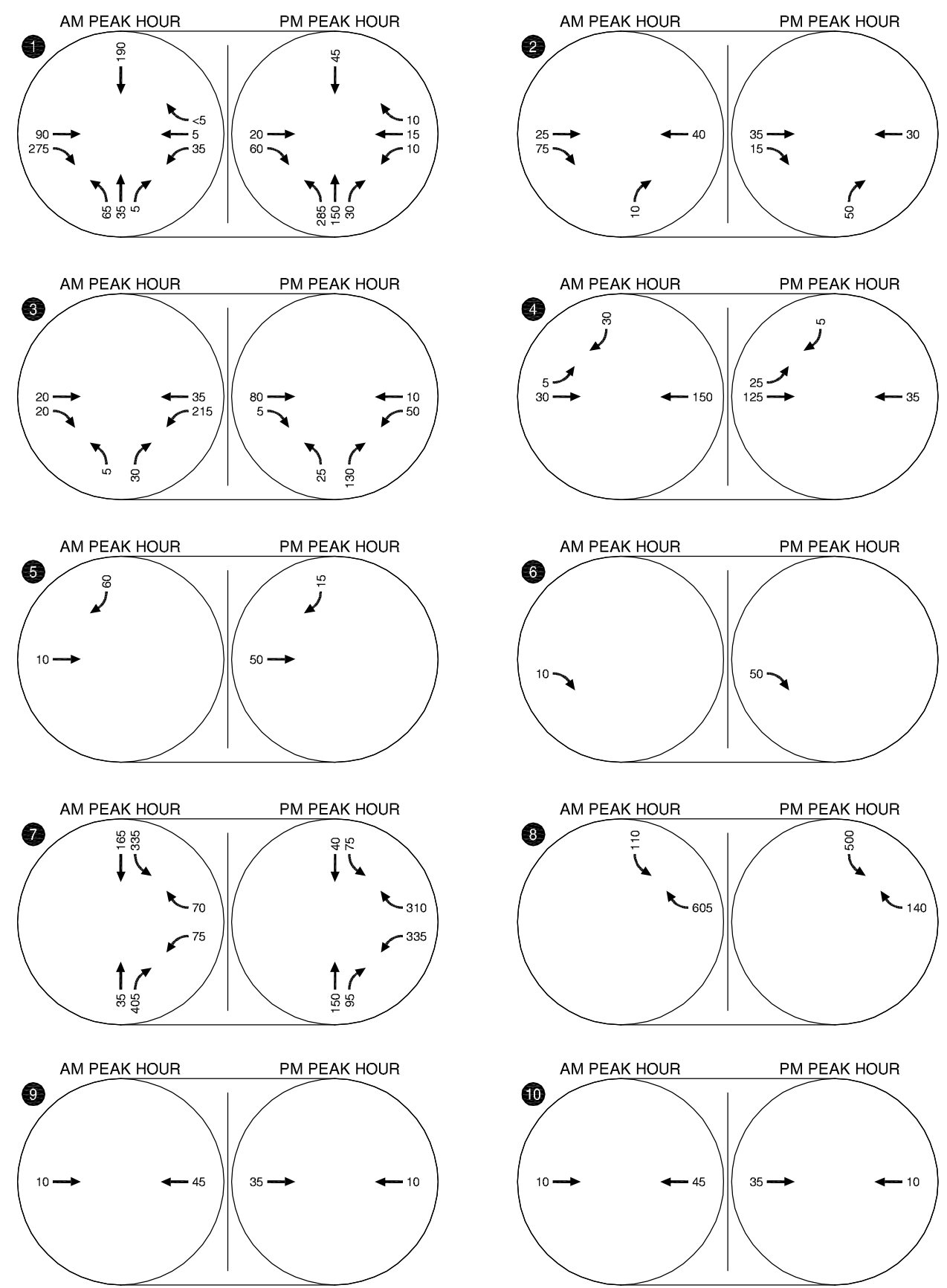
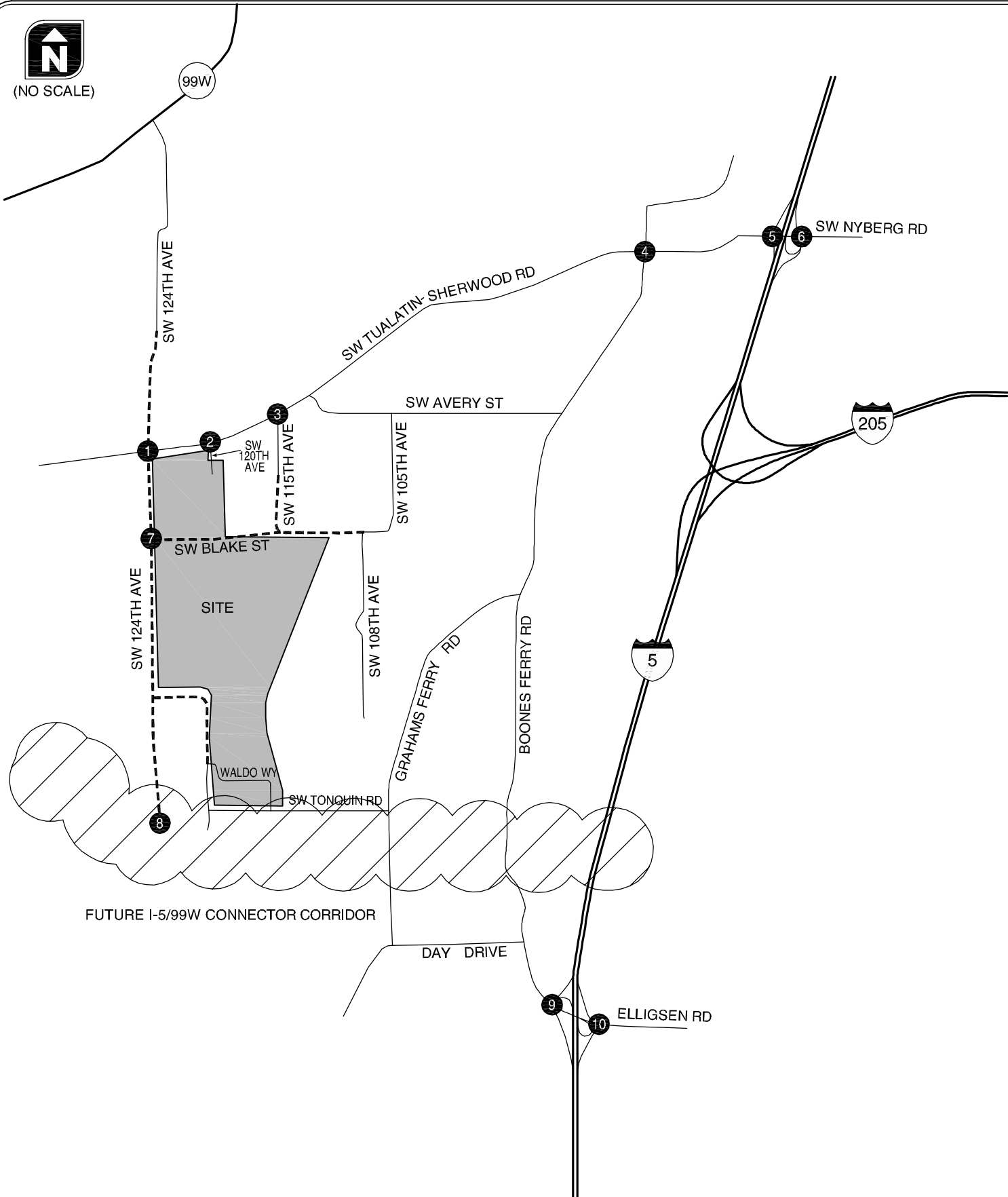
The SW Tualatin-Sherwood Road/SW Boones Ferry Road intersection operates at LOS F and over capacity during both the 2025 weekday a.m. and p.m. peak hours in the “base future” scenario. This intersection is constrained by the railroad tracks to the west, development elsewhere, and a general desire to not cut off the Tualatin Commons area from the remainder of downtown Tualatin by continuing to widen roads. The Tualatin Town Center Plan identifies that this intersection could be mitigated to LOS D by (1) prohibiting left turns northbound and southbound on SW Boones Ferry Road, (2) providing new local street connections to serve the diverted left-turning traffic, and (3) extending SW Lower Boones Ferry Road over the Tualatin River to provide another east-west route into Tualatin’s industrial area. A decision on how to mitigate this intersection will be made through the Town Center Plan process.



2025 SITE-GENERATED TRAFFIC VOLUMES - ALTERNATIVE I
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE
2

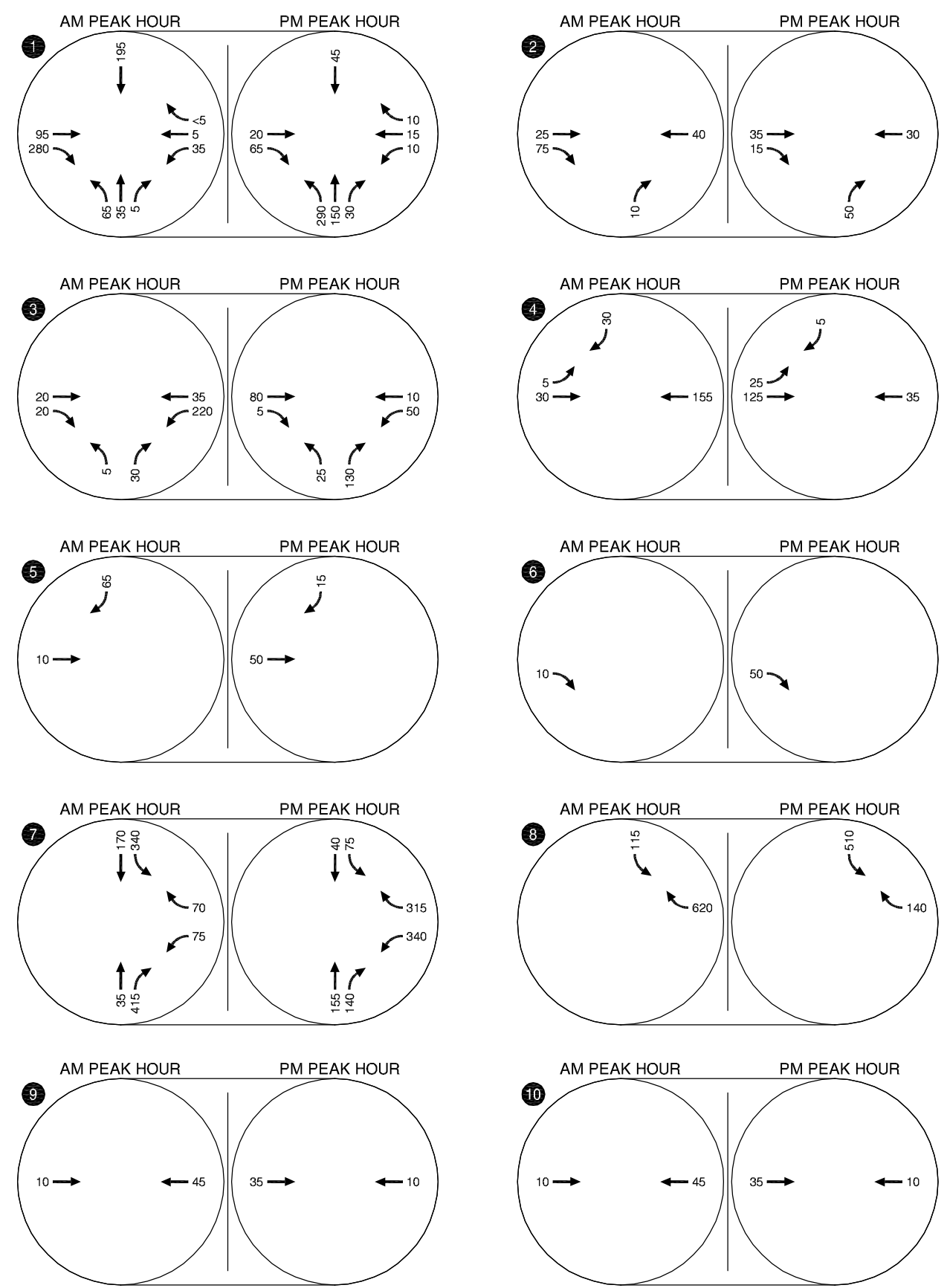
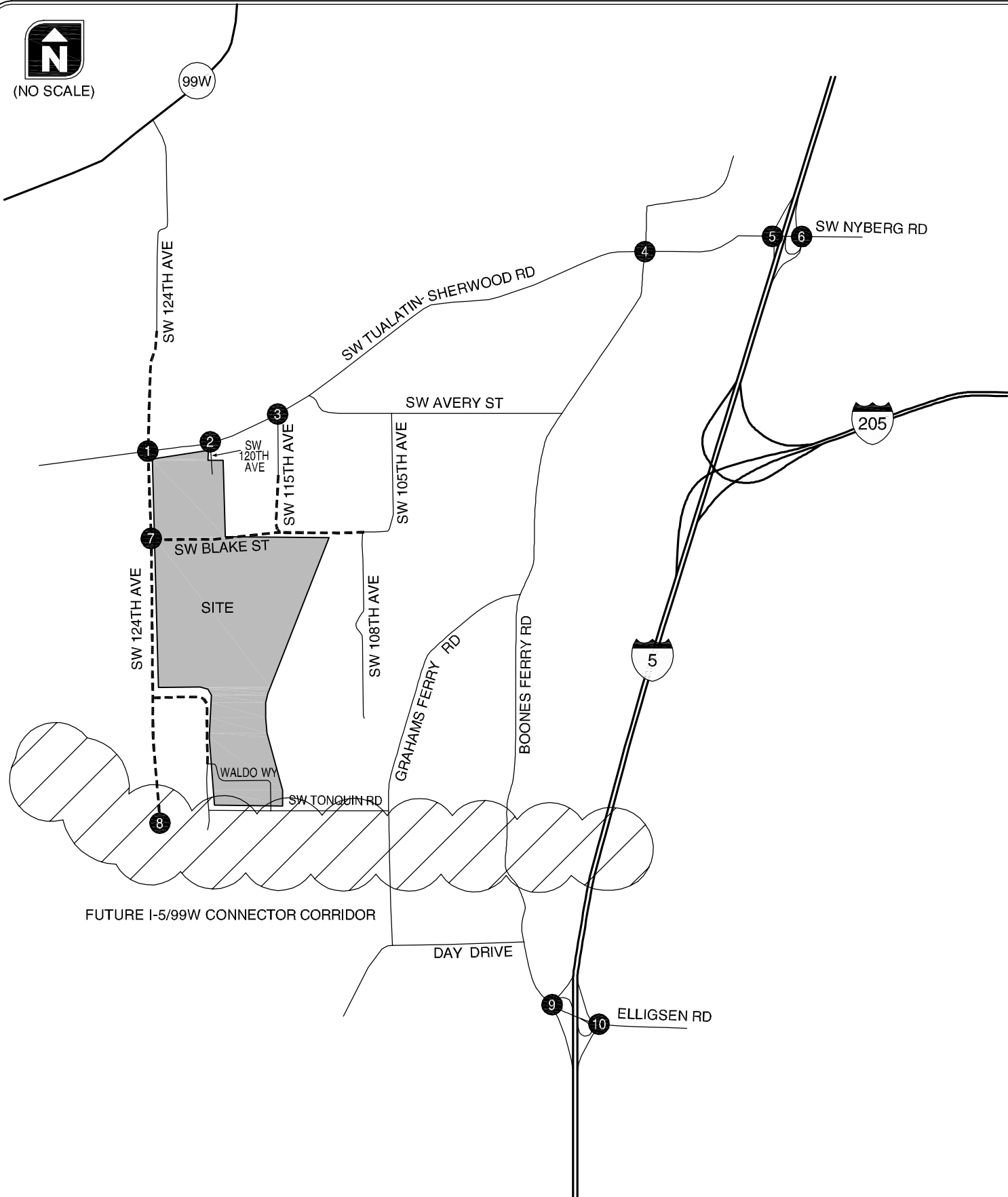
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2025 SITE-GENERATED TRAFFIC VOLUMES - ALTERNATIVE II
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE 3

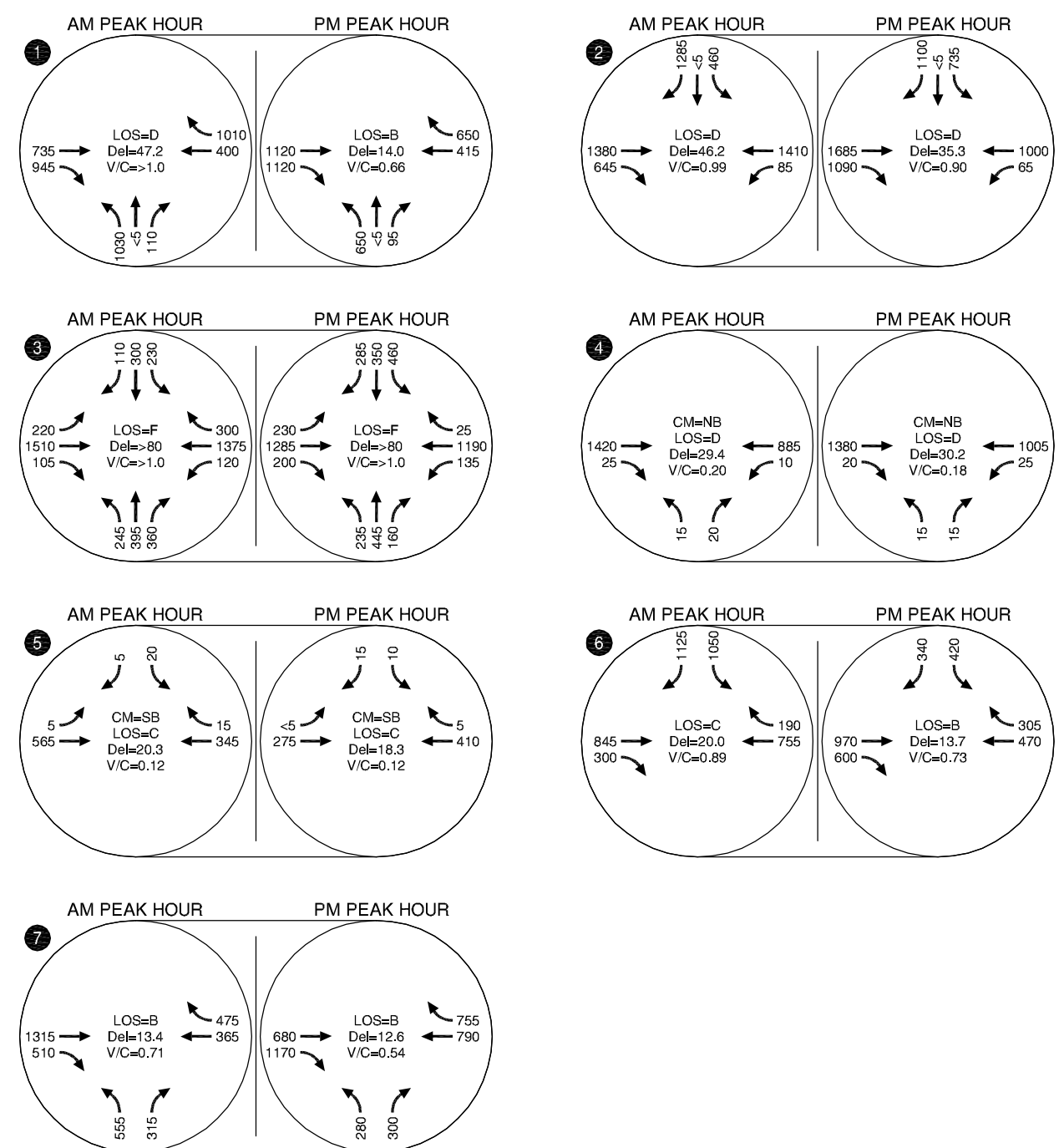
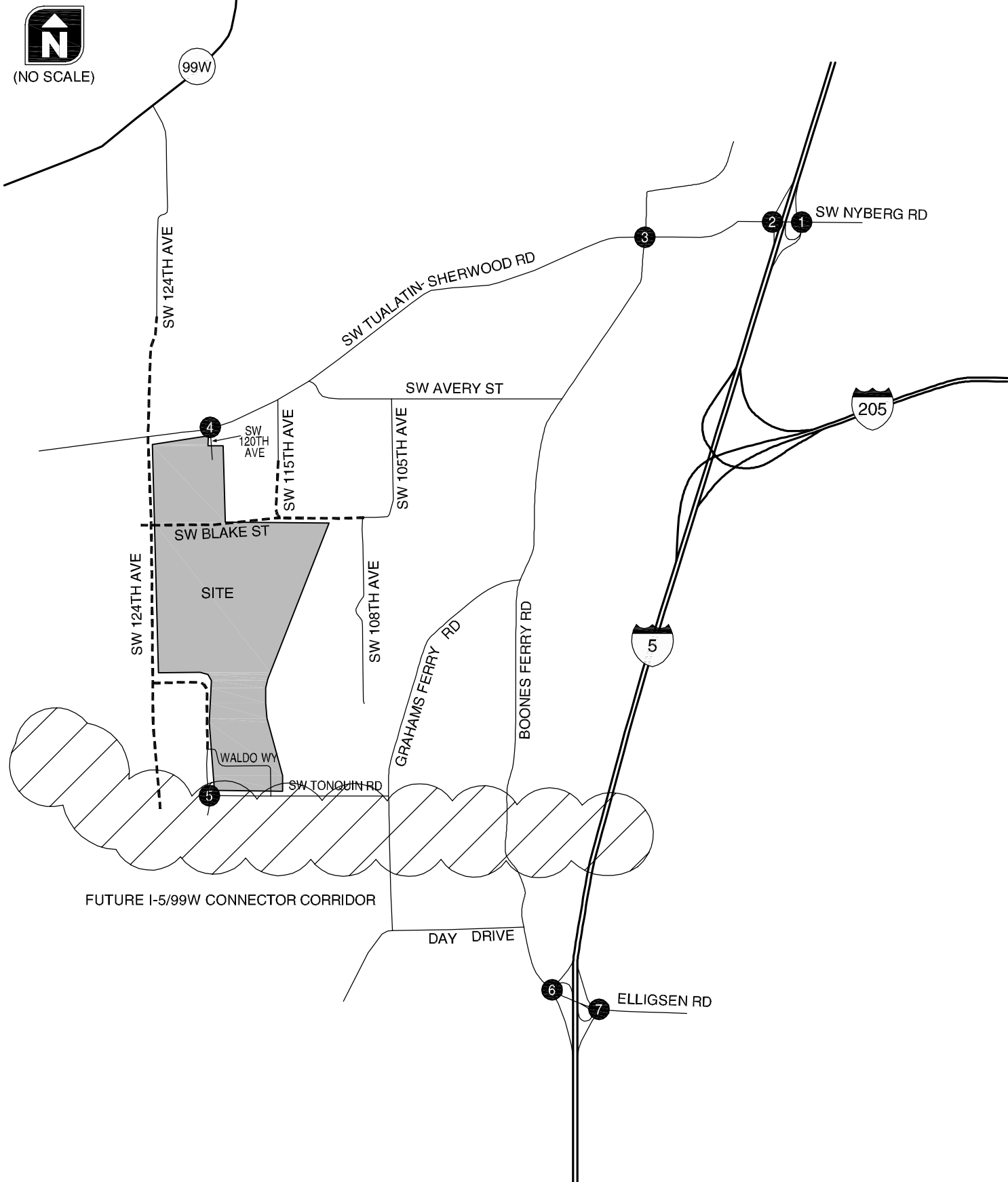
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2025 SITE-GENERATED TRAFFIC VOLUMES - ALTERNATIVE III
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE
4

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2025 BASE FUTURE TRAFFIC CONDITIONS
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE
5

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The SW Nyberg Road/I-5 Northbound Ramps intersection operates over capacity during the 2025 weekday a.m. peak hour, due to the high right-turning volume from westbound Nyberg Road onto northbound I-5. Providing a free-flow right-turn lane for this movement (similar to the one at the SW Elligsen Road/I-5 Northbound Ramps intersection) would address this traffic operations issue, resulting in LOS C operations and a v/c ratio of 0.52.

The SW Nyberg Road/I-5 Southbound Ramps intersection operates near capacity during the 2025 weekday a.m. peak hour, due to the high right-turning volume exiting I-5. Restriping the existing lanes to provide left, left-through-right, and 2 right-turn lanes (i.e., providing a triple right turn) would result in LOS C operations and a v/c ratio of 0.84.

New Intersection Assumptions

New signalized intersections were sized to provide LOS D and under-capacity conditions during peak hours. The following lane assumptions were used for the new signalized intersections:

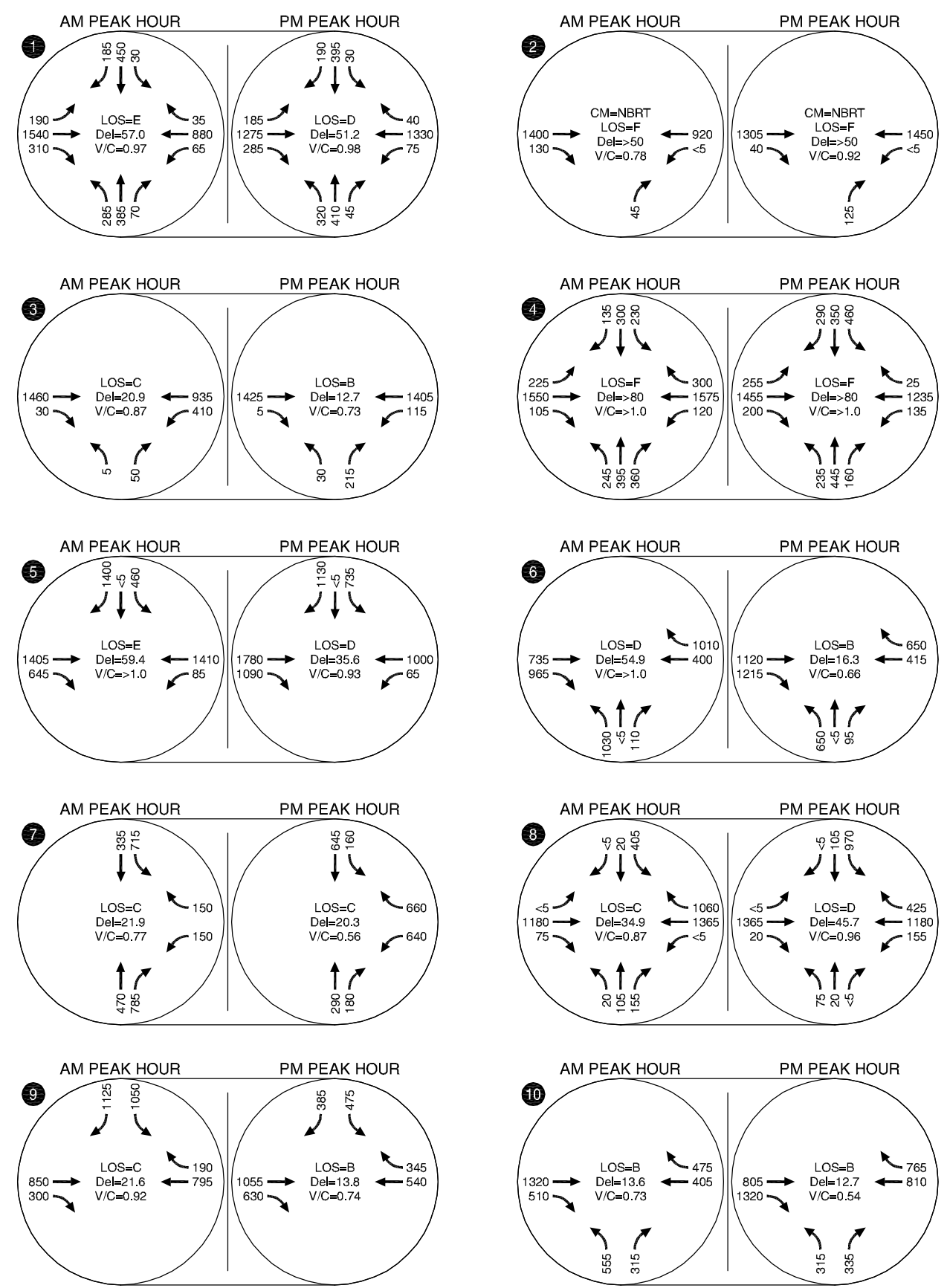
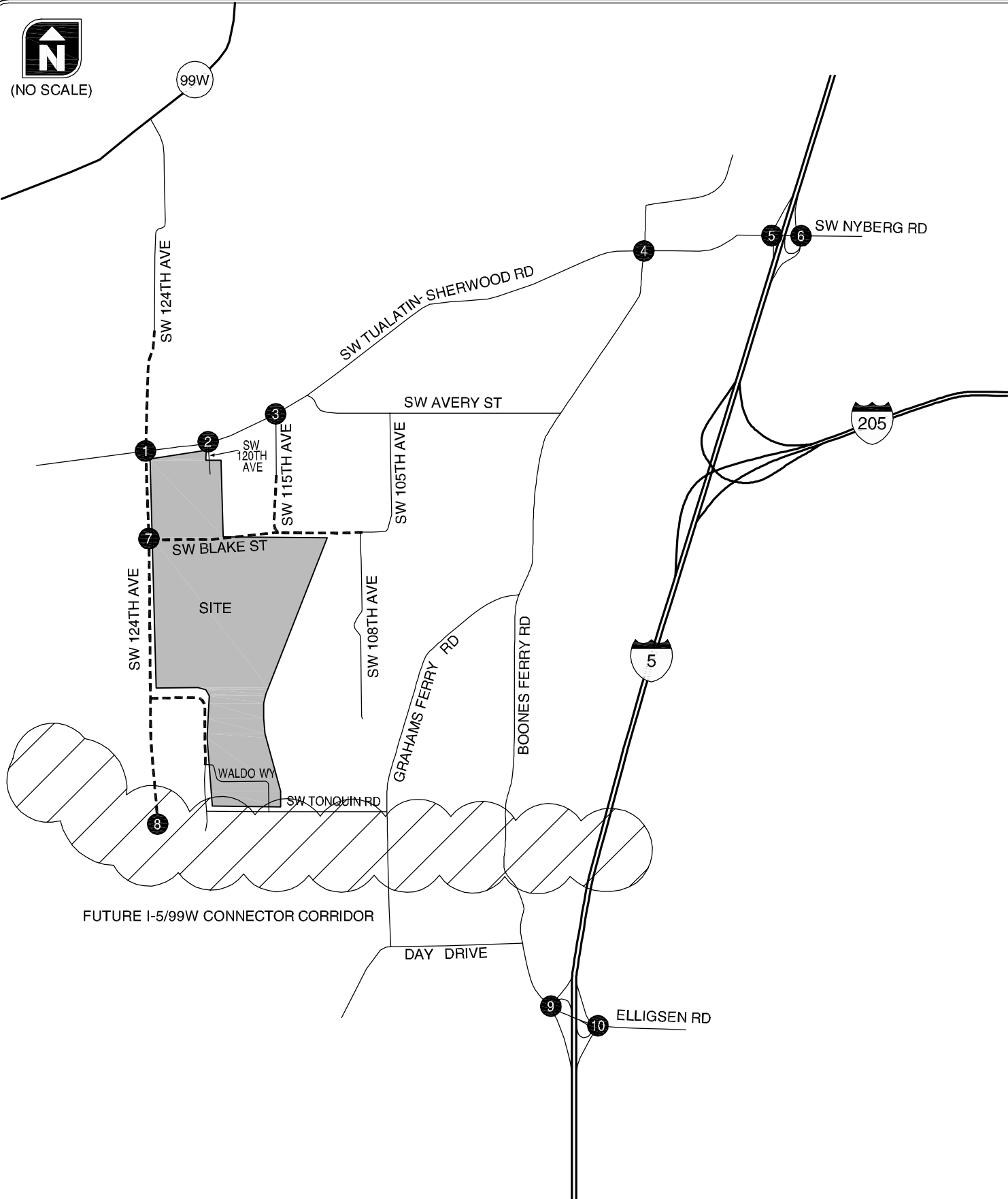
- **SW Tualatin-Sherwood Road/SW 115th Avenue:** Separate left- and right-turn lanes northbound, left-turn lane westbound.
- **SW Tualatin-Sherwood Road/SW 124th Avenue:** Left- and right-turn lanes on all approaches.
- **SW Blake Street/SW 124th Avenue:** Separate left- and right-turn lanes westbound, left-turn lane southbound, right-turn lane northbound.
- **Connector/SW 124th Avenue:** Left- and right-turn lanes and 2 through lanes eastbound and westbound (with the westbound right-turn free-flowing), 2 left-turn and a through-right lane southbound, and a left-turn and through-right lane northbound.

Alternative I

In Alternative I, north-south circulation within the Concept Plan Area is provided by a collector street paralleling SW 124th Avenue on the west side of the area. SW Blake Street extends east-west through the area, connecting with SW 124th Avenue at a new signalized intersection. SW Tonquin Road is realigned to intersect SW 124th Avenue at a new unsignalized intersection between SW Blake Street and the Connector. The road network in this alternative tends to focus traffic patterns more toward SW Tualatin-Sherwood Road than in the other two alternatives.

A preliminary analysis of the SW Tualatin-Sherwood/SW 120th Avenue intersection found that it would quickly drop to LOS F conditions as left- and right-turn volumes increased. As a result, it was assumed that this intersection would be restricted to right-in, right-out movements in the future under any land use alternative. It was also assumed that SW Blake Street would serve two-thirds of the site traffic wishing to use SW 124th Avenue, while the realigned SW Tonquin Road (not evaluated) would serve the other one-third.

Table 4 and Figure 6 provide the traffic operations results associated with Alternative I. Analysis worksheets are provided in Appendix B.



2025 TOTAL TRAFFIC CONDITIONS - ALTERNATIVE I
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE
6

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Table 4
Future Traffic Operations: Alternative I

Location	A.M. Peak Hour		P.M. Peak Hour	
	LOS	v/c	LOS	v/c
SW Nyberg Road/I-5 Northbound Ramps	D	1.07	B	0.66
SW Nyberg Road/I-5 Southbound Ramps	E	1.06	D	0.93
SW Tualatin-Sherwood Road/SW Boones Ferry Road	F	1.26	F	1.18
SW Tualatin-Sherwood Road/SW 115 th Avenue	C	0.87	B	0.73
SW Tualatin-Sherwood Road/SW 120 th Avenue	F	0.78	F	0.92
SW Tualatin-Sherwood Road/SW 124 th Avenue	E	0.97	D	0.98
SW Blake Street/SW 124 th Avenue	C	0.77	C	0.56
Connector/SW 124 th Avenue	C	0.87	D	0.96
SW Tonquin Road/SW Waldo Way (west)				
SW Boones Ferry Road/I-5 Southbound Ramps	C	0.92	B	0.74
SW Elligsen Road/I-5 Northbound Ramps	B	0.73	B	0.54

LOS: level of service, v/c: volume-to-capacity ratio, shading: intersection does not exist in this alternative

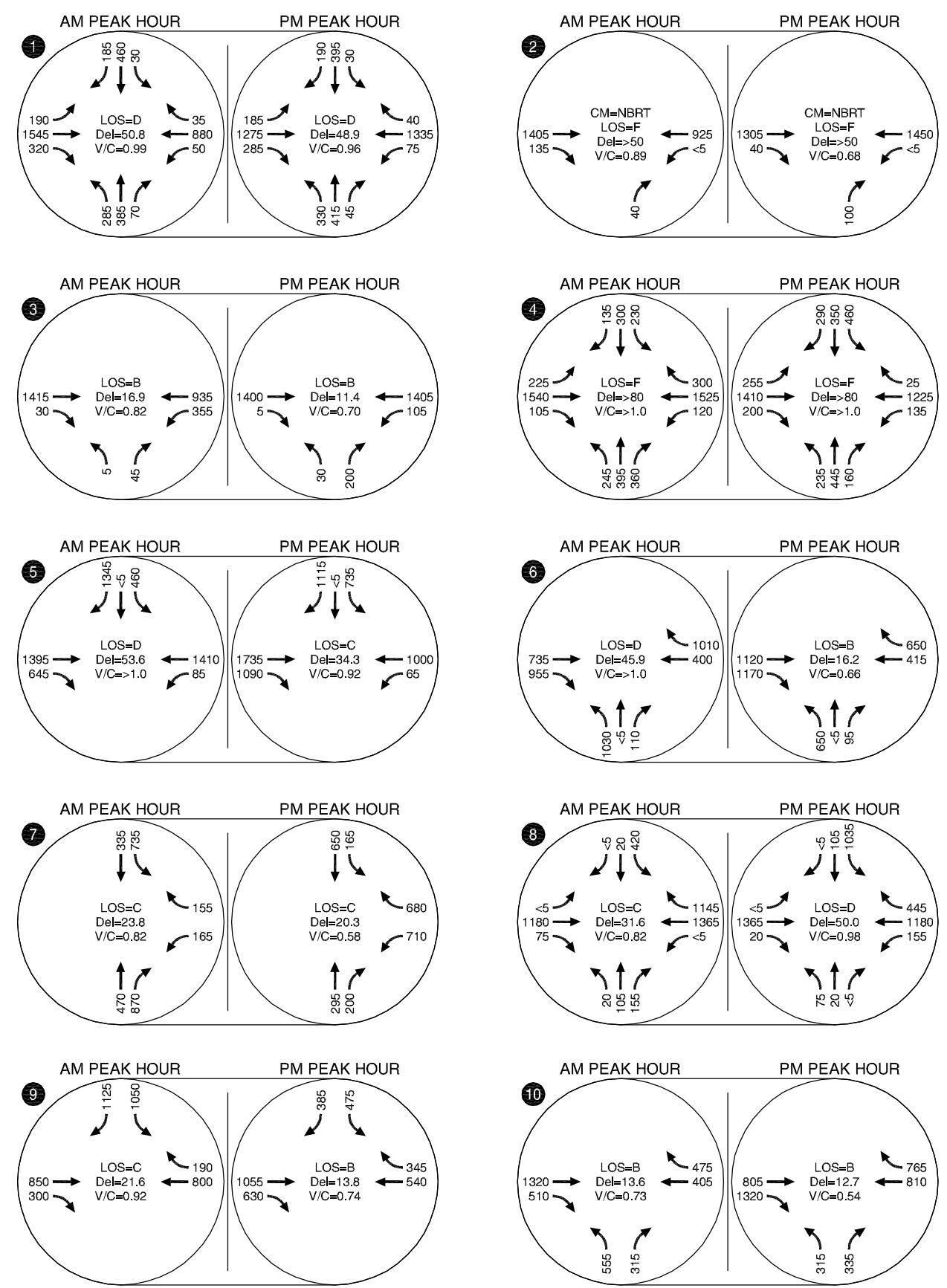
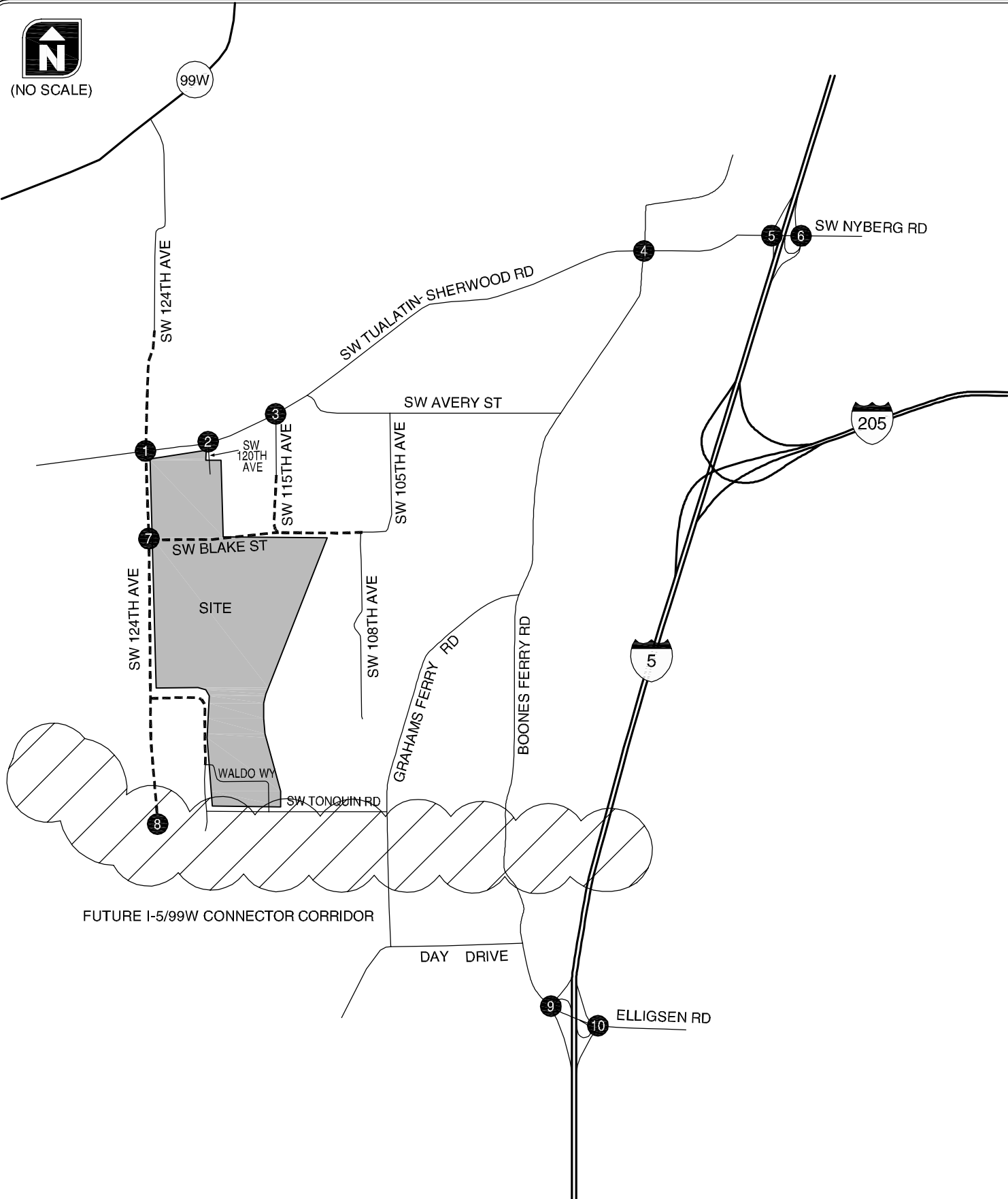
The operations at the intersections within the Town Center area worsen as a result of the added traffic. However, all can be mitigated as described previously in the “base future” section. Additionally, the SW Tualatin-Sherwood Road/SW 124th Avenue intersection would operate at LOS E and near capacity during the 2025 weekday a.m. peak hour under this alternative. Providing a second northbound left-turn lane would result in LOS D operations and a v/c ratio of 0.87. The SW Tualatin-Sherwood Road/SW 120th Avenue intersection would operate at LOS F for northbound right-turning traffic; however, the SW 115th Avenue traffic signal would be available as an alternative route.

Alternative II

In Alternative II, north-south circulation within the Concept Plan Area is provided by a collector street (SW 115th Avenue) along the east side of the area. SW Blake Street extends east-west through the area, connecting with SW 124th Avenue at a new signalized intersection. SW Tonquin Road is realigned to intersect SW 124th Avenue at a new unsignalized intersection between SW Blake Street and the Connector.

This alternative includes a commuter rail station in the southeast portion of the Concept Plan Area. In the absence of a “southern freeway” Connector, which would bring traffic from Highway 99W directly past the Concept Plan Area, it is assumed that the station would mostly serve residential neighborhoods in southwest Tualatin and not be a significant park-and-ride draw. Commuters from the south on I-5 would find the Wilsonville station more convenient, while commuters from Highway 99W would find staying on SW Tualatin-Sherwood Road to the downtown Tualatin station more convenient.

Table 5 and Figure 7 provide the traffic operations associated with Alternative II. Analysis worksheets are provided in Appendix C.



2025 TOTAL TRAFFIC CONDITIONS - ALTERNATIVE II
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

FIGURE
7

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**Table 5
 Future Traffic Operations: Alternative II**

Location	A.M. Peak Hour		P.M. Peak Hour	
	LOS	v/c	LOS	v/c
SW Nyberg Road/I-5 Northbound Ramps	D	1.03	B	0.66
SW Nyberg Road/I-5 Southbound Ramps	D	1.03	C	0.92
SW Tualatin-Sherwood Road/SW Boones Ferry Road	F	1.24	F	1.18
SW Tualatin-Sherwood Road/SW 115 th Avenue	B	0.82	B	0.70
SW Tualatin-Sherwood Road/SW 120 th Avenue	F	0.78	F	0.65
SW Tualatin-Sherwood Road/SW 124 th Avenue	D	0.99	D	0.96
SW Blake Street/SW 124 th Avenue	C	0.82	C	0.58
Connector/SW 124 th Avenue	C	0.82	D	0.98
SW Tonquin Road/SW Waldo Way (west)				
SW Boones Ferry Road/I-5 Southbound Ramps	C	0.92	B	0.74
SW Elligsen Road/I-5 Northbound Ramps	B	0.73	B	0.54

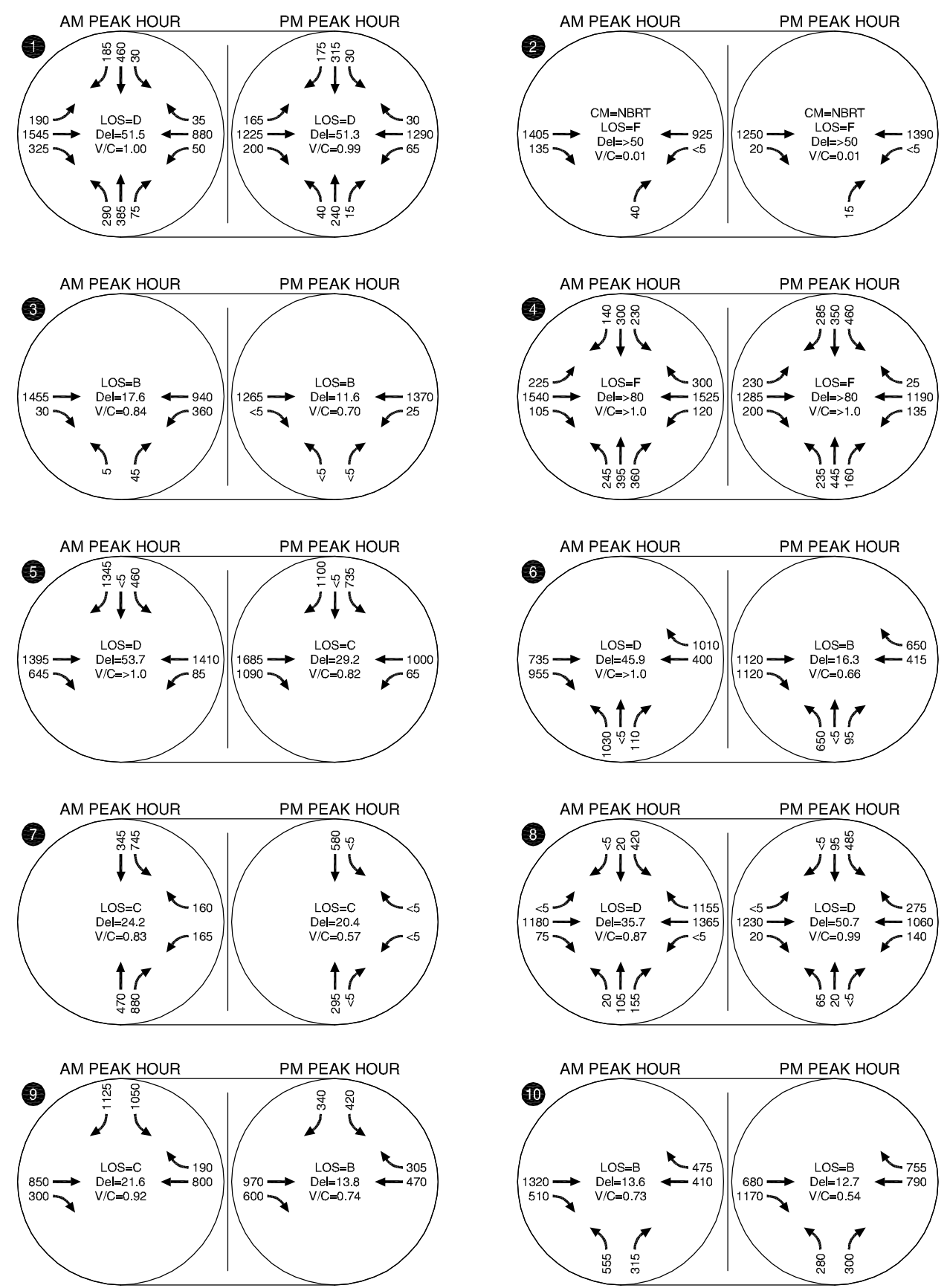
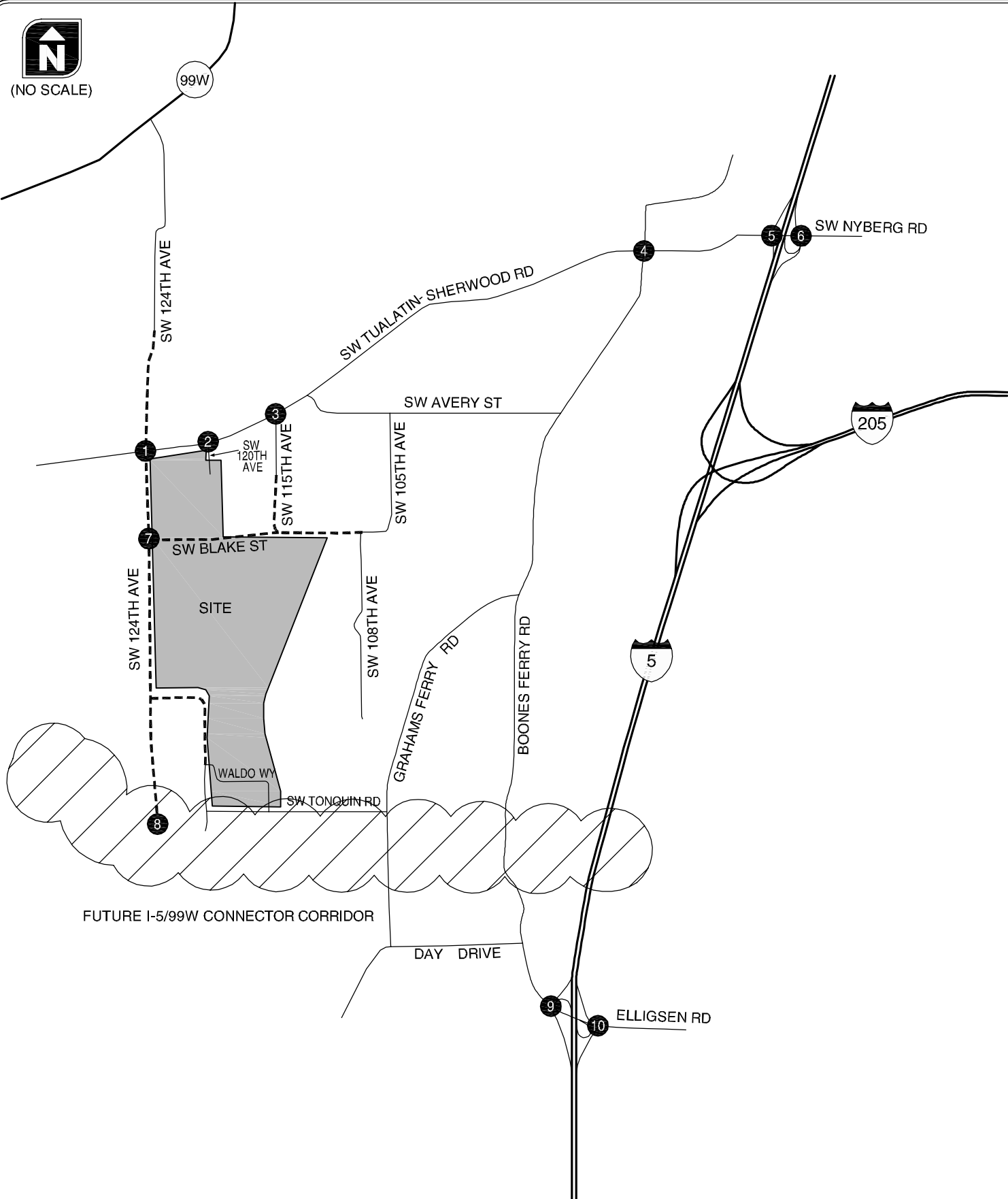
LOS: level of service, v/c: volume-to-capacity ratio, shading: intersection does not exist in this alternative

Alternative II's improved accessibility to SW 124th Avenue results in a greater of proportion of site traffic using the Collector instead of SW Tualatin-Sherwood Road, compared to Alternative I; however, this benefit is somewhat offset by Alternative II's larger amount of developed area and correspondingly higher trip generation. The same intersection issues noted previously generally also apply to Alternative II; however, unlike Alternative I, the SW Tualatin-Sherwood Road/SW 124th Avenue intersection meets operations standards without requiring a second northbound left-turn lane.

Alternative III

In Alternative III, north-south circulation within the Concept Plan Area is provided by a collector street (SW 115th Avenue) along the east side of the area. SW Blake Street extends east-west through the area, connecting with SW 124th Avenue at a new signalized intersection. Tonquin Road is realigned to intersect SW 124th Avenue at a new unsignalized intersection between SW Blake Street and the Connector. Lot sizes south of SW Blake Street are generally larger, and there are no local street connections within this portion of the Concept Plan Area.

Table 6 and Figure 8 provide the traffic operations associated with Alternative III. Analysis worksheets are provided in Appendix D.



2025 TOTAL TRAFFIC CONDITIONS - ALTERNATIVE III
WEEKDAY AM AND PM PEAK HOURS
TUALATIN, OREGON

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Table 6
Future Traffic Operations: Alternative III

Location	A.M. Peak Hour		P.M. Peak Hour	
	LOS	v/c	LOS	v/c
SW Nyberg Road/I-5 Northbound Ramps	D	1.03	B	0.66
SW Nyberg Road/I-5 Southbound Ramps	D	1.03	C	0.82
SW Tualatin-Sherwood Road/SW Boones Ferry Road	F	1.24	F	1.21
SW Tualatin-Sherwood Road/SW 115 th Avenue	B	0.84	B	0.70
SW Tualatin-Sherwood Road/SW 120 th Avenue	F	0.89	F	0.68
SW Tualatin-Sherwood Road/SW 124 th Avenue	D	1.00	D	0.99
SW Blake Street/SW 124 th Avenue	C	0.83	C	0.57
Connector/SW 124 th Avenue	C	0.87	D	0.99
SW Tonquin Road/SW Waldo Way (west)				
SW Boones Ferry Road/I-5 Southbound Ramps	C	0.92	B	0.74
SW Elligsen Road/I-5 Northbound Ramps	B	0.73	B	0.54

LOS: level of service, v/c: volume-to-capacity ratio, shading: intersection does not exist in this alternative

Alternative III's traffic impacts are similar to Alternative II's, but slightly worse, owing to its greater amount of developed area and correspondingly greater trip generation. The SW Tualatin-Sherwood Road/SW 124th Avenue intersection would operate at capacity.

Intersection Mitigation Needs

All of the land use alternatives result, or can result, in acceptable traffic operations in 2025 at the study intersections. Each study intersection is discussed below.

SW Nyberg Road/I-5 Interchange (#289). The Northbound Ramps intersection would require mitigation (a free-flowing westbound right turn) by 2025 regardless of what happens in the Concept Plan Area. The traffic added by any of the Concept Plan's land use alternatives would generate the need to restripe the southbound approach to the Southbound Ramps intersection to provide left, left-through-right, and 2 right-turn lanes (e.g., a triple left turn).

SW Tualatin-Sherwood Road/SW Boones Ferry Road. This intersection will operate at LOS F and over capacity in 2025, without redevelopment of the Concept Plan Area. All three alternatives will add more traffic through the intersection, worsening connections. The Tualatin Town Center Plan identified a set of projects (in particular, prohibiting northbound and southbound left turns at the intersection, developing new local street connections in the Town Center, and extending SW Lower Boones Ferry Road over the Tualatin River) that collectively would result in LOS D operations in 2025. A final decision on this intersection's mitigation would be made through Tualatin Town Center Plan process.

SW Tualatin-Sherwood Road at SW 115th and 120th Avenues. All three land use alternatives assume the continued existence of these intersections, with the SW 115th Avenue intersection being signalized in the future. Under all land use alternatives, the SW 120th Avenue intersection will have LOS F delays, although the critical movements will operate below their capacities. The SW 115th Avenue traffic signal would operate at LOS B under all alternatives. SW 115th Avenue is located approximately 1,000 feet west of the SW Avery Street intersection, which is already

signalized. The resulting signal spacing would be less than the desirable ½ mile, but should be long enough to be workable. In conjunction with redevelopment of the Concept Plan Area, SW 120th Avenue would need to be converted to a right-in, right-out configuration because of the long delays associated with making left turns in and out. All of the land use alternatives provide a direct east-west connection from SW 120th Avenue to SW 115th Avenue, minimizing the out-of-direction travel required. As a result, motorists would be able to avoid the delays associated with the northbound right-turn movement, if they so desired.

SW Tualatin-Sherwood Road/SW 124th Avenue. This intersection would operate near or at its capacity in 2025 under all of the land-use alternatives. The intersection's operations could be improved by providing a second northbound left-turn lane, or by providing east-west collector street connections west of SW 124th Avenue into Sherwood (to provide an alternate route to SW Tualatin-Sherwood Road for motorists traveling between Sherwood and the Concept Plan Area).

SW Blake Street/SW 124th Avenue. This intersection would operate at LOS C and under capacity during weekday peak hours in 2025 under all of the land use alternatives.

Connector/SW 124th Avenue. This intersection would operate at LOS D and under capacity in 2025 under any of the land-use alternatives, although it would operate near capacity during weekday p.m. peak hours. To provide additional capacity, a third southbound left-turn lane would be required, along with an extra lane eastbound on the Connector for a short distance east of the intersection (just long enough to allow traffic to merge into two lane). Alternatively, a grade-separated interchange could be provided, which is the assumed configuration if a "southern freeway" alignment for the Connector is eventually chosen.

North Wilsonville Interchange (#287). Most of the site-related traffic headed to or from the south would use the Connector to I-5 and would therefore avoid this interchange. For this analysis, it was assumed that traffic to or from North Wilsonville would get off the Connector at SW Boones Ferry Road and would follow that road into Wilsonville. As a result, traffic to and from the west side of I-5 in Wilsonville would not pass through the interchange, but traffic to and from the east side of I-5 would. All of the land use alternatives result in LOS C or better traffic operations during weekday peak hours, with the intersections operating at 92% of capacity or better.

Next Steps

The information presented in this memorandum will be an input into the development of a preferred land use alternative. Once that alternative is selected, this memorandum will be updated to reflect the future traffic conditions associated with that alternative, and how that alternative complies with Oregon's Transportation Planning Rule.

Memorandum



17355 SW Boones Ferry Rd.
Lake Oswego, OR 97035
Phone (503) 635-3618
Fax (503) 635-5395

To: Dave Simmons/CH2M-Hill; Elizabeth Stepp and Doug Rux/City of Tualatin
From: Todd Chase, AICP
Date: July 13, 2005
Subject: Task 6. Final Draft Annexation Cost Impact Analysis, SW Tualatin Concept Plan
Project #: 12621

Background

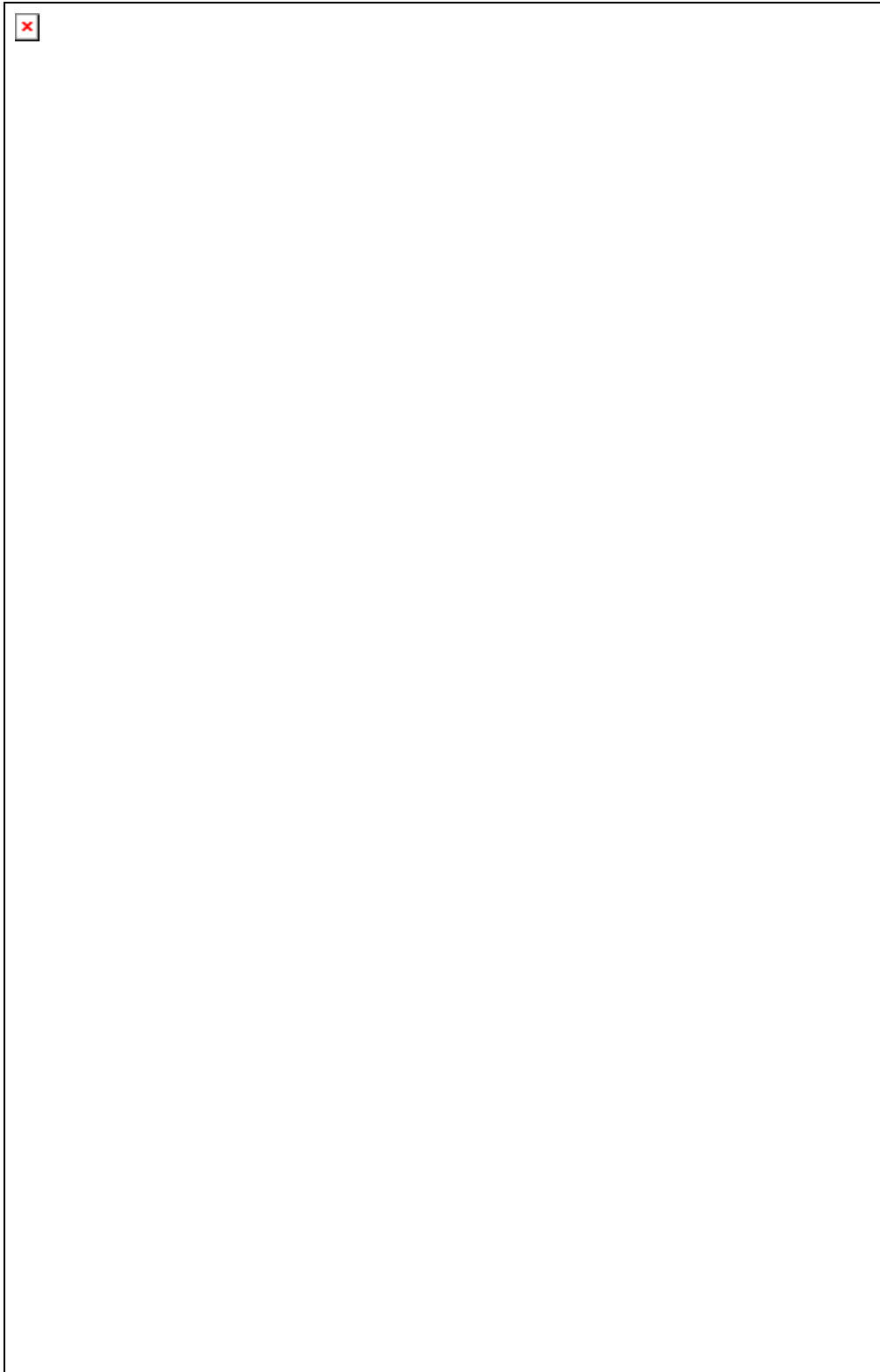
The SW Tualatin Concept Plan will guide the future development of the 431-acre area added to the Urban Growth Boundary (UGB) by Metro in December 2002, to help meet the industrial jobs land demand in the region in the next 20 years. The plan includes a site analysis and a plan for the land use pattern, transportation connections and the provision of urban facilities (water, sanitary sewer system, storm sewer system). The project will also result in an amendment to the Tualatin Development Code (TDC) and an addendum to the Tualatin Transportation System Plan (TSP). Ultimately, the project area will be annexed into the City with the City providing urban services.

The annexation of the area to the City of Tualatin and resulting development will generate revenues and costs for the City. A fiscal impact analysis is contained herein which presents the estimated revenue from property tax, franchise fees, and other revenue sources, if the area is annexed and developed – and compares it to the associated cost of development to the public sector. This analysis is based on Conceptual Development Alternative 3, the Technical Advisory Committee's preferred alternative for the SW Tualatin Concept Plan area.

Methodology

In 2003, the City of Tualatin commissioned a similar analysis of Metro Urban Reserve Study Areas 48 and 49. This report on the SW Tualatin Concept Plan study area is modeled on the previous work. The location of the subject property for the former Urban Reserve Areas 48 and 49 is generally consistent with the current 431-acre area being evaluated in this study, which is illustrated by Figure 1.

Figure 1. SW Tualatin Concept Plan, Alternative 3



General government responsibilities will be transferred to the City of Tualatin once the study area is annexed. With the increase of service responsibilities and costs, the City will receive revenues related to property values and business activities. If costs exceed revenues, a fiscal deficit is incurred; if revenues exceed costs, a surplus is generated. Underlying the analysis is the estimation of revenues and costs associated with annexation and development. Revenue and cost estimates are based on “drivers”, which in this analysis are primarily employment, assessed property values or real market values.

The basic methodology includes the following steps:

1. Determine the land use pattern, employment, population, and assessed land value.
2. Estimate revenues associated with land values, employment and population.
3. Estimate costs of providing services.
4. Compare revenues and costs.
5. Estimate the capital costs of sewer, water, storm sewer, and street systems, upon annexation.
6. Estimate the costs of operations and maintenance (O&M) upon annexation.
7. Estimate the costs of revenues generated to serve this area.
8. Compare revenues and costs

This fiscal analysis is intended to be conservative in forecasting local public revenues that result from future development. The analysis assumes that all necessary “major” public transportation, water, and storm water facilities are constructed to serve the future capacity of the Concept Plan area, but only 75% of the site is developed by the year 2025. Revenue forecasts primarily take into account the existing rate structures in the current fiscal environment. Since there is much uncertainty over changing costs, changing revenues, development absorption, and dependency upon property taxes and franchise fees to fund government services, costs have been converted to constant 2005 dollar amounts. Policy makers and interested citizens should be aware that actual year-to-year fiscal performance of the SW Tualatin Concept Plan area may deviate significantly from the assumptions stated in this analysis; however, these assumptions are considered to be adequate for long-range planning purposes.

Assumptions

- This analysis focuses exclusively on the revenues and costs associated with the study area. Secondary impacts within the City that result from the development of the study area, such as increased population and business activity are not included.
- Upon annexation, general government services will transfer from Washington County, to the City of Tualatin, except for functions performed by Tualatin Valley Fire and Rescue, and Clean Water Services.
- The services provided to the study area will be the same (and at the same level) as those currently provided to City property owners, business, and residents.
- The analysis focuses on potential impacts to the City’s general fund rather than user fees required to enable enterprise funds (for water, sewer, and parks) to breakeven. Where user fees are charged, it is assumed that the fee revenue will be adjusted as necessary to cover the additional costs of providing these services, which is an inherent requirement of local enterprise funds.

Study Area Land Use Pattern

The preliminary land use/transportation concept assumes a mix of new light industrial and business park industrial development on about 431 acres of existing property in unincorporated Washington County. The preliminary development concept (Alt. 3) is illustrated in Figure 1. The primary site access would be by way of 124th Avenue, with 115th Avenue providing secondary access. 124th Avenue would eventually connect with the planned 99W/I-5 Connector highway with an interchange near the southwest portion of the concept plan area. An employment mixed-use area surrounds the pond south of 120th Avenue. This mixed-use area would provide a combination of limited commercial services (e.g., restaurants, dry cleaning, day care, etc.) and allow limited office uses (could be located above commercial retail), research & development, and light industrial/flex space.

A wide landscape buffer area is located along the east side of the concept plan area to provide visual and noise mitigation for the existing single family housing area east of the rail road. A pedestrian/bicycle trail network provides important multimodal connections between adjacent neighborhoods and the emerging employment center. This network utilizes opportunities afforded by the planned open space buffers, ponds, and existing power line easement corridors.

While there were three development concept alternatives considered, this analysis is based on Alternative 3, which is anticipated to yield the most significant amount of buildable land area and is deemed to be the alternative most consistent with public and stakeholder expectations. Alternative 3 combines elements of Alternatives 1 and 2, and emerged as the preferred alternative at the March Open House based on citizen comments and Technical Advisory Committee (TAC) input, and was updated after the June Open House event.

The preliminary land use pattern is presented in Table 1.

Table 1. SW Concept Plan Preliminary Land Use Pattern*

Land Use	Acres
Gross Acres	431
Gross Buildable Acres*	352
Less Public Facilities**	70.4
Net Buildable Acres	281.6
Acres Developed by 2025***	211.2
Net Buildable Acres Developed by 2025	
Light Industrial	105.6
Business Park	105.6

*Based on Conceptual Development Alternative 3. The difference between gross acres and gross buildable acres accounts for public arterial/collector ROW, and areas restricted by wetlands and easements.

** Assumes 20% of gross buildable acres allotted to local street ROW.

***Estimate by City of Tualatin that site is 75% built out by year 2025.

Employment and Population

The forecasted year 2025 employment count for the SW Concept Plan area is shown in Table 2, below. The land use pattern assumes no residential development, and as such the study area population is zero.

Table 2. SW Concept Plan Employment Forecast*

Land Use	Acres	Employees
Business Park	105.6	1,204
Light Industrial	105.6	4,560
Total Employees		5,764

**Employment estimates provided by the City of Tualatin; assumes site is 75% buildout by year 2025.*

Assessed Land Values

Assessed value calculations were derived from the Study Area 48/49 Reports completed in September 2003. The assessed values (AV) are used to determine revenue from property taxes and other sources. As stated in the 2003 report, “to determine the assessed values, the City assigned values to the area based on the values of established businesses elsewhere in the City that most closely matched the City’s assumed land uses for full development.” The 2003 report utilized 1999 assessed values. For the purposes of this analysis, the 1999 values were adjusted to 2005 based on the percent change of assessed value for the entire City of Tualatin from 1999 to 2004. Table 3 presents the original 1999 AV from the 2003 report. Table 4 indicates the percent change in AV between 1999 and 2004, and Table 5 includes the adjusted AV for the comparison buildings. The AV of the comparison buildings was used to calculate the assessed values for the study area as shown in Table 6.

Table 3. 2004 Assessed Valuation Using Comparison Buildings

Land Use	2004 AV \$/Acre	Average Building Sq. Ft. / Acre	Comparison
Business Park	\$2,275,000	21,500	JAE, Radisys, IDT, Mentor Graphics
Light Industrial	\$746,000	15,250	Light Speed, Portland Millwork, Suburban Door

Source: Study Area 48 (Partial) Fiscal Impact Analysis, September 22, 200; updated by City of Tualatin.

Table 4. Percent Change in Assessed Value, City of Tualatin 1999-2004

1999 AV	2004 AV	Annual Change (%)
\$1,726,074,000	\$1,940,993,000	2.5%

Source: Washington County Assessor.

Table 5. Adjusted Assessed Value from 1999 to 2005 (Comparison Buildings)

Land Use	2004 \$AV/Acre	Adjusted 2005 \$AV/Acre	% Change
Business Park	\$2,275,000	\$2,332,000	2.5%
Light Industrial	\$746,000	\$765,000	2.5%

Source: Washington County Assessor.

It should be noted that this analysis is intended to be consistent with Oregon property tax Measures 5, 47 and 50, which limit future property tax increases to new assessed valuation and existing overall assessed valuation to 3.0 percent per year. To keep this analysis conservative and in constant 2005 dollar amounts, we have assumed the existing property tax rate structure is “frozen” at 2005 conversion rates. In reality both assessed values and local government administration and infrastructure O&M costs should generally increase at approximately the same annual rate over the long term.

**Table 6. Assessed Value Calculations by Land Use
SW Tualatin Concept Plan, Year 2025 ***

Business Park	
Acres	105.6
2005 \$AV/Acre	\$2,332,000
Subtotal AV	\$246,000,000
Light Industrial	
Acres	105.6
2005 \$AV/Acre	\$765,000
Subtotal AV	\$81,000,000
Grand Total	
Acres	211.2
AV	\$327,000,000

*Source: Analysis by Otak, Inc. * Based on Conceptual Development Alternative 3 at 75% of total buildout.*

Revenue Estimates

For each revenue estimate, a “driver” is identified which determines the amount of the revenue generated. For property taxes, franchise fees, and land use fees the driver is either assessed or real market property value. For business licensing and court fines, the driver is employment. For the state shared revenue and subdivision fees, the driver is residential population. Given that there is no residential zoning proposed for the study area, these fees are zero. After determining the revenue driver, a per unit revenue driver estimate is obtained based on City of Tualatin budget information, and multiplied by the analogous driver for the area to obtain the revenue estimate for the study area under 75% of full development.

Revenue estimates by source, assuming 75% of full development at a 20-year horizon and constant year 2005 dollars, are presented in Table 7. For the revenue estimates that were taken from the City of Tualatin budget, the budgeted amounts reflect the 2003/2004 fiscal year. For revenue estimates that were taken from the 2003 report (which reflected 1999 revenue estimates), they were adjusted to 2005 figures according the percent change in consumer price index for the 1999-2005 time period. Please note that these preliminary estimates are intended to be conservative annual average forecasts of annual revenues to the City of Tualatin attributed to new development in the SW Tualatin Concept Plan area. It is likely that annual revenues may at times significantly vary from these annual average forecasts. For example, revenues from land use application fees may be much greater than the annual average amount shown during early development years, but taper off as the subject site approaches buildout.

**Table 7. Annual Revenue Forecast
SW Tualatin Concept Plan, Year 2025 ***

Revenue Source	Annual Revenue
Property Tax	\$741,000
Franchise Fees	\$173,000
State Shared Revenues	-
Cigarette Tax	-
OLCC	-
Hotel/Motel Tax	-
Court Fines	\$31,000
Business License Fees	\$38,000
Land Use Fees**	\$10,000
Total Annual Revenues	\$993,000

*Source: Analysis by Otak, Inc. * Based on Conceptual Development Alternative 3 at 75% of total buildout.*

*** Includes fee revenues for land use development applications only, not comprehensive plan amendments and zone changes.*

Cost Estimates

This analysis evaluates three types of fiscal costs: 1) annual administrative (staff) costs; 2) annual operating and maintenance costs (associated with new infrastructure and facilities); and 3) capital costs associated with new public roads, trails, open space and utilities.

The administrative cost of providing services to the SW Tualatin Concept Plan study area is estimated by determining the costs for providing current level of service in Tualatin. The analysis excludes capital costs and operations and maintenance costs, which are summarized in Table 11. Only costs covered by general fund revenues, and not user fees are included in the analysis. The methodology and cost estimates are modeled on the Study Area 48 and 49 reports and parallel the steps presented in the revenue estimate section, above.

The administrative O&M cost assumptions include one additional part-time police officer, and one additional employee for general government administration, and an amount for planning that is equal to the forecasted annual average land use cost associated with development of the study area. It should be noted that a \$10,000 allowance has been allocated to Parks Administration, since some time would be required to monitor public trail construction and manage any contractors doing trail

maintenance (note: parks & open space costs are reflected in Table 9). Also, no administrative O&M cost increase has been assumed for community services (library and recreation) since those costs are more directly related to local population, not industrial employment. Table 8 summarizes the annual administration cost estimate.

**Table 8. Annual Administrative Cost Summary at 75% of Total Buildout
SW Tualatin Concept Plan, Year 2025 ***

Category	Annual Costs
Police	\$42,500
Operations-Park Administration**	\$10,000
Community Services – Library and Recreation	-
General Government Administration	\$20,000
Planning	\$10,000
Annual Administrative Costs	\$82,500

*Source: Analysis by Otak, Inc. * Based on Conceptual Development Alternative 3.*

*** Note, an allowance of \$10,000 in public administrative staff time has been allocated to parks, trails and public open space.*

Fiscal Analysis

A comparison of the cost and revenue information from the preceding sections is presented in Table 9 and demonstrates the net fiscal impact to the City of Tualatin if the study area is annexed and developed. The results are shown in constant 2004 dollars. As shown, total revenue sources total \$993,000 once the area is 75% developed. Annual operations and maintenance costs total \$82,500. The area will therefore run a surplus of \$910,500 at 75% of full development.

Table 9. Annual Average Revenue and Cost Summary
SW Tualatin Concept Plan, Years 2005 to 2025 *

Annual Revenue Sources	2005	2010	2015	2025
Property Tax	\$115,000	\$370,000	\$555,000	\$741,000
Franchise Fee	\$43,000	\$87,000	\$130,000	\$173,000
State Shared	-	-	-	-
Cigarette Tax	-	-	-	-
OLCC	-	-	-	-
Hotel/Motel	-	-	-	-
Court Fines	\$8,000	\$16,000	\$23,000	\$31,000
Business Licensing	\$10,000	\$19,000	\$29,000	\$38,000
Land Use Application Fees	-	\$10,000	\$10,000	\$10,000
Total Annual Revenues	\$176,000	\$502,000	\$747,000	\$993,000
Annual Admin. Costs	2005	2010	2015	2025
Police	\$11,000	\$21,000	\$32,000	\$42,500
Operations – Parks Administration	\$2,500	\$5,000	\$7,500	\$10,000
Community Service – Recreation and Library	-	-	-	-
General Government Administration	\$5,000	\$10,000	\$15,000	\$20,000
Planning	\$10,000	\$10,000	\$10,000	\$10,000
Total Annual Costs	\$28,500	\$46,000	\$64,500	\$82,500
Surplus (Deficit)	\$147,500	\$456,000	\$682,500	\$910,500

Source: Analysis by Otak, Inc. * Based on Conceptual Development Alternative 3 at 75% of total buildout.

Capital Costs

Total capital costs for major roads, sewer, water, and storm water systems have been estimated for complete (100%) buildout of the SW Concept Plan area. Capital cost estimates have been prepared for collector and arterial roads and trunk line systems for sewer and water facilities. Since a project phasing plan has not been developed, we have not attempted to determine which of the “major” public infrastructure facilities would be completed by year 2025, and instead have conservatively assumed that all major facilities would be completed by year 2025 to accommodate the 75% buildout that has been projected for that same time period. For a more detailed description of major public infrastructure costs and facility requirements please refer to separate memoranda on capital costs and infrastructure.

Capital costs are primarily derived based on unit-cost estimates for roads, water and sewer systems. Unit costs were prepared based on local and regional experience with a variety of roadway and pathway projects. Locally, a developer recently funded the construction of a 1,000 linear foot segment of 115th Avenue at a cost of approximately \$475,390 (\$475 per linear foot) to pay for roadway design and construction (no right of way acquisition). This cost funded a half street improvement, including a new travel lane, one bicycle lane, one sidewalk, street illumination and additional public right-of-way.

The preliminary cost estimates shown in Table 10 assume design, construction, and right-of-way acquisition for collector and arterial street improvements, including roadway, bicycle and pedestrian facilities and storm drainage facilities, and street illumination and signage. The capital cost estimates also reflect major off-site sewer and water systems improvements, and trunk lines along major arterial and collector roads, but do not include extraordinary costs that may or may not be required to complete the “major” public infrastructure systems. Examples of extraordinary costs include special right of way acquisition or easements required for steep slopes and storm drainage outside standard right-of-way design sections, wetland permitting, special geotechnical soils work, special environmental mitigation, wetland enhancements, and business or residential relocations. This approach to cost estimating is considered to be adequate for long-range planning purposes. Please refer to separate technical memoranda on infrastructure requirements and capital costs for a more detailed description of required transportation, and water and sewer utilities.

The preliminary cost estimates also assume typical design sections for collector and arterial street improvements. The collector roads are assumed to be 2-lanes with bike lanes, sidewalks, underground storm drainage, and street illumination. The arterial road (124th) is assumed to be four lanes with bike lanes, sidewalks, landscaped median, street illumination, and a center turn lane. Traffic signals are assumed to be enhanced or added at Tualatin Sherwood Highway and 124th, and along 124th Avenue. We have assumed that the pathways would be comprised of soft trails (pervious surface) within the power line easements, and concrete trails around the ponds.

Table 10. Capital Costs, SW Tualatin Concept Plan *

System	Cost**
Arterial (124 th)	\$20,380,000
Collectors	\$12,780,000
Bridge Structures	\$5,000,000
Intersection/Signals	\$1,687,000
Pedestrian/Trails	\$993,000
Water	\$8,200,000
Sanitary Sewer	\$8,600,000
Stormwater Drainage	\$500,000
Total Capital Costs	\$58,140,000

*Source: Otak, Inc. and CH2M-Hill. * Based on Conceptual Development Alternative 3.*

*** All costs stated in constant year 2005 dollars, at complete (100%) buildout. Includes “ordinary” right-of-way acquisition and design costs.*

Operations and Maintenance Costs

In addition to the local public administration costs for police, and general government administration/planning, there will be added costs to maintain the expanded road, water, stormwater drainage and sewer systems. The City of Tualatin will be the entity responsible for maintaining the public street and storm drainage system, and is the likely provider for water, sewer, parks and trails.

Table 11. Summary of Annual Operations & Maintenance Cost Elements
SW Tualatin Concept Plan *

Operations & Maintenance Cost Element	Needed Units	Units	Cost/Unit**	Additional O&M Costs
Water System	3.6	Miles	\$42,000	\$151,000
Sanitary Sewer System	3.6	Miles	\$58,000	\$209,000
Road System	3.6	Miles	\$28,000	\$101,000
Trail System	2.3	Miles	\$10,000	\$23,000
Special Maintenance***	Allowance			\$50,000
Total Estimated O & M Costs				\$534,000

Source: Analysis by Otak, Inc. * Based on Conceptual Development Alternative 3.

** Costs are in year 2005 dollars at 100% buildout.

***May include public maintenance and/or lease payments for public-easements on designated open space and natural areas.

Construction Impacts

In addition to the direct fiscal impacts development would have on the City of Tualatin, there would also be local, regional, and state-wide economic impacts from the creation of direct and indirect construction and permanent employment.

For study purposes, the direct construction impacts have been calculated based on estimated costs of providing infrastructure (roads, sewer, water, storm drainage, trails, etc.) and private construction of buildings, parking areas and open spaces. As indicated in Table 12, it is assumed the total public infrastructure investment of \$58 million would leverage approximately \$262 million in private investment in on-site improvements. Hence, the total public and private investment of \$320 million, when spread out over 25 years is expected to generate about \$144 million in regional materials expenditures, and \$176 million in direct construction payroll. The induced payroll is expected to support over 3,700 person-years of construction employment, or about 187 jobs per year.

There would also be additional indirect jobs, profits and income in the private sector as the direct materials and payroll expenditures circulate within the broader regional economy. These indirect economic benefits have not been included in the analysis of direct fiscal impacts on the city of Tualatin.

To help keep this analysis conservative, the preliminary construction impacts shown in Table 12, assume all of the planned “major” public infrastructure (collector and arterial streets, water, sewer, storm drainage systems, etc.) is constructed by year 2025, but only 75% of the site is developed to its planned capacity.

**Table 12. Summary of Preliminary Construction Impacts
SW Tualatin Concept Plan***

Public Infrastructure	\$58,140,000
Private Development	\$262,200,000
Grand Total Cost	\$320,340,000
Direct Materials Expenditures	\$144,150,000
Direct Construction Payroll	\$176,190,000
Est. Construction Jobs	3,746
Avg. Annual Const. Jobs	187

Source: analysis by Otak, assumes 2.76 million square feet of building area (0.3 FAR) at total value at \$95 per square foot.

Also assumes division of cost is 45% to materials, and 55% to labor.

Wage rates based on the Oregon Employment Department, construction worker average wage rates.

**All costs are in year 2005 dollars at 100% buildout. Assumes construction of planned public arterials, collectors, and sewer/water facilities needed to serve the SW Tualatin Concept Plan area to accommodate 100% of planned build out, which exceeds the 20-year absorption forecast (forecasted to be 75% of build out.)*

Permanent Impacts

The permanent impacts of development in the SW Tualatin Concept Plan area are derived from the additional jobs accommodated on the site in newly developed private buildings. It is conservatively assumed that the site would support approximately 5,764 jobs by year 2025. These new jobs would primarily be in relatively high paying industrial sectors, which typically include manufacturing, high technology, transportation, communication, utilities, and distribution sectors. Otak estimates the annual average wage rate in these industrial categories based on Oregon Employment Department, 2003 covered wages for the Portland Metropolitan Statistical Area. For study purposes, the average wage rate is expected to be \$44,500 for the light industrial land uses and \$37,900 for the business park industrial uses. These data compare to average all industries wage rate of \$39,100, as indicated in Table 13.

The total direct annual payroll from these jobs is expected to be \$248 million by year 2025. The indirect impact from these wages re-circulating through the regional economy is expected to account for an additional economic impact of \$372 million, bring the total economic impact of the SW Concept area development to over \$621 million per year after year 2025.

If we assume that all of these jobs would eventually be “net new” to the state of Oregon and if current state personal income tax rates remained constant, the total induced state income tax revenues would be on the order of \$11 million per year. If the area is included in the Tri-Met service district, the added revenues to Tri-Met would be more than \$2 million per year.

Table 13. SW Tualatin Concept Plan
Year 2025 Permanent Economic Impacts (2005 dollars)

	Light Industrial	Business Industrial	Total
Employment (FTE jobs)	4,560	1,204	5,764
Average Wage Rate	\$44,500	\$37,917	\$41,200
Direct Annual Payroll	\$202,920,000	\$45,652,000	\$248,572,000
Indirect Regional Impact			\$372,858,000
Total Annual Regional Economic Impact			\$621,430,000
Estimated Annual Tri-Met Tax Revenues			\$2,486,000
Estimated Annual State Income Tax Revenues			\$11,186,000

Source: analysis by Otak, assumes average wage rates, based on Oregon Employment Department rates for Light Industrial (manufacturing, trades, transportation, communication, and utilities job classifications), and Business Industrial (based on equal blend of Light Industrial, service, retail, and other service job classifications). Regional impact assumes total multiplier of 2.5. Tri-Met payroll tax is calculated at 1.0%. Oregon State tax revenues based on average tax rate of 4.5%, Oregon Department of Revenue.

Funding Strategies

As with most successful large master planned developments, the eventual development of the SW Tualatin Concept Plan into a major employment area will require a mix of public and private funding and financing for on- and off-site improvements. Transportation facilities (and related bicycle, pedestrian, and roadway storm drainage) is by far the largest cost element, and is typically responsible for 70% to 85% of the total public infrastructure costs required to improve large vacant industrial areas on the urban fringe.¹

Adequate water and sanitary sewer systems, which are less costly than transportation facilities, can also inhibit development of new industrial areas, especially if off-site facilities cannot easily be expanded to accommodate new demand generated from industrial growth and development. As such, a separate funding strategy is required for each type of public infrastructure: transportation, water, sewer, etc.

Given the overwhelming cost of transportation systems (70% of the “major” public infrastructure elements for the SW Tualatin Concept Plan area), the first step in the funding process entails amendments to local (City of Tualatin and Washington County) Transportation System Plans to identify the facilities identified in the concept plan. After the TSP amendment processes occur (assuming there is support from ODOT, DLCD, Metro, City of Sherwood and various local agencies/stakeholders), the city and county can work with local stakeholders to update local ordinances (such as the City of Tualatin Development Code, capital improvement programs and the Metro Regional Transportation Improvement Program (MTIP), and the ODOT State Transportation Improvement Program (STIP) to designate appropriate improvements for funding.

This memorandum describes a variety of ways to fund transportation and other public infrastructure improvements, including expanded water, sewer and storm water improvements. Since most cities,

¹ Otak, Inc. et.al., *Portland-Vancouver PMSA Regional Industrial Land Study, Phase 3*, 2001.

including Tualatin have enterprise funds established to provide and maintain water and sewer systems, those improvements are often funded using a combination of revenue bonds, grants, and “pay as you go” funding approaches, with the costs directly tied to the user fee revenues. Table 14 provides a general description of which funding approach is typically used for certain types of public infrastructure.

Table 14 Selected Potential Funding Sources

Funding Program/Source	Program Description	Applicable Facilities
Grants		
<p>ODOT STIP: Transportation Enhancement Program</p>	<p>Grants for design and construction of transportation facilities that strengthen the cultural, aesthetic or environmental value of transportation systems. Eligible project types are identified in the TEA-21 federal transportation bill. (\$ of grant awards: vary)</p> <p><i>http://www.odot.state.or.us/techserv/engineer/pdu/ENHANCEMENT/Program%20Information/ENHANCEOCT02.htm</i></p>	<p>Arterial Streets</p>
<p>Misc. ODOT STIP Programs</p>	<p>The STIP allocates projects by category including: pavement preservation; bridge replacement; modernization; safety; and operations. Additional ODOT and federal funding programs which are allocated through the STIP process include the Congestion Mitigation Air Quality (CMAQ) Program; Transportation Enhancement Program; statewide (bucketed program); Immediate Opportunity Fund; Railroad Crossing Safety Program; Transportation Growth Management Program; Transportation Safety Program; and Maintenance Program (which is allocated annually to local government entities based on a formula disbursement method).</p> <p><i>http://www.odot.state.or.us/lgs/funding.html</i></p>	<p>Arterial Streets</p>
<p>ODOT STIP: Pedestrian and Bicycle Improvement Grant Program</p>	<p>Grant funds for highways, county roads and local streets where improvements are needed for bicycle and pedestrians and/or bicyclists. Eligible project types include: ADA upgrades; completing short sections of missing sidewalks or bikelanes; street crossing improvements; intersection improvements; and minor widening for bike lanes or shoulders. Grant awards up to \$200,000 based on past trends.</p>	<p>Arterial Streets</p>

Funding Program/Source	Program Description	Applicable Facilities
	http://www.odot.state.or.us/techserv/bikewalk/04grants.htm	
Economic Development Administration Community Development Block Grants	Construction and/or improvement of a wide variety of facilities and infrastructure that will primarily benefit low-moderate income persons. Grants and loans for projects that benefit low and moderate income households. Eligible project types typically include infrastructure and in particular ADA and pedestrian accessibility improvements. (\$ of grant awards: vary)	Roads, Sewer, Water, Storm Water Facilities
Oregon Immediate Opportunity Program	ODOT grants up to 50% of project (\$500,000 cap) based on job creation. Letter of intent needed. http://www.odot.state.or.us/lgs/funding.html	Roads, Sewer, Water, Storm Water Facilities
Special Public Works Fund	Grants awarded in conjunction with a joint loan application for construction and/or improvement of infrastructure needs to support industrial, manufacturing and certain types of commercial development. http://www.econ.state.or.us/spwjf.htm#fund	Roads, Sewer, Water, Storm Water Facilities
Low Interest Loans		
Oregon Transportation Infrastructure Bank	The OTIB is a statewide revolving available to port districts to fund long-term (up to 30-years) low interest loans designed to promote innovative transportation funding solutions. Project must be Federal-Aid eligible (this may require re-designation of access road to achieve appropriate status). Eligible costs include engineering, environmental permitting, right-of-way, construction and project management. http://www.odot.state.or.us/fsbpublic/otib.htm#Timeframes	Collector and Arterial Streets

Funding Program/Source	Program Description	Applicable Facilities
Special Public Works Fund	A loan for construction and/or improvement of infrastructure needs to support industrial, manufacturing and certain types of commercial development. Loans provided for long terms and at or below-market rates. <i>http://www.econ.state.or.us/spwj.htm#fund</i>	Roads, Sewer, Water, Storm Water Facilities
Local/Regional		
Metropolitan Portland Surface Transportation Improvement Program	Metro awards grant funding on a competitive basis to member jurisdictions for roads, pedestrian & bicycle facilities, transit, and freight movement improvements.	Collector and Arterial Streets and regional trails
Local Property Tax Levies	City and/or County can fund roads, schools, parks, and other facilities through voter-approved referendums, subject to Oregon law. Not usually a viable of funding for single projects that cost less than \$2,000,000.	Roads, Sewer, Water, Storm Water Facilities & Parks
Local System Development Charges	Development impact fees, directly related to the proportional share of capital costs. Applicable to sewer and water systems.	Roads, Sewer, Water, Storm Water Facilities & Parks
Zone of Benefit Recovery or Reimbursement District	Public or private entities that build road or utility systems can be compensated by future developers at a proportional rate, as development occurs. This mechanism can be useful for public/private developments	Roads, Sewer, Water, Storm Water Facilities
Advanced Financing Agreements	Private entities that build public facilities can be compensated by the city as development occurs. Limited to private construction of public facilities, this mechanism is useful for public/private developments.	Roads, Sewer, Water, Storm Water Facilities & Parks
Local Improvement Districts (LID)	LIDs can be formed by petition and subsequent legislative action under Oregon Law. They are often used to finance public infrastructure (roads, sewer, water, etc.) using guaranteed payments from affect properties with a lien placed on those properties until the LID share is paid off. They typically require at least 51% of affected properties to approve the LID.	Roads, Sewer, Water, Storm Water Facilities & Parks
Urban Renewal District	Urban Renewal Districts can be formed by legislative action under Oregon law (with acknowledgment of an Urban Renewal Plan). Project financing is secured through dedication of increases in tax increment revenues in the affected	Roads, Sewer, Water, Storm Water Facilities & Parks

Funding Program/Source	Program Description	Applicable Facilities
	district.	

As local plan amendments are adopted, funding sources should be identified. Potential local funding sources may include the following:

Local Systems Development Charges—The City of Tualatin/Washington County SDC methodology could be amended to include capital facilities such as the new arterial and collector facilities, including the extension of 124th Avenue, and extension of 115th Avenue. Both of these facilities are required to accommodate planned urban growth. A preliminary analysis summarized in Table 15, indicates that the existing SDC rate system, if applied to the anticipated level of development within the SW Concept Plan Employment Area, could be expected to generate approximately \$4.7 million in total revenue by year 2025 (at 75% of buildout), assuming the existing SDC rate structure and with no SDC waivers.

Table 15. Estimate of Transportation System Development Charge Revenues, SW Tualatin Concept Plan, Year 2025 Forecast*

Development Assumptions	
Business Park Jobs	1,204
Light Industrial Jobs	4,560
Trip Generation Assumptions (trips/job)*	
Business Park	3.50
Light Industrial	3.02
Blended Average Rate (for study purposes)	3.26
SDC Rate	
Industrial Use (rate per avg. weekday trip)	\$259.00
SDC Revenues	\$4,658,000

* Based on SW Tualatin Concept Plan, Alternative 3 at 75% of buildout.; dollars stated in 2005 dollar amounts..

Additional SDC revenue will be collected from water and sewer and storm drain connections. The City of Tualatin currently charges SDCs on all new development that requires a water meter and calculates sewer rates based on fixture units in developments and storm water on amount of impervious area. The estimated year 2025 development in the SW Tualatin Concept Plan, shown in Table 16 is expected to generate approximately \$1.3 million in water collection fees, \$1.1 million in water quality fees, and \$1.2 million in sewer fee collections. These rates assume the current rate structure that is applied to urbanized properties within the City of Tualatin. It should be noted that these rates assume the development is connected with the Clean Water Services and City of Tualatin service districts. Actual rates will vary, depending how the city chooses to update its SDC formula methodology, and whether a portion of the development is served by Wilsonville sewer or water. . It should be noted that this SDC analysis is conservatively based on the existing Tualatin SDC rate structure. Actual SDC charges will be based upon a recalculated local SDC rate that includes a new list of 20-year capital improvements and growth assumptions.

Table 16. Estimate of Total System Development Charge Revenues
 Water, Water Quality, and Sewer Fees
 SW Tualatin Concept Plan, Year 2025 Forecast

	Factor	Units	Development Assumptions**** (Conceptual Development Alt. 3)		SDC Revenue
Water Connection Fees					
Light Industrial (standard)	\$22,902	meter size*	35	users	\$376,000
Light Industrial (large lot)	\$45,805	Per Employee	18	users	\$898,000
Subtotal					\$1,274,000
Water Quality (storm drain fee)					
Light Industrial (standard)	\$225	Per ESU**	2,351	ESU	\$530,000
Light Industrial (large lot)	\$225	Per ESU**	2,351	ESU	\$530,000
Subtotal					\$1,060,000
Sewer Connection Fee***					
Light Industrial (standard)	\$15,900	avg. collection fee	35	users	\$560,000
Light Industrial (large lot)	\$35,000	avg. collection fee	18	users	\$620,000
Subtotal					\$1,180,000

*Rate depends upon meter size. Total rate = meter fee (based on size) + drop in fee. Avg. industrial user calculated at 2" meter size, and large user calculated at 3" meter size. Assumes average user requires 3 acres, and large user requires 10 acres. Also assumes \$5000 drop in fee.

** ESU (Equivalent Surface Unit) = new impervious square feet developed / 2,640, estimated at 12,414,000 sf / 2,640 = 4,702 ESU.

*** Sewer connection fee assumed to average \$15,900 for standard user and \$35,000 for large user; comparable to Lazy Boy; and Milgard, respectively. Actual fees will be based on sewer discharge calculations.

**** 75% Build-Out of Conceptual Development Alternative 3.

Source: City of Tualatin and Otak, Inc.

Urban Renewal Plan District

Tualatin may consider creating a new urban renewal district area for a portion or all of the SW Concept Plan Area. Notwithstanding the challenge of meeting state and local planning approval regulations regarding the formation of urban renewal plans (please refer to ORS 457.085), there are significant funding resources that could be obtained using Tax Increment Financing.

Local Improvement District (LID)

This approach assumes formation of a local improvement district in accordance with local ordinance and state statutes. A LID can be initiated by either the local jurisdiction or affected property owners for specific capital improvements with consent of at least 51% of affected property owners in the LID. LID assessments result in a lien placed on properties by the local jurisdiction until the assessment is paid in full

Zone of Benefit Recovery District (ZBR)

This approach is similar to the LID financing method, but is almost always initiated by the private sector and does not require a lien on properties for the assessment.

Combination of LID or ZBR and SDCs

Tualatin can combine LID, ZBR and SDCs for the construction financing of new collector roads. Hence, this is a likely funding approach.

Metro Transportation Improvement Program

Selected arterial improvements, such as 124th Avenue, and selected regional pathway improvements *may* be funded through the Metro TIP process. However, there is increasing competition for MTIP funds, and it is not possible to predict when necessary funds would become available.

Washington County Metropolitan Street Transportation Improvement Program (MSTIP)

Selected arterial and collector improvements, such as 124th Avenue, and selected regional pathway improvements may be funded through the County MSTIP program, if the County Board of Commissioners and local voters agree to pass a new bond measure. However, the City of Tualatin and Washington County currently has no plans for a major street projects bond issue for several years.

ODOT Statewide Transportation Improvement Program (STIP)

State highway facilities are eligible for funding through updates to the STIP. Recent preference for improvements required to address freight mobility requirements and dedication of funds from federal and state programs (such as Oregon Transportation Infrastructure Act) can help raise the priority of improvements that benefit industrial job growth. It is anticipated that ODOT will need to become the lead participant to leverage Federal, state, Metro and local funding contributions to construct the Hwy. 99 to I-5 Connector improvement, which is now being analyzed. In addition to ODOT STIP funding for the planned Connector improvement, it is possible that ODOT STIP funds could be retained for local streets and pedestrian improvements if new improvements are shown to address congestion on parallel state facilities, mitigate safety issues, or provide important pedestrian access improvements. In most cases, funding through the STIP is highly competitive within the state/region. Hence it is expected that Tualatin would have a slight chance at receiving up to \$2 million for roadway and pedestrian facilities, not directly tied to the Hwy. 99/I-5 Connector.

ODOT Industrial Rail Spur Program

ODOT grants up to 50% of project (\$500,000 cap) for new or improved industrial rail spurs or bridge crossings designed to promote freight mobility and access.

Oregon Immediate Opportunity Program

ODOT grants up to 50% of project (\$500,000 cap) based on job creation. Letter of intent from future private employers is required.

Revenue Bonds

Water, sewer, drainage and parks facilities are often funded through special district bond issues paid for by revenues from user charges. Utility districts, such as the Clean Water Services are expected to provide major trunk line improvements to provide urban sanitary sewer and drainage services in the SW Concept Plan Employment Area.

Special Public Works Fund

The Oregon Economic and Community Development Department (OECD) provides grants awarded in conjunction with a joint loan application for construction and/or improvement of infrastructure to support industrial, manufacturing and certain types of commercial development.

This grant program typically covers up to \$5,000 per job (may require letters of intent from prospective private employers). OECDD also loans up to \$10 million at a rate of approximately 4.5%+/- . OECDD grant awards are based on a financial analysis of the applicant and a debt carrying capacity assessment (size of grants are subject to anticipated full time non-retail jobs and are subject to various project loan application ratios).

Community Block Grant Program

Oregon Economic and Community Development (OECDD) is also the Oregon funding agency that distributes federal Housing and Urban Development CDBG grants for infrastructure improvements needed to support a business that will create or retain permanent jobs, the majority of which will be made available to low and moderate income communities. For public infrastructure projects, the ratio is \$20,000 of public grant funding per full time non-retail job supported by new private development.

Oregon Industrial Development Revenue Bond Program

Administered by the Oregon Economic and Community Development Department (OECDD) this program is focused on non-retail job creation. Bonds may be issued for manufacturing, processing and tourism facilities. Eligible companies may borrow \$500,000 to \$10 million through this program, and are obligated to pay back the bondholders.

Oregon Transportation Infrastructure Bank

Administered by the Financial Services division of ODOT, the OTIB program is a revolving loan fund designed to promote innovative funding solutions for transportation projects. Eligible borrowers include cities, counties, special service districts, state agencies, and not-for-profit entities. While rates are offered at tax-exempt levels, all relevant federal administrative requirements apply (i.e., National Environmental Policy Act, Uniform Relocation Act, Davis-Bacon Act, Brooks Act, Buy America, etc.).

Advance Financing Agreements

In addition to these funding sources, major development projects often include advanced financing agreements between private developers and local jurisdictions. With advanced financing agreements, private entities that build public facilities can be compensated by the city as development occurs. Tualatin and Washington County will be required to work with Metro staff, local service providers, and developers/property owners to identify financing strategies for specific improvements.

Conclusions

It is anticipated there will be substantial direct economic benefits and costs associated with the planned light industrial development in the SW Concept Plan area. The direct fiscal costs and benefits have been forecasted based on typical growth assumptions for light industrial developments. It is highly probable that the actual fiscal costs and revenues will vary significantly from these long-range estimates, during any point in time. However, the long-range estimates are considered to be adequate for planning purposes.

While there would definitely be some redistribution of the fiscal and economic benefits from development of the SW Concept Plan area, over the long-term 20-year planning horizon, it is fair to say that the added jobs and investment would be net new to the region and the state. Hence, if we assume 75% of the site is developed by year 2025, the general conclusions that can be reached by this analysis include:

- Total assessed value (AV) of development would increase by at least \$300 million over current AV (at 75% buildout in year 2025);
- If annexed by the City of Tualatin, total annual property tax revenues and fees would likely amount to \$993,000 of added annual revenue to the City (before deducting annual administration and infrastructure O&M costs);
- Annual governmental administration costs for police, planning and general government would amount to about \$82,500 per year;
- The annual cost of maintaining and operating the road and trail system is expected to cost the city over \$170,000 per year, which is currently funded through the City's street maintenance fund (and ODOT formula disbursements to local agencies);
- There would also be added maintenance costs for the sewer, storm drainage and water systems of approximately \$360,000 per year, but that would likely be "covered" by rate collections;
- Major on- and off-site public infrastructure items including roads, trails, water, sewer, and storm water facilities are estimated to cost approximately \$58.1 million;
- Local System Development Charge rates may need to be revised after the SW Tualatin Concept Plan area is annexed into the City of Tualatin. Existing transportation SDC revenues are anticipated to generate about \$4.7 million in revenue and existing sewer/water/storm drain fees are anticipated to generate about \$3.5 million in fee revenue (at 75% of buildout). SDC revenues typically go into local funding accounts to help pay for bonds that have been issued for specific capital improvements (may or may not be for facilities that directly serve the SW Tualatin Concept Plan area);
- The City in conjunction with Metro, ODOT and private property owners/developers can fund the capital projects with a combination of traditional and innovative public/private funding sources. Potential funding sources may include federal and state transportation grants (distributed through Metro); state infrastructure loans; special public works funds; Oregon Immediate Opportunity Program; and local funding through system development charges and establishment of an urban renewal district, local improvement district, and/or zone of benefit district;
- Significant positive economic impacts are anticipated from the more than 3,700 construction jobs and 5,760 permanent jobs. The direct and indirect payroll that supports these jobs is expected to yield over \$320 million in construction expenditures, \$248 million in annual direct wages, and \$372 million in annual indirect spending; and
- The added permanent income of \$248 million is expected to support over \$11 million in additional state income tax revenues, and over \$2 million in Tri-Met tax revenues.

Please contact us with any questions or comments regarding these findings.



KITTELSON & ASSOCIATES, INC.

TRANSPORTATION PLANNING/TRAFFIC ENGINEERING

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DRAFT MEMORANDUM

Date: July 11, 2005

Project #: 6689

To: Dave Simmons, CH2M-HILL

cc: Elizabeth Stepp, City of Tualatin

From: Paul Ryus, P.E.

Project: Southwest Tualatin Concept Plan

Subject: Recommended Changes to the Tualatin Transportation System Plan

This memorandum presents recommended changes to Chapters 11 (Transportation) and 75 (Access Management on Arterial Streets) of the Tualatin Development Code (TDC), resulting from concept planning for a 431-acre area south of Tualatin-Sherwood Road and west of the Portland & Western railroad tracks, which Metro recently added to the Portland Regional Urban Growth Boundary. The technical analysis supporting these recommendations is presented in our June 12, 2005 memo entitled "Southwest Tualatin Concept Plan: Future Conditions Traffic Analysis."

Text proposed to be added to the TDC is shown in **bold** type, while text proposed to be deleted is shown in ~~strikeout~~ type. Descriptions of proposed map revisions are shown in *italic* type. Commentary is provided for each proposed change. The proposed changes reflect the latest amendments to the Oregon Transportation Planning Rule, adopted by the Oregon Department of Land Conservation and Development on March 16, 2005.

<i>TDC Language</i>	<i>Commentary</i>
<p>11.600 (4)(b) The City of Tualatin, in conjunction with ODOT, initiated a study of a 431-acre area south of SW Tualatin-Sherwood Road and west of the Portland & Western railroad tracks in 2004. The Southwest Tualatin Concept Plan addressed the impacts of developing this area for industrial uses, particularly the portion of the area designated as a “regionally significant industrial area.” A technical analysis was prepared for the Concept Plan, following the requirements of the TPR, that specifically addressed the transportation needs associated with developing the Concept Plan area at urban densities. Development of the Concept Plan was guided by input from a 17-member TAC that met seven times during the planning process. The TAC included representatives from the Cities of Tualatin, Sherwood, and Wilsonville; Metro; ODOT; DLCD; Washington County; Portland General Electric (PGE); Bonneville Power Administration (BPA); Clean Water Services (CWS); Oregon Department of Geology and Mineral Industries; Coffee Creek Correctional Facility; Tualatin Valley Fire and Rescue; TriMet; Genessee and Wyoming Railroad; and property owners from the Tonquin Industrial Group, the Itel properties area and from Tigard Sand & Gravel. Mailings to stakeholders and two public open houses were used to obtain community feedback on the draft plan. The TSP amendments relating to the Southwest Tualatin Concept Plan area were accepted by City Council on (insert date).</p>	<p>Section 11.600(1)-(3) provides background about the development of the original TSP from 1999-2001. Section 11.600(4) addresses the planning processes used to study UGB expansions affecting the Tualatin Planning Area.</p> <p>Acronyms defined earlier in this section (e.g., ODOT, DLCD, TSP, TPR) have not been spelled out again.</p>

<p>Figure 11-1, Functional Classification Plan <i>Amend map to show the new Planning Area boundary.</i></p> <p><i>Amend map to extend SW 124th Avenue as a future Eb&t roadway to a point aligned with the south edge of the Concept Plan area.</i></p> <p><i>Delete the north-south portion of the I-5/ 99W Connector.</i></p> <p><i>Extend the Connector west as a future F roadway to intersect SW 124th Avenue, with an arrow continuing west past 124th.</i></p> <p><i>Change the designation of SW 115th Avenue to Cb&t. Extend as a future roadway (SW 115th Drive) south to SW Tonquin Road.</i></p> <p><i>Change the SW Blake Street designation to future Cb between SW 108th Avenue and SW 115th Avenue. Extend the road west as a future Cb&t to SW 124th Avenue.</i></p> <p><i>Extend SW Itel Street west as a future B-CI roadway, turning south as SW 122nd Avenue to connect to SW Blake Street.</i></p> <p><i>Add SW 117th Avenue as a future B-CI roadway connecting SW Itel Street and SW Blake Street.</i></p> <p><i>Add an unnamed future Cb&t street between SW 115th Drive and SW 124th Avenue, at the point where the Concept Plan area boundary departs SW 124th Avenue.</i></p> <p><i>Show the portion of Tonquin Road within the Concept Plan area (east of SW 115th Drive) as a minor arterial (Db&t).</i></p>	<p>The SW 124th Avenue extension would occur under either a northern or southern Connector alignment. Deleting the north-south portion of the Connector reinforces the City's preferred southern alignment; SW 124th Avenue provides the north-south link previously shown for the Connector. The arrow depicting the continuation of the Connector to the west could serve either a northern or southern alignment.</p> <p>Based on feedback from the open houses, the residential area east of the Concept Plan area does not want SW Blake Street to turn into a truck route. The minor collector designation east of SW 115th Avenue provides a narrower street design that serves employee trips to/from the neighborhood, but discourages truck trips. The new TSP projects discussed later on include other features to discourage truck trips into the neighborhood.</p> <p>The Concept Plan calls for SW 115th Avenue/ Drive to be the main north-south route through the Concept Plan area for access. SW 124th Avenue, as a major arterial, will have access restricted to SW Blake Street and the future collector to the south.</p> <p>The B-CI streets that are called out are depicted on the Concept Plan map. TDC 11.630(2) allows additional B-CI (local commercial industrial streets) to be developed as needed to serve parcels.</p> <p>The Tonquin Road minor arterial classification is consistent with Washington County's classification.</p>
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<p>Table 11-2, Street Functional Classification Summary</p> <p>Major Arterials (Eb&t) SW 124th Avenue—Hwy 99W to Tualatin-Sherwood RoadI-5/ Highway 99W Connector</p> <p>Minor Arterials (Db&t) Tonquin Road—SW 115th Drive east to the planning area boundary</p> <p>Major Collectors (Cb&t) SW 115th Avenue—Tualatin-Sherwood Road to Blake Street SW 115th Drive—Blake Street to Tonquin Road Blake Street—SW 124th Avenue to SW 115th Avenue unnamed east/west roadway south of Blake St.—SW 124th Avenue to SW 115th Drive</p> <p>Minor Collectors (Cb) Blake Street—SW 115th Avenue to SW 108th Avenue</p> <p>Local Commercial Industrial (B-CI) SW 120th Avenue—south of Tualatin-Sherwood Road to Blake Street ext.Intel Street SW 115th Avenue—Tualatin-Sherwood Road to McCamant Road Blake Street—west of SW 105th Avenue to SW 120th Avenue extension unnamed east/west roadwayIntel Street—SW 122nd Avenue east of SW 120th Avenue past SW 115th Avenue SW 117th Avenue—Intel Street to Blake Street SW 122nd Avenue—Intel Street to Blake Street</p>	<p>Text versions of the map changes described for Figure 11-1.</p> <p>As the TSP generally only addresses collector and arterial facilities, potential local street changes (e.g., realigning Waldo Way and vacating McCamant Drive) are not covered here.</p>
<p>Figure 11-2, Metro Regional Street Design System</p> <p><i>Amend map to show the new Planning Area boundary. Amend map to continue the Urban Road designation for SW 124th Avenue south to the UGB boundary.</i></p>	<p>Housekeeping change.</p>

<p>Figure 11-3, Local Street Plan <i>Amend map to show the new Planning Area boundary.</i></p>	<p>Housekeeping change.</p>
<p>Figure 11-4, Tualatin Pedestrian Plan <i>Amend map to show the new Planning Area boundary. Add the Tonquin Trail. Add a north-south trail running the length of the linear greenway (west of the railroad tracks), continuing north of Blake Street to the pond.</i></p>	<p>The Tonquin Trail is shown on the Regional Trails and Greenways Map. The north-south trail is shown in the City's Greenways Plan.</p>
<p>Figure 11-5, Tualatin Bicycle Plan <i>Amend map to show the new Planning Area boundary. Show the following new roads as "roads with bike lanes": SW 124th Avenue south of Tualatin-Sherwood Road, SW 115th Avenue/Drive, SW Blake Street, and the unnamed collector toward the south end of the Concept Plan area. Add the Tonquin Trail.</i></p>	<p>Updates the map to depict the roadways within the Concept Plan area that will have bicycle lanes, and adds the Tonquin Trail.</p>
<p>Section 11.650 Bicycle Plan The bicycle plan establishes a network of bicycle lanes and routes that connect the City's bicycle trip generators to provide a safe, inter-connected bicycle system. Bicycle lanes are designated on arterial and collector street segments with anticipated future volumes of over 3,000 daily vehicles. Bicycle routes, where bicyclists share a lane with other vehicles, are designated on other lower-volume collector streets, and certain local streets that provide connectivity within neighborhoods or to future multi-use recreation paths.</p> <p>Figure 11-5 shows the City's bicycle plan. As portions of the City's streets are widened, either through adjacent development or a public works projects, bicycle lanes will be provided where indicated on the plan.</p>	<p>Corrects a typo in this section.</p>

<p>Figure 11-6, Tualatin Transit Plan <i>Amend map to show the new Planning Area boundary.</i></p>	<p>Housekeeping change.</p>
<p>Figure 11-7, Tualatin Truck Routes <i>Amend map to show the new Planning Area boundary. Revise the alignments for SW 124th Avenue and the I-5/99W Connector per Figure 11-1 and show as “future truck routes.” Show SW 115th Avenue/Drive, SW Blake Street west of SW 115th Avenue and the unnamed collector toward the south end of the Concept Plan area as “future truck routes.”</i></p>	<p>Updates the map to depict the roadways within the Concept Plan area that are intended to serve through truck movements.</p>
<p>Table 11-3, Transportation Improvement Program Summary</p> <p>11-20 Years</p> <p>#43; SW 124th Avenue; new street, Tualatin-Sherwood Road to I-5/99W Connector, traffic signals at Blake Street and unnamed east/west collector; auto, ped, bike, freight movement; connectivity, reduce truck delays; \$17,400,000</p> <p>Development-Related</p> <p>#44; SW 115th Avenue & SW 115th Drive; new or widened street, Tualatin-Sherwood Road to Tonquin Road, signal at Tualatin-Sherwood Road; auto, ped, bike; connectivity, facilitate development; \$9,400,000; Development</p> <p>#45; Blake Street; new street, SW 108th Avenue to SW 124th Avenue, new railroad crossing, possible roundabout at SW 108th Avenue and gateway treatment at SW 115th Avenue; auto, ped, bike; connectivity, facilitate development; \$8,300,000; Development</p>	<p>The SW 124th Avenue extension was included in the modeling for the TSP, but not shown on maps as it was outside the UGB. With the new UGB boundary, it is now appropriate to show it on maps.</p> <p>SW 115th Avenue/Drive will serve access needs within the Concept Plan area.</p> <p>Right-of-way exists for Blake Street between SW 108th Avenue and the railroad tracks. The gateway treatment and possible roundabout are intended to discourage truck use of Blake Street into the neighborhood to the east; the possible roundabout would also serve to slow vehicles on SW 105th/108th Avenues. A separate project already exists in the TSP (#22) to realign the 108th/Blake/105th curves.</p> <p>New streets within the Southwest Tualatin Concept Plan Area, other than the SW 124th Avenue extension, are identified as being funded by development.</p>

<p>Table 11-3, Transportation Improvement Program Summary - continued</p> <p>Development-Related - continued</p> <p>#46; unnamed east-west collector; new street between SW 115th Drive and SW 124th Avenue; auto, ped, bike; connectivity, facilitate development; \$1,400,000; Development</p> <p>#47; Itel Street and SW 122nd Avenue; new or widened street between SW 112th Avenue and Blake Street; auto, ped, bike; connectivity, facilitate development; \$2,900,000; Development</p> <p>#48; SW 117th Avenue; new street between Itel Street and Blake Street; auto, ped, bike; connectivity, facilitate development; \$1,400,000; Development</p>	<p>Projects #46-#48 provide additional roads to serve the Concept Plan Area. Additional local commercial-industrial streets could be developed later, depending on the needs of future development.</p>
<p>Figures 11-8a to 11-8d, Financially Constrained TSP Projects</p> <p><i>Amend maps to show new Planning Area boundary.</i></p> <p><i>Amend Figure 11-8c to add project #43 (extension of SW 124th Avenue)</i></p> <p><i>Amend Figure 11-8d to add new project #44 (SW 115th Avenue/Drive).</i></p> <p><i>Amend Figure 11-8d to add new project #45 (Blake Street).</i></p> <p><i>Amend Figure 11-8d to add new project #46 (unnamed east-west collector).</i></p> <p><i>Amend Figure 11-8d to add new project #47 (Itel Street-SW 122nd Avenue).</i></p> <p><i>Amend Figure 11-8d to add new project #48 (SW 117th Avenue).</i></p>	<p>Maps the projects described above in Table 11-3.</p>

<p>11.730(2) Financially Constrained Capital Project Summary</p> <p>(q) SW 124th Avenue Extension – Southern Central Segment (Table 11-3, No. 17) SW 124th Avenue should be extended south from Myslony Street to Tualatin-Sherwood Road, providing an alternate truck route into the industrial area. Sidewalks, bike lanes, and a traffic signal at Tualatin-Sherwood Road should be included. SW 124th Avenue should be extended as a three-lane roadway with right-of-way reserved for five lanes.</p> <p>(gg) SW 124th Avenue Extension – Southern Segment (Table 11-3, No. 43) SW 124th Avenue should be extended south from Tualatin-Sherwood Road to the I-5/Highway 99W Connector, providing an alternate truck route into the industrial area. Sidewalks, bike lanes, and traffic signals at Blake Street and the east-west collector street south of Blake Street should be included. This segment will eventually have a five-lane cross-section.</p>	<p>Text descriptions of the projects described above in Table 11-3, which are being added to the TSP's financially constrained list.</p> <p>Project #17 (SW 124th Avenue extension) is renamed "central segment" to allow new project #43 to become the "south segment".</p>
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<p>(gg)(hh) Development-Related Improvement Projects</p> <p>In addition to the above list of improvement projects, additional transportation improvement projects have been identified that would most likely be constructed as a result of development-related projects. Some of these projects include:</p> <ul style="list-style-type: none"> (i) Construct SW 125th Place. (ii) A new east-west street connecting SW 108th Avenue to SW 112th Avenue (Table 11-3, no. 34). This project provides connectivity within a future residential development. (iii) Signalizing the Tualatin Road/SW 108th Avenue intersection (Table 11-3, No. 37). The signal would be warranted based on increasing traffic volumes and poor sight distance for northbound traffic. (iv) Signalizing the SW Cummins Street/SW Cipole Road intersection. (Table 11-3, No. 38) (v) Improve SW 72nd Avenue as part of the Durham Quarry project. (vi) SW Cipole Road widening (Table 11-3, No. 41). Widen to the Cb&t standard from Highway 99W to SW Cummins Street, provide three northbound lanes & modified signal phasing at Highway 99W intersection. (vii) SW Herman Road/SW Cipole Road Intersection (Table 11-3, No. 42). Realign, signalize intersection, provide two inbound lanes on each approach, railroad interconnect. (viii) SW 115th Avenue & Drive (Table 11-3, No. 44). Widen to the Cb&t standard north of Itel Street and construct a new roadway to the Cb&t standard between Itel Street and Tonquin Road. 	<p>Text descriptions of the development-related projects described above in Table 11-3.</p>
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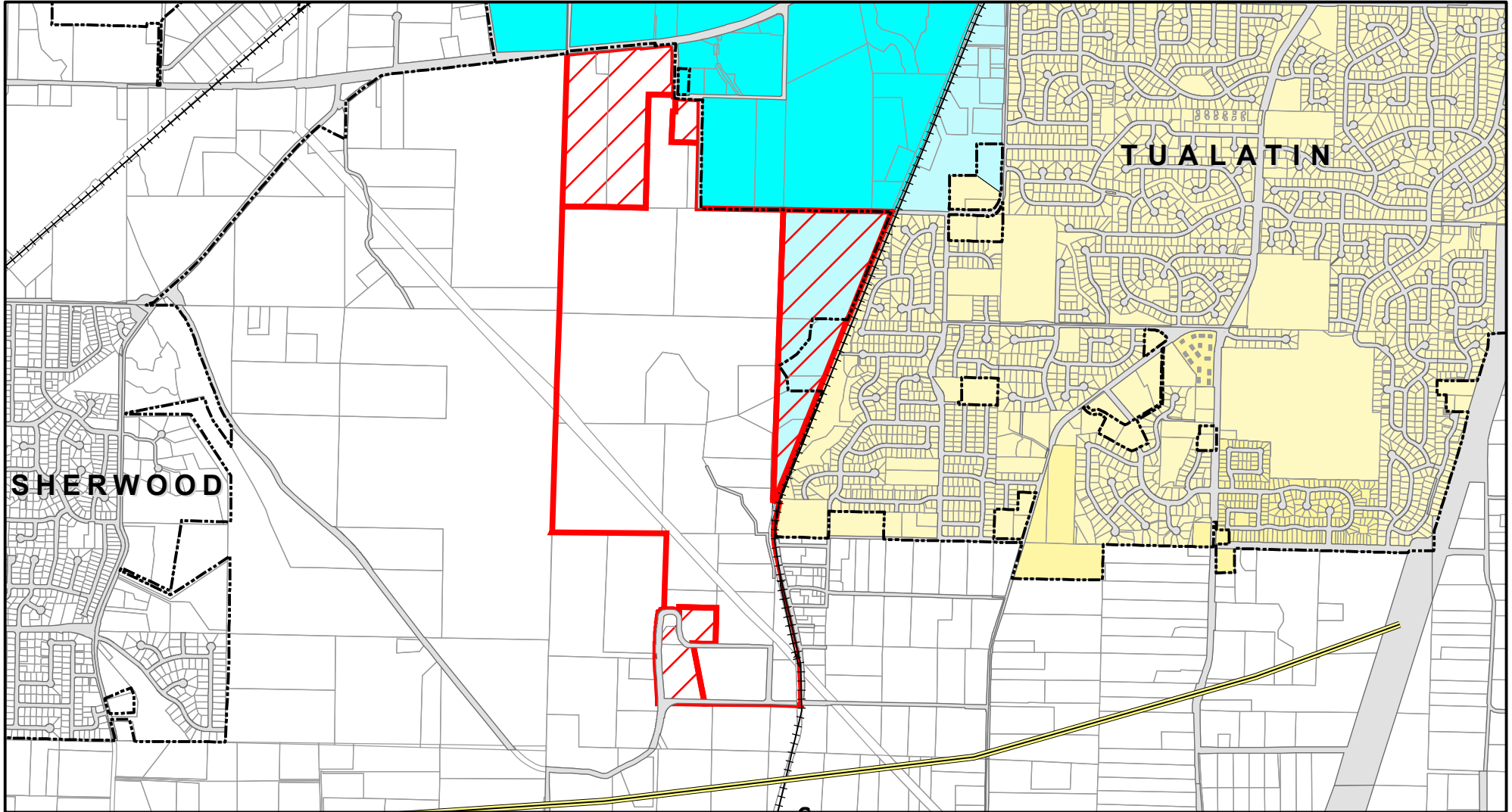
<p>(ix) SW Blake Street (Table 11-3, No. 45). Construct to the Cb standard between SW 108th Avenue and SW 115th Avenue, possibly with a roundabout at SW 108th Avenue and a gateway treatment at SW 115th Avenue to discourage truck traffic and to slow traffic entering the residential neighborhood. Construct to the Cb&t standard between SW 115th Avenue and SW 124th Avenue.</p> <p>(x) East-west Collector (Table 11-3, No. 46). Construct to the Cb&t standard between SW 115th Avenue and SW 124th Avenue.</p> <p>(xi) New Streets in the Southwest Tualatin Concept Plan Area (Table 11-3, No.'s. 47 and 48). To help facilitate development within the Southwest Tualatin Concept Plan Area, several new streets should be constructed to the local commercial-industrial (B-CI) standard. These streets include an westerly extension of Itel Street, SW 117th Avenue, and SW 122nd Avenue.</p> <p>(hh)(ii) For the purposes of applying the Oregon Transportation Planning Rule's section 660-012-0060(4), future development-related land use amendments may not rely on the existence of projects listed in subsection (gg)(hh). Projects in subsection (gg)(hh) are intended to be conditioned on developments contributing to the need for them.</p>	
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<p>Table 11-4, Projects Unfunded or Requiring New Funding Sources</p> <p>Recreation SDC or Bond</p> <p>Tonquin Trail (SW Tualatin Concept Plan Area); ped, bike; recreation; \$800,000</p>	<p>Adds the Tonquin Trail (which passes through the Concept Plan Area and is on Metro's Regional Trails and Greenways map). Also adds the north-south trail on the east side of the Concept Plan Area.</p>
<p>Figure 11-9, Priority TSP Projects</p> <p><i>Amend map to show the new Planning Area boundary. Add the portion of the Tonquin Trail within the planning area boundary.</i></p>	<p>Adds projects described in Table 11-4.</p>
<p>Figure 11-10, Traffic Signal Plan</p> <p><i>Amend map to show new Planning Area boundary. Delete the traffic signal at Tualatin-Sherwood Road/SW 120th Avenue. Add traffic signals at the intersections of SW 124th Avenue with Blake Street and the unnamed east-west collector.</i></p>	<p>The SW 120th Avenue signal is deleted to improve signal spacing on T-S Road and because it serves a relatively small portion of the Concept Plan area. The two new signals provide access to SW 124th Avenue from the Concept Plan area.</p>

<p>Section 75.030 Freeways, Expressways and Arterials Defined.</p> <p>(g) 124th Avenue from Highway 99W south to Tualatin-Sherwood Roadthe I-5/ Highway 99W Connector;</p>	<p>Extends access control on SW 124th Avenue adjacent to the Concept Plan area.</p>
<p>Section 75.120 Existing Streets.</p> <p>Tualatin-Sherwood Road</p> <p><u>Avery Street/112th to Cipole Road:</u> On the north side of Tualatin-Sherwood Road between 112th Avenue and Cipole Road the area will be served by the following streets or driveways: 1) An intersection with 115th Avenue approximately 1100 feet west of the intersection of Tualatin-Sherwood Road and 112th Avenue which will extend north and east to an intersection at 112th Avenue a minimum of 150 feet north of Tualatin-Sherwood Road. 2) An intersection approximately 1300 feet east of the intersection of Tualatin-Sherwood Road and 124th Avenue which will extend north and west to an intersection at 124th Avenue approximately 800 feet north of Tualatin-Sherwood Road. 3) 124th Avenue. 4) Cipole Road. The exact location and configuration of the streets or driveways shall be determined by the City Engineer.</p> <p>On the south side of Tualatin-Sherwood Road between Avery Street and 120th Avenue the area will be served by the following street system: 1) An intersection with 115th Avenue approximately 1100 feet west of Avery Street. 2) A street intersection at 120th Avenue, which may be restricted to right-in, right-out movements in the future. The exact location and configuration of the streets shall be determined by the City Engineer. No driveways will be constructed in this area and existing driveways will be removed. Select Sales (2S1 27B/800) shall have a cross access to 115th Avenue.</p>	<p>The traffic analysis conducted for the Concept Plan found that the SW 120th Avenue intersection at Tualatin-Sherwood Road would operate at LOS F by the year 2025 and would need to be restricted to right-in, right-out movements. The Concept Plan's street network provides connections to SW 115th Avenue, which will provide a signalized intersection for making left-turn movements to and from Tualatin-Sherwood Road.</p>

<p>Section 75.120 Existing Streets. - continued 124th Avenue</p> <p><u>Tualatin-Sherwood Road to I-5/Highway 99W Connector:</u> Between Tualatin-Sherwood Road and the I-5/Highway 99W Connector, access to 124th Avenue shall be limited to street intersections at Blake Street and the unnamed east-west collector street. Depending on when this segment of 124th Avenue is constructed, and where and when the Connector is constructed, a (possibly interim) connection to Tonquin Road may also be provided.</p>	<p>The two access points to SW 124th Avenue have been located to achieve, to the extent possible, the desired half-mile intersection spacing along arterial streets, while providing for the large industrial lot sizes mandated by Metro.</p>
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Southwest Tualatin Concept Planning Area



- SW Tualatin Concept Planning Area
- Supplemental Planning Area
- General Manufacturing
- Low Density Residential
- Light Manufacturing
- Medium-Low Density Residential

- Railroad
- Potential I5-99W Connector
- City Boundaries



This map is derived from various digital database sources. While an attempt has been made to provide an accurate map, the City of Tualatin, OR assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". -Engineering and Building Dept. Plotted 6/28/2005

Land Use Types

SW Tualatin Concept Plan



LIGHT INDUSTRIAL (LARGE LOT)

The light industrial area includes a large lot category for tenants or corporations that require 50 or more contiguous acres of land area. The Light Industrial (large lot) design type protects selected parcels from subdivisions less than 50 acres. Uses may include a variety of light manufacturing, warehousing, distribution with ancillary office support. Commercial and office uses, other than corporate headquarters are typically prohibited from these locations.



LIGHT INDUSTRIAL (STANDARD LOT)

The light industrial area includes light industrial areas with parcels in 2-8 lot configurations. These areas are intended to accommodate small to medium size companies that require flexible space or build-to-suite light industrial buildings. Commercial and office uses are typically very limited in these locations.



MIXED USE EMPLOYMENT

Mixed use employment includes small (2-8 acre) sites for ancillary commercial support services located in close proximity to the major employment areas. This design type accommodates small-scale retail and services that meet the convenience needs of employees and service needs for businesses. Expected tenants include convenience stores, restaurants, cleaners, day care centers, copy center, and lodging.



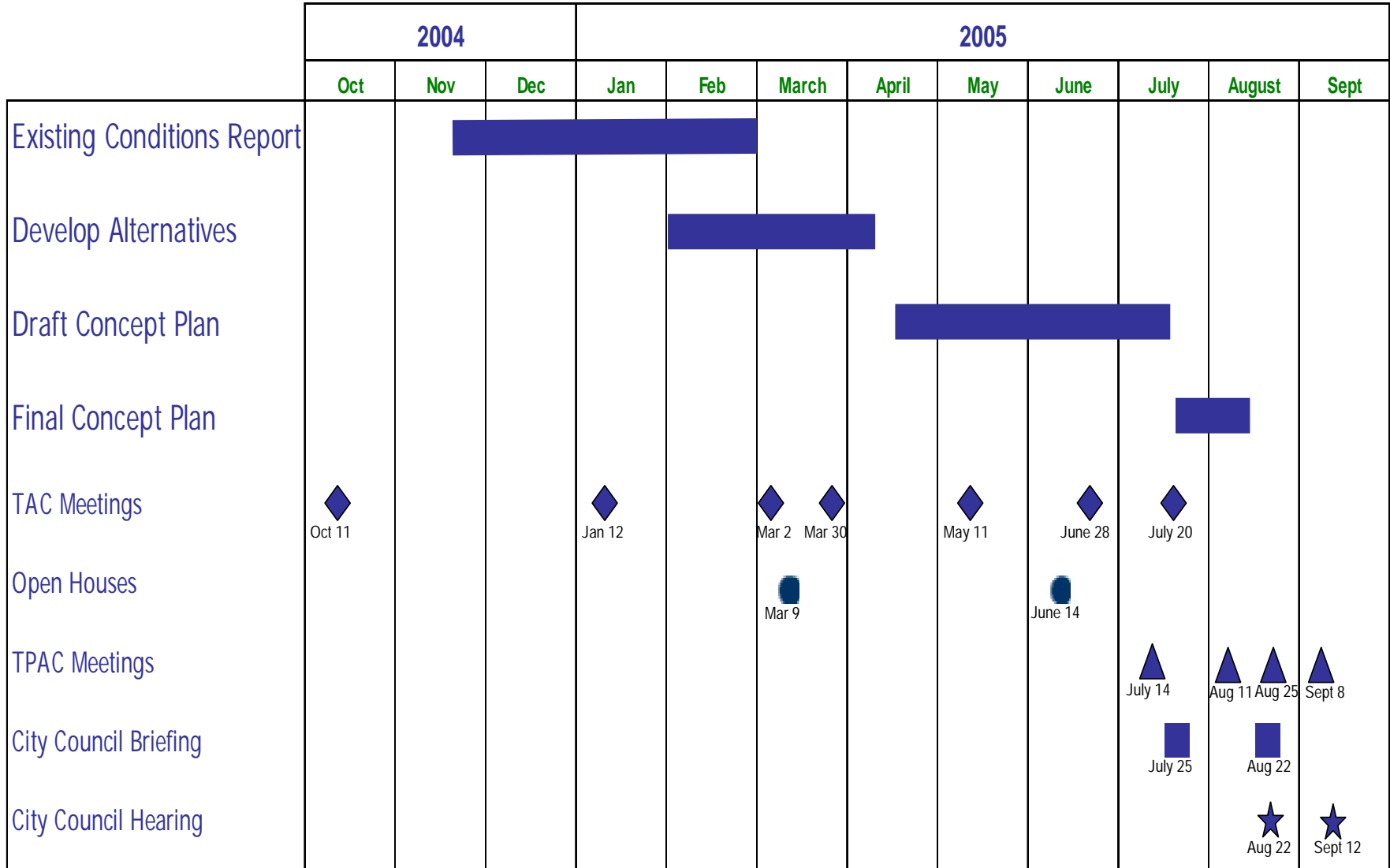
PARKS AND INTEGRATED OPEN SPACE

Parks and Open Space accommodate public parks, linear trails, visual buffers between adjacent housing and future industrial development, and community parks.





SW Tualatin Concept Plan: Project Schedule



July 21, 2005